

room on 3d floor to 60 degrees. The rooms marked "heating apparatus, fuel, broom and trunk rooms, private kitchen, pantry, kitchen-bakery and bakery-store room," in basement, also large dormitories in 3d story of wings, and the whole 4th floor to have no heat except for the water tanks. All other apartments to be warmed to 70 degrees.

REPORT

OF

THE OFFICERS

OF THE

IOWA HOSPITAL FOR INSANE,

TO THE

GOVERNOR OF THE STATE OF IOWA,

FOR THE FISCAL YEARS 1866-7.

DES MOINES:✓

F. W. PALMER, STATE PRINTER.

1868.

OFFICERS OF THE HOSPITAL.

BOARD OF TRUSTEES.

MATURIN L. FISHER, PRESIDENT.....	Farmersburg.
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RESIDENT OFFICERS.

MARK RANNEY, M. D.	Superintendent.
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GEORGE W. DUDLEY, M. D.....	2d Assistant Physician
MRS. MARTHA W. RANNEY.....	Matron.

FOURTH BIENNIAL REPORT
OF THE
SUPERINTENDENT OF THE IOWA HOSPITAL FOR THE INSANE.

To the Board of Trustees :

GENTLEMEN:—The biennial period which has just closed has been one of general prosperity and success for the Hospital. We have not been visited by any epidemic, and the general health of the inmates, particularly during the last year, has been as good as could be expected. The officers and employes have shared the prevalent exemption from acute disease. The number of admissions and of patients under treatment have been larger than during any previous period; and those results which seem more obviously to measure the success of an institution of the kind, have been obtained in a greater degree than heretofore. This is due, in some degree, probably, to the diffusion of information respecting the character and working of the Hospital, through the representatives of the press, who have been freely admitted, and through almost countless visitors, some of whom have repeatedly passed through a portion of the wards. The quarterly meetings of your Board, and the visits of inspection by committee, monthly or oftener as has seemed desirable, have given you opportunities to gain full information relative to the practical working of the Institution; and have afforded the public a strong guarantee that those unfortunate persons needing its treatment, shelter and protection, have been properly cared for. The period has been marked by repairs and improvements which characterize it as an important era in the history of the Hospital. These improvements have all been most successful; and will be spoken of more at length in a subsequent part of this report.

Since the opening of the Hospital, ten hundred and twenty-five patients have received its care and benefits. Of these, six hundred

and eighty-one have been discharged; leaving three hundred and forty-four under care and treatment at the present time.

At the close of the last biennial period, there were in the Hospital two hundred and eighty-four patients: one hundred and forty-six men, and one hundred and thirty-eight women. Since then there have been admitted, one hundred and seventy-eight men, and one hundred and sixty-five women,—in all three hundred and forty-three; and there have been discharged one hundred and fifty-five men and one hundred and twenty-eight women,—in all, two hundred and eighty-three; leaving in the Hospital, October 31, three hundred and forty-four patients, of whom one hundred and sixty-nine are men, and one hundred and seventy-five are women.

Of those discharged, there were regarded as recovered, one hundred and thirty-eight,—seventy-nine men and fifty-eight women; twenty-nine others were more or less improved,—fourteen men and fifteen women; thirty-two, or sixteen of each sex, appeared unimproved; and there have died forty-six men and thirty-nine women,—or eighty-five in all.

The following Tables are extracted from the records of the Hospital, and are intended to be as correct as possible. They all possess something of either local or scientific interest, and will, it is hoped, become of greater value in future years. Perfect accuracy is not, under the circumstances, attainable; but it is our endeavor, in preparing them, to make the best use of the means at our command:

	Men.	Women.	Total.
Number of patients in the hospital at the date of last report, October 31, 1865.....	146	138	284
Admitted to October 31, 1867.....	178	165	343
Total number under care since last report.	324	303	627
DISCHARGED SINCE LAST REPORT.			
Recovered.....	79	59	138
Improved.....	14	14	28
Unimproved.....	16	16	32
Died.....	46	39	85
Total discharged since last report.....	155	128	283

	Men.	Women.	Total.
Total number admitted since the opening of the hospital.....	528	497	1025
Total number discharged since the opening of the hospital.....	359	322	681
Remaining in the hospital October 31, 1867.	169	175	344
*Recent cases admitted.....	233	222	455
†Chronic cases.....	271	254	525
Unknown.....	24	21	45
Total.....	528	497	1025
Total recovered to October 31, 1867....	152	140	292

Per cent. of recoveries on recent cases admitted, 64.39.

Per cent. of recoveries on all (1025) patients admitted, 28.48.

OCCUPATION OF PATIENTS ADMITTED.

Domestic duties.....	436
Farmers.....	294
Merchants.....	11
Laborers.....	59
Carpenters.....	9
Teachers.....	15
Students.....	2
Masons.....	3
Mill-wrights.....	4
Civil officer.....	1
Hatter.....	1
Blacksmiths.....	6
Seamstresses.....	4
Gardener.....	1
Apothecary.....	1
Colliers.....	3
Preachers.....	3
Tailors.....	4

* When the insanity is of less than one year's duration, the case is called "recent."

† When of one year's, or more than one year's duration, it is called "chronic."

Plasterers.....	2
No employment.....	45
Barber.....	1
Sailors.....	2
Soldiers.....	6
Physicians.....	3
Chair-maker.....	1
Accountant.....	1
Hair-braider.....	1
Potter.....	1
Shoemakers.....	6
Clerks.....	9
Lawyers.....	3
Machinists.....	2
Hunter.....	1
Wheel-wright.....	1
Artist.....	1
Painters.....	2
Surveyor.....	1
Printer.....	1
Broom-maker.....	1
Agents.....	3
Actress.....	1
Ship-steward.....	1
Confectioner.....	1
Miners.....	3
Trader.....	1
Teamster.....	1
Auctioneer.....	1
Tinner.....	1
Brick-maker.....	1
News Boy.....	1
Cooper.....	1
Grocer.....	1
Musician.....	1
Butcher.....	1
Nurse.....	1
Unascertained.....	57
Total.....	1025

NATIVITY OF PATIENTS ADMITTED.

Iowa.....	48
Illinois.....	32
Indiana.....	92
Ohio.....	190
Pennsylvania.....	83
Kentucky.....	35
New York.....	68
Vermont.....	12
Missouri.....	11
Massachusetts.....	14
North Carolina.....	11
South Carolina.....	4
Delaware.....	3
New Jersey.....	3
Virginia.....	18
Maryland.....	12
New Hampshire.....	5
Maine.....	10
Tennessee.....	9
Connecticut.....	7
Rhode Island.....	2
Michigan.....	10
Louisiana.....	1
New Brunswick.....	1
Canada.....	10
Holland.....	3
Switzerland.....	6
Germany.....	71
Prussia.....	16
Baden.....	5
Bavaria.....	5
Austria.....	1
Kingdom of the Netherlands.....	3
Norway.....	8
England.....	22
Scotland.....	5

Ireland.....	100
Wales.....	3
France.....	6
Sweden.....	7
Bohemia.....	4
Hesse Cassel.....	1
Hanover.....	2
Westphalia.....	1
Unknown.....	74

Total.....1025

SEX AND SOCIAL CONDITION OF THOSE ADMITTED.

	Men.	Women.	Total.
Unmarried.....	279	142	421
Married.....	212	298	510
Widowers.....	21		21
Widows.....		47	47
Unascertained.....	16	7	23
Divorced.....		3	3
Totals.....	528	497	1025

AGES OF THOSE ADMITTED.

Less than 15 years of age.....	17
Between 15 and 20.....	86
Between 20 and 30.....	324
Between 30 and 40.....	263
Between 40 and 50.....	176
Between 50 and 60.....	85
Between 60 and 70.....	39
Between 70 and 80.....	9
Between 80 and 90.....	1
Unknown.....	25
Total.....	1025

DURATION OF INSANITY BEFORE ADMISSION.

Less than twelve months' duration.....	450
From one to two years.....	110

From two to three years.....	72
From three to five years.....	101
From five to ten years.....	99
From ten to twenty years.....	79
Unknown.....	114
Total.....	1025

ALLEGED CAUSES OF INSANITY.

Connected with general ill health.....	109
Pauperal condition.....	42
Disappointments.....	21
Sun-stroke.....	4
Epilepsy.....	99
Injuries of the head.....	15
Excessive study.....	8
Hereditary.....	32
Vaccination.....	1
Concussion.....	1
Spiritualism.....	8
Bodily injuries.....	6
Business anxieties.....	27
Jealousy.....	4
Exposure to cold.....	6
Fright.....	5
Masturbation.....	35
Political excitement.....	1
Merringle inflammation.....	2
Domestic troubles.....	58
Religious excitement.....	45
Ill treatment.....	9
Blindness.....	1
Use of tobacco.....	5
Uterine disease.....	3
Novel-reading.....	1
War excitement.....	8
Over-exertion.....	21
Spermatorrhoea.....	1
Scarlet fever.....	2

Typhoid fever.....	7
Disordered menstruation.....	13
Change of life.....	6
Pecuniary anxieties.....	7
Intemperance.....	24
Disease of the brain.....	2
Paralysis.....	2
Hemiplegia.....	5
Apoplexy.....	2
Hysteria.....	3
Measles.....	4
Senile dementia.....	4
Original defect.....	6
Disappointment in love.....	5
Loss of health in military service.....	13
No satisfactory cause assigned.....	345

1025

PLACE OF RESIDENCE OF PATIENTS ADMITTED.

Allamakee.....	13	Keokuk.....	25
Appanoose.....	9	Lee.....	60
Benton.....	11	Linn.....	28
Black Hawk.....	9	Louisa.....	20
Boone.....	2	Lucas.....	10
Bremer.....	3	Madison.....	8
Buchanan.....	5	Mahaska.....	14
Butler.....	4	Marion.....	26
Carroll.....	3	Marshall.....	8
Cedar.....	24	Mills.....	9
Cerro Gordo.....	3	Mitchell.....	1
Chickasaw.....	3	Monroe.....	19
Clarke.....	4	Monona.....	1
Clayton.....	13	Montgomery.....	4
Clinton.....	22	Muscatine.....	23
Dallas.....	2	Page.....	5
Davis.....	26	Polk.....	27
Decatur.....	7	Pottawattamie.....	2
Delaware.....	11	Poweshiek.....	5
Des Moines.....	44	Ringgold.....	2
Dubuque.....	47	Scott.....	42
Fayette.....	14	Shelby.....	1
Floyd.....	2	Story.....	6
Franklin.....	2	Tama.....	6

Fremont.....	1	Taylor.....	3
Grundy.....	1	Union.....	2
Guthrie.....	1	Van Buren.....	31
Hardin.....	9	Wapello.....	28
Harrison.....	3	Warren.....	8
Henry.....	29	Washington.....	30
Howard.....	3	Webster.....	3
Iowa.....	10	Winnebago.....	1
Jackson.....	16	Winneshiek.....	13
Jasper.....	16	Woodbury.....	1
Jefferson.....	42	Worth.....	1
Johnson.....	23	Wright.....	1
Jones.....	16	Wayne.....	7

State of Minnesota.....	55
State of Nebraska.....	19
State of Illinois.....	8
State of Missouri.....	1
State of Wisconsin.....	1
State of Indiana.....	1
State of Louisiana.....	1—1025

	Males.	Females.	Total.
Public patients admitted.....	412	383	795
Private patients admitted.....	115	115	230

The principal causes of death were those usually named in the death-tables of hospital reports. A large proportion of the deaths, however, were really due to the slow and gradual debilitating action of the nervous disease that produced insanity. Only seven-teen patients died of acute disease. Consumption, epilepsy, chronic gastric and intestinal disorder, old age, and organic disease of the brain, were the causes of death in most of the other cases. One patient, who had been in the house about five years, with excellent general health, and making herself quite useful in various ways, died suddenly soon after eating her breakfast. The cause of death was found to be obesity of the heart. This diseased condition we had no means of detecting before death. So far as we or any one could judge the patient was likely to live for many years.—You will remember that one man was seized with apoplexy, and died while the Board were making their quarterly visit to the ward in which he resided. As before intimated, however, the greater number of deaths, though classed as occurring from

dysentery, diarrhea, consumption, &c., were probably originally due to chronic insanity, which by its long-continued debilitating influence, predisposed the patient to the fatal attack, while it diminished his power of resistance and reaction.

Fifty of the deaths, out of eighty-five, occurred during the first half of the biennial period, while the average number of the patients was about forty less than it has since been. I think the greater mortality of the first year may, in a great degree, be attributed to the bad quality of the water from the artesian well, which was our only source of supply, together with the imperfect sewerage which had existed from the opening of the hospital until a year ago. This high degree of mortality in the first half of our period was about the same, proportionally, as had prevailed during previous years. By all persons acquainted at all with the disadvantages under which the affairs of the hospital had been conducted, it is attributed to the two causes just named.

While the hygienic condition of the hospital, so far as cleanliness and ventilation are concerned, has been about the same throughout the whole period, the mortality has sometimes seemed to be influenced by causes not well understood. During summer and early autumn, it is well understood that more or less of gastric and intestinal disorders, with their consequent mortality, will usually prevail in an insane hospital. Though our experience may not essentially differ from that of others in this speciality, some matters of our observation seem not uninteresting to record. So good a state of health at one time prevailed that a period of several months elapsed without a single death in the female wards. In one ward, somewhat crowded with patients far advanced in dementia and fatuity, and more or less debilitated by chronic insanity, thus containing apparently the class most liable to sicken and die, there was not a death for about seven months. On the other hand, on two or three occasions, two patients died rather unexpectedly within a few hours of each other. Such are among the incidents of hospital life, and are not probably peculiar to this institution.

The insane are peculiarly subject to attacks of those gastric and intestinal disorders which prevail in the summer and early fall. No regimen however strict, no precautions however elaborate, can entirely prevent such disease. The reason is obvious. Besides

their predisposition to diseases of debility, there is great disregard among the insane in general, and the chronic insane in particular of the habits and conditions that are well known to be essential to health. In chronic derangement, in spite of all efforts, there is rapid and imperfect mastication; and as an inevitable consequence, imperfect digestion. In melancholia, characterized by depressed nervous influence, the meals are often taken irregularly; and this irregularity causes the digestion to be weak and imperfect. The mood of carelessness and indifference so common in these cases, leads to inattention to the calls of nature, with consequent derangement of the various functions, and perhaps, incurable disorder and death.

The number of recoveries has been gratifying. All those have recovered who were strictly recent cases, (within six months or one year's duration) uncomplicated with organic lesion of the brain, and who upon admission appeared to be in a condition favorable to recovery. Others, whose present state is not very encouraging, would probably have recovered if they had been sent to the Hospital more promptly. But a temporizing policy, encouraged by some transient improvement, from time to time, in the condition of the patient, and entertaining hopes that the disorder might pass off without a resort to hospital treatment, has allowed the most precious period for curative treatment to pass, without doing the one thing which is now well known to offer the fairest prospect for recovery. Thus, hospital treatment is neglected till all hope of recovery is gone; and at last resorted to only when the patience of friends or keepers is exhausted. During the last period, however, it is believed there has been less of this procrastination than during any previous one. It is hoped that the time is not far distant when every patient will be sent to the Hospital as soon as the disease is established. Some may, doubtless, recover from decided mental derangement without a resort to a hospital; but all experience proves that a hospital affords the best means of curative treatment. In chronic insanity, some improvement and even recovery may result, if hospital treatment be perseveringly carried out; and consequently it should never be neglected until such time has elapsed as experience shows leaves little room for hope.

Several of those patients discharged as improved, have been able to conduct themselves with propriety, and support, wholly or

in part, themselves and their families. The improvement that so often follows treatment in the Hospital is one of the benefits which it bestows on those placed under its charge; and should not be undervalued because it does not extend to cure. In some cases the improvement is only temporary, while in others it is lasting.

The Hospital continues to afford an asylum to a large number of persons afflicted with chronic derangement of greater or less activity, who would be troublesome or dangerous, when at home or at large. Under the regular and well-ordered management of the Hospital, such patients are often comparatively harmless; and even improve considerably through the restraint and discipline which are an important part of hospital treatment.

"Recovered," "Improved," and "Unimproved," are terms whose use depends largely on the the different judgments of the men who employ them. While it is not probable that many patients discharged from hospitals are improperly classed as recovered, many not so designated have yet received such benefit as to enable them to follow their ordinary vocations very tolerably or even creditably, who, without such treatment, might have been for long years a public charge. Hence it will be seen that the good resulting from hospitals for the insane is not fully displayed by the tables of apparent results.

The care of those remaining, for whom the Hospital must be a home, relieves the different communities of burdens that would be ill borne, were there no such resort. County officers are careful enough of expense to avoid sending to the Hospital patients who can possibly be taken care of elsewhere. Consequently we have received many who are probably incurable, simply because they had become, through chronic insanity, unmanageable at home or in the jails and receptacles that may exist in the different counties. Our experience in the admission of patients fully corroborates the experience of other hospitals and asylums; and justifies their complaint that patients are not sent to them with such promptness as would almost insure recovery in a very large proportion of cases. Unnecessary delay, we well know, is practiced in many cases. It is, or it ought to be, well known throughout the State, that the Hospital will receive recent cases of insanity without previous notice; thereby doing its utmost to encourage resort to its facilities during the period when treatment is most likely to be successful.

Nevertheless, needless and protracted delay is the general rule, and prompt action the occasional exception. Of course we would attach no blame to any party; but it is fervently to be hoped that a better knowledge of the importance of promptitude may soon remedy the defects of the present system.

Insanity, as a prevailing disease, becomes a matter of wide notoriety through the aggregation of its subjects in hospitals and asylums; and through the frequent necessity of supporting many of them, for long years, at the public charge. For though early hospital treatment has been found, in the experience of at least half a century, the most efficient means for the cure of insanity; yet there must always be a tendency to the accumulation of hopeless incurables requiring life-long support and care. Prominent as the disease is, and must always from its nature be, it is yet not a very common affliction—much less common than many of the diseases that afflict mankind. It falls to the lot of few physicians to see more than now and then a case. But the peculiarly painful nature of the disease; the burden which the support of the afflicted places on every community; and the demands of social science,—all seem to call for all the light that can be obtained, upon the nature and causes of insanity. For if these be well made out and established, the knowledge gained may enable us to do much toward the prevention of the disease. Thus any positive information concerning mental disorder is a matter of public interest. Information derived from tabular statements must necessarily be imperfect; still these should not be neglected, and efforts should be made to attain greater accuracy. The difficulties at the outset, in arriving at anything like correct or definite conclusions, may be seen from the following assigned causes of insanity, in cases admitted during the last biennial period: "Derangement of the mind;" "Tubercular disease of the brain, and spinal difficulty;" "Confinement in the county jail, and reflections thereon;" "Loss of child, and religious tenor of thought;" "Peculiar mental condition, and predisposition thereto;" "Undue exposure and transgression of physical laws;" "Religious matters, together with physical difficulties;" "From some bodily or head complaint;" "Contracted form of the brain;" "Too much reading and reflections on religious subjects." In the last case the patient was utterly illiterate; and the reading,

if understanding be implied, must have been within the most limited compass.

It seems to be not unfrequently the case that the cause assigned by the friends has little else than their own imagination as its basis. Sometimes, too, different members of the family, or different persons knowing the same facts, will assign different causes. We occasionally encounter an unwillingness to name the probable cause; as if it would be an exposure of something that should be kept as a family secret. This is particularly the case when intemperance or other vice, or an hereditary tendency to mental disorder, happens to be connected with the disease. Where everything that can possibly affect the welfare of the patient should be made known, confidentially, if desirable, important points are kept concealed or in the background, until, accidentally, at some period too late to be of any use in the treatment, the real cause or causes appear, and quite change the aspect of the case. The mistaking and confounding of cause and effect has also led to much obscurity and misapprehension, and has seriously impaired the value of tabular statements.

Much has been said and written to throw light on mental derangement, but it is to be feared that little has reached the general public, and this occasion is embraced to add something to the popular information upon this subject. If the known laws of health were a part of the possessions of every family, and were duly regarded, there can be no doubt that the amount of mental disease would diminish. Indeed, as much might be expected regarding most other diseases, not excepting those that are contagious; and it would perhaps be better, as has been said, to employ physicians to prescribe measures to prevent, than remedies to cure, disease.

With all the attention that has been bestowed upon the causes of insanity, and the mode of their action, the subject is still involved in much obscurity. These causes are physical and moral; and perhaps both classes play some part in the history of each individual case. The action of physical causes in producing insanity may be closely analogous to the action of physical causes producing other bodily diseases. Whatever may have reduced the vital forces, or caused any degree of exhaustion, or disturbed the balance of the powers of life, may be a cause of insanity, or

of almost any other disease. Over-exertion, protracted vigilance, improper food, bad air, exposure to unusual cold, must, to some extent, impair the health, and may each produce serious disease. Prolonged physical effort, with insufficient food, and particularly if accompanied with loss of sleep, rapidly exhaust vital power and nervous energy. Disease may follow immediately, or the result may be reached more slowly. It is not necessary, in order to establish the relation of cause and effect, that the latter should follow the former immediately in some striking manner. Often the effect is more remote, but only patient investigation is needed to prove the relation in the most positive manner. In one case of somewhat obscure disease, now under treatment, direct relation appears to be traced between the present disease and a fall that happened several years ago, and was almost forgotten by the friends. The causes being often remote are less easily detected, but nevertheless lose nothing of their importance. The impression once made, and not counteracted by appropriate treatment, the effect, disease or impaired health, almost surely follows. If any organ or function is, from any cause, more liable than others to take on diseased action, that organ or function will be the first to suffer. The attack may be fever, or insanity, or some other nervous disease; and while, through superficial inquiry, the cause is overlooked, it is considered a matter of wonder that such disorder appears at such a time.

More remote, and perhaps no less important, than any cause we have hinted at, are those agencies which cut off more than one-third of the human race before the age of five years. Agencies that are so potent must leave their traces even upon many of the survivors. How much of the "ill health" which holds so conspicuous a place in the causation tables of hospital reports, owes its origin to this source, we may conjecture but can never definitely estimate.

The effect of exhaustion, exposure, and similar depressing causes, in giving rise to nervous disease appears to be well shown in some cases of discharged volunteer soldiers. Of this class we have admitted thirteen, all of whom evinced unmistakable traces of the rigors of military service. It will be no matter of surprise, I think, if this class appear prominently in our statistical tables for years to come.

Moral agencies may be no less strong, may be even stronger, than physical. But here, often, gross mistakes are made in assigning causes. Anxiety upon religious matters, solicitude concerning the future state of the soul, belief in having been very wicked, fear of having committed the unpardonable sin,—are common manifestations of the form of insanity known as melancholia; and in most or all cases of the kind the cause assigned by friends is religious excitement. Now, religious excitement, with its accompaniments,—the impassioned utterances; the vivid descriptions of hell, and the terrors which result from an impenitent life; the "sorrow and agony," the "joy and rapture," described as occurring in modern revivals,—may and sometimes does disturb the functions of the brain through the emotional nature. Still, in a large majority of persons, the apparent effect of such excitement soon passes away. In the smaller number, however, in consequence of a susceptible nervous organization or of some peculiar condition of the health, it is carried beyond the limits of healthy reaction, and insanity follows. Even with such corrections, however, as we have been able to make, it seems probable that religious excitement, as a cause of derangement in those admitted, has been over-estimated. But the fact that it may, and sometimes does, cause insanity, can not be overlooked nor denied; though it may have been too little regarded by religious teachers. All persons acquainted with even the elementary principles of physiology refrain from and would advise against overloading the stomach, or too greatly taxing its powers by any diet that might injure the organ. It should be equally widely understood—and too much emphasis can hardly be laid upon the statement—that the brain may be as easily and seriously harmed by excitement, as the stomach by overloading or other improper treatment.

Public attention has been called to the wide disparity between "Religious excitement" and "Intemperance,"—a disparity unfavorable to the former,—as exhibited in the tables of alleged causes of insanity published in previous reports. The inequality is so great as at once to attract notice; and when compared with some widely diffused information, may, naturally enough, lead to the conclusion that such tables are valueless or even pernicious. What measure of truth these particular statistics contain, can not now be accurately determined. It should be borne in mind,

however, that the tables in question are headed "Alleged Causes," and probably do not in the slightest degree reflect the opinions of the past officers of the Hospital. The difficulty of obtaining reliable information upon which to base statistical statements, great as it now is, was probably yet greater in the earlier days of the institution. Whatever degree of inaccuracy may have characterized those tables may not inappropriately be charged to the sources whence the information was derived.

Intemperance, or the inordinate use of alcoholic stimulants, is undoubtedly one of the greatest evils of our times. No other agent is more influential in peopling prisons, alms-houses and hospitals. It gives rise to scarcely more poverty and crime, than it does to disease and insanity. Its pernicious influence does not always end with the lives of its victims; but may be, and often is, the cause of crime, poverty, and disease in succeeding generations. The primary effects of alcohol are those of a very active stimulant. It excites the heart and blood-vessels to more vigorous action; increases at first animal heat and the energies of many bodily functions. Its effects upon the brain and nervous system are perhaps more powerful than upon any other part of the body. Such powerful effects, if not salutary, must be highly deleterious.

The first organ to suffer through any degree of intemperance is usually the stomach; an organ most important to life and health, as it is the medium through which all nutrition is obtained. Simple nutriment being all that is needed to sustain life, and promote the highest degree of healthful activity, those substances which the stomach can not use as food can be only injurious. A healthy tone of the stomach is all-important to the proper action of the mental and physical powers. So potent an agent as alcohol, must, when swallowed, produce a marked effect on organs so closely connected as are the stomach and the nervous system. The excitement produced must be followed by reaction and depression. At length healthy action and susceptibility are lost, unless goaded on by frequent resort to the same agent; and thus its continued influence becomes necessary. The evil does not stop here. After a time the energy of the mind is lost, character is destroyed, pecuniary and domestic troubles accumulate, and ruin stares the victim in the face. It is then, no wonder that at length the mind drifts into insanity.

The effects resulting from excessive use of tobacco are sometimes nearly as injurious as those of alcohol. Its results may be more insidious, more slowly enervating to the system; but it is doubtless a prolific source of ill health, and often of insanity. Within the past two years we have seen several patients greatly and doubtless permanently benefited by abandoning the habits of chewing and smoking.

Of other causes of insanity much might be said, and some future opportunity may be taken to refer to them. One important cause, however, we would mention now, in order to warn the young, and those who have charge of the young, against the terrible consequences which are almost sure to follow. The secret vice of the young has sent many victims to this Hospital. Some of them were persons of fine promise, early cut off or rendered imbecile, or a public burden for many years to come. No single cause of mental and nervous disorder is more to be dreaded than this. Of all of this class of cases that come to us, but a small portion recover; and some remain to drag out a loathsome existence. Everything possible should be done to prevent, in any degree, this terrible evil; and constant vigilance appears to be the only means.

IMPROVEMENTS.

As early as was practicable in the spring of 1866, the work was commenced for carrying out the improvements for which liberal appropriations had been made by the legislature.

The drain around the building, about one-third of a mile in length, and the new sewerage system, were necessarily so closely connected with each other that the works were carried on together. The excavation for the drain was made by the side of the foundation walls, a little deeper than these, and consequently below the level of the cellar floor. The drain was constructed of tile brick, made on the premises, laid at the bottom of the trench and covered with broken stone to the depth of about one foot. Upon the stone was laid several inches of turf to prevent loose earth from washing in and filling up the spaces. The water flowing through the tiles is discharged at different points into the new and old sewers; there being an inclination of about two inches in every ten feet. Judging from the experience of two seasons, the work appears to have been well done. We have now a perfectly dry basement

under the whole house, instead of the mud or stagnant water after heavy rains that was formerly so annoying and so unwholesome.

While this work was going on, the occasion was taken to repair the foundation walls, by replacing defective stone, here and there, and painting the whole exterior wall below the surface of the ground. This work had not been anticipated, but on seeing the condition of the wall it was felt to be necessary. It is believed that these repairs have made the foundations stronger than they were before, and have arrested the settling which had been for some time apparent. The money expended was a little more than had been deemed sufficient for the drain alone, at the time when an appropriation had been asked for that purpose.

The new sewers are of brick, laid in a mixture of common mortar and hydraulic cement. They consist of a main, one hundred and fifty feet long by two feet in diameter; sub-mains, eighteen inches in diameter, amounting to seven hundred and ninety feet in length; and seven branches, fourteen inches in diameter, amounting to fifteen hundred feet. About five hundred feet in the rear of the center building the main sewer terminates in a cess-pool ten feet in diameter by twelve feet deep, walled with stone and arched over with brick. From this the overflow of sewerage passes three hundred and sixty feet through a brick drain about one foot in diameter, and thence about one thousand feet by open drain to the branch which runs through the south-eastern portion of the grounds. The total length of brick sewers is about twenty-eight hundred feet, and they lie from five to ten feet below the surface. Instead of running for long distances through the basement, and but a few inches beneath the floor of the fresh-air chambers—a serious fault in the original construction—they are entirely outside the building, except in two places, where the arrangement of the water-closets was such that it was necessary, unless great expense was incurred, to run the sewers for about thirty-five feet under the building. Where this course was adopted the sewer was built of drain-crock, six inches in diameter, securely laid in cement. No bad odors now come up from the sewers through the fresh-air flues, to contaminate the air breathed by patients. We have suffered scarcely at all from the effluvia arising from the point where the sewers terminate. The cost of the work

was somewhat greater than was expected, but the ends desired have been completely attained.

The cess-pool at the end of the main sewer was constructed with a view to utilizing the sewerage by pumping it over different parts of the farm, for the benefit of the grass and other crops. This disposition of the sewerage will prevent the nuisance that is created by discharging the fifteen thousand gallons daily into the branch below, from which several families obtain more or less water for daily use. During a large part of the year little or no water flows, except what comes from the hospital sewers, and for a considerable distance below the odor is very offensive at any point near the branch. Justice to the owners and dwellers on and near the branch demands a remedy; and the only one practicable seems to be the utilization of the sewerage, as before mentioned. This plan has been tried elsewhere with great success, having been found profitable as well as pleasant. I have no doubt it would prove successful here, both in a pecuniary and a sanitary sense. We have the necessary power already, and the additional cost of fuel for pumping will not be very large. The only direct outlay will be for a pump and the necessary pipes and connections. I think this apparatus should be added to the permanent improvements and arrangements of the Hospital. It would doubtless prove a great and lasting benefit.

While the drain and sewers were building, it was thought best to repair and put into proper condition the fresh air ducts, leading from the fan-room to different parts of the house. These are situated about six feet under ground, are about four feet square, and together are six hundred and seventy-five feet long. The sides are built of stone laid in mortar, upon which rests a low brick arch, forming the roof of the duct. The floor was of earth. It had never been graded, and presented a very uneven surface, on some parts of which stagnant water could be found throughout most of the year. The ducts were almost impassable on account of the mud on this oozy bottom. It will readily be imagined that the "fresh air" introduced into the wards through such channels was not quite what its name implies. To remedy the evil, a tile drain was laid throughout the air ducts, connecting with the sewers; the bottom was graded, and the whole area, amounting to some twenty-seven hundred square feet, paved in a substantial and workmanlike

manner. We now have in our wards a dry and wholesome atmosphere, in place of the damp and noisome vapors which formerly prevailed. This also we feel to be a great and permanent improvement.

The references to the quality of the water from the artesian well, made in previous reports to your Board, and in the supplemental report to the last Legislature, have enabled most persons interested in the success of the Hospital to become well aware of the serious dangers and inconveniences that result from having no other supply of pure water than the rain collected from a portion of the roof. The amount thus got would suffice for only a few weeks in the year; and in the summer, when most needed, was least abundant. Interesting analyses of water from the artesian well, and from a spring in the vicinity, are herewith submitted. I am now glad to be able to report that the peril to life and health; the danger from fire; the almost certain destruction, by corrosion, in a short time, of our extensive steam-heating apparatus; as well as the inconveniences suffered in washing, bathing and cleaning,—have been in a great degree lessened or prevented by the reservoir recently constructed by means of the appropriations made for that purpose. The reservoir has been in use during the past season, affording, since the first of May, the only supply of water we have had for use, excepting the small quantity obtained from a part of the roof. Notwithstanding the unusual dryness of the season, we have still a supply for two months, if it be economically used. Our success in holding water fit for use through the summer has exceeded our most sanguine expectations. The embankment was so thoroughly made that no water penetrates it; and the loss by seepage through the bottom is trifling. Now, the water pumped in May, after standing in the reservoir all summer, is as clear and good as the best cistern water. The capacity of the reservoir may not prove equal to our needs in the driest seasons; but for this inadequacy, if it exist, it is believed an effectual remedy may be found in an enlargement of the pond on the branch, from which the water is obtained. This can probably be done without aid from the State Treasury.

The reservoir is circular, two hundred feet in diameter at the high-water line, and one hundred and sixty at the bottom. The

twelve feet thick at the top. The inside slopes at such an angle that in a distance of eighteen inches, it descends twelve. When full, the water is twelve and a half feet deep. Three and a half bank is one and a half feet higher than the high-water mark, and feet behind or outside the inner surface of the reservoir, there is a wall of puddled clay, covered with about one and a half feet of clay and loam. Upon this was placed a layer of broken stone, in place of gravel, to prevent displacement by the action of frost. The inner slope is covered with flat stone about six inches thick, which affords a secure and permanent lining to the embankment.

The water is obtained from a "branch" which drains several thousand acres of land, running through the south-eastern part of the premises; dry in summer and winter, but usually furnishing an abundant supply of water in the spring and autumn. By removing some five thousand cubic yards of earth, building a substantial dam with stone abutments, and raising an embankment, a pond was formed to hold and preserve water after heavy rains. Near this pond, sixty feet below the reservoir and about six hundred yards distant from it, is situated a substantial brick pump-house. This contains a boiler twelve feet long by forty-two inches in diameter, with thirty-eight three-inch tubes; and an Earles' steam-pump, capable of raising some three hundred gallons a minute. There is also a small Worthington pump to fill the boiler, and a tank through which passes the exhaust-steam from the pump, to heat the water which supplies the boiler. These arrangements have proved satisfactory and economical beyond expectation. The large pump works very well with only twelve or fifteen pounds of steam.

From the pump a six-inch iron pipe conveys the water to the cistern, in the rear of the building. Near this point the pipe divides; one branch entering the cistern and the other the reservoir. By adjusting certain valves, the water can be pumped, at pleasure, into the reservoir or the cistern; or the former can be connected with the latter, from which is pumped into the tanks in the attics the water for daily use. All the machinery and every part of the work has proved good and strong, to a degree almost unparalleled in an undertaking of such magnitude.

While different modes of obtaining a supply of pure and wholesome water were under consideration, a method different from the

one finally adopted was preferred by me; and I still think it would have been in some respects the better plan. It was, to construct a large reservoir, at or near the place where the dam has been thrown across the branch; and to connect with it, as a supplementary source of supply, a spring about half a mile distant, which yields some three thousand gallons daily of excellent water. With this large reservoir filled by the stream during the wet season, and constantly fed by the spring to the amount mentioned, the water-supply would have been ample, beyond any contingency. It would also have been better, on some accounts, to have the reservoir farther from the house, and more a natural lake than an artificial tank. From such a reservoir we could have filled the cistern in the rear two or three times a week, as might be necessary. But this plan was abandoned,—reluctantly on my part,—in favor of the one since so successfully carried out. The somewhat greater first cost of the former plan was the reason it was rejected. Current opinion, at the time the various projects were discussed, seemed to be against the practicability of either of them. Subsequent experience has demonstrated, what then appeared clear enough to some, that either of the plans proposed were perfectly feasible. With the present arrangements we may not have all the water we should like, for a liberal supply, during some extremely dry seasons like the present; but the possible deficiency can probably be remedied by enlarging the area of the pond at the branch. Still, although we hope to be able to do this ultimately, without State aid, the real cost in the end may amount to about the same as that of the rejected plan.

The new water-supply has cost somewhat more than it was supposed would be required to execute the selected plan. The reason of this increased expense may be partly gathered from the following facts and considerations: The length of time between assuming charge of the Hospital and the assembling of the Legislature was too short to enable me to mature plans, and to get reliable estimates of their cost. Consequently, rather than to accept the alternative of deferring the whole matter of such vital importance for two years, the appropriation was asked on the basis of inadequate and imperfect data. It was a part of the original design to line the reservoir with brick instead of stone; to make the pump-house of wood instead of brick; to use four-inch iron pipe between the

pump-house and the reservoir, instead of six-inch; and to connect the reservoir in front with the cistern in the rear, by means of pipe laid only so far from the surface as to escape frost. The best engineering talent, however, strongly advised changes in these details. Stone was preferred to brick, as lining for the basin, because much less injured by the action of frost. Brick was used instead of wood as a building material for the pump-house, to reduce the danger from fire, with the consequent damage to costly machinery. Six-inch pipe was adopted in place of four-inch, on account of its greatly diminishing friction. A nearly level connecting-pipe between the reservoir and cistern was advised and adopted to avoid the troublesome collections of air, liable to occur in an uneven pipe; and the attainment of this object necessitated the digging of a trench seven hundred feet long and from six to twelve feet deep. The cost of these changes more than makes up the amount by which the expense exceeded the appropriation. We believe, however, that they were essential to the full success and permanent efficiency of the enterprise. From the best estimate it was possible, under the circumstances, to make, it was certain the appropriation asked for would be insufficient, but it was hoped with that sum, with such assistance as patients could render, the work could be completed.

The value of the work done by patients, upon the reservoir and its connections, with such assistance as our teams could give when not otherwise engaged, may be fairly estimated at five thousand dollars.

The cost above the appropriation may be fairly off-set, I think, by some of the pecuniary advantages gained by the new system. We find by careful estimates, that it requires about half a ton of coal per day, less, to pump water from the present sources than from the artesian well; or about one hundred and fifty tons a year, amounting in money to some seven hundred dollars per annum. This saving is to be accounted for, partly through the great disadvantage at which the pumping machinery worked deep in the well, and partly by the excellence of the new steam-pumps. It is also found that in the article of soap a saving is effected of about three hundred and fifty dollars yearly. There is doubtless a large saving, which can not be very well calculated, in the greatly lessened wear of the household linen in its weekly passage through

the wash-room. The greatly diminished corrosion of the costly steam-heating apparatus, upon whose good condition so much depends, is likewise an important economical item.

The boilers have been put in good repair; the worn out steam pipes replaced by new ones; and the whole heating apparatus is now in pretty good condition. It may need but few repairs for some years to come.

All the paintings necessary in the wards has been done through the appropriation for that purpose. The cupolas and their roofs have been painted, as well as most of the outside wood-work and the window-guards. The roof and water conductors have been quite extensively repaired.

The appropriation for furniture has been expended for settees, chairs, mattresses and pillows, adding much to the comfort of the patients.

The appropriation made for grounds, fencing, and shrubbery, has been expended for those purposes. Nearly a mile of hedge has been set out; more than a third of a mile of road has been built; and the fences have received such repairs as were most needed.

ADDITIONAL IMPROVEMENTS NEEDED.

The barn is not large enough to hold the crops and afford stall-room for the number of cows we should keep to obtain an adequate supply of milk. Nor will it give the needful shelter for the other stock that we generally keep during the winter. There has hitherto been no proper provision for the protection of the wagons and many other farming implements, which have stood out in sun and storm through the entire year. This I need hardly say is poor economy, and should be suffered no longer. A barn could be so built as to combine all these purposes, and such an one is very much needed. The old wooden buildings which have partially answered for shelter are unsuitable, and will not last much longer for any purpose.

The ironing and drying-rooms of the Hospital, like some other of its domestic arrangements, seem to have been made to suit a much smaller household than our present one. In fact, this particular department seems to have been hardly thought of when the house was building. What was originally an engineer's and

machinist's shop, was subsequently converted to this use. It seemed to serve the purpose quite well while the number of patients was much smaller than it has been during the last two years; but now the Hospital has far outgrown the accommodation afforded. Moreover, the present ironing-room is directly over the boiler-room, and in summer the heat is almost intolerable. As the patients do a large part of the ironing for the family of over four hundred people, and as the present room is really unfit for them to work in during a portion of the year, an additional room should be constructed and fitted up without delay. This can readily be done, without disturbing at all what might be supposed to be the original plan of the building, by connecting the rear-center with the engine and boiler-house, which are only thirty-five feet distant. The present ironing-room will then make an excellent drying-room, at times when such accommodation is most needed, during the rainy season and in cloudy weather. I would propose that this addition be two stories high; the upper to be used as an ironing-room, and the lower as a store-room,—being near the kitchen and bake-room and convenient of access from each. While this change is urged chiefly on the ground that it is unjust to induce patients to work under improper circumstances, something also is to be considered as due to those persons regularly employed, who, if disposed to perform their duties faithfully, should be provided with the proper facilities.

The coal-house is insufficient for our wants. We use about sixteen hundred tons of coal per annum. We ought to have constantly on hand at least two hundred tons. This is desirable to provide against such contingencies as bad roads; possible failure of the railroads, on which we are entirely dependent, to forward coal as we need it; and the occasional caprice of the coal-miners. If at present we attempt to store that amount, or even a much less quantity of coal, we are in danger of losing the whole of it by spontaneous combustion. This ignition has several times occurred, and the fire has been extinguished at great expense and no small hazard. The inadequacy of storage-room is probably due to the fact that the occurrence of such fires was unforeseen. As it is, some further provision is highly necessary to save the Hospital from imminent and serious loss. The expense, when considered

in connection with the lessened danger that will result, can hardly be considered great.

Gas, as a means of lighting should be substituted for the kerosene, hitherto and still used. The sum formerly asked, and appropriated by the Legislature, proved to be so far short of the cost that it has not been used. Since the last report we have been repeatedly exposed to serious danger of conflagration, from the use of kerosene. We have escaped only through a kind Providence and the vigilance of our attendants. This state of things has cost us very great anxiety; an anxiety which ought not to be added to the inevitable cares and burdens attending the management of such an institution. In this matter the cost should not be alone considered. The important element of safety to human life must be considered and provided for. But even from a lower point of view, if any serious accident should result from our present mode of lighting, an expense would be incurred far greater than the interest on the outlay necessary for a safe and proper method of illumination.

The kitchen should be paved with stone instead of brick. The best brick we can make or obtain here are so porous, and absorb and hold so much moisture during certain seasons of the year that it seems improper on the score of health to employ patients in so damp a place. Under such arrangements and conditions as will ensure their comfort and welfare, the patients are able and willing to do a considerable amount of the kitchen work. The better the facilities provided for employing patients, the less will be the cost of maintenance, and the greater the beneficial results in recovery and improvement of the patients under treatment.

At the date of the last report five thousand dollars was recommended and felt to be the sum required for furniture to keep pace with the increase of patients; but in consideration of some other matters of great importance, for which large appropriations were asked, only one-half that amount was granted. We need many new bedsteads, settees, chairs, tables, mattresses and counterpanes; and the deficiency in these supplies should be made up without delay.

A lodge is needed at the entrance to the Hospital avenue. It should be occupied by some persons whose business should be taking charge of the gate and opening and shutting it for visitors.

Our crops are in constant danger, from the frequent carelessness of visitors who neglect to close the gate, thus leaving the grounds open to the incursions of stray cattle. Such an arrangement would probably diminish the amount of passing through the grounds on Sunday; and would otherwise prove a great convenience to us and to the public.

The boundary-fences of the farm are in need of repairs, and within a few years must be largely renewed. I would recommend that a sum of money be appropriated to plant hedges along the boundary. These, if properly trained, will become a sufficient fence by the time the present one decays.

Ornamental and landscape gardening should at once receive more attention than has hitherto been given to it. A survey of the grounds should be made, and a system of improvements inaugurated, to be gradually carried out as time and means will permit. In this connection I would recommend the erection of a small green-house or conservatory to contain our already considerable and increasing stock of choice house-plants. Some design may be adopted that can be partially built and subsequently extended as our wants may require. Things of this kind contribute to the welfare and recovery of patients, and should not be neglected.

A cemetery is much needed, outside our present boundary. You are aware that a large majority of the patients that have died in the Hospital have been buried on the premises. For reasons which I presume will be obvious to you, I think this course should be discontinued. I would recommend the purchase of a portion of Woodland Cemetery, as a place for future interments, and to which it might even be desirable to remove the bodies lying in the present burial ground.

Several wards, a portion of the central building and rear center buildings, will need re-painting during the next two years, and the means for doing this work should be provided.

The farm connected with the Hospital is much too small for the best interests of the institution. It consists of one hundred and seventy-three acres. Until within two years about one-half of this was sparsely covered with trees and underbrush, and wholly unproductive. About forty-five acres of this portion have been reclaimed, chiefly by the labor of patients; but we still need more land. The advantages of its possession both present and prospective; and,

while it is possible, any land, favorably located, that can be bought, should be secured. The growing population, and the demand for house-lots may make this impossible in a few years; and every year adds to the cost of purchase. On the present farm we can scarcely keep more stock than the cows necessary to furnish the milk that we absolutely need. And if we use a portion of the land for pasturage we must buy hay. So much land is needed for root and grain crops, both very important to us, that we feel constrained and embarrassed in our agricultural operations. It is well known that milk is a wholesome and economical article of diet. If we had sufficient room and enough feed we should produce and use very much more milk than we can now do. This would meet a daily want, decrease the expenditure, and conduce to the welfare of the patients.

There are many reasons for adding any acres that can be had, to those already owned by the Hospital. Of these I will mention one or two. Additional work for patients is wanted. Most of the male patients are accustomed to labor, and are generally more comfortable and better contented if they have some regular employment. The various kinds of farm work are what they have been used to before coming here; and as insanity usually diminishes the aptitude to learn new forms of industry, little else than farming will prove of much value to them here. True, we have made some very good mattresses of husks, and we expect to make our own brooms; but these are in-door employments, adapted to but a small number of workers and to the winter season. The cultivation of the farm, garden and pleasure-grounds furnishes the most desirable employment for most patients. It is sufficiently diversified to be agreeable without being too laborious. Many patients can be thus occupied who would otherwise pass their days in utter idleness and lethargy.

The farm we now have is highly profitable; and I am sure that one twice as large would not be less so. The need of more land will be felt more and more as years pass. Many acres of the present farm will be required for exercising and pleasure-grounds and ornamental purposes. Just so far as they are thus used will our already limited agricultural resources be curtailed. Strictly speaking, no ground has as yet been devoted to such purposes; but the

want is much felt, and the first steps in that direction have recently been taken.

Several years spent in connection with two important hospitals for the insane, differing widely from each other in the extent and capabilities of their pleasure-grounds as well as in the amount of land available for agricultural purposes, has enabled me to appreciate the serious disadvantages attendant on a deficiency of land for both objects. A sufficient area of ground is of the very highest importance to an institution of this kind. Possessing that desideratum, with the natural advantages and capabilities of improvement of our location, this hospital may be for all future time a desirable resort for the afflicted, and capable of affording every influence and agency essential to the most enlightened treatment of insanity. Without it it can never hold so high a position. There is little danger of our possessing too much land. It is very much to be regretted that the fine tract proposed for purchase to the last Legislature was not obtained. It could not now be bought for less than twice the price then asked.

FURTHER ACCOMMODATIONS FOR THE INSANE.

For over a year the Hospital has contained more than the proper number of patients. We have yielded to the pressure upon our accommodations, and have endeavored as best we could to treat and provide for our crowded household. Up to this time we have received every case applied for, in which there has appeared a reasonable prospect of cure or improvement. Some also have been received whose malady did not appear to be curable or capable of much relief; but who were so troublesome or dangerous in their families or neighborhoods as to require restraint. During this period the patients from Minnesota have been removed. Their departure left us, for a short time, less crowded; but soon the number of patients again reached the maximum, near which it has since remained. To make room for the cases presenting, several patients more or less improved and some who were quiet and apparently harmless, have been sent to their friends or to the county authorities, in accordance with the provisions of the statute. There are but few, however, whom we feel willing to send away, on account of the slender facilities for taking care of such persons which are provided in any, even the most thickly settled portions of the

State. In some instances we have retained patients whom we had selected for discharge, on being informed that there were no conveniences for taking charge of them, outside of the Hospital. Moreover, many patients appear quiet and harmless, and conduct themselves very well, while under the ordinary restraints and influences of the Hospital, who often lose self-control when removed from its discipline. Consequently we have had some patients returned to us whom we had thought most suitable for care at home or in the poor-house. Poor-houses, however well-managed, are never proper places for the insane; nor can the insane and the ordinary paupers be associated together without bad results to both classes. It is earnestly hoped that no necessity will be permitted to continue which shall bring them any more closely together in the future than they have been in the past. Abundant experience in the older States has conclusively proved that such a mingling of the two is attended with so many evils that the State should ever avoid encountering them. Almost all of the insane have periods of excitement or violence, and require, at such times particularly, a peculiar care and treatment that no poor house can provide. In these cases, the jail is very often resorted to; and then, if security be the only object, it is attained; and that is about all that can be expected from such a resort; but this is too often obtained at the expense of rendering the patient's condition worse than it was before.

Insanity probably keeps pace with the population, here as elsewhere; and the population of the State is so rapidly increasing, the proportion of the insane to the whole number is probably not less here than in other States; and on that supposition we may safely estimate the present number of insane persons in the State at about seven-hundred. Only about one-half of this number can be accommodated here; and of course the number unprovided for must be increasing. If the State does not furnish unsuitable hospital accommodations, the counties will furnish suitable ones. This has been the fact elsewhere, and the experience should be a warning to us. If proper accommodations are provided promptly as they are needed, the burden will hardly be felt; but if postponed too long, the burden is greater and harder to bear. Delay in this matter is very bad policy, for the lack of early hospital treatment is a fruitful source of chronic incurable disease, thus

increasing and perpetuating the expense of care and support. Perhaps another large hospital is not just now needed; but either another hospital should be commenced, or an addition should be made to this one without delay. Before anything can be completed, further provision will be greatly needed, unless action is taken at once at the ensuing session of the legislature.

An addition to the hospital of two or three wards to each sex, which should raise its capacity to about four hundred and twenty-five patients, would permit a much better classification than we have had hitherto. We could then separate the epileptics from other patients, by placing them in wards by themselves; as a class they ought to be thus separated from the other insane, for the good of both parties. There are fifty epileptics now in the hospital, and under present arrangements they are necessarily distributed through almost all the wards. Sometimes for a considerable interval, varying greatly in different cases, these patients are quiet and tractable; but often about the period of their fits they are irritable, quarrelsome, and even dangerous; under any circumstances they require peculiar care and treatment; they should certainly be strictly separated from all recent and curable patients. The shocking spectacle of an epileptic paroxysm can hardly be witnessed with composure, even by persons of the strongest nerves; and I have often seen patients greatly agitated by the occurrence.

The welfare of the insane in this State will be—and the welfare of every family may be—seriously affected by the course pursued in this matter. Too much importance can not be attached to it, nor can too speedy action be taken.

THE FARM.

The value of the products of the farm continue to increase, and will be greater within a year or two, when all the unproductive land has been reclaimed. Estimated at the market price in this city, the value of different crops raised during the past two years has been \$7,819.50. Most of the labor on the farm is performed by the patients under the guidance of their attendants and the farmer. They have also done much of the work in reclaiming the unproductive land above-mentioned. The productiveness of the farm has been increased by generous manuring with a large

amount of compost made on the premises, and about three hundred and fifty loads obtained from abroad, at no other cost than what was incurred in hauling.

About one hundred and fifty rods of substantial brick and tile underdrain have been laid down, and extensive surface water-courses arranged to discharge into these drains to prevent the washing away of loam from some inclined surfaces and valleys in the garden and cultivated grounds. The stumps and roots dug out of the reclaimed land have been used to fill up some low places and deep gullies made by the action of heavy rains in past years. Over the several acres from which the soil had been taken and used in making the brick (about six millions) required in the construction of the Hospital, the loam removed in excavating for the pond has been spread to a good depth, and will make this land again productive.

REPAIRS AND IMPROVEMENTS.

The ordinary and necessary repairs in every institution of this kind, call for a considerable annual outlay. The propensity to destructiveness and mischief in certain stages of insanity, and some classes of the insane is attended with rapid deterioration and waste of building, fixtures and furnishing. Whatever repairs have been necessary, from time to time, have been made without delay, and the buildings and furniture are in a good condition. Such improvements of a permanent character as have been authorized by your Board, have been made or are approaching completion, and appearances indicate they will all prove highly convenient and beneficial.

LIBRARY AND AMUSEMENTS.

More than three hundred volumes of standard books, comprising history, biography, travels, science, tales and romances, and general literature have been added to the library, and they are read with pleasure and profit.

The weekly social gatherings, with occasional lectures have been kept up, and the public holidays have been observed with appropriate exercises. The ladies continue to make some fancy articles for sale, and with the proceeds of the sales, with some generous donations to the amusement fund, we have purchased and placed

upon the walls fifty-nine beautiful engravings, photographs, and two maps. They give to the wards a more pleasant aspect, and impart a cheerful tone to the feelings. Doubtless a small sum appropriated for this purpose from current expenses would be a judicious expenditure.

CHAPEL EXERCISES.

Religious exercises have been held in the chapel every Sunday chiefly by Rev. J. W. Pickett, Rev. E. H. Kern and Rev. E. Gunn, whose ministrations have been so acceptable in past years; also Rev. Mr. McDowell, Rev. Mr. Brady and Rev. Mr. Cole. The value of chapel exercises is not easily estimated. They are often the means of great good to those who attend and listen. Attendance is for the most part voluntary, though sometimes the lethargic and indifferent are urged to attend. Perhaps the organization of a school having a combined religious, moral and educational character, and bearing some relation to the usual chapel exercises, would be useful and beneficial. Schools have been successful in other hospitals, and I see no reason why a school for patients may not be successful and beneficial here.

IDIOTS.

I take this occasion to report what has been done under the provisions of Chapter 132, Acts of the Eleventh General Assembly, which made it the duty of the Superintendent of the Hospital, under certain conditions, to order and direct the transfer of indigent idiot and imbecile persons to some institution for them in this or some other State. Soon after the Act was published, numerous applications for the benefit of its provisions were received; and as there was no suitable institution for the care, treatment and education of idiots in this State, permission was obtained for the admission of a few of their number into a successful Institution for Idiots in Jacksonville, Illinois. Only two, however, have been sent to that Institution, probably on account of the great expense attending their transfer and maintenance at a place so distant. But in one of the cases marked improvement has taken place, and an excellent result is confidently expected. I have ascertained the names and some facts touching the condition of fifty-one idiots and imbeciles—probably less than half the number in the State—and

many are in a neglected and pitiable condition. Some of them seem capable of that development which even in this century has been regarded as no less than wonderful, and all really need the fostering care of an institution designed and organized for them exclusively. The provision made by the State for the insane, the deaf and dumb, the blind and the orphans, has been generous, but nothing has been done to raise this most unfortunate class from their present degradation. In view of what has been achieved in institutions for their education and care abroad, the State should without delay take such action as will afford them the accommodation humanity demands.

ACKNOWLEDGEMENTS.

The newspaper press of the State have been very liberal in sending their publications free, for the benefit of the patients, and several news and religious papers from abroad have been generously donated. From the *Journal* and *Free Press* offices of this city, we have received large packages of their exchange papers, for which I wish to tender especial thanks. In this way a large amount of valuable and interesting reading matter has been furnished the patients that could have been obtained in no other way.

The following papers have been received with more or less regularity, and I respectfully solicit a continuance of the same favors: Adair County Register, Lansing Weekly Mirror, North Iowa Journal, Loyal Citizen, Vinton Eagle, Cedar Falls Gazette, Bremer County Phoenix, Guardian Independent, The Conservative, Buchanan County Bulletin, New Hampton Courier, Union Sentinel, McGregor News, Clayton County Journal, Lyons Mirror, Clinton Herald, DeWitt Observer, Union Guard, Delaware County Union, Sand Spring Sentinel, Burlington Hawk-Eye (Daily), Burlington Tribune, Democratic Herald, Guthrie County Ledger, Hardin Sentinel, Mount Pleasant Journal, Free Press, Butler Journal, Fairfield Ledger, Iowa City Republican, State Press, Annals of Iowa, Anamosa Eureka, Express, Sigourney News, Upper Des Moines, Fort Madison Plain Dealer, Gate City, The Constitution, Linn County Register, Cedar Valley Times, Franklin Record, Chariton Patriot, Winterset Madisonian, Oskaloosa Herald,

Glenwood Opinion, Mitchell County Press, North Iowan, Muscatine Journal, Muscatine Courier, Iowa State Register, Iowa Homestead, Iowa School Journal, Council Bluffs Nonpareil, Council Bluffs Eagle, Montezuma Republican, Ringgold Record, Davenport Gazette (Daily), Davenport Democrat (Daily), Der Demokrat, Story County *Egis*, Keosauqua Republican, Ottumwa Mercury, Eddyville Star, Indianola Visitor, Washington Press, Washington Democrat, Sioux City Journal, Eddyville Independent, Taylor County Republican, The Western Star, The Stilleto, Le Claire Register, Temperance Platform, Cresco Times, Pella Blade, Albia Union, Weekly News Letter. Congregationalist, Boston, Friends' Review, Philadelphia, North-Western Church, Chicago, Chicago Journal of Commerce, Chicago, The Methodist, New York, The Independent, New York, Ladies Repository, Cincinnati, Harper's Weekly, New York, Frank Leslie, New York, Omaha Weekly Herald, Nebraska.

Rev. A. Burns, Rev. W. R. Cole, Rev. E. Gann and Hon. M. L. Edwards have given highly interesting addresses before the patients on the 4th of July, and Dr. J. M. Shaffer read his poem on "Humburg" to an interested and pleased audience.

Josiah Locke, Esq., donated \$20 to the amusement fund, and A. B. Cowan, Esq., and Mr. James Griffin, each \$5 for the same purpose.

Dr. C. A. White and Mr. — Green contributed specimens for our micrولوجical cabinet, and Mr. John Thomas and Mr. Richard S. Williams interesting Indian relics.

We are under obligations to the "Brooks Family," the Mt. Pleasant Cornet Band, the Mt. Pleasant Glee Club, and Messrs. Stowe, Wise and Snyder, for entertaining music.

Prof. E. P. Howe and pupils gave us an interesting and entertaining dramatic performance.

The Henry County Agricultural Society, and the proprietors of Robinson's Circus and Van Amburg's Menagerie have given free admission to their exhibitions to many of the patients and their attendants.

Dr. Bassett and Dr. Dudley have performed the duties of Assistant Physicians with zeal and fidelity, and the successful results of treatment, and general welfare of patients is in a large measure, due to their efforts.

Mr. L. E. Schofield and Miss Mary P. Barney, supervisors, left the Hospital after six years of valuable service, and Mr. M. V. Ashby and Miss Lizzie Brown have been employed in their place, and will, I think, prove to be valuable and efficient assistants.

Mr. Chauncey Perry has been employed as clerk and book keeper during the past year, and he has done his work with neatness and accuracy.

The farm work has been in the hands of Mr. George Smith and he has given entire satisfaction.

Mr. T. Mount remains as carpenter, and Mr. John Thomas as engineer, and to these skillful and efficient mechanics, I am under obligations for much valuable assistance.

The attendants and other employes have generally given satisfaction, and deserving of praise for the manner in which they have performed the arduous duties belonging to their situations.

E. S. Chesbrough, Esq., C. E., finished the plans for the new water supply, and I have received from him much valuable assistance during the progress of the work.

My thanks are due to Capt. B. Ebbitt, C. E., for advice and assistance and the use of his instruments.

Finally, gentlemen, I wish to acknowledge the uniform support, aid and co-operation, and the personal kindness I have received from you.

Commending the Institution to the favor of a guiding Providence, it will be my endeavor to make the period upon which we now enter, one of greater usefulness than the past has been.

MARK RANNEY, Superintendent.

IOWA HOSPITAL FOR THE INSANE,
Mount Pleasant, Iowa, Nov. 1, 1867.

EXHIBIT A.

ANALYSIS OF WATER FROM THE ARTESIAN WELL.

The following is the result of a preliminary qualitative and approximate quantitative analysis of the water and sinter sent by you:

The water was found to contain about 12 grains of mineral matter in a pound avoirdupois; thus making one pound of solid matter in every 580 pounds, or about 100 grains in every standard gallon (of 58,372 grains).

The sinter was subjected to analysis and gave in one sample the following per cent composition:

	Per hundred of sinter.	Hence per pound avoirdupois of water.
Lime.....	33.2.....	4.00 grains.
Magnesia.....	7.8.....	.94 "
Peroxyd of iron.....	3.2.....	.40 "
Sulphuric acid.....	43.7.....	5.27 "
Carbonic acid.....	10.6.....	1.28 "
Traces of silicic acid and strontia*	.....	.....
	98.5.....	11.89 "

Which probably are contained in the water in the following way:

	Per hundred of sinter.	Pound of water contains
Carbonate of lime.....	24.1.....	2.93 grains.
Sulphate of lime.....	47.8.....	5.76 "
Sulphate of magnesia.....	23.4.....	2.82 "
Peroxyd of iron (combined with carb. acid), traces of silica and strontia.....	3.2.....	.40 "
		11.91 "

* The presence of a plain trace of strontia is especially remarkable.

On account of the proportion of solid matter to water being 1.580, or nearly 1.583, it follows that the number of per cents of water in the sinter corresponds to the number of grains in one gallon of water; thus every gallon of water contains 99 grains of solid matter, of which 48 grains are sulphate of lime, 24 grains carbonate of lime, and 24 grains sulphate of magnesia.

The water of your well thus is remarkably rich in solid matter; for in 100 pounds of croton water (New York)

are contained..... .01 of mineral matter.

Mount Pleasant artesian well..... .17 " "

Sea water..... .33 " "

Your well is also remarkable for the great proportion of sulphates it contains; for about three-fourths of the total amount of solid matter are sulphates and only one-fourth carbonates.

As soon as our laboratory will be provided with better facilities for careful evaporation of large amounts of water, I intend to make an elaborate analysis of the water. I have yet sufficient material left.

GUSTAVUS HINRICHS.

CHEMICAL ANALYSIS OF SPRING WATER, SENT BY THE SUPER-INTENDENT OF THE IOWA HOSPITAL FOR THE INSANE, MOUNT PLEASANT, IOWA.

The bottle with water arrived at the laboratory, February 16, in good condition. No perceptible sediment had separated, but the water was not quite clear. By filtration a slight amount of *organic matter* was separated, which, under the microscope, exhibited a well-preserved elaborate organic structure. A further proportion of organic matter remained in the filtered water as indicated by the blackening of the dry residue and its burning, on ignition; but it was not quantitatively determined.

The water was free from smell; no evidence of the presence of sulphuretted hydrogen could be obtained. The specific gravity of the water at 62° F. was found to be 1.00.

There being but a *very* limited amount of water at my disposal—only about 5 pounds—it became necessary to be exceedingly economical with the material. It was accordingly divided into four different portions:

No. 1, weighing.....	358 grammes.
No. 2, weighing.....	340 grammes.
No. 3, weighing.....	670 grammes.
No. 4, weighing.....	987 grammes.

Total.....2355 grammes.

The greatest portion (No. 4) was intended for an additional control of the whole analysis; but by an accident happening while I was not in close attendance, it became unfit for a quantitative examination, and had to be reserved for an elaborate qualitative investigation. Thereby the amount of water used for the quantitative analysis was reduced to only 368 grammes, or not quite 3 pounds, containing merely 0.479 grammes, or about 7 grains of solid matter divided into three separate portions.

I very much doubt whether an analysis of a like water ever was made under so unfavorable circumstances, and if the subsequent results, nevertheless, show a great degree of accuracy, it is due to excessive carefulness in the progress of the work.

QUALITATIVE ANALYSIS.

The presence of the following substances was proved:

Acids—Carbonic acid.

Sulphuric acid.

Hydrochloric acid.

Nitric acid, a trace.

Silicic acid, faint trace.

Bases—Lime.

Magnesia.

Soda.

Potassa, trace by flame as seen through blue glass.

Phosphoric acid could not be detected; neither is it likely to occur in spring water. From portion No. 4, a considerable amount of lime was separated as crystallized *gypsum*, this being subjected to a most scrupulous examination by the blow-pipe and colored glasses gave no trace of either baryta or strontia. The water from the artesian well was found to contain a trace of strontia.

QUANTITATIVE ANALYSIS.

Determination of the total amount of fixed mineral matter.

After careful evaporation, the portion of water No. 1 left 122

grammes residue. No. 2 left 125 grammes residue, corresponding to 3.40 in 10000 water from No. 1, corresponding to 3.40 in 10000 water from No. 2, giving 3.5 of mineral matter in 10000 of water. (x)

Determination of sulphuric acid.

No. 3, of 670 grammes water gave 0.013 grammes of sulphate of baryta which correspond to (x). This high degree of accuracy was obtained by utmost care and even without the proper platinum vessels. An analysis of a German sulphur spring published in the Transaction of the Academy of Vienna, 1863, shows a difference of 2 in 100,000 though the authors had an unlimited supply of water, all proper appliances and much richer water; besides it contained 20 parts in 10,000. From a limited amount of water not containing *one-fifth* as much we attained an accuracy of 3 in 100,000, 00.045 of sulphuric acid, giving 0.07 in 10,000 of water

Determination of Chlorine.

Portion No. 1 of 340 grammes of water gave 0.0032 grammes of chloride of silver, corresponding to 0.0007 grammes of chlorine, giving 0.02 in 10,000 of water.

Determination of Lime.

Portion No. 3 of 670 grammes gave further 0.222 grammes of oxalate of lime, at 212° F., corresponding to 0.085 grammes of lime, giving 1.26 in 10,000 of water. This was confirmed by reducing the same salt to carbonate.

Determination of Magnesia.

Portion No. 3 of 670 grammes of water gave by phosphate of ammonia a precipitate which dried at 212° F., weighed 0.143 grammes. As the phosphate of magnesia at this temperature is 2 MgO, AmO, Po₃+2 HO, it corresponds to 0.0037 grammes of magnesia, or 0.55 in 10,000 of water.

Portion No. 2, treated the same way, gave 0.087 phosphate, corresponding to 0.0224 magnesia, or 0.66 in 10,000 of water.

The difference between these two independent determinations is only one in 100,000 of water. We may then fully rely on the mean of the two as representing the true amount of magnesia present, viz.: 0.605 in 10,000 of water.

These determinations were further confirmed by the conversion of the above salt into pyrophosphate of magnesia.

Soda was not directly determined, but it was found to be so little as to correspond to the small amount of chlorine found. We therefore consider it present in only that proportion, viz.: 0.013 in 10,000 of water, forming 0.033 of chloride of sodium (common salt).

Distribution of the substances found, and determination of the Carbonic Acid.

The sodium will be united with chlorine forming as stated 0.033 of chloride of sodium in 10,000 of water.

The sulphuric acid will take the magnesia by preference; 0.07 of sulphuric acid found, require 0.14 of magnesia, forming 0.21 sulphate of magnesia (epsom salts) in 10,000 of water.

These 0.14 magnesia deducted from the mean 0.605 of all magnesia found, leave 0.465, which requires 0.57 of carbonic acid, forming 0.975 of carbonate of magnesia (magnesia alba).

The 1.26 lime found requires 0.99 carbonic acid, and form 2.25 carbonate of lime.

To keep the last two salts in solution requires an additional amount of carbonic acid equal to the acid combined, viz.: 0.99 for the carbonate of lime and 0.51 for the carbonate of magnesia; there are 1.50 carbonic acid lost upon the boiling of the water, and thus did not enter the solid residue investigated.

From the preceding we see that the composition of the water is as follows:

10,000 water contain:

Sulphuric acid.....	0.07
Chlorine.....	0.02
Lime.....	1.26
Magnesia.....	0.605
Sodium.....	1.013
Carbonic acid.....	1.500
And traces of nitric and silicic acid and potassium.	

Total.....3.47

The actual determination of the whole residue gave 3.50 in 10,000 water, or only three in one million more. These substances were distributed to form the following compounds:

10,000 water contain:

Chloride of sodium.....	0.033
Sulphate of magnesia.....	0.21
Carbonate of magnesia.....	0.975
Carbonate of lime.....	2.250
Nitrate of potassa.....	trace.
Silicic acid.....	trace.

Total.....3.47
(Carbonic acid in bicarbonates 1.50, escapes on boiling).

The nature of the solid matter is best inferred by calculating from the above the following per centage composition:

Chloride of sodium.....	0.83	
Sulphate of magnesia.....	5.7	
Carbonate of magnesia.....	28.3	28.3
Carbonate of lime.....	65.2	65.2
Nitrate of potassa.....	trace.	
Silicic acid.....	trace.	

Total.....100.03

The agreement [3.47 instead of 3.50, and 100.03 instead of 100.00] is a good control; but as to the latter, it must be borne in mind that a variation to the amount of a few per cent can not be avoided in so small quantities as here were available; and the two magnesia determinations really respectively give 103 and 97, instead of 100 per cent.

For the sake of an additional control, the residue of portion No. 2 (340 grammes of water) was treated with sulphuric acid. As a mean of two weighings, corresponding very well, these residual sulphates weighed 0.145 grammes, corresponding to 4.19 in 10,000 water. Calculating from the bases found, we obtain—

0.013 sodium give.....	0.03 sulphate of soda.
0.605 magnesia give.....	1.81 sulphate of magnesia.
1.26 lime give.....	2.70 sulphate of lime.

Total surplus.....4.54 in 10,000 water. Actually found 4.19 in 10,000 water, or only 0.35 less in 10,000 parts.

As the process is attended with slight loss, this close agreement deserves the more confidence showing such a loss.

Portion No. 3 was weighed as dry chlorides, giving a similar confirmation of our analysis. Thus the analysis given, though obtained under utmost difficulties, still deserves full confidence.

Synopsis of the results of an approximate quantitative analysis of the water from the Mount Pleasant Artesian Well, obtained June, 1865.

In 10,000 parts of water were found:

Sulphuric acid.....	7.53
Lime.....	5.71
Magnesia.....	1.34
Sesquioxide of iron.....	0.57
Carbonic acid (calcul).....	1.83

Total amount found from bases.....16.98
or 17. in 10,000 parts of water.

The above substances may be combined as follows, in 10,000 water:

Sulphate of magnesia.....	4.03
Sulphate of lime.....	8.23
Carbonate of lime.....	4.20
Sesquioxide of iron.....	0.57

Total.....17.03

besides traces of silica and strontia.

Comparison of the spring water with that of the artesian well, and the Croton water, supplying the city of New York.

Reducing the preceding statements to grains, in a standard gallon of 58372 grains, by multiplying every number by 58372, we obtain:

ONE GALLON WATER CONTAINS GRAINS OF	CROTON WATER.	MOUNT PLEASANT.		ENGLISH CHANNEL SEA-WATER
		SPRING.	ART. WELL.	
Chloride of sodium.....	0.167	0.193	.....	15.92
Sulphate of magnesia.....	.....	1.226	23.524	.....
Sulphate of lime.....	0.235	.....	48.040	.....
Carbonate of magnesia.....	0.662	5.691	.....	.....
Carbonate of lime.....	2.131	13.133	24.516	.....
Other salts.....	0.768	Traces.	3.327	.....
Alkaline and other compounds.....	1.865	Traces.	Traces.	.....
Total.....	6.660	20.243	99.407	204.2
Analized by.....	B. Sullivan.	G. Hinrichs.	G. Hinrichs.	Schrotter.

The relative proportion of solid matter is nearly 1: 3: 15: 300.

CONCLUSIONS.

The comparison given substantiates the following conclusions:

I. The total quantity of solid matter in the spring water is but *one-fifth* as much as that of the artesian well, though three times as much as in Croton river water. The spring water, therefore, will give only one-fifth the incrustation of the well water.

II. The *quality* of the solid matter of the spring water is of the most harmless nature, consisting almost entirely of carbonates (more than ninety-four per cent), which quickly settle upon the boiling of the water, which thereby loses its excess of carbonic acid, while the water of the artesian well gave a sediment, seventy-five per cent of which were sulphates, which are kept much longer in solution and act more powerfully on iron. Hence,

III. *The water of the spring is in every respect far superior to that of the artesian well, and though inferior to good river water, perhaps as good as can be had in our limestone regions.*

At the Laboratory of the Iowa State University at Iowa City, Iowa, March 8, 1896.

GUSTAVUS HINRICHs.

EXHIBIT B.

VISIT TO OTHER HOSPITALS.

To the Honorable Board of Trustees of the Iowa Hospital for the Insane:

GENTLEMEN: Having been delegated by the Board to attend, with Dr. Ranney, Superintendent, the annual meeting of the Association of Superintendents of American Institutions for the care of the Insane, to meet in Washington city in April last, and to visit other Hospitals, and having attended such meeting, and visited, in going and coming, several Hospitals for the Insane, in compliance with suggestions to that effect, I would now respectfully submit to the Board a written statement, setting forth some

of the observations I made in such visit, and such reflections as seem to me worthy of note.

The meeting of the Association continued several days, and was attended by Superintendents of Hospitals in the Eastern, Western and Middle States, generally, and also Missouri, Kentucky, Tennessee and Mississippi. The papers read and discussions had on various topics were interesting in their character, and evinced a high order of talent on the part of their authors, and eminent capacity in general for the positions they respectively occupy. Of the different topics and subject matter introduced, I forbear to speak, for the reason, among others, that the proceedings in the main have been reported, and may be found in the July number of the *American Journal of Insanity*.

In going and returning I visited, for the most part with Dr. Ranney, eleven Hospitals for the Insane, which I here name in the order in which they were visited: Longview Hospital, near Cincinnati, Ohio; the one at Harrisburg, and the one at Philadelphia, Pennsylvania; the Government Hospital, at Washington, D. C.; Bloomingdale Hospital, near New York City; the Hospital at Providence, R. I.; McLean Hospital, at Somerville, Mass.; the Hospital at Worcester, Mass.; the Hospital near Trenton, N. J.; the Hospital at Newburgh, near Cleveland, Ohio, and the Hospital at Columbus, Ohio.

To speak of these institutions in detail, of their location, construction, arrangement, appointments, and management, and of their respective excellencies and defects, would require a volume. Some of them have been in existence but a brief period, while others are of comparatively long standing. Those of long standing have undergone more or less change, both in the extension of their accommodations to meet the growing wants of community, and in such alterations and improvements as years of experience suggested. In their general construction and arrangements, the more modern institutions are equal, and in some respects quite superior, to the older ones; and in this class may be included our own hospital. But in respect to those things not deemed essential or indispensably necessary, and which require either great outlay of money, or care, time, and labor, through a series of years, the older institutions have the advantage. These latter things are very desirable, and to be sought after, and no reasonable pains

should be spared to acquire them. I speak of those things which are necessary to adorn an institution of this kind externally and internally, making it attractive and pleasant to the eye—a place desirable for the agreeableness of its associations; and also of those arrangements, fixtures, and apparatus, which experience has shown to be so beneficial for the pleasant exercise, diversion, amusement, and gratification of its most unfortunate inmates. It should be borne in mind that an institution of this kind should not be a mere place in which to stay—a mere house of protection and safety—but, so far as possible, a pleasant retreat; that many of its inmates are curable, and that anything is desirable which will be as medicine to a mind diseased.

Among the appointments of the character alluded to, and which have been introduced, to a greater or less extent, into different Institutions, may be reckoned the following:

1. Highly cultivated ground adjacent to the building, ornamented with deciduous and evergreen trees, shrubbery, flowers, &c., arranged and sub-divided so as to accommodate separate classes of patients, affording them reasonable scope, within secure enclosures, for out-of-door exercise in pleasant weather, and attractive views from their respective apartments, when the weather without is forbidding.

2. A building or hall fitted up as a place for gymnastic exercises and other amusements, including, or having appended, a bowling alley, in which the patients can congregate and find amusement and recreation, especially during the winter months and the unfavorable weather of the other seasons.

3. A green-house, adjacent, if convenient, to the amusement hall, of sufficient capacity to contain a large variety of such choice shrubs, plants and flowers, as, with such protection and with proper care, may be kept in perpetual verdure and bloom, and will thus afford an inviting retreat, when the rigor and gloom of winter prevail without.

4. The ornamentation of the halls, corridors and principal rooms of the patients with appropriate pictures, which, fortunately, may be had in great variety and profusion, and without very great outlay of means. These will be found a very efficient means of diverting the attention of patients, pleasing the eye and relieving and enlivening the mind.

5. A library of entertaining books and pamphlets, and a constant supply of newspapers, and pictorial and other periodicals, is found to afford rich fund for the entertainment and gratification of patients.

Divers other things of a similar character might be named, some of which would appropriately come in as appendages to those already mentioned, such as a cabinet of curiosities, fixtures and apparatus for different kinds of games, small fountains of water and fish-pools at suitable places out of doors, in the green house, and in the halls and corridors of the building, &c., &c. What has been named will indicate the character, in general, of the arrangements and appointments deemed advisable and to be accepted whenever means at hand will admit.

In view of the contemplated introduction into our Institutions of gas, for the purpose of illumination, in the room of coal-oil now used, I made it a special object to inquire in regard to this matter, with a view to ascertain the comparative merits, for such an institution, of the ordinary coal-gas, and gas manufactured from gasoline, a product of coal-oil, by automatic gas-machines.

* * * * *

After parting with Dr. Ranney at Boston, I visited the Hospital at Trenton, N. J., for the express purpose of obtaining information on this subject. Dr. Buttolph, the Superintendent, had made extensive inquiries in regard to the matter, and after satisfying himself of its comparative safety and utility, decided to introduce into the Institution under his care, and had then just got into operation, one of Drake's Automatic Gas Machines. This he had done, notwithstanding the Institution already had ordinary coal gas-works in operation. Dr. Buttolph expressed himself highly pleased with the operation of the new machine, and satisfied that it would answer his highest expectations. * * * *

I also made what inquiries and observations I could on the subject of the proper heating and ventilation of Hospitals, and the best method of producing in the building, during the winter months, a comfortable, pleasant and healthful state of the atmosphere. The universal testimony seemed to be that forced ventilation, by means of a fan, is very desirable and salutary, if not indispensable. From what I was able to learn, the following is probably the best arrangement for the introduction of pure and

the escape of foul air: The foul air should pass off downward, by means of flues connected with the main chimney stack, and should escape from the rooms and halls through apertures near the floor. Pure air, driven by the fan through air-chambers heated by steam, should be admitted through apertures to which should be affixed registers, by means of which the temperature can be regulated and kept equable.

I would further remark, that at the Hospital near Trenton, N. J., I witnessed the operation of a machine for the manufacture of aerated bread — bread leavened by the infusion into flour mixed with water, of common air mingled with a gas generated for the purpose. By means of this machine, a barrel of flour is mixed and raised and put into the oven in a few minutes. It is claimed that bread thus made is purer and more healthful than that leavened in the usual way. This method would seem also to involve a saving of labor. I deem it worthy of inquiry whether the introduction of such a machine — which would cost some \$1500 — into our own institution would not be advisable.

In conclusion: My visits to the various Hospitals named, both with Dr. Ranney, and afterward alone, were very pleasant, and I trust profitable. The Superintendents and their assistants cheerfully received and entertained us, and seemed ever ready to show us through their respective institutions, and give any information in their power pertaining to their condition and management. I regard it as a matter of much congratulation, that our country is blessed with so many and such noble institutions, presided over and managed by a class of men so eminently qualified for their respective positions — all devoted to the amelioration of the condition of the most dependent and unfortunate of the human race; and I deem it a cause of thankfulness and just pride, on the part of citizens of our own State, that Iowa, in this respect, considering her age, is not behind the foremost of her sister States.

Respectfully submitted.

M. L. EDWARDS.

September 5, 1866.

EXHIBIT C.

SUPERINTENDENT'S EXHIBIT OF RECEIPTS AND EXPENDITURES,
FROM APRIL 6, 1896, TO NOV. 1, 1897.

CONSTRUCTION FUND.—RECEIPTS.

Balance from old construction account.....	\$ 29.42
Amount appropriated.....	27,150.00
Brick sold.....	135.70
Old pipe sold.....	109.78—\$27,424.90

EXPENDITURES.

Sewers and Drain—

Labor.....	2,498.59
Brick used, 75,180 at \$6.50.....	488.67
Lime, sand, cement, and spalls.....	675.80—\$ 3,663.06

Grounds and Fencing—

Labor.....	964.04
Lumber, nails, and hauling.....	491.41—\$ 1,455.45

Steam pipe—

Labor.....	1,031.00
12,500 brick used, at \$6.50.....	87.75
12,000 brick used, at \$30.....	360.00
Pipe conductors, lime, sand, &c.....	2,715.35—\$ 4,194.10

Reservoir—

Labor.....	6,038.25
50,000 brick used in engine house, at \$6.50.....	325.00
Stone and hauling.....	1,113.34
Pumps, boiler, pipe, freights, and valves..	5,665.90—\$13,142.49
Re-painting wards.....	604.51—\$ 604.51

Furniture—

Labor.....	90.00
Mattresses and pillows.....	1,288.00—\$ 1,378.00

Painting and repairing roof—

Labor.....	743.00
Paints, oils, galvanized iron, &c.....	314.34—\$ 1,057.34
Contingencies.....	129.95—\$ 129.95
Appropriation for gas undrawn.....	1,800.00
	\$27,424.90

EXHIBIT D.

SUPERINTENDENT'S EXHIBIT OF RECEIPTS AND EXPENDITURES,
FROM NOVEMBER 1, 1895, TO NOVEMBER 1, 1896.

CURRENT EXPENSE FUND.—RECEIPTS.

Cash from balance.....	\$ 1,424.54
Cash from Auditor of State.....	66,000.00
Cash from private patients.....	15,782.08
Cash from articles sold.....	1,522.18—\$84,728.80

EXPENDITURES.

Salaries.....	\$ 2,587.50
Wages.....	15,124.23
Provisions.....	20,889.11
Fuel.....	6,738.04
Lights.....	371.68
Furniture and furnishing.....	3,417.81
Drugs and medicines.....	2,187.23
Freights.....	1,806.33
Postage and stationery.....	284.66
Library and diversions.....	553.15
Clothing and dry goods.....	6,413.48
Contingencies.....	3,286.17
Farm.....	2,611.58
Stores.....	9,641.83
Balance.....	8,816.00—\$84,728.80

NOTE.—There appears to be an error in the Exhibit of the Steward and Treasurer, for the year ending October 31, 1895, as published with the last biennial report, in stating the balance then on hand. The cash book does not appear to have been balanced on that date. The entries would seem to have been correctly made, and it is not easy to say how the error occurred. According to the book the actual balance on hand was \$1,424.54, instead of \$369.31, and the book shows that the Steward and Treasurer accounted for the larger sum. The present exhibits are, therefore, on that basis.

SUPERINTENDENT'S EXHIBIT OF RECEIPTS AND EXPENDITURES
FROM NOVEMBER 1, 1866, TO NOVEMBER 1, 1867.

CURRENT EXPENSE FUND. — RECEIPTS.

Cash from balance.....	\$ 8,816.00
Cash from Auditor of State....	61,000.00
Cash from private patients.....	16,976.94
Cash from articles sold.....	1,849.75—\$88,642.69

EXPENDITURES.

Salaries.....	\$ 2,866.65
Wages.....	19,779.34
Provisions.....	23,057.73
Fuel.....	7,983.36
Lights.....	335.51
Furniture and furnishing.....	4,818.36
Drugs and medicines.....	1,566.21
Freights.....	3,134.75
Postage and stationery.....	586.78
Library and diversions.....	368.47
Clothing and dry goods.....	5,006.52
Contingencies.....	1,539.45
Farm.....	1,774.26
Stores.....	10,258.40
Repairs and improvements.....	2,336.56
Balance.....	3,240.34—\$88,642.69

NOTE.—The expenditures of the last year would seem to be considerably above those of former years. The following facts sufficiently account for this: 1. The number of patients is larger. 2. There are no outstanding liabilities, as in previous years. 3. There is a much larger amount than heretofore, of supplies on hand. See Exhibit E.

EXHIBIT E.

EXHIBIT OF SUPPLIES, &c., ON HAND, AT THEIR ESTIMATED
VALUE.

40 beef cattle.....	\$ 3,242.37
11 sheep.....	33.00

149 hogs.....	1,179.75
29 cows.....	1,015.00
2 yoke working oxen.....	350.00
2 calves.....	20.00
11 horses and 2 mules.....	2,400.00
Farm wagons, carts and implements.....	1,244.50
Carriages.....	375.00
16 bbls S. molasses.....	416.00
2310 lbs. butter.....	695.00
Farm products.....	3,285.00
12,500 feet of lumber.....	545.00
10,000 shingles.....	55.00
Steam pipe and fixtures.....	485.52
Wood and coal.....	2,499.00
Brick and tile.....	1,659.00
	<hr/>
	\$19,499.14

EXHIBIT F.

EXHIBIT OF ACCOUNTS WITH PATIENTS, SHOWING BALANCES
DUE TO AND FROM THEM.

Amount due from private patients—

Available.....	\$1,767.32
Unavailable.....	237.67
	<hr/>
	\$2,004.99
Amount overpaid by private patients.....	276.05
	<hr/>
Excess of amounts due.....	\$1,728.94

EXHIBIT G.

ABSTRACT OF TREASURER'S ACCOUNT, FROM NOVEMBER 1, 1865,
TO NOVEMBER 1, 1867.

CURRENT EXPENSE FUND.

1865.	GEORGE JOSSELYN, Treasurer.	Dr.
Nov. 1.	Balance of cash on hand.....	\$1,424.54
1866.		
July 2.	Amount of receipts to date....	51,371.04—\$52,795.58

Contra.

1866.		
July 2.	Amount of payments to date...	52,243.60
July 2.	Paid out to successor, Edwards..	551.98—\$52,795.58

1866.	M. L. EDWARDS, Treasurer.	Dr.
July 2.	Amt. received from predecessor.	551.98
1867.		
Nov. 1.	Amt. of other receipts to date...	111,759.88—\$112,311.86

Contra.

1867.		
Nov. 1.	Amount of payments to date...	109,071.52
	Balance on hand.....	3,240.34—\$112,311.86

CONSTRUCTION FUND.

1866.	GEORGE JOSSELYN.	Dr.
April 6.	Bal. of old construction fund..	29.42
July 2.	Amount of receipts to date....	3,600.20—\$3,629.62

Contra.

1866.		
July 2.	Amount of payments to date..	—\$3,629.62

1867.	M. L. EDWARDS, Treasurer.	Dr.
Nov. 1.	Amount of receipts to date....	—\$21,995.28

Contra.

1867.		
Nov. 1.	Amount of payments to date..	—\$21,995.28

APPENDIX.

IOWA HOSPITAL FOR THE INSANE, }
Mt. PLEASANT, November 1, 1867. }

ADMISSION OF PATIENTS.

The law provides for the admission of two classes of patients, viz.: private patients and public. The first named class to be supported at private expense, and the second to be supported by the proper county in which the patient has a legal residence.

ADMISSION OF PUBLIC PATIENTS.

Public patients may be admitted into the Hospital by the Superintendent upon the written certificate of the County Judge of the county where such patients reside, with the seal of said county thereto attached, certifying that such patients [naming them], upon due examination had before him, have been found to be insane, and authorizing said Superintendent to receive and maintain them at the expense of said county. [See Section 1479, Rev. Stat. 1860.]

Any citizen of any county in the State may inform the County Judge that there are insane persons within the county needing care and attention; and when so informed, the County Judge will immediately order an investigation of the case, as required by law, and the Superintendent, upon receiving proper application, together with a copy of certificate of insanity and answers to questions in each case, will immediately notify the proper persons when, or whether or not, the patient can be admitted. *The Hospital being already filled, chronic cases must not hereafter be sent to it, unless first regularly ordered by the Superintendent in each case, as we may hereafter be obliged to refuse chronic, incurable patients, in order that recent, curable cases may be admitted. Attention to this notice may save the expense of a useless journey to the Hospital with chronic cases.*

All recent cases will always be promptly admitted without previous notice, accompanied by the necessary legal papers.

CLOTHING.

All patients should come to the Hospital provided with a good, substantial supply of clothing, well selected, neatly made, and sufficient in quantity to afford frequent changes. There must be, as required by law, for a male patient at least three new shirts, a new and substantial coat, vest, two pairs of pantaloons of woolen cloth, three pairs of socks, a black or dark stock or cravat, two pocket handkerchiefs, a good hat or cap, a pair of new shoes or boots, and a pair of slippers. For a female, in addition to the same quantity of under-garments, shoes and stockings, there shall be two woolen petticoats or skirts, three good dresses, a cloak or shawl, and a decent bonnet. Unless such clothing be delivered to the Superintendent in good order, he shall not be bound to receive the patient.

ADMISSION OF PRIVATE PATIENTS.

Private patients may be admitted without any other legal process than the following: Any relative, guardian or friend of the patient may file with the Superintendent a certificate from some respectable physician as to the fact of insanity—a written request from a relative, friend, or guardian, and an obligation, as follows:

PHYSICIAN'S CERTIFICATE.

I have seen and examined and believe
to be insane.

....., M. D.
....., 186 .

APPLICATION.*

I request that the above-named may be
admitted as a patient into the Iowa Hospital for the Insane.

....., 186 .

* To be signed by the guardian, relative or friend.

OBLIGATION.*

In consideration of being admitted a private patient into the Hospital for the insane, located at Mount Pleasant, at our request, we, the undersigned, jointly and severally promise and agree to pay said Hospital, to the Steward thereof, at said Hospital, quarterly, on the first days of January, April, July and October, with interest at ten per cent after said days respectively, the rate of board determined by the Board of Trustees of said Hospital,† to provide or pay for all requisite clothing, and other things necessary or proper for the health and comfort of said patient; to remove said patient when discharged; to reimburse funeral expenses in case of death; and if removed uncured, against the advice of the Superintendent, before the expiration of the three calendar months, to pay board for thirteen weeks, and also to indemnify said Hospital for all expenses of suit, which it may incur in collecting said bills of board, supplies and funeral charges; the same to be included in the damages to be recovered in such suit.

Witness our hands this.....day of.....186..

QUESTIONS TO BE ANSWERED, &c.

It shall be the duty of the relatives or friends sending private patients to the Hospital with the assistance of their family physician, and the County Judge sending public patients with such assistance as he may be able to obtain, to annex full and precise answers to as many of the following questions as are applicable to the case, and forward the same to the Superintendent.

- 1st. What is the patient's name and age? Married or single? If children, how many?
- 2d. Where was the patient born?
- 3d. Where is his (or her) place of residence?
- 4th. What has been the patient's occupation, and reputed pecuniary circumstances?

* The above obligation to be duly certified by the County Judge or Clerk of the District Court of the county where such patient resides, that the signers are good and responsible persons, and able to pay any sum that might be adjudged against them by reason of their signing such obligation, and that their signatures are genuine.

† The rate of board for patients from Iowa is \$4 per week.

5th. When were the first symptoms of the disease manifested, and in what way?

6th. Is this the first attack? If not, when did others occur, and what was their duration?

7th. Does the disease appear to be increasing, decreasing, or stationary?

8th. Is the disease variable, and are there rational intervals? If so, do they occur at regular periods?

9th. Have any changes occurred in the condition of the mind or body since the attack?

10th. On what subject, or in what way, is derangement *now* manifested? Is there any permanent hallucination?

11th. Has the patient shown any disposition to injure others and if so, was it from sudden *passion* or premeditation?

12th. Has suicide ever been attempted? If so, in what way? Is the propensity *now* active?

13th. Is there a disposition to filthy habits, destruction of clothing, breaking glass, &c.

14th. What relatives, including grand-parents and cousins, have been insane?

15th. Did the patient manifest any peculiarities of temper, habits, disposition or pursuits, before the accession of the disease—any predominant passion, religious impressions, &c.?

16th. Was the patient ever addicted to intemperance in any form, &c.?

17th. Has the patient been subject to any bodily disease? epilepsy, suppressed eruptions, discharges of sores, or ever had any injury of the head?

18th. Has restraint or confinement been employed? If so, of what kind and how long?

19th. What is supposed to be the cause of the disease?

20th. What treatment has been pursued for the relief of the patient? Mention particulars, and the effects.

21st. State any matter supposed to have any bearing on the case.

No idiot shall be admitted into the Hospital.

Section 1438, Revised Statutes of 1860, provides that "if at any time it becomes necessary, for want of room or other cause, in the

general reception of patients into the Hospital, a selection shall be made as follows:

1. Recent cases, *i. e.*, cases of less than one year's duration, shall have the preference over all others.

2. Chronic cases, *i. e.*, where the disease is more than one year's duration, presenting the most favorable prospects for recovery, shall next be preferred.

3. Those for whom application has been longest on file, other things being equal, shall next be preferred."

SEC. 1439. "Each county shall be entitled to send patients to the Hospital in the proportion of insane persons in the county, and in case that all the insane who may apply for admission, can not for some cause be accommodated, then in the selection of patients, the provisions of this section shall be regarded, selecting such as may be admitted subject to the provisions of section 30 of this act."

In accordance with the above provisions, room will always be promptly made for the admission of all recent cases.

All communications should be directed to Dr. MARK RANNEY, Superintendent, Mt. Pleasant, Iowa.

IOWA HOSPITAL FOR THE INSANE, }
MOUNT PLEASANT, IOWA, December 10, 1867. }

SIR:—On behalf of the Board of Trustees of the Iowa Hospital for the Insane, I have the honor herewith to transmit to you their Fourth Biennial Report, together with the Report of the Superintendent, and various statistical and other exhibits, showing the operations of the past two years, and the present condition of the Institution.

I have the honor to be,

Very respectfully,

Your obedient servant,

MARTIN L. EDWARDS,

Secretary of the Board.

To His Excellency, WILLIAM M. STONE,
Governor of the State of Iowa.

REPORT OF THE BOARD OF TRUSTEES.

To His Excellency, Win. M. Stone, Governor of the State of Iowa:

With remembrance of the dependence of all classes and conditions of men on the wise and benevolent Ruler of the Universe, and with gratitude for the prosperity enjoyed by the people of the State, and by the institution under their care, the Trustees of the Iowa Hospital for the Insane respectfully submit to your Excellency their Fourth Biennial Report, accompanied by the Report of the Superintendent of the Hospital, and statistical and other exhibits, showing the operation and results of the last two years, the present condition of the institution, and the anticipated needs of the future.

By an act of the General Assembly of the State, approved March 31, 1866, the sum of \$27,150, was appropriated for various improvements and repairs named in the act. All this sum, excepting \$1,800 appropriated for lighting, has been expended for other purposes named, as shown by Exhibit C, accompanying this report.

As the appropriation for lighting was deemed insufficient, partly on account of a rise in prices, for the construction of such gas works as would be needed to meet the wants of the Hospital, it was thought best to await the further action of the legislature before making any expenditure for the purpose. This we regret, because of the danger, greater or less, attendant upon all ordinary methods of lighting such an establishment. We trust that the General Assembly will make such provision for the purpose as will enable the Board, at the earliest possible day, to make the necessary arrangements for lighting the hospital with gas, on the most approved plan.

The Board most heartily indorse the remarks of Dr. Ranney in his report, touching the character of the improvements made in

furtherance of the objects named in the act making such appropriations. We are especially pleased with the improvements in the drainage and sewerage of the Hospital, and with the new arrangements for supplying water for its uses. The drainage and sewerage seem now to be all that could be desired. The new plan for supplying water was undertaken with reasonable hopes of success, yet not without some apprehensions that the result, in some respects, might not be entirely satisfactory. We regard the project as a decided success. The reservoir appears to be as perfect as anything of the kind well can be, and the machinery and arrangements connected with it, seem complete. The experience of the past season evinces that the reservoir will hold a quantity of water sufficient, with what may be obtained from the roof of the building, from occasional light rains, to supply the Hospital for about six months. The quality of the water so obtained is excellent, and it remains in the reservoir, through the hot summer months, in a remarkably pure state.

In this connection, we feel constrained to remark, that the perfection and success of these and other improvements are due, very much, to the great care taken in their construction, and especially to the personal and intelligent supervision of all their details, on the part of Dr. Ranney, Superintendent.

For information in detail in regard to the general management of the Hospital, and especially the operations and results—financial and sanitary—of the last two years, together with its present condition and anticipated needs, the Board refer to the extended and able Report of the Superintendent, and the statistical and other exhibits, herewith submitted.

The Board deem it matter of gratulation, that the superintendency of the Hospital, from its first opening, has been in faithful and competent hands. We consider it simple justice, while we remember the able administration of Dr. R. J. Patterson, and the faithful labors of those associated with him, to speak in high terms of the devotion, skill, and executive ability of the present Superintendent, Dr. Mark Ranney; of the ever watchful care and unflinching fidelity and sympathy of the present Matron, Mrs. Martha W. Ranney; of the zeal and ability of the present Assistant Physicians, Dr. H. M. Bassett, first assistant, and Dr. George W. Dudley, second assistant; and of the general trustworthiness and

fidelity, in the discharge of their respective duties, of the Supervisors, attendants, and employes of the Hospital. Each officer and employe has his or her specific duties, and neatness, order, regularity, promptness, and urbanity of manners, are required and very fully observed by all connected with its management.

We regard it our duty to suggest the propriety of increasing the salary of the Superintendent of the Hospital. The salary of this officer was at first fixed at \$1,500. The legislature subsequently reduced it to \$1,200. The proper question for consideration touching this matter, is not whether it is possible for the incumbent to live on such sum, but whether such a salary will command and retain, in perpetuity, the services of a man best qualified to fill such a position. The interests at stake, pecuniary, social, and humanitarian, are too momentous to be entrusted, for a moment, to incompetent hands. That would be a most unwise attempt at economy which should peril so much, in order to save a few dollars in the salary of an officer. Mutual and moral qualities of the highest order; a mind well stored with general information, and having a large acquaintance with human nature; a sound judgment; ability readily to read the operations of the human mind, especially in connection with its idiosyncrasies; years of experience and training in this specialty—these qualifications, joined with great executive ability, are indispensable in the head of such an institution; and they are such as may well command the highest pecuniary compensation.

For like reasons, with others, we are of opinion that a change should be made in the law respecting the salary of Assistant Physicians. Two such are needed and have been employed for some two years. The law fixes the salary at \$600, without regard to the number employed. This sum is paid to the First Assistant; by special direction of the Board; the Second Assistant has hitherto been employed at a less sum. We think that a distinction may be properly made, and that while the First Assistant, whose duty it becomes, in the absence or inability of the Superintendent, to take his place, should receive more, the services of a competent Second Assistant may be had at a less sum.

We are also decidedly of the opinion that the salary of the Matron, now only \$250, should be very considerably increased.

The foregoing suggestions in reference to the salaries of the

officers named are made without any consultation with either of the present incumbents, and without any suggestion or intimation from either of them in regard to the matter.

The Board concur with the Superintendent in the expression of extreme regret that the Legislature did not see fit, in its wisdom, at its last session, to make an appropriation for the purchase of additional grounds for the use of the Hospital, as such grounds could then have been obtained on much better terms than at present. While we deem it injudicious to purchase for the purpose land which can not be profitably used, we are decidedly of the opinion, for reasons urged by the Superintendent, with others that might be named, that the present accommodations, in this respect, need to be very considerably enlarged. It should be borne in mind that the number to be accommodated is some four hundred—sufficient to populate a village of considerable size. While it may not now be practicable to obtain, on reasonable terms, so large additional grounds as the Superintendent regards desirable, and we believe might be profitably used, we should deem it most unwise on the part of the State not to secure additional grounds of sufficient capacity to meet what would seem to be the indispensable needs of the Institution.

In looking forward to the future, the Board are compelled to contemplate the fact that at a day not distant, more hospital room will be needed for the accommodation of the insane of the State. This Institution was designed for the accommodation of three hundred and fifty patients. For most of the time during the past two years it has been filled nearly to the extent of its capacity, and much care, in the reception and discharge of patients, has now to be used to prevent the Hospital from being over-run.

From the obvious facts of the case it must be apparent that not many years can elapse before the increased numbers of this class, needing hospital treatment, will be sufficient to fill an institution as large as this. Such an Institution can not be erected and fitted for occupancy at once. It must necessarily be some years in progress. We therefore deem it advisable that the Legislature, at its session about to transpire, take some action with a view to meet this rapidly approaching want.

Let the time which shall find the State provided with another Institution of this kind be more or less distant, it can not be so

near but that, before it will be in readiness for the reception of patients, a pressing want of room—which seems even now impending—will be upon us. If some arrangement can be made for this more immediate want, more time may be allowed for the establishment of another Institution. This more immediate want may be provided for, as the Board think, by the enlargement of this Institution.

In view of this whole matter, the Board respectfully submit, for the consideration of the General Assembly, the following suggestions:

Let an appropriation be made at the approaching session, for such an enlargement of this Institution as will make room for about seventy-five more patients. Such extension would require about two years' time for completion. Should action on this subject be deferred another two years, about four years must elapse before any enlargement of room can be had. In the mean time, the pressure upon the present accommodations must become intense, beyond endurance.

Let the Legislature, at its coming session, also provide for the location of another Hospital for the Insane, and the purchase of a site therefor. Such location and purchase would seem to be only a question of time. The earlier the location, the better will be the opportunity for securing a site on favorable terms. Such location should be made only after a thorough inspection of different localities, and a careful consideration of their respective advantages and disadvantages, in regard to healthfulness, facilities of access, materials for building, fuel, water, &c., and should be entrusted to commissioners acquainted with the wants of such institutions and qualified to judge of the advantages and disadvantages of different localities. We venture to speak thus particularly on the matter of such location, because our experience has led us to consider the indispensable needs of such an institution, and the importance of securing all the possible advantages of a wise location. Such site having been secured, and such immediate wants provided for, the work of the erection of another Hospital may be prosecuted with more or less expedition, as circumstances may seem to demand. The cost of the suggested enlargement of this Hospital would probably be about seventy-five thousand dollars.

Concurring, substantially, with the Superintendent, in his representations touching the present and prospective wants of the Hospital, the Board respectfully ask that appropriations be made for the following named objects, and of the amounts specified, to wit:

For furniture.....	\$3,500
For gas apparatus and fixtures.....	4,250
For store and ironing rooms.....	3,800
For avenue lodge.....	1,500
For fencing and improving grounds.....	2,000
For cemetery grounds.....	500
For barn.....	2,200
For painting.....	1,200
For purchase of land.....	2,500
For contingencies.....	2,000

An opinion has prevailed to some extent, that persons of sound mind have sometimes been confined, for sinister purposes, in hospitals for the insane. Such an opinion, however groundless, is calculated to prevent proper subjects for remedial treatment in such institutions from being sent to them, and to impair their usefulness. Facts show that this opinion is not altogether without foundation. The law organizing a hospital for lunatics should, therefore, contain ample provisions against the unjustifiable confinement of any one, and such as ought to command the public confidence. It is remarkable that in the United States, where the people are so jealous of their liberty, where they have encompassed it with so many enactments for its protection, the legislation against the infringement of personal freedom, under pretext of insanity, should be so imperfect. In this respect the laws of England are much more guarded than ours, and in France, under an absolute monarchy, the laws afford more complete security against unjust confinement in any lunatic hospital, public or private, than those of either the United States or Great Britain.

The laws of this State contemplate the confinement of two classes of persons in the Hospital: private patients and public patients. A person may be committed to the Hospital as a private patient by any relative, friend or guardian, without any preliminary examination whatever as to his sanity. When we are assailed by

mental derangement, as well as by any bodily disease, we naturally fall into the charge of our family and friends; natural affection is a pledge that we shall be treated kindly, and that no advantage of our helplessness will be taken for our injury; and it may seldom be unsafe to entrust the insane to the custody of their family and friends. But we know that cases have occurred where relatives and friends have been treacherous and deaf to the voice of natural affection, and even to that of humanity; and a man, even in the bosom of his family, has sometimes found himself among thieves and robbers. For such cases the law should provide. It is indeed true, that under the existing law a person unjustly confined in the Hospital has a remedy in the writ of *habeas corpus*; but under this writ the examination as to his sanity, which should precede his commitment, when it could be made at his residence, under circumstances favorable to the discovery of the truth, must take place at a distance from his home, under circumstances unfavorable to a proper inquiry. The fact of the insanity of the supposed lunatic should be established beyond doubt, previous to admission. If he be really insane, the relatives, friends or guardian can have no other motives for their action than those of humanity. In the opinion of the Trustees, the law should be so amended as to require that no private patient shall be admitted to the Hospital without the certificate of a respectable practicing physician, who shall personally have examined the supposed lunatic, that he is insane, and a proper subject for confinement or treatment in the Hospital. And the physician who makes the examination should be appointed by the County Judge. Several of the States require only a single physician to certify to the insanity of a patient previous to his admission to the Hospital. Massachusetts requires two, and England requires two, who shall each have examined the patient separately. But the physicians are selected by the relatives or friends making the application for the admission of the patient. The Trustees think that the appointment of the examining physician by the County Judge is necessary to furnish complete security against the improper confinement of persons in the Hospital.

By the present law, public patients can not be sent to the Hospital unless, by a formal trial before the County Judge, it has been determined that they are insane. But facts have come to the

knowledge of the Trustees which induce them to believe that the law is inadequate to the proper protection of personal freedom, and that further security ought to be provided against persons being improperly committed to the Hospital. In their opinion, the law should require that the County Judge, upon information that there is an insane person in the county requiring attention, shall appoint a commission of three persons; one of whom shall be a regular practicing physician, and the other two, either Justices of the Peace or Trustees of the township where the supposed lunatic resides, who shall personally examine him and make all requisite and proper inquiries in relation to his mental condition, and report to the County Judge: 1st, whether he is insane; 2d, whether he is dangerous to be at large, either to himself or to others; 3d, whether, if he is not dangerous, he is probably susceptible of cure by remedial treatment in the Hospital; 4th, whether, if he is incurable and harmless, he is comfortably provided for and supported at home.

If, upon this report, the County Judge shall be of opinion that the supposed lunatic is a proper subject for the Hospital, he shall cause the supposed lunatic to be brought before him and send him to the Hospital, unless the supposed lunatic or some one in his behalf shall demand a jury. In that case, a jury shall be summoned and a trial take place in the manner now prescribed by law. There is no reason why a lunatic, who is not dangerous to be at large, who is not susceptible of cure, and is suitably provided for at home, should be separated from his family and sent to the Hospital, as he may be now by the existing law.

While the law should interpose every suitable safeguard to protect personal freedom from infringement, under the pretext of insanity, it should furnish every possible facility for the discharge of such patients as are restored to soundness of mind, and for the removal of such as are incurable and harmless. Private patients should be removable by the relatives or friends who support them, whenever they wish to do so. Public patients, who have recovered their reason, should at once be discharged by the Superintendent or the Trustees; and patients who have been so long under treatment without improvement as to indicate that their recovery is hopeless, should, on the application of their relatives or friends, be restored to their custody. Facilities for the discharge of patients

may be further extended, by granting jurisdiction upon this subject, to the County Judge of Henry county, where the Hospital is located, and to the District Judge, while holding court in the same county. Upon application being made to either of these Judges, representing that a person confined in the Hospital is unjustly deprived of his liberty, let him appoint a commission of three persons, one of whom shall be a regular practicing physician, which commission shall personally examine the patient, and report to the Judge their opinion concerning his mental condition. If upon this report, the Judge shall be of opinion that the patient is not insane, he shall order him to be discharged. A similar process may be instituted in the case of a patient represented to be incurable and harmless, whenever his relatives or friends may apply for his custody.

Many lunatics may, doubtless, be maintained at less cost at home, or in county poor-houses than in the Hospital; this will supply a motive to counties to neglect to commit their insane paupers, and to relatives to avoid sending private patients to the Hospital; it will, indeed, be an inducement for them to remove lunatics already there; in fact, all the lunatics in the Hospital may be removed by relatives, except six or seven who have been acquitted of murder on the ground of insanity—for the law provides that "the relatives of any insane person shall, in all cases, have the right to take charge of and keep said insane person or persons if they desire so to do." There is, therefore, and probably always will be a considerable number of lunatics resident in families and in poor-houses. For these lunatics, neither the law or the Hospital affords any relief or protection. A man attacked by recent insanity, who by remedial treatment in the Hospital might soon be restored to his right mind, may indeed be summoned before the County Judge, and ordered to be sent to the Hospital, but his relatives may appear and forbid it, and take him into their custody and keep him without remedial treatment till he becomes incurably insane. A lunatic may be imprisoned and inhumanly treated by his relatives; the County Judge may take him from their custody and commit him to the Hospital; but the inhuman relative may pursue him and tear him from the comforts of the Hospital, and subject him again to imprisonment and cruel treatment, and the law affords no remedy. It is true, the County

Judge may, in his discretion, or the Superintendent, in case the lunatic is removed from the Hospital, require a bond "conditioned for his proper and safe keeping." But such a bond would be worthless to protect the lunatic from cruelty. Worthless to protect a citizen from any injury the insane man might inflict. It might possibly indemnify the county for any expense it might incur in his support. The Trustees deem it advisable that the law should be so amended as to limit the right of relatives to remove public patients from the Hospital to such as are incurable and harmless, and that for the protection of this class of lunatics who may be resident in private families, or confined in poor-houses, the law should provide, that if it shall be made to appear to the County Judge of any county, that any such lunatic is subjected to cruel treatment or is manifestly suffering for the want of proper care, he shall order such lunatic to be committed to the Hospital.

The term "relative" used in the law is very indefinite, and applies to individuals in several different degrees of relationship; the law ought for obvious reasons, to determine definitely the priority of claim of relatives of different degrees.

It sometimes happens that parties who have obligated themselves to support, in the Hospital, private patients belonging to particular counties of the State, become unable to do so, or dispose of their property so that nothing can be recovered from them, and fail to make payment according to their stipulations, and the patients are consequently left in the Hospital, chargeable to no party from whom compensation can be recovered. It also sometimes happens that insane persons who have been found wandering about, without any known place of residence, are sent to the Hospital, as public patients, from the counties where they may happen to be found, and it is afterward ascertained that their residence is in some other county of the State, or in some other State. As seems to the Board, some provision of law should be enacted, by virtue of which such patients may be made a charge on their respective counties, without the trouble and expense of first returning them to such counties, if they belong to this State; and if not, then to the State from whence they came.

In order to enable the Board to avail themselves of the beneficial results of the experience of other Institutions for the Insane, they have thought advisable, occasionally, to authorize one of their

members to visit such institutions, for the purpose of personal observation of their various appointments and workings, with a view of taking advantage, as occasion may present, of any valuable improvements that may have been introduced into any of them, and of giving useful information in regard to their general management and results. To this end, at their meeting in March, 1866, they delegated one of their members to attend, with Dr. Ranney, the annual meeting of the Superintendents of American Institutions for the care of the Insane, to assemble in Washington city, in April following, and to visit some of such Institutions. The report of such visit, although only intended for the information of the officers of the Hospital, is deemed of sufficient interest to be appended to this report, and with some abbreviation, is herewith presented. See Exhibit "B."

The Board desire to express their gratification with the promptness with which the Auditor and Treasurer of State have answered the calls made on them for funds to carry it on, and the facilities afforded to obtain such funds with little expense of transmission. In concluding this report, the Board desire to note the gratifying fact, that all of the consultations and operations of the Board, and their intercourse with the resident officers of the Institution, from its first opening, have been characterized by great harmony and good feeling; and the further fact, that the general management and success of the Institution have been such as to command, in a high degree, the confidence of the public, and gratify the benevolent feelings of the friends of humanity.

Hoping that the future may be even an improvement upon the past, we confidently commend the Institution to the fostering care of the State, and the good wishes of its citizens.

MATURIN L. FISHER,
JOHN R. NEEDHAM,
B. CRABBE,
A. W. McCLURE,
LUKE PALMER,
J. M. SHAFFER,
MARTIN L. EDWARDS.