Public Documents of Maine:

BEING THE

ANNUAL REPORTS

OF VARIOUS

PUBLIC OFFICERS AND INSTITUTIONS

FOR THE YEAR

1869-70.

AUGUSTA:
SPRAGUE, OWEN & NASH, PRINTERS TO THE STATE.
1870

ANNUAL REPORTS

OF THE

TRUSTEES AND TREASURER

OF THE

COLLEGE OF AGRICULTURE

OF THE

STATE OF MAINE.

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TRUSTEES' REPORT.

To the Legislature of Maine:—

The Trustees of the College of Agriculture and the Mechanic Arts, respectfully submit their Annual Report:

THE STATE AND TOWN OF ORONO.

The present Board of Trustees entered upon the discharge of their duties, as guardians of the College property, in the month of April, 1867. The College had been located at Orono, by the previous Board, and the President of that Board had said in his report to the Legislature, that, "in April, 1866, the towns of Orono and Old Town, through a committee appointed for the purpose, promptly and in good faith fulfilled the conditions of their offer and gave to the State of Maine a warrantee deed of the White and Goddard farms, for the use and benefit of the Industrial College." The incoming Board were led to the conclusion by the above language that the character of the conveyance was entirely satisfactory to the members of the former Board. But it now appears the members of that Board objected to the following condition of the conveyance, viz.: "that in case the location of said College be changed from Orono, or be subsequently abandoned, or ceased to be used for the purposes contemplated in the act establishing said College, then, and in such an event, said farms shall revert to, and be and become the absolute property of the town of Orono." And this objection took form in a vote of that Board, "to accept the title to lands with condition that the conveyance be so amended that the Trustees have the alternative to pay to the towns" (Orono and Old Town) "the present value and interest of the property and retain the fee to the same, in case of a future change of location of the College." In accordance with the condition thus required, the town of Orono at its annual meeting, held in March, 1867, voted "to continue the authority of the committee

chosen to purchase and deed the farms to the Trustees of the State Agricultural College, and authorize them to give a new deed, such new deed to change the conditions thereof."

The proposed change in the deed was never made. The members of the present Board knowing nothing of the opposition of the former Board to the original deed, nor of the change voted by the town, and resting upon the statement in the report of that Board, "that the towns of Orono and Old Town had promptly and in good faith fulfilled the conditions of their offer," in the deed which they gave,—ordered that deed put upon record. Thus the matter rested until last Winter, when the legislature voted an appropriation of twenty-eight thousand dollars in aid of the College with the following condition, viz.: "provided that the inhabitants of the town of Orono shall make to said College of Agriculture and the Mechanic Arts an absolute conveyance of the same premises hertofore conveyed, subject only to the condition that in case the location of said College shall be changed from Orono, or be abandoned, or cease to be used for the purposes contemplated by the act establishing said College, then, and in such an event, the State shall refund to the inhabitants of Orono the sum originally paid for said lands, viz.: eleven thousand dollars."

The town of Orono has, up to the present time, refused to comply with the condition coupled with the above appropriation. The Trustees have not, therefore, been able to make available for the college any part of the sum appropriated. It will be perceived, however, that if the town of Orono adheres to its action in March, 1867, whereby it voted to change the objectionable condition of the deed, the disagreement between the State and the town is simply upon the question of interest; the former proposing that in case the college is abandoned, or its location changed, or it is devoted to any other use, then the sum originally paid for the property shall be refunded to the town; the latter asking, in the same contingency, the original sum *with interest.* The importance of this disagreement is diminished by the fact that the contingency which influences the action of both state and town is not likely to occur at all.

The Trustees respectfully submit this brief statement of the character of the disagreement between the state and the town of Orono, fully believing that the Legislature will not allow the existence of an important educational institution of the State, which has been liberally endowed by the National Government to be

imperilled, or its usefulness impaired, in consequence of a disagreement so trifling in its nature.

Present State of Affairs.

In their report of last year, the Trustees presented to the Legislature the condition, prospects and wants of the Institution, together with their plans, so far as they had been matured, for securing the ends for which the Institution had been established, and asked an appropriation. The sum of twenty-eight thousand dollars was voted in response to this request. For reasons which have been presented, the Trustees have not been able to use any part of this appropriation. Nothing, therefore, has been done during the present year, except to provide in the best manner possible under the circumstances, for the instruction of the students connected with the Institution. Less than this could not have been done without palpable neglect of duty; more could not have have been done for want of means. The class which entered last autumn was not so large as had been anticipated. This was the result of two causes. The fact being known that the Trustees had means to provide only for a limited number, and the uncertainty which seemed to hang about the future of the Institution, in consequence of the disagreement of the town of Orono with the State, deterred many from entering, who had designed to connect themselves with the Institution. Notwithstanding these discouragements, it affords the Trustees a high degree of gratification to be able to say, that the present year has been one of prosperity and hope so far as the results of the course of training to those in attendance are regarded. With a man of rare qualifications for his position at the head of the Institution, laboring with great earnestness, fidelity and success, aided by competent assistants in the several departmentments, instruction has been thorough and practical, and its results in a high degree satisfactory. At the same time a large majority of the students have been disposed to make the best improvement of their time, preparing themselves thoroughly for the class-room and doing promptly and cheerfully all the work that our limited means would enable us to provide for them. Another year of successful experience has strengthened the faith, not only of the Trustees and Faculty, but of all others who have taken the trouble to observe, in the entire practicability of uniting labor and study in the same Institution, and of making each conduce to the vigor and success of the other.

Vacancies in the Board of Trustees Filled.

Since our last annual report, N. Wilson, Esq., of Orono, and Hon. Nathan Dane, of Alfred, have resigned their positions as members of the Board of Trustees. These vacancies have been filled by the appointment of Hon. James C. Madigan, of Houlton, and Hon. Samuel F. Perley, of Naples.

Additional Instruction.

Since our last report the department of chemistry has been provided for by employing Prof. S. F. Peckham, of Providence, R. I., who comes well recommended for his qualifications for that department. He entered upon duty at the commencement of the present college year.

Calvin Cutter, M. D., of Warren, Mass., gave an instructive course of lectures on Anatomy, Physiology and Hygiene to the students, during the Spring term.

Mr. C. B. Lakin, Principal of the Bangor Commercial College, gave instruction during the same term, in Book-keeping and Business Forms.

The students have been under the instruction of Capt. H. E. Sellers, of Bangor, in Military tactics, during a part of the year. It is the intention of the Trustees to provide more fully for this department, by securing the assignment of an officer by the general government, and to provide amply for other departments, as the wants of the institution shall require.

Relation of the Board of Agriculture to the College.

An act was passed at the last session of the Legislature, constituting the Secretary of the Board of Agriculture a member ex officio of the Board of Trustees of the State College of Agriculture and the Mechanic Arts. The valuable counsel and assistance of Hon. Stephen L. Goodale, of Saco, are thus secured to the Institution.

The meetings of the Board have been characterized by harmony during the year.

The act referred to provides for an annual session of the Board of Agriculture "within such convenient distance of the State College of Agriculture and the Mechanic Arts as will enable the attendance of the students and faculty of said College, so that they may have the advantage of the addresses and discussions

before the Board." Such a session of the Board was held in Bangor, in October last, and the Students were thus afforded an opportunity to listen to valuable lectures by men eminent for scientific research, and to the discussion of important questions connected with Agricultural practice. An opportunity was presented to the members of the Board of Agriculture, at the same time, to become acquainted with the character of the College and the course of studies pursued.

Misapprehension.

There is a very general misapprehension in the public mind as to the purpose sought to be attained by the Institution at Orono.

It is almost universally spoken of, and written about, as an institution for instruction in agricultural science and practice exclusively.

The act of Congress granting aid to this and kindred institutions in other states, requires a broader basis. In the language of the author of this act, it is designed to establish the college "upon a sure and perpetual foundation, acceptable to all, and especially to the sons of toil, where all the needful sciences for the practical avocations of life shall be taught; where neither the higher graces of classical studies, nor that military drill our country so highly appreciates will be ignored; and where agriculture, the foundation of all present and future prosperity, may look for troops of earnest friends studying its familiar and recondite economies." The course of study running through a term of four years, has been arranged to meet, so far as practicable, the requirements of this broad statement.

The wisdom of such a course is attested by the fact that nearly all our most eminent institutions are modifying their courses of instruction, to meet in part the demands of the age, by adding new departments or new subjects of study, and leaving a portion of them to the choice of the students.

It is to meet the same demand more fully that the various scientific and industrial schools and colleges have been organized in different parts of the country, and for which congressional aid has been earnestly and successfully invoked.

Labor and Study.

It is sometimes objected that efforts to combine labor and study in the same institution, have failed in the past and will fail in the

future. If the conditions, circumstances and objects to be attained were the same as those under which failures have occurred in the past, the objection would be well taken. It should be remembered, however, that where such efforts were made years ago and failed, they were generally made with reference to giving indigent students an opportunity to defray a portion of their expenses, and nothing beyond this was sought or expected. Moreover, it was entirely optional with the student whether he labored or not. A spirit of caste was thus engendered, inasmuch as some of the students labored, and others did not.

In the industrial institutions of the present, other and more important objects are sought in making labor a part of the course. It is designed to make labor educational, in an important sense, by requiring students to put in practice, so far as possible, on the farm and in the garden and workshop, the principles acquired in the class room. Another object is to preserve the health and bodily vigor of the student. If daily labor in the open air, or in the workshop, tends strongly to promote physical health and vigor, and there in turn, promote intellectual activity,—a fact that will scarcely be questioned, labor is not only a valuable auxiliary to a course of study, but becomes an indispensable requisite to a well devised system of education.

Another object sought is to perpetuate the ability to labor, in the case of students who have been accustomed to manual toil before entering such institutions. Moreover, many students acquire a fondness for labor while pursuing such a course, to whom such labor has been, in the highest degree, distasteful and irksome. Still another important end gained by the manual labor feature, is the very obvious and strong assistance it renders in the matter of discipline. Students having their time divided between labor and study, lack very largely the opportunity, if not the inclination, to concoct schemes for mischief. Cases of discipline are very rare in the Michigan and Massachusetts Agricultural Colleges. It is believed by those best qualified to judge, that such cases will be rare in all well managed institutions, where all students except those prevented by physical inability, are required to work from two to four hours daily in the field or workshop.

Industrial Colleges in other States.

There is a belief quite generally entertained, that industrial colleges in other states are proving failures. The Agricultural Col-

lege of Pennsylvania, it is true, has suspended operations. It is said by persons who are familiar with its history that the management of its affairs was such as to render failure inevitable.

No other failure of a similar institution has come to the knowledge of the Board of Trustees.

Such institutions are generally growing in popular esteem and confidence. The Agricultural College of Michigan is the oldest institution of the kind in the country, and, having grown from the humblest origin to a position of usefulness and influence, best answers the question whether such institutions have in them the elements of success.

It was projected in the year 1855, and opened to students two years later. It has been sustained entirely by appropriation by the state, the lands donated by Congress not having been sold.

The site selected for the College was a heavy forest. This must be cleared away, and the stumps removed, before the buildings could be erected. Progress was necessarily slow. The citizens of the state became impatient, and began to complain "that the institution had been a mistake from the beginning, that it was located wrong, that it was not started right, that it had been badly managed, that it was an expensive concern and would never pay." Despite its humble beginning and its discouraging surroundings during its earlier history, it has attained a position of character and influence which commands respect and inspires confidence.

In his report to the Commissioner of Agriculture, Hon. Henry F. French, of Massachusetts, says:—"In the summer of 1865, we had the opportunity of examining the details of its operations, and find in its present condition great encouragement for the friends of agricultural education. * * * It has met and overcome the very obstacles which the organization of such institutions meets in every State."

The same writer says, in the Massachusetts Ploughman, of July 1st, 1865:—"I have carefully watched its progress and read all its published statements from the beginning, and have no hesitation in saying that it has made far more progress than its modest officers have claimed, and that the State ought, thus far, to be well satisfied with the experiment. The great problem of uniting labor and study is being successfully solved in this institution."

Prof. Fernald, of Orono, who visited this institution in the summer of 1868, says:—"I took great care, when in that State,"

(Michigan) "to inquire into the results of its operations, and was glad to find that they were, in a very high degree, satisfactory; that the sentiment of a very large number of persons in that State has changed from opposition to approval, and that, too, in connection with the fact that the institution has, to the present time, been entirely dependent upon State appropriations, not one dollar having been derived, as yet, from the lands granted by Congress. The opposition at first raised in that State, has substantially passed away, as a consequence of the success of the College."

In a communication received from President Abbott, of the Michigan College, in January, 1869, he says:—"We have the support of the Governor of the State, generally of the educational men of the State, and I think we are now gaining the confidence of the farmers throughout the State."

The history of the Massachusetts Agricultural College, though brief, is eminently encouraging. At a meeting of the Massachusetts Board of Agriculture, in Amherst, in December, 1868, Hon. Marshall P. Wilder, in view of the prospects of that College, held the following language:—"This is the proudest moment of my life. Although, at one time, I regretted it was not the first to start, I am glad it has not been so. We have learned many lessons from the experience of other colleges." Prof. Agassiz, the most eminent naturalist of the age, "congratulated the farmers of Massachusetts on the success of the College. He had, for very good reasons, done all he could to prevent its establishment, but was glad he did not succeed. He was very much astonished at what had been accomplished in one year."

It is sometimes urged against industrial colleges, that the graduates of such colleges will not return to industrial pursuits. President Abbott, of the Michigan College, writes:—"In 1867, we had an average attendance of ninety. We are constantly full, and turning applicants away." (The capacity of the institution has since been enlarged, and within a brief period of time will be adequate to accommodate two hundred students.) "About sixty per cent. of the students who are educated here go into industrial occupations after leaving the College. The opposers of these colleges believe but few will become farmers after leaving. It is not proving so here. Our graduates make good farmers."

President Clark, of the Massachusetts Agricultural College, at the meeting to which allusion has been made, spoke of the earnestness and eagerness to learn, manifested by the students, and

said there had not been a case of discipline during the last term. He also said "that the statement had often been made, by those who were opposed to the College, that it would get no students, or, if it *did* get any, they would not be farmers' sons, nor would they make farming their profession after graduating. The facts show that during the first twelve months, ninety-six students had been admitted, and that seventy-four of this number had labored on farms before coming to the college, and eighty-one had declared their intention to make farming their business." From this statement, it will be seen, that, while the Massachusetts Agricultural College has drawn seventy-seven per cent. of its students *from* the farm, eighty-four per cent. of them propose to return *to* the farm—a most significant and encouraging fact, and a complete refutation of the oft repeated prediction that these institutions would neither draw their undergraduates *from* industrial pursuits nor return their graduates *to* such pursuits. Such results are more favorable than the most ardent friends of industrial colleges dared to hope.

The College at Orono.—Wants and Estimates.

Sixteen months' experience at Orono, although too brief a term upon which to predicate success or failure, is showing substantially the same encouraging results as are shown by the colleges to which allusion has been made.

The Trustees have the fullest confidence in the success of the Institution, if means adequate to the ends sought are provided.

The following sums will be needed, viz:—

To complete and furnish Laboratory, - - -	$13,000 00
For farm improvements, drainage, grading, etc., -	5,000 00
For Apparatus and Library, - - - -	3,000 00
For a set of farm buildings, - - - -	9,000 00
For a building or buildings with conveniences to supply one hundred students with board, washing and ironing, - - - - - -	8,000 00
For workshop and tools, - - - -	2,000 00
To meet deficiency in construction account, as shown by the Treasurer's report, - - - -	5,696 93
To meet bills for recent work on the Labaratory and other unpaid bills, - - - - -	2,000 00
To meet bills for apparatus purchased, - -	2,625 00

The deficiency in the construction account of $5,696.93, as

shown by the Treasurer's report, arises from the fact that the small appropriation of 1868 was entirely inadequate to meet the necessities of the College for that year. The inability of the Trustees to use the appropriation of last year has imposed upon them the necessity of incurring a debt of $2,000, in preparing rooms in the Laboratory, to meet the immediate wants of the chemical department; and also a debt of $2,625, for the purchase of philosophical and chemical apparatus, as shown by the foregoing statement of wants and estimates for the college.

It will be perceived that in addition to the sum of twenty-eight thousand dollars appropriated by the Legislature of last winter, the additional sum of twenty-two thousand dollars will be required to cover deficiencies and to meet the wants of the institution for the current year.

Conclusion.

It has been an occasion of great regret to the Trustees, that they have not been able to make use of the sum appropriated last year for the benefit of the college, and they respectfully ask that such legislative action be taken as will secure to the college this sum, together with the sum of twenty-two thousand dollars above referred to, without which their plans cannot be successfully carried out, and the Institution be rendered efficient and prosperous to the degree they earnestly desire.

The Trustees entertain the belief that a great State like our own, while seeking to develop to the highest degree her material resources, should not fail, and that Maine will not fail to foster, with a just liberality, an Institution which is destined to be so intimately connected with all her industries, and which, in accepting the grant of the National Government, she has pledged herself to maintain.

They look confidently, therefore, to the Legislature, for the aid they have indicated as needful, believing that the State will be true to herself in this trust as she has been in other important trusts, and that their asking will not be in vain.

Respectfully submitted by order of the Trustees,

ABNER COBURN, *President.*

REPORT OF FARM SUPERINTENDENT.

On account of our limited means, but little has been attempted on the farm which would not give an immediate return. To supply the wants of our large family, including the students, and numbering in all from twenty-five to thirty, has been our leading object. The dairy has furnished us with milk, butter and cheese, and a small surplus of milk and butter for sale. The poultry has more than supplied us with eggs. We have produced more beef than has been needed for our own consumption. We have raised our own pork and sold about two hundred dollars' worth. The flock of sheep has nearly supplied our tables with mutton and lamb, and the farm has furnished almost all the vegetables needed. Being without money in the treasury our necessities have inevitably shaped our course.

A few things have, however, been done that will yield no immediate return. The apple nursery became so crowded that we were obliged to transplant it and we have set out in a larger nursery about 2,500 trees. The pear nursery has been partly grafted. The growth of this nursery has been checked, in fact the trees have been almost destroyed during the past two or three years by the pear slug. The proper remedy will be applied in season another year to prevent its ravages.

A large number of raspberries and blackberries, of different kinds, were set out last spring; also, about 200 asparagus roots and 1400 strawberry plants. For our raspberry shoots we were mainly indebted to the generosity of Hon. Isaiah Stetson, of Bangor. A few of the most hardy kinds of grape vines have been started. All have grown well. In June a cedar hedge (arbor vitae,) of more than 200 trees was set out on the northern and western sides of the garden.

Crops.

We have raised the following crops this season:

Hay, 75 tons; potatoes, 700 bushels; barley, 297 bushels; wheat,

7 bushels of Arnautka on 50 sq. rods; beans, 20 bushels; peas, 3 bushels; Swedes, or ruta bagas, 300 bushels; English turnips, 30 bushels; mangel wurzels, 75 bushels; corn, 25 bushels; apples, about 30 bushels. Three-fourths of an acre was planted to Southern corn to feed the cows in July and August.

Two of the fields previously mown were pastured. The yield of hay per acre was about the same as last year.

The yield of barley on the ground manured last year and cultivated to potatoes, was not less than 50 bushels to the acre, while the ground that had no manure, but was sown to buckwheat last year and had that crop plowed in, yielded only about 20 bushels per acre. About half an acre of corn was planted which grew finely, and although injured by the wind, ripened and yielded well. We expect it will supply us with meal for family use. This crop can hardly rank among the most profitable on account of the expense of cultivation. On one row Croasdale's Superphosphate was used at the time of planting, but there was no increase of growth. The garden vegetables grew luxuriantly. It would be difficult to find better soil for horticulture.

Relative profit of the Crops.

The crops, in the scale of net profit, rank nearly as follows: 1st, Southern corn for fodder. 2d, Swedes. 3d, Mangel wurzel. 4th, Barley. 5th, Beans. 6th, Potatoes.

The swedes sold in Orono and Bangor markets at an average price of $20 per ton. Had they sold at a lower price they of course could not have ranked so high. The mangels are estimated of the same value as the swedes, because they improve in quality, and are better for late feeding. I am fully convinced that swedes and mangel wurzel, when rightly cultivated and economically fed, must rank among our most profitable crops, potatoes being more exhaustive.

On account of the failure of feed in the pastures, we were obliged to commence feeding our eleven cows at the barn the first day of August, first on some barley that was inclined to lodge and then on fodder corn. The corn lasted till the last of September, and was their principal feed, hay being fed the most of the time but once a day. There was a good flow of rich milk, and the butter was of excellent quality. I consider this feed fully equal to my present feed, which is good hay and two quarts of corn and

barley meal for each cow. We estimated the crop of corn fodder equal to seven and a half tons of hay, or at the rate of ten tons to the acre. It required less labor to cultivate and harvest it than the swedes, and unless near a market with a sure and ready sale for swedes, the crop of southern corn, so far as needed for the stock, would take the first rank in the scale of profit. The fodder of a few rows planted to sweet-corn had less growth, but was eaten by the stock with greater relish.

Cultivation.

Though our mode of cultivating these different crops may not be the best, or suited to a change of circumstances, still a brief account of it may not be without interest and profit.

The ground planted to southern corn was planted with potatoes last year and a generous quantity of manure plowed in both last year and this. After being plowed and harrowed it was marked off with a marker having five wooden teeth two feet three inches apart. The corn was thickly sown in these drills and covered with Chandler's Horse Hoe. The cultivator was run between the rows at the first weeding. Half was planted the first of June and half the 15th.

For the Swedes rich pasture ground was plowed about the 10th of June. It was then well harrowed with Shares' Harrow, dragged lengthwise of the furrows. This harrow pressed the sods down, and without inverting them thoroughly pulverized the surface to the depth of five or six inches. This was followed by a light hinge harrow to give a level, smooth surface. The same marker was used for this crop as for the fodder corn. A double mouldboard plow was run in each mark, plowing as deeply as possible without inverting the sod. A small quantity of horse and hog manure mixed was strewn in the furrows and the manure covered with Chandler's Horse Hoe. Upon these ridges the Ruta Baga seed was sown the 25th of June.

The plants were early thinned so as to be 12 to 14 inches apart. A small quantity of Croasdale's superphosphate was applied to most of the rows but with little apparent effect.

The barley ground was rolled smooth at sowing and the crop was cut with a mowing machine before it was over-ripe. As it was badly tangled by the wind it was cut with much less waste and expense than if cut with a scythe.

The beans were a profitable crop, not on account of their great

yield, but because but little expense was incurred in their cultivation. The ground was broken up the first of June and some manure turned under. It was then worked the same as the land for the Swedes and marked off the same.

The beans, yellow eyes, were sown in the drills and covered with Chandler's Horse Hoe. Had the manure been worked in on the surface after plowing or some ashes been sown, the yield would probably have been much greater.

The potatoes which this year rank sixth in the scale of profit, were cultivated as follows: On a part of the ground the manure was plowed in last fall, on a part it was spread upon the snow in March, and on a part spread upon the ground just before plowing in the spring. The only difference observed in the result was, that the potatoes were more inclined to rust where strong, unfermented manure was applied just before planting. After being well harrowed a marker was used having four teeth, each three feet apart. There was but one potato or piece put in a hill, and the hills were fifteen to eighteen inches apart. The amount of seed used was about sixteen bushels to the acre. They were all covered with Chandler's Horse Hoe, and hoed with the same. Had the ground been weedy I should have cultivated and weeded them before hoeing. Five acres were marked off and planted with one team in two half days. The yield of the Oronos planted the last of May, was about 125 bushels of saleable potatoes and 42 bushels of small potatoes per acre. The large percentage of small potatoes was owing in part perhaps to the drouth, and in part to the large quantity of seed used. I think the right way to cultivate potatoes on moist, heavy land, is to plant them near the surface and cover and hill up well with a horse hoe. I am also of opinion, that they rot less when well covered with earth.

Of one agricultural implement I must speak in the highest terms. A Shares' Harrow was purchased of Mr. Dunham of Bangor, last spring, and it more than paid for itself while doing our spring's work. This harrow, which has thin blades of cast iron or steel slanting back, easily slides over all obstructions, never clogs, and nearly as thoroughly cuts, turns and stirs the surface as a good plow.

Stock.

Our team of four horses earned last winter seventy dollars per month in the woods hauling lumber. They have done all our work during the summer, and are now engaged for the coming winter by

the same parties that employed them last winter. But few more useful horses can be found. They weigh twelve to thirteen hundred pounds each, and three of them are very good carriage horses. Should not such horses be raised in greater abundance in this State, and receive more of the prizes at our Fairs? Why should Maine go to Prince Edward's Island, Pennsylvania, and Ohio after good draft horses?

Grade and Native Stock.—Whole number, twenty-one.

Short Horn.—Two cows four years old, one bull three years old, one yearling bull, one heifer two years old, and one yearling heifer.

Jersey.—One bull three years old, whose services for two years have been given to the college by Charles Shaw, Esq., of Dexter.

Sheep.—Whole number of sheep and lambs to be wintered, sixty. The use for one year of a pure blooded Cotswold Ram has been kindly donated by Hon. Warren Percival of Vassalborough.

Swine.—About two thousand pounds of pork have been made. Nine pigs, pure "Chester County Whites," obtained of Dr. Cutter of Warren, Mass., will be wintered.

Experiments.

Our trial of different fertilizers on grass ground, was not in itself very satisfactory. We measured off twenty plots, each containing four square rods, ten on the north side of a dead furrow, and ten on the south side directly opposite. These were numbered. To No. 1 was applied ten pounds of gypsum, to No. 4 half a bushel of unleached ashes, partly soft wood; to No. 5 four quarts of salt, to No. 8 five pounds each of sulphate of ammonia and Cumberland superphosphate, to No. 9 ten pounds sulphate of ammonia, to No. 12 ten pounds of Cumberland superphosphate, to No. 13 ten pounds nitrate of soda, to No. 16 five pounds each of Cumberland superphosphate and nitrate of soda, to No. 17 five pounds each of sulphate of ammonia and nitrate of soda, and to No. 20 ten pounds of Croasdale's superphosphate.

The three fertilizers containing nitrate of soda, were sown one half April 28th, and the other half May 28th. The others were all sown the last of April. The quality of the soil appeared at first to be uniform, but as the season advanced we found there had once been a large heap of manure on plots No. 3 and No. 4. On this

account we could only compare the plots treated with gypsum and ashes with each other, and this appeared to be a fair comparison. The hay on the first weighed 72 pounds, and on the last 91 pounds. The gypsum appeared to increase the crop but little. No. 5 treated with salt, could fairly be compared with no other plat. It seemed however, to be of little benefit till the last few weeks of the growth when the herdsgrass pushed up finely, and was entirely free from rust. The crop on the remaining seven fertilized plots was all carefully weighed, and compared with the adjacent unfertilized plots. On 100 pounds, Croasdale's superphosphate gave a gain of 24 pounds, Cumberland superphosphate 43 pounds, sulphate of ammonia 36½ pounds, nitrogen of soda 36 pounds, Cumberland superphosphate and sulphate of ammonia 64 pounds, Cumberland superphosphate and nitrate of soda 76 pounds, nitrate of soda and sulphate of ammonia 45 pounds.

All the plots treated with either sulphate of ammonia or nitrate of soda were rusty, and the sulphate of ammonia plot more rusty than any other. This experiment would have been more satisfactory if the number of fertilizers tried had been increased. Lime, barnyard manure, and porgy-chum or fish guano, should have been tried. The first two in our haste were overlooked, and the last could not easily be obtained. It would appear from this trial that wood ashes are quite as beneficial to this land as Croasdale's superphosphate, and probably the effect will be more lasting.

This experiment will be repeated another year with more care.

Potato Experiment, by B. F. Watson, (student.)

Time of planting, June 12; of digging, Oct. 6. Orono potato, 10 rows, 3 feet apart, 50 hills in each row, 17 inches apart. Tops rusty and dead the last of September.

Rows.	Weight of each potato.	No. of potatoes planted in each row.	Weight of potatoes in each row.		Yield.		
					Large potatoes.	Small potatoes.	Total weight.
No. 1	8 ounces.	50	24 lbs.	12 oz. Whole.	41½ lbs.	33¼ lbs.	74¾ lbs.
" 2	6 "	50	18 "	6 " Whole.	28¾ "	28½ "	57¼ "
" 3	4 "	50	12 "	2 " Whole.	37½ "	23¾ "	61¼ "
" 4	2 "	50	6 "	4 " Whole.	32½ "	21¾ "	54¼ "
" 5	1 "	50	3 "	2 " Whole.	30 "	16¼ "	46¼ "
" 6	4 "	25	6 "	4 " Cut into 2 pieces.	45¼ "	17½ "	62¾ "
" 7	2 "	25	4 "	3 " Cut into 2 pieces.	40½ "	18½ "	59 "
" 8	8 "	50	20 "	10 " Stem ends.	53¼ "	35 "	88¼ "
" 9	8 "	50	5 "	11 " Seed ends.	65¼ "	17¼ "	82½ "
" 10	9 "	5	2 "	13 " Cut into 10 pieces.	55 "	6¾ "	61¾ "

Loss of weight in grass by curing.

Mr. G. O. Weston, one of the students, ascertained by trial that 100 lbs. of grass, chiefly timothy, lost 59 lbs. in the process of curing.

Feed for Swine.

We have commenced an experiment in feeding swine, which, though tried already elsewhere, does not seem to be conclusive. Four pigs, all pure Chesters, were weighed Nov. 15th and put into two separate pens, two in each. Equal values of whole corn and meal were weighed out, the corn to be fed to the two pigs in pen No. 1, and the meal to be fed to the two pigs in pen No. 2, for a month, when they are again to be weighed. Equal quantities of swill are given to each. We hope to continue this experiment till we ascertain the comparative value of whole corn, ground corn, scalded meal, and fermented meal, as food for swine.

We call 54 pounds of corn equal to 50 pounds of meal.

Labor System.

A large part of the work on the farm has been done by the students. They have generally had some experience in farming, and the most of them are industrious and faithful, still the constant labor of experienced men would of course, even at the prices paid, be the most profitable. That the labor system is a benefit to the students is very apparent. Aside from the amount earned, the labor performed keeps up industrious habits, promotes health, is to a certain extent a source of instruction to the student, and prevents that wide disseverance from manual labor and distaste for it which is so observable in the graduates of our old colleges. Besides, we think it is plainly observable, that a few hours of labor each day makes the student more quiet and studious during the hours devoted to study. The time spent in labor would in most cases be spent in idle talk and in various kinds of recreation, perhaps of dissipation. Labor is the "safety valve" for the overflowing animal spirits. It is to be regretted that we have not work-shops of various kinds to give employment in winter, and rainy weather, and to meet more completely the various tastes of the students. There has been observed a remarkable willingness on the part of the students to engage in all the kinds of work required to be done.

TREASURER'S REPORT.

To the Trustees of the State College of Agriculture and the Mechanic Arts:

I present herewith my annual statement of Receipts and Expenditures for the year ending December 1, 1869.

General Account.

1868.	RECEIPTS.	
Dec. 1.	Balance of last year's account	$1,786 52
1869.		
July 9.	Received of N. Wilson, to balance his account	78 90
Dec. 1.	Received for interest on deposits	49 58
		1,915 00
1868.	EXPENDITURES.	
Dec. 17.	Paid Samuel Johnson, for farm purposes	200 00
1869.		
Jan. 26.	T. S. Lang, expenses as trustee	48 50
Feb. 12.	B. A. Burr, printing catalogues	54 25
Feb. 13	Smith & Hall, printing	14 30
Mar. 24.	Joseph Dane, expenses as trustee in 1867	11 00
Aug. 6.	S. F. Dike, incidental expenses	25 00
Oct. 21.	M. C. Fernald, amount paid for advertising	29 02
Dec. 1.	Revenue stamps	1 00
Dec. 1.	Balance carried to new account	1,531 93
		1,915 00

Construction Account.

1868.		RECEIPTS.	
		Nothing.	
		EXPENDITURES.	
Dec.	1.	Balance of last year's account	200 35
"	5.	Paid Pierce & Rowe for granite	1,476 42
		J. M. Durgan, slating	44 00
"	7.	A. Leighton, lead pipe and plumbing	189 26
		M. Schwartz, hardware, &c	217 73
		F. & P. LeB. Coombs, plans, &c	20 80
"	8.	P. D. & E. Webster, lumber	586 95
"	9.	William P. Wingate, superintending construction of college buildings	500 00
		Dole & Fogg, lumber and plaining	24 79
"	10.	John Cates, joinering	300 00
"	12.	Charles B. Abbott, roofing slate	221 03
"	19	J. W. Humphrey, chimney caps	34 75
"	23.	N. W. Bond, hot air pipes, &c	156 55
"	25.	David McMillan, masonry	149 54
"	28.	H. W. & J. R. Farrington, bricks	42 32
"	31.	W. D. Chase, joinering	100 00

Construction Account (Continued.)

1869.		
Jan. 5.	John Cates, joinering	300 00
" 25.	Blood & Rowe, paints, &c	11 51
Feb. 2.	B. O. & M. Railroad Company, transportation	30 81
" 8.	A. B. Sutton, shingles	18 50
" 12.	William D. Chase, joinering	106 00
" 20.	Maine Farmer, advertising	31 92
March 2.	D. Bugbee & Co., room paper	45 31
" 18.	J. B. Fiske, cement	12 80
April 5.	Stickney & Roberts, oil-cloth, &c	41 63
July 12.	S. H. Dale & Co., cement in 1868	43 75
Sept. 2.	M. C. Fernald, amount paid for bell	90 21
Nov. 29.	Samuel Johnson, construction purposes	700 00
		5,696 93

Congressional Endowment Account.

1868.	RECEIPTS.	
Dec. 1.	Balance of last year's account	$3,645 55
" 28.	Received of State Treasurer for exchange of $30,000 State Bonds due in 1871, for the same amount of State Bonds due in 1889	150 00
	State Treasurer for interest on State Bonds	576 66
1869.		
Jan. 9.	Quarterly dividend on 100 shares preferred stock of Minnesota Valley Railroad Company	250 00
April 8.	Quarterly dividend on said stock	250 00
" 17.	State Treasurer, interest on State Bonds	990 00
July 9.	" " " "	2,145 00
Aug. 10.	" " " "	990 00
" 31.	Quarterly dividend on 100 shares preferred stock of Minnesota Valley Railroad Company	250 00
Oct. 9.	Quarterly dividend on said stock	250 00
Nov. 29.	State Treasurer, interest on State Bonds due Dec. 1, 1869.	2,145 00
		11,642 21
1868.	EXPENDITURES.	
Dec. 4.	Paid Prof. M. C. Fernald 4½ months' salary	450 00
	" Samuel Johnson 6 month's salary	450 00
1869.		
March 3.	" M. C. Fernald one quarter's salary	300 00
	" " " for expenses incurred is visiting Massachusetts Agricultural College	16 00
April 22.	Prof. M. C. Fernald for purchase of apparatus	500 00
	Calvin Cutler, M. D., balance due for lecturing	75 90
June 10.	Prof. M. C. Fernald one quarter's salary	300 00
	" " " for travelling expenses	18 85
	" " " for amount he paid C. B. Lakin for lessons in bookkeeping for college	45 00
July 12.	Prof. Samuel Johnson 6 months' salary	450 00
Aug. 9.	" M. C. Fernald for purchase of apparatus	1,000 00
	Capt. E. H. Sellers, lessons in military drill	13 00
	G. L. Goodale for lecturing	10 00
Sept. 2.	Prof. M. C. Fernald one quarter's salary	300 00
	" " " for travelling expenses in purchasing apparatus	55 48
Nov. 25.	Prof. S. F. Peckham one quarter's salary	350 00
" 26.	" M. C. Fernald for purchasing chemicals and chemical apparatus	600 00
	Prof. M. C. Fernald in part for salary	100 00
" 27.	Capt. H. E. Sellers, military drill	18 20
	B. A. Burr, printing catalogue	35 25
Dec. 1.	Balance to new account	6,554 53
		11,642 21

An abstract of the foregoing accounts will show a balance on hand of the General Account of.....$1,531.93
also, of the Congressional Endowment Account of..... 6,554.53
and a deficiency of the Construction Account of..... 5,696.93

The large deficiency of the last named account, as you are well aware, has arisen from the fact that the appropriation made by the last Legislature had coupled with it such a provision as made it unavailable, while there was an absolute necessity of finishing the College Buildings commenced in 1868, to such an extent as would be necessary for their preservation, and so furnish limited accommodation for the subsistence and instruction of the students. These facts seemed to afford justification for borrowing the amount which appears as deficiency in the Construction account.

It cannot be doubted that the Legislature, at an early period in the next session, will make such liberal and available appropriations for this *People's College*, as will not only make good the deficiency alluded to, but also enable you to complete the buildings in the process of construction, with such additions as the requirements of this popular institution so urgently demand.

Respectfully submitted.

ISAIAH STETSON, *Treasurer.*

DECEMBER 1, 1869.

CATALOGUE

OF THE

OFFICERS AND STUDENTS

OF THE

STATE COLLEGE OF AGRICULTURE AND THE MECHANIC ARTS,

ORONO, ME.....JANUARY, 1870.

TRUSTEES.

HON. ABNER COBURN, SKOWHEGAN, *President.*
" WILLIAM P. WINGATE, BANGOR.
" SAMUEL F. PERLEY, NAPLES.
" JAMES C. MADIGAN, HOULTON.
" THOMAS S. LANG, AUGUSTA.
" LYNDON OAK, GARLAND.
REV. SAMUEL. F. DIKE, BATH.
HON. STEPHEN L. GOODALE, SACO, *Secretary Maine Board of Agrirculture, and ex-officio Member of Board of Trustees.*

SAMUEL JOHNSON, A. M., ORONO, *Secretary.*
HON. ISAIAH STETSON, BANGOR, *Treasurer.*

EXECUTIVE COMMITTEE—Hon. WILLIAM. P. WINGATE, Hon. LYNDON OAK, Hon. THOMAS. S. LANG.
EXAMINING COMMITTEE—JOSHUA L. CHAMBERLAIN, LL. D., REV. AMORY BATTLES, Hon. THOMAS S. LANG.

FACULTY.

MERRITT C. FERNALD, A. M.,
Acting President and Professor of Mathematics and Physics.
SAMUEL JOHNSON, A. M.,
Farm Superintendent and Instructor in Agriculture.
STEPHEN F. PECKHAM, A. M., *Professor of Chemistry.*
CALVIN CUTTER, M D., *Lecturer on Anatomy, Physiology and Hygiene.*
CORYDON B. LAKIN, (Principal of Commercial College, Bangor,)
Instructor in Book-Keeping.

NOTE.—The Students, for the present, are drilled in Military Tactics by Capt. Henry E. Sellers of Bangor.

STUDENTS.

SOPHOMORE CLASS.

Fisher, Edward Fletcher.....Bangor.
George, William Harvey.....Orrington.
Gould, Benjamin Flint.....Waterville.
Haskell, Edwin James.....Saccarappa.
Hilliard, Heddle.....Oldtown.
Macomber, George Leonard.....Durham.
Norton, Charles Carroll.....Oldtown.
Oleson, William Brewster.....Portland.
Sargent, Oren Shaw.....Milo.
Shorey, Marcus Peltiah.....Camden.
Thomas, Eber Davis.....Brownville.
Watson, Benjamin Franklin.....Levant.
Weston, George Osmer.....Madison.

FRESHMAN CLASS.

Claflin, William Henry.....Augusta.
Clark, Joseph Eliot Pason.....Bangor.
Hammond, George Everett.....Eliot.
Jackson, John.....Alfred.
Lovejoy, Wilbur Fremont.....Winn.
Oak, John Marshall.....Garland.
Pease, Thomas Perley.....Bridgton.
Ransom, Frederic Alexander.....Augusta.
Reed, Charles Emery.....Garland.
Thayer, Harvey Bates.....Garland.

DESIGN OF THE INSTITUTION.

The Maine State College of Agriculture and the Mechanic Arts proposes to give to the young men of the State who may desire it, at a moderate cost, the advantages of a thorough, liberal and practical education. It proposes to do this by means of the most approved methods of instruction, by giving to every young man who pursues the course of study, an opportunity practically to apply the lessons he learns in the class-room, and by furnishing him facilities for defraying expenses by his own labor.

By the act of Congress donating public lands for the endowment and maintenance of such Colleges, it is provided that the leading object of such an Institution shall be, "without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to Agriculture and the Mechanic Arts."

While the course of study fully meets this requisition, and is especially adapted to prepare the student for agricultural and mechanical pursuits, it is designed that it shall be also sufficiently comprehensive, and of such a character as to secure to the student the discipline of mind and practical experience necessary for entering upon other callings or professions.

CONDITIONS OF ADMISSION.

Candidates for admission to the Freshman Class must be not less than fifteen years of age, and must pass a satisfactory examination in Arithmetic, Geography, English Grammar, History of the United States, and Algebra as far as Quadratic Equations.

Candidates for advanced standing must sustain a satisfactory examination in the preparatory branches, and in all the studies previously pursued by the class they propose to enter.

Satisfactory testimonials of good moral character and industrious habits will be rigidly exacted.

COURSE OF STUDY—FIRST YEAR.

FIRST TERM—Algebra, Robinson. History, Willson. Physical Geography, Guyot. Rhetoric, Day.

SECOND TERM—Algebra, Robinson. History, Willson (first half term.) Botany, Gray (second half term.) Physical Geography, Guyot. Book-Keeping. Rhetoric, Day.

THIRD TERM—Geometry. Botany, (Analysis) Gray. Horticulture. Natural Philosophy. Rhetoric, Day.

Lectures will be given on Meteorology, Physical Geography, Natural Philosophy, Structural Botany and Practical Agriculture; and English Composition and Declamation will be regular exercises throughout the year.

SECOND YEAR.

FIRST TERM—Geometry, Loomis. Botany, Gray, Darlington. Chemical Physics, Silliman. Drainage, Waring. Rhetoric, Day.

SECOND TERM—Trigonometry, Loomis. French. Chemistry, (General.) Dairy Farming. Rhetoric.

THIRD TERM—Surveying and Navigation, Loomis. French. Chemistry, (Analytical.) Agriculture. Rhetoric.

Lectures will be given on Botany, Chemical Physics, Drainage, Chemistry, Dairy Farming and practical Agriculture; and English Composition and Declamation will be regular Exercises throughout the year.

GENERAL STATEMENT OF THE COURSE. The regular course will occupy four years, and there will be three terms in a year of thirteen weeks each. The essential features of the course are indicated by the following outlines of study:

English Language and Literature, Mathematics, including Algebra, Geometry, Trigonometry, Surveying, Navigation and Civil Engineering, Chemical Physics, General and Agricultural Chemistry, Laboratory Practice, Animal and Vegetable Physiology, Systematic Botany, Horticulture, Anatomy, the Veterinary Art, Entomology, Draining, Stock-Breeding, Book-Keeping, Mineralogy, Geology, Zoology, Political Economy, History, Moral and Intellectual Philosophy, Military Science and Tactics.

The French and German languages will also form a part of the regular course.

SELECT COURSE. A select course will be arranged in due time, that, if persons of suitable age and acquirements, who cannot avail themselves of the complete course, desire to pursue some one or more of the branches of study related to Agriculture, as Botany or Chemistry, they may be received for a less time than that required for the full course.

SPECIAL FEATURES OF THE COURSE. The prominence given to the Natural Sciences, and the practical element associated with nearly all departments of study, cannot fail to render the course especially valuable.

Nearly a year will be devoted to Botany and Horticulture, commencing early in spring and continuing till late in autumn. This course will embrace a thorough drill in Botanical Analysis; the study of plants as to their relative importance and geographical

distribution; the study of those having commercial or medical value; of those which are cultivated for ornament, and also those which are detrimental, as weeds and poisonous plants. In the gardens to be provided, the student will learn practically the operations and process in the department of Horticulture.

A year and a half will be devoted to Chemical Physics and Chemistry, commencing with the first term of the second year. The course in Chemistry proper will include General, Analytical, and Agricultural Chemistry. Under Analytical Chemistry will be taken up General Analysis, Use of Blow-pipe, Analysis of Minerals, Analysis of Soils, Ashes of Plants, Fertilizers and Farm Products.

Each student will devote three hours a day to Analysis, under the direction of the Professor of Chemistry, thus acquiring facilities in conducting experiments, and securing a practical knowledge of the methods employed in chemical investigations.

Under Agricultural Chemistry will be considered Composition of Soils, Relations of Air and Moisture to Vegetable Growth, Food of Plants, Chemical Changes during Vegetable Growth, Chemistry of Farm Processes, Methods of Improving Soils, and various other topics which may properly be treated of under this department.

Other departments of science will be studied and taught, so far as may be, with special reference to their practical bearing, or their relations to Agriculture and the useful arts.

LABOR.

It is a peculiarity of the College, that it makes provision for labor, thus combining practice with theory, manual labor with scientific culture. Students in this Institution are required to labor a certain portion of each day, not exceeding three hours, for five days in the week.

The labor is designed to be, in the fullest sense possible, educational. To illustrate, when the members of a class are pursuing Botany, they will work in the gardens and orchards, under the direction of the Professor of Horticulture, thus rendering themselves familiar with the various forms of hand labor, and the various processes necessary for the successful prosecution of this art; and when they have become proficient in this department, their places will be supplied by others, and they will engage in some other form of labor until they have acquired skill and proficiency in the new department, when other changes will be made until every student shall become familiar with all the forms of labor upon the farm and in the gardens and workshops.

Students will learn the use of tools and acquire a fitness for mechanical pursuits, under competent instructors, in the workshops to be provided for the study and practice of the Mechanic Arts.

LOCATION.

The College has a pleasant and healthful location intermediate between the villages of Orono and Upper Stillwater, and about a mile from each. Stillwater River, a tributary of the Penobscot, flows a short distance in front of the buildings, forming the western boundary of the College farm, and adding much to the beauty of the surrounding scenery.

A little more than a mile to the east is a station of the European and North American Railway. Cars pass on this road several times a day. The College is within nine miles of the city of Bangor, and consequently is easily accessible from all parts of the State.

FARM AND BUILDINGS.

The College Farm contains three hundred and seventy acres of land of high natural productiveness and of great diversity of soil, and is, therefore, well adapted for the experimental purposes of the Institution.

The building already completed contains eighteen rooms, and affords excellent accommodations for thirty-six students. Some of the lower rooms, however, are now occupied for general and class purposes. The Trustees design to make arrangements within the year for a larger number of students.

Work on the Chemical Laboratory has been resumed, and it will be finished in part, during the present winter. When completed, it will contain an apparatus-room, a lecture-room, a cabinet, working-rooms, and all other rooms needful for the Chemical and Mineralogical departments.

APPARATUS. The College is furnished with an amount of new and valuable apparatus for the departments of Physical Geography, Natural Philosophy, and Chemistry.

LIBRARY. The small Library owned by the College, is made up quite largely of agricultural reports and public documents. It has received, however, during the past year, several private donations of other and valuable books. It is earnestly hoped that so important an auxiliary in the education of those who are to be students in the College will not be disregarded by the people of the State, but that liberal contributions will be made to it, not only of agricultural and scientific work, but also of works of interest to the general reader.

READING ROOM. A Reading Room has been arranged for the students, and is now supplied with a limited number of newspapers and periodicals. Grateful acknowledgements is made for the papers generously sent by the proprietors, to the College, in the list of donations on another page.

CABINET. A room in the Chemical Laboratory will be arranged within a brief period of time for a Mineralogical Cabinet. All specimens donated to the College will be properly credited and placed on exhibition. Rocks illustrating the different geological formations, and minerals found within the State, are particularly solicited.

LITERARY SOCIETY. A flourishing society has been organized by the students of the College, which holds weekly meetings for declamations, discussions, and other literary exercises.

PUBLIC WORSHIP. All stundents are required to attend daily prayers at the College, and public worship on the Sabbath at some one of the neighboring churches, unless excused by the President.

EXPENSES, AND MEANS OF DEFRAYING THEM.

Tuition is free to students from all parts of the State. Those from other States will be charged twelve dollars per term. Room rent is free, and each room is furnished with a bedstead, mattress, table, sink, and four chairs. All other bedding and furniture must be supplied by the students, who will also furnish their own lights. Three dollars per week will be charged for board, and fifty cents per week for washing and fuel. These bills, with those for incidental expenses, are payable at or before the close of each term.

Students receive compensation for their labor according to their industry, faithfulness and efficiency, the educational character of the labor being also taken into account. The average amount paid will be about twenty-five cents for three hours labor.

The terms are so arranged that the long vacation occurs in the winter, that students may have an opportunity to teach during that time. By means of the amount thus earned, together with the allowance for labor, the industrious and economical student can cancel the greater part of his College expenses.

GENERAL STATEMENT.

Students are required to make their own beds and sweep their own rooms.

Each student is required, at the commencement of his College course to deposit with the Treasurer of the College, a bond for $100, signed by responsible sureties, to secure the payment of his board bill, and any incidental charges.

Strict conformity to College regulations and requirements is the only condition of continued membership of the College.

Candidates for the next class should make early application, that suitable arrangements may be duly made for their accommodation.

CALENDAR.

1869. Aug 30—Monday, First Term commenced.
" Nov. 25—Thursday, Examination. First Term closes.
Vacation of nine weeks.
1870. Jan. 25—Tuesday, Examination for advanced standing.
" Jan. 27—Thursday, Second Term commences.
" April 27—Wednesday, Examination, Second Term closes.
Vacation of one week.
" May 5—Thursday, Third Term commences.
" Aug. 2—Tuesday evening, Prize Declamation of Sophomore class.*
" Aug. 3—Wednesday, Examination, Third Term closes.
Vacation of three weeks.
" Aug. 23—Tuesday, Examination for admission to College.
" Aug. 25—Thursday, First Term commences.

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* A prize of ten dollars is offered by Rev. Smith Baker, of Orono, to the member of the Sophomore class who shall be deemed entitled to it for excellence in declamation, the decision to be made by a Committee.

DONATIONS.

The following donations to the College are gratefully acknowledged:

1 short-horn bull by Hon. Abner Coburn, Skowhegan.

Silver ware for table ($50) by Hon. A. Coburn, Skowhegan.

Silver ware ($15) by Dea. E. D. Godfrey, Bangor.

Two years' use of thorough-bred Jersey bull, Champion, by Charles Shaw, Esq., Dexter.

2 Suffolk swine, and the use of a full blooded Cotswold ram, by Hon. W. Percival, Vassalborough.

Merrill's cultivator.

Several varieties of raspberries by Hon. I. Stetson, Bangor.

Right to use the Farmer's Bee Hive and the Eureka hive by Jasper Hazen, Esq., Albany, N. Y.

Bible by Young Men's Bible Society of Bangor.

Public documents by Hon. W. P. Fessenden, Portland.

Reports (Smithsonian Institution and Patent Office) by Hon. J. A. Peters, Bangor.

Agricultural reports and documents, 68 volumes, by Hon. S. L. Goodale, Saco.

Geology of New Jersey, with maps, 2 volumes, by Board of Managers of Geological Survey of New Jersey.

Loudon's Encyclopedia of Agriculture, 1 volume, by Samuel Johnson, Esq., Orono.

Report on Variations of Magnetic Needle, 1 volume, by Hon. Noah Barker, Exeter.

Farm Talk, 2 copies, by G. E. Brackett, Esq., Belfast.

Books on agriculture and horticulture, 4 volumes, by F. W. Rollins, Orono.

Water Power of Maine, by Walter Wells, Esq., Portland.

The Bommer Method of Making Manure, 1 volume, by Capt. Martin Mower, Bangor.

The following named papers are generously sent to the College by the publishers :

The Sunrise, The Piscataquis Observer, The American Sentinel, The Jeffersonian, The Maine Farmer, The Maine Standard, The New England Farmer, The Somerset Reporter, and the Country Gentleman.

NOTE.—A few other donations will be acknowledged when the names of the donors can be obtained.

REGISTER OF

METEOROLOGICAL OBSERVATIONS

FOR THE YEAR 1869,

TAKEN AT THE

Maine State College of Agriculture and the Mechanic Arts,

BY. PROF. M. C. FERNALD.

Latitude, 44° 53′ 10″. Longitude, 8° 24′ 3″ East of Washington. Elevation above the Sea, 134 feet.

GENERAL STATEMENT.

The hours of observation are the same as those adopted by the Smithsonian Institution, viz., 7 A. M.; 2 P. M., and 9 P. M.

The amount of cloudiness is indicated by numbers ranging from 0 to 10; 0 indicating no clouds; 5, the sky one-half covered; 10, the sky wholly covered.

The kinds of clouds are denoted by the following abbreviations:

Str.—*stratus*, spread in sheets.

Cu—*cumulus*, piled in heaps.

Cir.—*cirrus*, drawn out into thin filaments.

Nim.—*nimbrus*, rain-cloud proper.

Cir. st., *cirro-stratus*. *Cu. st.*, *cumulo-stratus*. *Cir. cu.*, *cirro-cumulus*.

The force of wind is marked according to the following scale:

1.	Very light breeze	2 miles per hour.
2.	Gentle breeze	4 " "
3.	Fresh breeze	12 " "
4.	Strong wind	25 " "
5.	High wind	35 " "
6.	Gale	45 " "
7.	Strong gale	60 " "
8.	Violent gale	75 " "
9.	Hurricane	90 " "
10.	Violent hurricane	100 " "

Since mercury expands by heat and contracts by cold, the observed height of the mercury in the barometer is *corrected* in every case, *i. e.*, reduced to the height which would result, were the temperature of the mercury 32 degrees.

The figures in the columns headed, " Force or pressure of vapor," show the height at which a column of mercury is maintained by the weight of the moisture of the air.

The numbers in the columns headed, " humidity, &c.," show the relative amount of moisture existing in the air at the temperature and the time when the observation is made, 100 indicating all the moisture the air is capable of containing at that temperature, or complete saturation.

The warmest day of the year was the 11th of July; the coldest day, the 22d of January. (See Summary.) The highest temperature attained during the year was on the 11th of July; the lowest temperature, on the 6th of March. The range of temperature between these two extremes is 109.2 degrees.

During the months of July and August the quantity of rain that fell was comparatively small, the rain-fall from July 17th to August 19th inclusive, being but .44 of an inch. The evening of the 8th of September will be long remembered in consequence of the terrific gale which prevailed along the coast and inland for several hours. It attained its height in the vicinity of the College, about 11 P. M. October was remarkable for excessive rain-fall (9.57 in.) and for an earthquake which occurred at 5.30 A. M., on the 22d day of the month. The fall of rain during the year was large, amounting to 44.717 inches.

Snow fell during some part of seven months of the year. The prevailing wind was from the north-west. The barometer indicated the least pressure of the atmosphere in the month of February; the greatest pressure in the month of December. For other interesting facts in regard to temperature, winds, clouds, rain and snow, &c , examine tables and summary.

FOR THE MONTH OF JANUARY, 1869.

Day of Month	THERMOMETER IN THE OPEN AIR.				RAIN AND SNOW.				CLOUDS.						WINDS.						THERMOMETER.		BAROMETER. BAROMETER HEIGHT REDUCED TO FREEZING POINT.				FORCE OR PRESSURE OF VAPOR IN INCHES.			RELATIVE HUMIDITY OR FRACTION OF SATURATION.			Day of Month
									7 A. M.		2 P. M.		9 P. M.		7 A. M.		2 P. M.		9 P. M.														
	7 A.M.	2 P.M.	9 P.M.	Mean	Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain or melted snow in gauge, in inches.	Depth of snow, in inches.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kinds of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	
1	4.3	5 0	4.0	4.4	Night.	.....	.....	.....	5	Str.	9	Str.	8	Str.	N. W.	2	N. W.	3	N. E.	3	6 0	3.0	30.314	30 391	30.367	30.357	.048	.041	.050	92	75	90	1
2	4.0	12.5	13 5	10.0	Night.	7 A.M.	.042	0.5	10	Nim.	10	Str.	10	Str.	N. E.	3	N. E.	2	N. E.	1	13.5	3 0	30 265	30.138	30 003	30.135	.052	.073	.080	100	94	100	2
3	15.0	24.0	28.5	22.5	.....	8 A.M.	.250	2.0	10	Nim.	3	Str.	10	Str.	N. E.	1	W.	1	N. W.	1	29.0	13.0	29.817	29.793	29.887	29.832	.086	.112	.148	100	87	94	3
4	18.5	37.0	32.5	29.3	5 P. M.	.....	.....	.....	10	Str.	10	Str.	10	Nim.	N. W.	1	S.	1	S.	1	38.0	17.0	30.001	29 954	29.891	29.949	.093	.178	.185	92	81	100	4
5	38.0	38.0	36.5	37.5	.....	10 P. M.	.800	.....	10	Nim.	10	Str.	10	Str.	S.	1	S.	1	S.	1	39.0	34.0	29.506	29.178	29.204	29.296	.229	.229	.216	100	100	100	5
6	24.3	25 5	27.5	25.8	.....	.....	.....	.....	1	Str.	4	Cir. st.	0	.....	N. W.	2	W.	2	W.	2	33.0	24 0	29.424	29.590	29.696	29.570	.075	.069	.089	58	51	59	6
7	31.0	36.0	30.0	32.3	.....	.....	.....	.....	9	Str.	2	Cir.	1	Str.	S. W.	1	W.	1	W.	1	37.0	28.0	29.886	29.865	29 778	29.843	.137	.129	.149	79	61	89	7
8	26.0	42.5	34.0	34.2	.....	.....	.....	.....	7	Str.	3	Cir. st.	2	Str.	W.	1	W.	1	W.	1	43.0	23.0	29.791	29.907	30 131	29.943	.123	.149	.121	88	54	62	8
9	30.0	40.0	40.5	36 8	5 P. M.	.....	.....	.....	10	Str.	10	Str.	10	Nim.	W.	1	S.	3	S.	3	41.0	28.0	30.154	29.823	29.707	29.895	.078	.203	.293	47	82	96	9
10	40.0	39.0	25.0	34.6	.....	8 A. M.	.100	.....	10	Nim.	1	Str.	0	.....	S.	1	W.	2	W.	3	43.0	25.0	29.437	29.520	29.852	29.603	.248	.173	.084	100	73	62	10
11	17.0	22.0	23.0	20.6	7 P. M.	.....	.....	.....	8	Str.	10	Str.	10	Nim.	W.	1	W.	1	N. E.	1	29.0	15.0	30.177	30.148	30.036	30 120	.078	.085	.123	83	72	100	11
12	23.0	24.5	21.0	22.8	.....	.....	.....	.....	10	Nim.	10	Nim.	10	Nim.	N. E.	4	N. E.	5	N. E.	4	26.0	21.0	29.459	29.414	29.762	29.545	.123	.132	.113	100	100	100	12
13	15.0	19.0	9.0	14.3	.....	6 A. M	.750	4.5	10	Str.	1	Str.	1	Str.	N. E.	3	W.	1	.....	0	22.0	9.0	30.011	30 047	30.023	30 027	.078	.079	.051	91	77	78	13
14	15.8	28.5	30.0	24.8	6 A. M.*	.....	.....	.....	10	Str.	1	Str.	9	Str.	N. E.	1	S. W.	1	S.	1	31.0	14.0	29 911	29 760	29.726	29.799	.089	.120	.122	100	77	73	14
15	14.0	32.5	29.0	25.2	.....	.....	.....	.....	4	Cir. st.	3	Cir. st.	10	Str.	.....	0	W.	1	.....	0	34 0	14.0	29 663	29 554	29.511	29.576	.074	.157	.129	91	85	81	15
16	19.0	23.5	15.0	19.2	.....	.....	.....	.....	0	.....	0	.....	8	Str.	N. W.	3	N. W.	3	W.	2	24 0	15.0	29.587	29 651	29.860	29.699	.087	.060	.056	84	48	65	16
17	8.7	16.5	5.0	10.1	.....	.....	.....	.....	1	Str.	1	Str.	0	.....	W.	1	N. W.	1	W.	1	18.0	5.0	30.018	30.041	30.127	30.062	.041	.046	.043	63	50	76	17
18	-14.0	11.0	-4.5	-2.5	.....	.....	.....	.....	0	.....	0	.....	0	.....	W.	1	W.	1	W.	1	14 0	-14.0	30 240	30.175	30.139	30.185	.017	.047	029	74	66	82	18
19	-15.0	13.0	0 5	-0.5	.....	.....	.....	.....	0	.....	6	Cir. st.	0	.....	W.	1	N. E.	2	N.	1	14.0	-16 0	30 014	29.813	29.736	29.854	.015	.041	.038	71	53	85	19
20	-13.5	18.0	16 0	6 8	2 P. M.*	.....	.....	.....	1	Str.	10	Nim.	5	Cir. st.	S. E.	1	N. E.	1	N. W.	1	18.0	-14 0	29 613	29.408	29 366	29.462	.017	.059	.074	73	60	83	20
21	3.0	9.0	9.5	7.2	.....	.....	.....	.....	8	Str.	6	Cir. st.	10	Str.	N. E.	2	W.	2	S.	1	10.0	3.0	29 564	29 551	29.526	29.547	.036	.023	.059	73	36	89	21
22	-5.0	0.5	-7.0	-3.8	†	.....	.....	.....	0	.....	0	.....	0	.....	N. W.	2	W.	3	W.	1	8.0	-7.0	29.748	29.800	29 830	29 793	.028	.011	.013	81	26	39	22
23	-8.5	13.0	19.0	7.8	‡	.....	.....	.....	10	Str.	10	Str.	10	Str.	S. E.	2	S. W.	1	S. W.	1	19.0	-10.0	29.729	29.435	29.409	29 524	.023	.063	.071	78	81	69	23
24	17.0	20.5	18.0	18.5	12 M.	.....	.....	.....	10	Str.	10	Str.	10	Str.	N. E.	1	N. E.	2	N. E.	1	21 0	17.0	29.483	29.512	29.516	29.504	.063	.094	.083	67	85	84	24
25	9.7	13.5	5.0	9.4	.....	10 A. M.	.170	2 0	10	Nim.	2	Cir. & Str.	0	.....	N. E.	4	N. W.	1	N. W.	3	17.0	5 0	29.402	29.501	29.675	29 526	.057	.058	.027	85	72	50	25
26	-2.0	15.0	11.0	8 0	.....	.....	.....	.....	7	Str.	2	Cir. st.	5	Cir. st.	W.	1	S. W.	2	N. W.	3	16 0	-7.0	29.717	29.697	29.825	29.746	.026	.056	.043	67	65	60	26
27	3.0	28.0	21.0	17.3	.....	.....	.....	.....	1	Str.	1	Cir. & Str.	5	Cir. st.	S. E.	1	S. W.	1	S. W.	1	34.0	2.0	29.845	29.712	29.666	29.741	.043	.145	.090	86	94	85	27
28	22.0	34.0	26 5	27.5	.....	.....	.....	.....	9	Str.	9	Cir. st.	0	.....	N.	1	N. W.	3	W.	1	34.0	21.0	29.591	29.612	29 691	29.631	.101	.103	.100	86	52	70	28
29	23.0	25.0	25.5	24.5	7 A. M *	.....	.....	.....	10	Nim.	6	Cir. st.	10	Str.	N. E.	1	N. E.	1	N. E.	1	27.0	23.0	29.893	29.944	29.966	29.934	.107	.100	.103	86	75	75	29
30	27.3	27.5	20.5	25.1	7 A. M.	.....	.....	.....	10	Nim.	10	Nim.	10	Nim.	E.	1	N. E.	1	N. W.	1	28.0	20.5	29.773	29.366	29.397	29.512	.131	.141	.102	88	94	93	30
31	20.0	21.3	18.5	19.9	.....	11 P. M.§	.430	1.75	10	Str.	10	Nim.	10	Nim.	N.	2	N. W.	1	N. W.	1	22.0	18.5	29.516	29.523	29.599	29.546	.100	.093	.093	92	81	92	31
Sums.	.....	.....	.....	.....	.....	.....	2.542	10.75																									Sums.
Means	.....	.....	.....	18° 37	.....	.....	.....	.....	6.8	.....	5.5	.....	5.9	.....	.....	...	N.W. & W.	.46	.....	....	25°.44	10°.74	.....	.....	.....	29.767	.081	.099	.090	83	72	80	Means
											6.1						S. W. & S	.16		Max	43°.00	-16°	Min.		Max.	30.391	Mean	.092		Mean	78		
																	S. E. & E.	.03							Min.	29.178	Max.	.293		Max.	100		
																	N. E. & N.	.35									Min.	.011		Min.	26		

* Few flakes of snow. † Few flakes of snow in night. ‡ Snow squalls in forenoon. § Snow and rain.

FOR THE MONTH OF FEBRUARY, 1869.

Day of Month	THERMOMETER IN THE OPEN AIR.				RAIN AND SNOW.				CLOUDS.						WINDS.						THERMOMETER.		BAROMETER.				FORCE OF PRESSURE OF VAPOR IN INCHES.			RELATIVE HUMIDITY OR FRACTION OF SATURATION.			Day of Month
									7 A. M.		2 P. M.		9 P. M.		7 A. M.		2 P. M.		9 P. M.				BAROMETER HEIGHT REDUCED TO FREEZING POINT.										
	7 A.M.	2 P.M.	9 P.M.	Mean	Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain or melted snow in gauge, in inches.	Depth of snow in inches.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	Maximum.	Minimum.	7 A. M.	2 P. M	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P M	
1	10.3	18.5	9.7	12.8	.....	.....	.....	.....	8	Str.	0	.....	0	.....	N. W.	1	W.	3	W.	3	19 0	9 7	29.792	29.867	30.064	29.908	.050	.061	.043	73	61	64	1
2	1.0	18.5	3.5	7.7	.....	.....	.....	.....	0	.....	0	.....	0	.....	W.	2	W.	1	W.	1	20.0	1.0	30.236	30.253	30.273	30.254	.025	.054	.034	56	53	60	2
3	5.0	17.5	20.0	14.2	1½ P. M.	.....	.....	.....	9	Str.	10	Nim.	10	Nim.	N. W.	2	N. W.	2	N. E.	2	20 0	4.0	30.216	29 966	29 645	29 942	.041	.073	.108	75	76	100	3
4	15.0	22 0	20.2	19.1	.....	.....	.....	.....	10	Nim.	10	Nim.	10	Nim.	N. E.	3	N. E.	3	N. E.	3	23.0	15.0	29.010	28.760	28.804	28 858	.071	.118	.090	82	100	89	4
5	24.0	24 5	22 0	23.5	.....	3 P. M.	1 375	11.00	10	Nim.	10	Nim.	3	Str.	N E.	3	N. E.	4	N. W.	3	25.5	22 0	29.029	29 176	29.413	29.206	.112	.106	.085	87	81	72	5
6	14.0	28.3	25.5	22 6	.....	.....	.....	.....	0	.....	3	Cir. st.	10	Str.	W.	1	S. W.	1	.....	0	30 0	13 0	29.663	29.701	29.708	29 691	.052	.114	.103	64	74	75	6
7	19.0	23.0	16.0	19.3	.....	.....	.....	.....	8	Str.	0	.....	0	.....	N. W.	3	W.	3	W.	1	27.5	16.0	29 888	29 971	30.154	30.004	.071	.081	.059	69	66	66	7
8	-5.0	26.0	22.0	14.3	.....	.....	.....	.....	2	Str.	6	Cir st.	1	Str.	W.	1	S.	2	.....	0	28.0	-5 0	30.197	30.040	29 970	30 069	.028	.089	.085	84	63	72	8
9	1.5	29.0	25.0	18.5	.....	.....	.....	.....	3	Cir. st.	1	Cir.	4	Str.	S.	1	.....	0	S. W.	1	30 0	1 5	30.052	29 999	29.990	30 014	.020	.098	.117	43	66	87	9
10	22.0	35.5	31.0	29.5	.....	.....	.....	.....	10	Str.	10	Str.	10	Str.	S. E.	1	N. W.	1	N. W.	1	35.5	22.0	29.948	29.928	29 940	29.939	.110	.136	.165	93	65	95	10
11	28.0	31.2	28.0	29.1	.....	.....	.....	.....	10	Str.	10	Str.	10	Str.	N. E.	1	N. E.	1	N. E.	1	32.0	28.0	29.934	29 857	29.937	29 909	.127	.120	.117	83	69	77	11
12	26.2	36.0	32.5	31.6	.....	.....	.....	.....	10	Str.	3	Cir. st.	10	Str.	N. W.	1	W.	1	S. W.	3	37.0	26.0	29.994	29.924	29.764	29 894	.105	.129	.165	74	61	89	12
13	37.0	43.3	32.0	37.4	5 P. M.*	.....	.....	.....	3	Cir. & Str.	9	Str.	10	Str.	S. W.	1	N. W.	2	.....	0	44.0	32 0	29 720	29.709	29.733	29.721	.157	.149	.181	71	53	100	13
14	17.0	21.0	16.0	18.0	Night.	.....	.....	.....	2	Cir. st.	7	Str.	10	Str.	N. W.	2	N E.	3	N. E.	2	22 0	16 0	30.057	30.126	30.241	30.141	.063	.065	.059	67	67	66	14
15	12.0	21.0	32.5	21.8	.....	.....	.....	.....	10	Str.	10	Nim.	10	Nim.	N. E.	3	N. E.	3	E.	3	32.5	11.0	30.152	29.834	29 504	29 830	.063	.096	.175	84	85	94	15
16	23.5	33.0	24.5	27.0	.....	6 A. M.†	0.600	2.00	10	Str.	3	Cir.	7	Cir & Str.	N. W.	3	N W.	3	N. W.	3	35.0	23.0	29.209	29.140	29.252	29.200	.118	.151	.089	93	80	68	16
17	27.0	31.5	27.0	28.5	.....	.....	.....	.....	9	Str.	2	Cir.	3	Str.	N. W.	3	W.	2	W.	1	33.0	26.0	29.348	29.279	29.270	29.299	.103	.105	.112	70	59	76	17
18	29.0	36.0	31.5	32 2	9 A. M.	Night.†	0.425	1.75	8	Cir. & Str.	10	Nim.	10	Nim.	S.	1	E.	1	N. E.	1	37 5	28 0	29 192	28 972	28.922	29.029	.149	.191	.177	89	90	100	18
19	17.2	28.0	22.0	22.4	.....	.....	.....	.....	1	Str.	3	Cir. st.	2	Cir. st.	S. W.	2	S. W.	1	S. W.	1	31 0	16 0	29.192	29.281	29.406	29 293	.076	.092	094	80	60	79	19
20	9.5	25.0	21.0	18 5	.....	.....	.....	.....	0	.....	10	Str.	3	Cir st.	S. W.	2	S.	3	W.	1	27.0	9 0	29.846	29.843	29.889	29 859	.045	.084	.080	68	62	71	20
21	9.0	30.0	28.0	22.3	Night.	.....	.....	.....	....	§	1	Cir. st.	8	Str.	S. W.	1	W.	1	S. W.	1	34.0	8.0	29.945	29.923	29.878	29 915	065	.140	.117	100	84	77	21
22	31.0	36 0	28.0	31.7	Night.	10 A. M.	0.250	2 75	10	Nim.	10	Str.	8	Cir. st.	S. E.	1	S.	1	W.	2	37.0	28 0	29.711	29 653	29.734	29 699	.165	.170	.100	95	80	66	22
23	20.0	20 5	17.5	19.3	.....	7 P. M.	0.292	1.75	10	Nim.	10	Nim.	8	Str.	N. E.	3	N. E.	3	N. W.	2	22.0	17.5	29.599	29.082	28.900	29.194	.092	.102	.080	85	93	84	23
24	12.0	20.5	12.0	14.8	.....	.....	.....	.....	2	Cir. st.	0	.....	1	Cir. st.	W.	2	W.	1	S. W.	1	22 0	12.0	29.613	29.800	29.963	29.792	.046	.054	.020	61	49	25	24
25	-6 0	25.0	14.0	11.0	.....	.....	.....	.....	0	.....	3	Cir. st.	0	.....	.....	0	S. W.	3	W.	1	26 0	-8 0	30 137	30.211	30 252	30 200	.020	.067	.060	61	50	73	25
26	8.0	32.5	28.0	22.8	4 P. M.	.....	.....	.....	4	Str.	10	Str.	10	Nim.	N. W.	1	N. W.	2	N. W.	3	33.5	6.0	30.209	30 044	29.688	29.980	.048	.111	.145	78	60	94	26
27	24.5	32 7	25.0	27.2	.....	10 A. M.	1.322	13.00	10	Str.	10	Str.	10	Str.	S. W.	3	S. W.	3	S. W.	3	33.0	24 0	28 996	29.110	29.289	29.132	.116	.103	.109	87	55	81	27
28	13.3	19.0	10.0	14.1	.....	.....	.....	.....	4	Cir. st.	0	.....	0	.....	S. W.	3	W.	3	W.	2	21.0	12 5	29.652	29 795	29.955	29.801	.057	.056	.040	72	54	58	28
29																																	29
30																																	30
31																																	31
Sums.	.....	.....	.....	.....	.....	.....	4.264	32.25	Mean. 5.8	.....	Mean. 5 7	.....	Mean. 6.0	.....	.....	....	.....	....	.....	....	29°.21	14°.79	.....	.....	.....	29.706	.078	.104	.100	76	68	77	Sums.
Means	.....	.....	.....	21° 83	.....	.....	.....	.....	....	.....	5.8	.....	....	.....	.....	....	N. W. & W	.46	.....	....	44°.00	-8°.00	Min.			30.254	Mean	.094		Mean	74		Means
																	S. W. & S	.25		Max					Max.	28.858	Max.	.191		Max.	100		
																	S. E. & E	.04									Min.	.020		Min.	25		
																	N. E. & N.	.25														

* Sprinkling of rain followed by a few flakes of snow. † Snow and rain. § Air filled and trees densely covered with frost.

FOR THE MONTH OF MARCH, 1869.

Day of Month	THERMOMETER IN THE OPEN AIR.				RAIN AND SNOW.				CLOUDS.						WINDS.						THERMOMETER.		BAROMETER. BAROMETER HEIGHT REDUCED TO FREEZING POINT.				FORCE OR PRESSURE OF VAPOR IN INCHES.			RELATIVE HUMIDITY OR FRACTION OF SATURATION.			Day of Month
									7 A. M.		2 P. M.		9 P. M.		7 A. M.		2 P. M.		9 P. M.														
	7 A.M.	2 P.M.	9 P.M.	Mean	Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain or melted snow in gauge, in inches.	Depth of snow, in inches.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kinds of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Mean.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	
1	−21.5	17.2	10.0	1.9	.....	.....	.....	.....	1	Str.	2	Cir.	0	.....	.....	0	N. W.	1	N. W.	1	20.5	−21.5	30 049	29.865	29 767	29.894	.005	.049	.040	29	50	58	1
2	−14.5	20.0	6.0	3.8	.....	.....	.....	.....	1	Cir.	0	.....	0	.....	.....	0	S W.	1	.....	0	21.5	−14.5	29.734	29 677	29.696	29.702	.011	.068	.043	46	63	76	2
3	−11.5	25.0	15.0	9.5	.....	.....	.....	.....	2	Cir	1	Cir.	0	.....	E	1	S. W.	1	.....	0	27.0	−13.0	29.769	29 791	29.911	29 824	.014	.067	0.56	53	50	65	3
4	3.5	35.5	32.0	23.7	5. P. M.	Night.	0.100	1.00	10	Str.	10	Str.	10	Nim.	S.	1	S. W.	4	S W.	3	35.5	3.0	29.870	29.710	29.603	29.728	.044	.056	.181	87	75	100	4
5	−1.5	9.0	−4.0	1.2	.....	.....	.....	.....	0	.....	0	.....	0	.....	N. W.	4	N. W.	3	N. W.	1	10.0	−4.0	29.754	29.763	29.831	29.783	.027	.030	.025	68	46	64	5
6	−22.0	23.5	17 0	6.2	2 P. M.*	.....	.....	.....	3	Cir. st.	10	Nim.	10	Str.	S.	1	W.	1	N. W.	2	24.0	−22.0	29.846	29.732	29.696	29.758	.008	.068	.063	60	54	67	6
7	17.0	24.0	15.5	18.8	.....	.....	.....	.....	10	Str.	0	.....	0	.....	N. W	4	N.	4	N. W.	3	25.0	15.5	29.790	29.800	29.875	29.822	.063	.055	.042	67	42	48	7
8	14.0	25.8	17.5	19.1	.....	.....	.....	.....	9	Str.	3	Cir.	1	Str.	N. W.	2	N. W.	3	N. W.	1	27.0	13.0	29.852	29.797	29.903	29.851	.052	.064	.057	63	45	60	8
9	12.0	25.0	19.0	18.7	.....	.....	.....	.....	2	Cir. st.	0	.....	1	Str.	N. W.	2	W.	1	N. W.	1	27.0	11.0	29.992	30.029	30.117	30.046	.046	.068	.056	61	50	54	9
10	32.0	35.2	38.0	35.1	9 A. M.	Night	0.725	.....	10	Str.	10	Nim.	10	Nim.	S.	3	S.	1	S.	2	38.0	32.0	29.942	29.916	29.584	29.814	.144	195	.229	79	95	100	10
11	39.5	35.0	27.2	33 9	.....	.....	.....	.....	4	Cir. cu.	0	.....	2	Str.	N. W.	2	W.	2	N. W.	1	43.0	27.0	29.420	29.723	29.849	29.664	.220	.091	.079	91	45	53	11
12	17.0	32.0	22.0	23.7	.....	.....	.....	.....	7	Cir. st.	8	Cir. st.	1	Str.	N. W.	2	N. W.	1	W.	1	36.0	16.0	29.849	29 714	29.642	29 735	.071	.090	.085	75	50	72	12
13	18.5	35.0	28.0	27.2	.....	.....	.....	.....	8	Cir. st.	4	Cir. st.	2	Str.	S.	1	W.	1	W.	1	37.0	18.0	29.632	29.685	29.730	29.682	.085	.118	.092	84	58	60	13
14	22.0	35.0	33.0	30.0	4 P. M.*	.....	.....	.....	6	Cir. & Str.	10	Str.	10	Nim.	S. W.	1	S. W.	2	S.	1	36.5	21.0	29.786	29 645	29.502	29.644	.085	.128	.168	72	63	89	14
15	27.0	28.0	20.5	25.2	.....	.....	.....	.....	10	Str.	8	Str.	0	.....	N. W.	1	S. W.	1	N. W.	3	33.5	20.5	29.730	29.739	29.865	29.778	.112	.106	.054	76	69	49	15
16	9.0	22 0	15.5	15.5	.....	.....	.....	.....	0	.....	0	.....	0	.....	W.	1	W.	2	W.	2	24.0	7.0	30.059	30.037	30.030	30.042	.044	.053	.042	68	45	48	16
17	6.8	27.0	17.0	16.9	.....	.....	.....	.....	5	Cir. st.	8	Str.	1	Str.	W.	1	N. W.	1	W.	1	29.0	5.0	30.042	29.960	29.936	29.979	.048	.095	.048	81	64	51	17
18	10 0	31.0	23.0	21.3	.....	.....	.....	.....	1	Cir. st.	6	Cir. cu	2	Cir.	N. W.	1	N. W.	1	N. W.	1	32.0	8.0	29.945	29.910	29.940	29.932	.040	.117	.074	58	63	60	18
19	8.5	33.0	26.5	22.7	.....	.....	.....	.....	1	Str.	2	Cir. st.	10	Str.	S.	1	S. W.	2	S.	1	34.5	7.0	29.994	29.884	29.778	29.885	.043	.132	.100	67	70	70	19
20	28.0	36.7	31.5	32.1	7 A. M.	Night.	0.135	0.75	10	Nim.	10	Nim.	10	Nim.	S.	1	S.	1	S. W.	2	38.0	27.5	29.641	29.399	29.370	29.470	127	.186	.150	83	85	84	20
21	10.0	20.8	11.0	13.9	.....	.....	.....	.....	0	.....	1	Cir.	1	Cir.	N. W.	3	N W.	4	N. W.	3	22.5	8.0	29.639	29.718	29.998	29.785	.040	.056	.028	58	50	40	21
22	8.5	31.7	22.0	20.7	.....	.....	.....	.....	0	.....	2	Str	0	.....	N. W.	2	S. W.	1	S. W.	1	33.5	6.5	30.224	30.299	30.300	30.274	.035	.058	.069	56	32	58	22
23	20.7	34.0	32.5	29.1	10 A. M.	Night.	0.953	6.67	8	Str.	10	Nim.	10	Nim.	S.	1	S. E.	2	S. E.	2	34.0	19.0	30.202	30.039	29.876	30.006	.095	.147	.185	85	75	100	23
24	27.3	35 0	23.0	28.4	.....	.....	.....	.....	2	Cir. st.	9	Cu. st.	0	.....	W.	1	N. W.	2	N. W.	2	36.5	23.0	29.711	29.760	29.988	29.820	.131	.128	.058	88	63	47	24
25	2.5	27.0	16.0	15.2	.....	.....	.....	.....	0	.....	0	.....	0	.....	S.	1	S. W.	2	S. W.	1	28.0	0.0	30.197	30.210	30.213	30 207	.035	.070	.059	72	47	66	25
26	12.5	37.0	34.0	27.8	6 P. M.	.....	.....	.....	10	Str.	5	Cir. st.	10	Nim.	W.	1	S. W.	2	S.	2	39.0	11.0	30.296	30.191	30.072	30.186	.054	.157	.175	71	71	90	26
27	38.5	44.8	43.5	42.3	.....	10 A. M.	0.762	†2.00	10	Nim.	1	Cir.	5	Str.	S. E.	1	W.	1	W.	1	47.0	37.0	29.727	29.652	29.784	29.721	.234	.207	.213	100	70	75	27
28	38.5	50.0	34.0	40 8	.....	.....	.....	.....	0	.....	0	.....	0	.....	W.	1	.....	0	W.	1	50.0	34.0	29.878	29.944	29.989	29.937	.158	.162	.139	68	45	71	28
29	27.5	45.0	37.0	36.5	Night.	.....	.....	.....	6	Cir. st.	6	Cir. st.	10	Str.	N. W.	1	S. W.	2	S. W.	2	45.0	26.0	30.071	29.830	29.913	29.971	.106	.138	.111	71	50	50	29
30	32.3	36 8	35.5	34.7	.....	.....	.....	.....	10	Nim.	10	Nim.	10	Nim.	N. E.	2	N. E.	2	S E.	2	37.5	31.5	29.531	29.357	29.265	29 384	.173	.201	.193	95	92	95	30
31	35.7	40.0	35.0	36.9	.....	.....	0.681	.....	10	Nim.	10	Nim.	10	Nim.	S. E.	2	N. E.	2	N. E.	4	40.5	35 0	29 271	29.363	29.376	29.337	.210	.236	.204	100	95	100	31
Sums.	.....	.....	.....	.....	.....	.....	3.356	10.42																									Sums.
Means	.....	.....	.....	22° 99	.....	.....	.....	.....	5.0	.....	4.7	.....	4.1	.....	.....	.....	N. W. & N.	54	.....	....	32°.62	12° 51	.....	.....	.....	29.828	.083	.112	.101	72	60	68	Means
										Mean.....	4.6						S. W. & S	.32		Max	50°.00	−22°.00	Min.		Max.	30.300	Mean	.099		Mean	67		
																	S. E & E	.07							Min.	29.265	Max.	.236		Max.	100		
																	N. E & N.	.07									Min.	.005		Min.	29		

* Snow squall. † Snow followed by rain.

FOR THE MONTH OF APRIL, 1869.

Day of Month	THERMOMETER IN THE OPEN AIR. 7 A.M.	2 P.M.	9 P.M.	Mean	RAIN AND SNOW. Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain or melted snow in gauge, in inches.	Depth of snow in inches.	CLOUDS. 7 A. M. Amount of cloudiness.	Kind of clouds.	2 P. M. Amount of cloudiness.	Kind of clouds.	9 P. M. Amount of cloudiness.	Kind of clouds.	WINDS. 7 A. M. Direction.	Force.	2 P. M. Direction.	Force.	9 P. M. Direction.	Force.	THERMOMETER. Maximum.	Minimum.	BAROMETER. BAROMETER HEIGHT REDUCED TO FREEZING POINT. 7 A. M.	2 P. M	9 P. M.	Mean.	FORCE OF PRESSURE OF VAPOR IN INCHES. 7 A. M.	2 P. M.	9 P. M.	RELATIVE HUMIDITY OR FRACTION OF SATURATION. 7 A. M.	2 P. M.	9 P. M.	Day of Month
1	35.0	41.0	39.5	38.5	.....	2 P. M.	.198	.....	10	Nim.	8	Str.	3	Str	N. E.	3	N. W.	2	N.	3	42.5	34.0	29.448	29 547	29.581	29.525	.193	.212	.210	95	82	86	1
2	37.2	44.0	36.5	39.2	9 P. M.	.....	.....	.....	10	Str.	10	Str.	10	Nim.	N. W.	1	S. W.	2	.....	0	44.5	36.5	29.665	29.683	29.746	29.698	.211	.218	.205	95	76	95	2
3	36.5	38.6	35.5	36.9	.....	Night.	.269	.....	10	Nim.	10	Nim.	10	Nim.	S.	1	S. E.	1	S. E.	1	40.0	35 5	29.582	29.435	29.409	29.475	.205	.212	.208	95	91	100	3
4	21.5	30 0	26.0	25.8	.....	.....	.....	.....	9	Str.	8	Str.	3	Str.	N. W	3	W.	2	W.	1	39.5	21.5	29.499	29.492	29.516	29.502	.075	.095	.080	65	57	57	4
5	19.7	34.3	33.5	29.2	.....	.....	.....	.....	2	Cir. st.	3	Cir. st.	3	Str.	N. W.	1	S. W.	3	S. W.	3	36.0	18 5	29.447	29.413	29.415	29.425	.074	.133	.130	70	67	71	5
6	34.5	43.5	36.5	38.2	.....	.....	.....	.....	4	Cir. st.	9	Str.	5	Str.	S. W.	2	S	2	S. W.	2	43.5	34.0	29.400	29.378	29.445	29.408	.169	.247	.195	84	87	90	6
7	32.7	42.0	33.0	35.9	.....	.....	.....	.....	1	Cir. st.	2	Cir. st.	1	Str.	S.	1	S. W.	1	S. W.	1	44.0	32.0	29 624	29.640	29.681	29.648	.158	.177	.123	85	66	65	7
8	29.5	43 5	33.3	35 4	3 P. M.	Night.	.176	1.00	4	Cir. st.	10	Str.	10	Nim.	N. W.	1	N. W.	2	N. W.	1	44.0	29.0	29.677	29.563	29.564	29.601	.127	.147	.191	78	52	100	8
9	30.5	42.0	32.5	35.0	*	.....	.....	.....	1	Str.	7	Cu. st.	2	Str.	W.	1	N. W.	2	W.	1	42.5	30.0	29 573	29 647	29.584	29.601	.134	.071	.147	79	27	80	9
10	32.0	42.0	38.0	37.3	.....	.....	.....	.....	8	Cir. st.	8	Cir. st.	6	Str.	N. W.	2	N. W.	2	N. W.	2	43.5	31.0	29 603	29.587	29.684	29.625	.126	.221	.123	69	83	54	10
11	32 0	45.0	37.0	38.0	**	.....	.....	.....	0	.....	4	Cir.	2	Str.	W.	1	W.	2	W.	1	46.0	32.0	29.728	29.699	29 720	29.716	.126	.228	.116	69	76	53	11
12	30.0	45.0	36.0	37.0	.....	.....	.....	.....	4	Cir. & Str.	7	Cu. st.	4	Str.	N.	1	.....	0	N. W.	1	45.5	28.0	29.729	29.701	29.738	29.723	.140	.095	.170	84	31	80	12
13	33.0	40.0	32.5	35.2	10 A. M.	10 A. M.	.125	.75	9	Cir. st.	10	Nim.	10	Nim.	N. W.	1	N. W.	1	N. W.	1	42.0	32.0	29.764	29.774	29 806	29.781	.160	.225	.185	84	91	100	13
14	31.5	43.2	36.0	36.9	†	.....	.....	.....	3	Cir. st.	8	Cu. st.	6	Str.	N E.	1	N. E.	3	N. E.	1	44.0	30 0	29.821	29.812	29.831	29.821	.150	.108	.129	84	38	61	14
15	33.0	50.0	40.7	41.2	.....	.....	.....	.....	0	.....	0	.....	5	Str.	N.	2	N. W.	3	N. W.	3	51.5	30.5	29.960	29 893	29.907	29 920	.123	.162	.117	65	45	46	15
16	36.0	50.0	47.0	44.3	.....	.....	.....	.....	2	Cir.	9	Str.	8	Str.	S. W.	1	S. W.	2	S. W.	1	51.0	31.0	29.971	29.894	29.779	29.881	.149	.139	.122	70	37	38	16
17	39.0	56.0	42.0	45.7	6 P. M.	Night.	.375	.....	2	Cir.	8	Cir. st.	10	Nim.	S. E.	1	S. W.	4	S. W.	3	60 0	33.5	29.704	29.495	29.411	29.537	.194	.255	.267	82	57	100	17
18	42.0	45.7	38.8	42.2	.....	.....	.....	.....	5	Cir. st.	4	Cir. st.	6	Str.	W.	3	N. W.	3	N. W	3	48.0	35 0	29.560	29.665	29.784	29.670	.211	.167	.151	79	54	72	18
19	37.5	37.3	35.5	36.8	7½ A. M.	‡	.....	.....	10	Str.	10	Str.	10	Nim.	N.	1	N. E.	1	N. E.	1	40.0	35 0	29.820	29.744	29.743	29.769	.182	.202	.197	81	90	95	19
20	37.5	49.0	42.5	43.0	.....	.....	.....	.....	10	Str.	10	Str.	10	Nim.	S. W.	1	S. E.	2	S. E.	1	49.5	34 0	29.766	29.722	29.676	29.721	.214	.309	.272	95	89	100	20
21	51.2	48.5	44.5	48.1	.....	4 P. M.	1.187	.....	10	Nim.	10	Nim.	2	Cir.	S. E.	3	S E.	4	W.	1	53.0	42.5	29.428	29.162	29.367	29.319	.377	.341	.246	100	100	84	21
22	41.5	47.0	44.5	44.3	.....	.....	.....	.....	6	Str.	7	Cir. & Str.	6	Cir. st.	S. W.	2	W.	4	N. W.	4	48 0	40.0	29.423	29.477	29.731	29.544	.183	.202	.211	70	62	72	22
23	41.0	52.3	46.0	46.4	.....	.....	.....	.....	5	Str.	2	Cir.	6	Cir. st.	N. W.	3	N. W.	2	N. W.	2	55 0	39.0	29.989	30.002	30 016	30 002	.168	.187	.227	65	48	73	23
24	39.0	43.0	41.0	41.0	Night.	.....	.....	.....	10	Nim.	10	Str.	10	Str.	S.	3	S.	2	S. W.	1	46.0	39 0	29 954	29 728	29.727	29.803	.223	.242	.246	95	87	96	24
25	39 5	48.0	41.2	42.9	.....	10 A. M.	1.62	.....	10	Nim.	7	Cir Cu.	0	.....	N. E.	2	N. W.	2	N. W.	1	52.0	39 0	29.644	29 578	29.598	29 607	.243	.236	.192	100	70	74	25
26	39.5	53 3	38.5	43 8	.....	.....	.....	.....	10	Str.	2	Cir. Cu.	0	.....	S. E.	1	N. W.	3	W.	1	55 0	39.0	29.518	29.512	29.624	29.551	.232	.198	.173	95	49	73	26
27	38.0	55.5	43.0	45.5	.....	.....	.....	.....	0	.....	6	Cir. & Str.	4	Str.	W.	1	N. W.	1	S. W.	1	56.0	37.0	29 793	29.771	29 773	29.779	.165	.137	.197	72	31	71	27
28	42.0	57.8	43.5	47.8	.....	.....	.....	.....	10	Str.	4	Cir. & Str.	0	.....	S. W.	1	W.	1	W.	1	60.5	38.5	29.696	29.644	29.556	29.632	.204	.151	.213	77	32	75	28
29	33.5	40.0	35 5	36.3	.....	.....	.....	.....	1	Str.	3	Cu. st.	1	Str.	N. E.	3	N. W.	2	N. W.	1	41 5	32 0	29.698	29.695	29.734	29.709	.100	.171	.116	52	69	55	29
30	32.0	44.8	36.0	37.6	2½ P. M. §	.....	.....	.....	1	Str.	9	Cir. st.	0	.....	N. W.	1	W.	1	.....	0	48 0	31.0	29.792	29 771	29.894	29.819	.134	.162	.116	74	55	55	30
31																																		31
Sums.	.....	.....	.....	.....	.....	.....	2.392	.175																										Sums.
Means	.....	.....	.....	39° 51	.....	.....	.....	.....	5.6	.....	6.8	.....	5.1	.....	.....	....	N. W. & W.	.51	.....	....	46°.78	33° 33	.....	.....	.....	29.660	.172	.188	.177	80	64	76	Means
										Mean	5.8						S. W. & S.	26		Max	60°.5	18°.5	Min.		Max.	30.016	Mean	.179		Mean	73		
																	S. E. & E.	.09							Min.	29.319	Max.	.377		Max.	100		
																	N. E. & N.	.14									Min.	.071		Min.	27		

* Slight snow squalls from 1 to 4 P. M. † Slight shower at 5 P. M. ‡ Thunder at 12 M. and at 6 P. M. § Snow squall. ** Ice left Penobscot river 3 P. M.

FOR THE MONTH OF MAY, 1869.

Day of Month	THERMOMETER IN THE OPEN AIR. 7 A.M.	2 P.M.	9 P.M.	Mean	RAIN AND SNOW. Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain or melted snow in gauge, in inches.	Depth of snow, in inches.	CLOUDS. 7 A.M. Amount of cloudiness.	Kind of clouds.	2 P.M. Amount of cloudiness.	Kind of clouds.	9 P.M. Amount of cloudiness	Kinds of clouds.	WINDS. 7 A.M. Direction.	Force.	2 P.M. Direction.	Force	9 P.M. Direction.	Force.	THERMOMETER. Maximum.	Minimum	BAROMETER. BAROMETER HEIGHT REDUCED TO FREEZING POINT. 7 A.M.	2 P.M.	9 P.M	Mean.	FORCE OR PRESSURE OF VAPOR IN INCHES. 7 A.M.	2 P.M.	9 P.M.	RELATIVE HUMIDITY OR FRACTION OF SATURATION. 7 A.M.	2 P.M.	9 P.M.	Day of Month
1	32.0	51.5	38.0	40 5	.....	.....	.....	.....	0	.....	9	Str.	9	Str.	N. W.	1	N. W.	3	S. E.	2	53.0	30 0	29.931	29.854	29.826	29.870	.126	.143	.144	69	38	63	1
2	37.0	47.0	39.0	41.0	2½ P. M.	.....	.....	.....	10	Str.	10	Str.	10	Nim.	S E.	1	N. E.	3	N. E.	2	49.0	35 0	29.671	29.501	29.254	29.475	.157	.112	.238	71	34	100	2
3	42.0	44.0	39.0	41.7	.....	.....	.....	.....	10	Str.	10	Nim.	9	Str.	N. E.	2	N. E.	1	S E.	2	50.0	37 0	28 970	29.088	29.236	29.098	.251	.264	.216	94	92	91	3
4	36.0	39.0	38.5	37.8	.....	6. P. M.	1.200	.....	10	Nim.	10	Cir. st.	9	Str.	S. E	1	N. E.	1	N. E.	1	41.0	34.0	29.178	29.166	29.395	29.236	.212	.205	.223	100	86	95	4
5	40.0	51.0	43.5	44.8	8 P. M.*	.....	0 030	.....	8	Cir. st.	7	Cir st.	10	Str.	N E	2	S. E.	2	N. E.	1	54 0	39.0	29.652	29 655	29.744	29.684	.203	.245	.247	82	65	88	5
6	41.5	58.5	40.0	46.7	.....	.....	.....	.....	9	Str.	5	Cir. cu.	0	.....	N. W.	2	W.	2	S. W.	3	61 0	39.5	29.832	29.829	29 844	29.835	.199	.134	.212	74	27	84	6
7	42.0	62.5	40.0	48.2	.....	.....	.....	.....	2	Cir. st.	3	Cir. cu.	1	Str	S. W.	1	W.	2	S. W.	2	62 5	40.0	29.847	29.828	29 890	29 855	.221	.196	.212	83	35	84	7
8	40.2	63.0	43 7	49.0	.....	.....	.....	.....	2	Cir. & Str.	3	Cir. cu.	0	.....	W.	1	W.	1	.....	0	64.5	34.0	29,877	29.781	29 774	29.811	.210	.229	.215	84	40	75	8
9	43.3	63.0	46.0	50.8	.....	.....	.....	.....	4	Cir. & Str.	8	Cir. st.	2	Str.	S. E.	1	N. W.	1	W.	1	65.0	36 0	29.715	29.559	29.570	29.615	.267	.243	.215	95	42	69	9
10	43.3	64.0	54.5	53.9	.....	.....	.....	.....	4	Cir. st.	4	Cir. cu	1	Str.	N. W.	1	N. W.	2	N. W.	1	67.0	37.0	29.627	29 593	29.633	29.618	.200	.202	.383	71	34	90	10
11	51.5	69.0	62.0	60.8	.....	.....	.....	.....	3	Cir.	6	Cir. & Str.	8	Str.	.....	0	N. W.	2	S. W.	3	70.0	45.5	29 671	29.569	29.502	29.581	.264	.247	.523	69	35	94	11
12	59.0	51.5	57.0	55.8	1½ P. M.†	Night.‡	0.020	.....	8	Cir. st.	10	Nim.	10	Str.	N. W.	1	N. E.	1	N. W.	1	62.5	51.5	29.609	29.719	29.788	29.705	.424	.341	.378	85	89	81	12
13	49.0	59.3	51.5	53.3	.....	.....	.....	.....	9	Str.	9	Str.	6	Str.	.....	0	.....	0	S. W.	1	60.5	46.0	29.794	29.736	29.704	29.745	.271	.370	.327	73	73	86	13
14	48.5	58.5	51.5	52.8	7½ A. M.	.....	.....	.....	10	Str.	10	Nim.	10	Str.	S. E.	1	S. E.	1	.....	0	55.5	46 0	29 698	29.426	29.416	29 513	.322	.469	.367	93	94	94	14
15	41.0	49.5	40 7	43.7	.....	.....	.....	.....	10	Nim.	10	Nim.	10	Nim.	N. E.	1	N. E.	1	N. E.	1	52.0	40.7	29.291	29.284	29.374	29.316	.257	.354	.246	100	100	96	15
16	48.5	53.5	47.0	49.7	.....	.....	.....	.....	10	Str.	10	Str.	10	Str.	.....	0	S. E	1	S. E.	1	55.0	47.0	29.452	29.461	29.442	29 452	.329	.382	.312	96	93	97	16
17	48.2	52.5	48.6	49.8	.....	.....	.....	.....	10	Nim.	10	Nim.	9	Str.	S. E.	1	S. E.	1	S.	1	59.0	47.5	29.297	29.287	29.299	29.294	.329	.364	.309	96	91	89	17
18	45.0	52.5	47.0	48.2	.....	8 A. M.	0 840	.....	10	Nim.	10	Str.	7	Str.	N. W.	2	N. W.	3	N. W.	2	59.0	44.0	29 377	29.474	29.641	29.497	.284	.238	.237	94	60	73	18
19	44.0	58.0	49.0	50.3	Night.	.....	.....	.....	4	Cir. & Str.	9	Str.	8	Str.	W.	1	N. W.	1	.....	0	59.0	35.0	29.697	29.679	29.590	29.655	.241	.255	.265	84	53	75	19
20	42.3	60.0	49.0	50.4	.....	9 A. M.	0.740	.....	10	Nim.	6	Cir. cu.	0	.....	N. E.	3	N. W	3	N. W.	2	58.0	42.3	29.445	29.457	29.554	29.485	.261	.177	.216	95	34	62	20
21	50.5	58.5	46.2	51.7	.....	.....	.....	.....	4	Cir. st.	7	Cir. cu.	2	Str.	N. W.	3	S. W.	3	N. W.	1	59.3	46.2	29.632	29 603	29.666	29.634	.264	.210	.182	72	43	58	21
22	43.5	55 0	45.0	47.8	.....	.....	.....	.....	9	Str.	10	Str.	4	Cir & Str.	S.	1	.....	0	W.	1	59.6	39 3	29.659	29.542	29 566	29.584	.224	.249	.265	79	59	88	22
23	48.0	63 3	51.0	54.1	.....	.....	.....	.....	0	.....	1	Str.	3	Str.	S. W.	1	W.	1	S. W.	2	66.0	36.2	29.640	29 640	29 680	29.653	.229	.206	.245	68	35	65	23
24	50.0	70.0	72.0	57.3	.....	.....	.....	.....	0	.....	6	Str.	6	Str.	.....	0	S. W.	1	N. W.	1	70.0	41.0	29.745	29 713	29.765	29.741	.271	.307	.282	75	42	73	24
25	52.0	79.7	64.0	65.2	.....	.....	.....	.....	0	.....	1	Cir.	7	Cir. st.	W.	1	S. W.	2	S. W.	1	80.3	46.0	29.740	29.623	29.610	29 658	.234	.546	.373	86	54	62	25
26	62.0	76.7	64.0	67.6	3½ P M.‡	.....	0 095	.....	3	Cir. st.	6	Cir. & Str.	8	Str.	.....	0	N. W.	2	S. W.	3	77.0	50.0	29.606	29 539	29.630	29.592	.312	.478	.497	80	52	83	26
27	43.3	56.0	47.0	48 8	.....	.....	.....	.....	0	.....	5	Cir. st.	0	.....	N. W.	2	N. W.	3	N. W.	1	71.0	37.0	29.799	29.790	29.908	29.832	.151	.179	.279	54	40	85	27
28	47.5	67.0	52.0	55.5	.....	.....	.....	.....	4	Cir. st.	4	Str.	8	Str.	S. W.	1	S. W.	2	S. W.	1	68.0	40.0	30.030	29.889	29 866	29.928	.219	.231	.265	66	35	68	28
29	52.5	68.0	52.0	57 5	.....	.....	.....	.....	10	Str.	6	Str.	0	.....	S. W.	1	.....	0	.....	0	69.5	51.0	29.837	29.786	29.816	29.813	.382	.290	.334	96	42	86	29
30	46.5	73.0	56.5	58.7	.....	.....	.....	.....	0	.....	7	Str.	4	Str.	N.	1	S. W.	2	S. W.	2	79 0	42.0	29.922	29.903	29.914	29 913	.297	.299	.350	92	37	75	30
31	55.2	63.0	55.0	57.7	Night.	.....	.....	.....	10	Str.	10	Str.	10	Str.	S. E.	2	S. E.	1	S. E.	1	63.0	52.5	29.861	29.821	29.820	29 834	.398	.462	.404	90	80	93	31
Sums.	.....	.....	.....	.....	.....	.....	2,950																											Sums.
Means	.....	.....	.....	51° 33	.....	.....	.....	.....	5.9	.....	7.2	.....	5.8	.....	.....	...	N.W & W.	.43	.....	....	58°.72	41°.55	.....	.....	.....	29.630	.262	.285	.289	83	56	81	Means
										Mean....	6.3						S. W. & S.	.25		Max	80°.3	30°.00	Min.		Max.	30.030	Mean	.279		Mean	73		
																		S. E. & E.	.16						Min.	29.088	Max.	.546		Max.	100		
																		N. E. & N.	.16								Min.	.112		Min.	2.		

* Shower. † Slight shower. ‡ Thunder, with small amount of rain.

FOR THE MONTH OF JUNE, 1869.

Day of Month	THERMOMETER IN THE OPEN AIR. 7 A.M.	2 P.M.	9 P.M.	Mean	RAIN AND SNOW. Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain or melted snow in gauge, in inches.	Depth of snow in inches.	CLOUDS. 7 A.M. Amount of cloudiness.	Kind of clouds.	2 P.M. Amount of cloudiness.	Kind of clouds.	9 P.M. Amount of cloudiness.	Kind of clouds.	WINDS. 7 A.M. Direction.	Force.	2 P.M. Direction.	Force.	9 P.M. Direction.	Force.	THERMOMETER. Maximum.	Minimum.	BAROMETER. BAROMETER HEIGHT REDUCED TO FREEZING POINT. 7 A.M.	2 P.M.	9 P.M.	Mean.	FORCE OF PRESSURE OF VAPOR IN INCHES. 7 A.M.	2 P.M.	9 P.M.	RELATIVE HUMIDITY OR FRACTION OF SATURATION. 7 A.M.	2 P.M.	9 P.M.	Day of Month
1	51.0	75.7	62.0	62 9	7 A. M.*	10 A. M.	0.710	.....	10	Nim.	4	Cu. st.	1	Str.	.....	0	N W.	3	.....	0	79.0	51.0	29.712	29.667	29.711	29.723	.374	.553	.404	100	62	72	1
2	59.7	76.0	60.8	65.5	.....	.....	.....	.....	5	Cir.	2	Cir. & Cu.	10	Str.	N. W.	1	N. W.	1	.....	0	76.5	52.5	29.954	29 949	29.950	29.951	.445	.542	.443	87	60	82	2
3	59 0	81.0	63.0	67.7	.....	.....	.....	.....	....	Fog [smoke	6	Str.	10	Str.	.....	0	S. W.	2	S. W.	1	81.5	53.0	29.957	29.935	29.943	29.945	.454	.474	.447	91	45	78	3
4	62.3	75.3	57.7	65.1	.....	.....	.....	.....	....	Fog and	7	Cir. st.	1	Str.	S.	1	S. W.	2	S. W.	2	76.0	55.4	29.939	29.849	29.819	29.869	.489	.541	.422	86	62	88	4
5	56.8	65.0	60.0	60.6	11 A. M.†	.....	0.020	.....	10	Str.	10	Str.	10	Str.	S. W.	1	S. W.	2	S. E.	3	66.0	53.8	29.734	29.546	29.528	29.603	.424	.549	.502	92	89	97	5
6	55 8	63 3	53.0	57.4	.....	.....	.....	.....	2	Str.	2	Cir. st.	1	Str.	W.	3	W.	3	W.	2	63.7	54 0	29.753	29.829	29.961	29 848	.282	.264	.379	63	45	95	6
7	49.0	62 0	53.0	54.7	.....	.....	.....	.....	0	.....	0	.....	2	Str.	W.	1	N. W.	1	N. W.	1	64.4	41.0	30.092	30.035	30.023	30.050	.247	.209	.375	71	37	93	7
8	46.3	62.3	52.5	53.7	.....	.....	.....	.....	0	.....	10	Cu. st.	2	Str.	N. W.	3	N. W.	1	N. W.	1	64.0	40.5	30.046	30.016	30.077	30.046	.217	.226	.375	79	40	93	8
9	45.6	62.2	49.6	52.5	.....	.....	.....	.....	9	Cir st.	8	Cu. st.	1	Str.	N. W.	1	N. E.	1	S. E.	2	65.0	38.0	30.143	30.129	30.080	30.117	.286	.196	.258	92	35	72	9
10	49.7	68.5	52.8	57.0	.....	.....	.....	.....	0	.....	1	Cu.	4	Str.	W.	1	S. W.	1	S.	2	70.0	40.0	30 040	29.913	29.792	29.915	.305	.240	.351	85	36	86	10
11	52.3	54.0	51.4	52.6	Night.	.....	.....	.....	10	Nim.	10	Str.	10	Str.	S. E.	3	S.	1	S.	1	57.8	50.3	29.699	29 628	29.605	29.644	.358	.383	.368	90	90	95	11
12	50.3	61.0	50.0	53 8	.....	6½ P. M.‡	0.140	.....	10	Nim.	9	Cir. & Nim.	2	Str.	S.	2	S.	3	S W.	1	62.0	50.0	29.689	29.700	29.721	29.703	.358	.383	.349	96	71	95	12
13	51.5	65 0	55.6	57.4	.....	.....	.....	.....	1	Cir.	9	Str.	4	Str.	S. W.	1	S. E.	3	S.	1	69.4	42.5	29.826	29.804	29.797	29.809	.335	.410	.375	88	66	84	13
14	56.3	62.0	59.0	59.1	9 A. M.	.....	.....	.....	10	Nim.	10	Nim.	10	Nim	S. E.	3	S. E.	3	S. E.	2	64.8	54.0	29.654	29 398	29.346	29.466	.455	.556	.500	100	100	100	14
15	60.2	67.7	60.0	62.6	.....	Night.	0.200	.....	10	Nim.	9	Str	10	Nim.	S. E.	1	S. W.	2	S. E.	3	68.0	59.0	29.474	29.441	29.440	29.452	.507	.574	.507	97	84	97	15
16	62.5	63.3	53 5	59.8	8 P. M.§	.....	0 080	.....	4	Cir. st.	8	Str.	2	Str.	S. W.	2	S. W.	1	W.	1	66.5	50.0	29.609	29.638	29.687	29.645	.351	.320	.383	62	55	93	16
17	54.7	66.5	57.0	59.4	.....	‡	0.060	.....	2	Cir. & Str.	3	Cu. st.	1	Str.	N. W.	2	N W.	2	W.	1	68.8	48.5	29.716	29.734	29.906	29 785	.329	.310	.353	76	48	75	17
18	55.5	61.2	53.2	56.6	2 P. M.	Night.	0.080	.....	8	Cir. st.	10	Nim.	10	Nim.	N. W.	1	S. W.	2	S. E	1	69 4	48.0	29.997	29.960	29 915	29.957	.388	.452	.399	87	83	97	18
19	53.5	62.3	55.0	56.9	.....	.....	.....	.....	10	Str	10	Str.	0	.....	.....	0	N E.	1	W	1	64.5	52.4	29.736	29.769	29.831	29.779	.396	.434	.404	95	77	93	19
20	58.8	62.2	56.0	59.0	12 M.	Night.	0 320	.....	10	Cir. st.	10	Nim.	10	Nim.	.....	0	S. W.	2	S E.	1	68.0	50.2	29 846	29 819	29 771	29 812	.452	.485	.455	91	86	100	20
21	53.3	60.5	57.0	56.9	.....	.....	.....	.....	10	Str.	10	Str.	2	Str.	S. W	1	S. W.	1	W.	1	62.0	49 0	29.688	29.696	29.760	29.715	.383	.412	.439	93	77	94	21
22	57.4	62.7	57.8	59.3	8 P. M.	Night.	0.020	.....	10	Str.	10	Str.	10	Nim.	S. W.	1	S. W.	1	S. E.	1	63.6	53.4	29.783	29.822	29.822	29.809	.426	.462	.462	85	80	96	22
23	60.3	61.8	58.2	60.1	.....	.....	.....	.....	8	Cu. st	9	Str.	10	Nim.	.....	0	S. W.	1	S. E.	2	62.4	52 0	29.843	29.828	29.827	29.833	.454	.412	.452	85	74	91	23
24	61.2	73.6	59.2	64.7	.....	.....	.....	.....	1	Cir.	4	Cir. cu.	1	Str.	S. W.	1	N. W.	3	S. W	2	75.0	56 3	29.867	29.831	29 808	29.835	.498	.356	.390	91	43	76	24
25	63.7	70.0	57.8	63.8	.....	.....	.....	.....	0	.....	3	Cu. st.	2	Str.	N. W.	1	N. W.	3	N. W.	1	70.2	55 0	29.814	29.820	29.936	29.857	.403	.258	.452	67	35	94	25
26	56.0	73.0	58 0	62.3	.....	.....	.....	.....	3	Cir. st.	1	Cu.	0	.....	W.	1	N. W.	2	N. W.	1	73.3	46.0	29.987	29.856	29 851	29.898	.391	.442	.422	87	55	88	26
27	56 0	75.0	57.5	62.8	.....	.....	.....	.....	0	.....	1	Cir. cu.	0	.....	.....	0	S. W.	1	.....	0	75.5	49.0	29.864	29.805	29.805	29 825	.401	.350	.452	88	40	94	27
28	56.3	61.0	57.5	58.3	10 A. M.	Night.	1.990	.....	9	Cir. st.	10	Nim.	10	Nim.	.....	0	S. E.	1	S E.	1	66.0	53.0	29.820	29.810	29.664	29.765	.430	.489	.470	93	91	97	28
29	59.5	72.5	60.3	64.1	.....	.....	.....	.....	2	Cir. cu.	4	Cu. st.	3	Str.	N. W.	2	N. W.	4	N. W.	1	73.5	56 0	29.822	29.557	29 690	27.710	.466	.467	.467	91	69	79	29
30	62.0	60.5	57.7	60.1	7½ A. M.	5 P. M.	0.180	.....	10	Str.	10	Nim.	1	Str.	.....	0	S. W.	2	N. W.	3	66.5	56.3	29.667	29 491	29.467	29.542	.465	.505	.393	83	94	82	30
31																																		31
Sums.	.....	.....	.....	.....	.....	.....	3.800																											Sums.
Means	.....	.....	.....	59° 58	.....	.....	.....	.....	5.5	.....	6 7	.....	4.7	.....	.....	....	N. W. & W.	.41	.....	....	68°.38	50° 34	.....	.....	.....	29.797	.392	408	.415	86	64	89	Means
										Mean	5.6						S. W. & S.	.34		Max	81°.50	38°.00	Min.		Max.	30 143	Mean	.405		Mean.	80			
																	S. E. & E	.23							Min.	29.346	Max.	.574		Max.	100			
																	N. E. & N.	.02									Min	.196		Min.	35			

* Thunder. † Mist during the morning, very slight shower at 11 A. M. ‡ Showers at intervals during the day. § Shower.

FOR THE MONTH OF JULY, 1869.

Day of Month	THERMOMETER IN THE OPEN AIR. 7 A.M.	2 P.M.	9 P.M.	Mean	RAIN AND SNOW. Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain or melted snow in gauge, in inches.	Depth of snow in inches.	CLOUDS. 7 A. M. Amount of cloudiness.	Kind of clouds.	2 P. M. Amount of cloudiness.	Kind of clouds.	9 P. M. Amount of cloudiness.	Kind of clouds.	WINDS. 7 A.M. Direction.	Force.	2 P.M. Direction.	Force.	9 P.M. Direction.	Force.	THERMOMETER. Maximum.	Minimum.	BAROMETER. BAROMETER HEIGHT REDUCED TO FREEZING POINT. 7 A. M.	2 P. M.	9 P. M.	Mean.	FORCE OF PRESSURE OF VAPOR IN INCHES. 7 A. M.	2 P. M.	9 P. M.	RELATIVE HUMIDITY OR FRACTION OF SATURATION. 7 A. M.	2 P. M.	9 P. M.	Day of Month
1	54.5	65.0	53 0	57.5	.....	.....	.....	.....	0	.....	8	Cu. st.	10	Str.	N. W.	3	N. W.	3	.....	0	66.5	51.8	29.559	29.585	29.638	29 594	.290	.286	.321	68	46	80	1
2	57.0	80.2	68.5	68.6	.....	.....	.....	.....	0	.....	0	.....	0	.....	S. W	1	S. W.	2	.....	0	80 5	49 0	29.632	29.533	29.526	29 564	.368	.510	.666	78	50	95	2
3	67.0	81.0	65.3	71.1	.....	.....	.....	.....	0	.....	0	.....	0	.....	.....	0	S. W.	2	S. W.	1	81.3	58.5	29.559	20.531	29.496	29.527	.489	.663	.532	74	63	84	3
4	65.5	82.3	70.0	72.6	Night.	.....	.....	.....	2	Cir. st.	3	Cir. cu	5	Cu. st.	.....	0	W.	1	S.	2	82 5	57.0	29 476	29.451	29.493	29.473	559	.619	.593	89	52	80	4
5	56.0	65.0	54.5	58.5	.....	6 A. M.	0.360	.....	10	Str.	4	Cu. st.	1	Str.	S. W.	3	S. W.	3	N. W.	1	71.3	54.5	29.747	29.819	29.932	29.833	.391	.330	.308	87	54	71	5
6	55.0	69.7	60.3	61.7	.....	.....	.....	.....	0	.....	4	Cu. st.	5	Cir. st.	.....	0	S W.	2	W.	1	72.5	45.0	29.997	29.963	29 974	29.978	.365	.385	.439	84	53	82	6
7	59 0	71.0	63.0	64.3	.....	.....	.....	.....	8	Cir st.	9	Str.	9	Cir. st.	.....	0	.....	0	.....	0	71.7	53.0	29.978	29.943	29.904	29.942	.439	.503	.478	88	66	83	7
8	61.3	78 0	65.2	68.2	9½ P. M.	.....	.....	.....	7	Cir. st.	1	Cu. st.	10	Str.	W.	1	S. W.	2	S. E.	1	79.0	56.5	29.889	29.845	29.832	29 855	.482	.550	.494	88	57	78	8
9	60.2	70.0	62 0	64.1	.....	Night.	0.420	.....	10	Nim.	10	Str.	10	Nim.	S. E.	1	S. W.	4	S. E.	3	73.0	58 5	29.890	29.701	29.659	29.750	.515	.561	.523	97	75	94	9
10	66.0	78.0	69.0	71.0	.....	.....	.....	.....	0	.....	1	Cu. st.	10	Str.	S. W.	1	S. W.	2	S. W.	2	79.0	62 0	29.595	29.596	29.597	29 596	.519	.426	.529	81	44	75	10
11	67.8	84.7	70.0	74.2	.....	.....	.....	.....	9	Str.	3	Cu. st.	0	.....	S. E.	3	S. W.	4	W.	1	87.2	64.7	29.436	29.291	29.488	29.405	.577	.733	.466	84	61	66	11
12	61.5	72.4	66.2	66.7	.....	.....	.....	.....	0	.....	2	Cu. st.	4	Str.	N. W.	3	W.	3	N. W.	1	74.0	57.0	29.806	23.652	29.737	29.732	.351	.303	.400	64	38	61	12
13	60.2	71.2	62.2	64.5	.....	.....	.....	.....	0	.....	4	Cu. st.	3	Str.	N. W	2	N. W.	1	.....	0	72.0	59.0	29.749	29.837	29.848	29.811	.357	.367	.469	68	48	83	13
14	59.8	72.7	58.6	63.7	.....	.....	.....	.....	1	Cir. st.	2	Cu. st.	0	.....	W.	1	W.	1	W.	1	76 0	53.0	29.908	29.906	29 901	29.905	.367	.403	.351	71	50	70	14
15	60.0	62.0	58.0	60.0	11 A. M.	.....	.....	.....	8	Str.	10	Nim.	10	Nim.	S. W.	1	S.	2	S. E.	1	70.0	54 0	29.896	29.840	29.816	29.851	491	.467	.478	94	83	98	15
16	61.5	66.5	66.0	64.7	.....	4 P. M.	0.530	.....	10	Str.	10	Nim.	1	Str.	.....	0	S.	1	W.	1	68 5	59.0	29.716	29.384	29.449	29 516	.518	.644	.569	94	97	89	16
17	67.2	74.5	65.5	69.1	.....	.....	.....	.....	1	Str.	1	Cir.	0	.....	S. W.	2	N. W.	3	S. W.	1	76 0	63.0	29.465	29.499	29.569	29.511	.533	.340	.526	79	40	84	17
18	61.7	76.0	63 0	66.9	7 A. M.	9 A. M.	0.020	.....	10	Nim.	4	Cu. st.	0	.....	S.	1	S. W.	2	W.	1	76.3	57.5	29.609	29.671	29.648	29.643	.445	.477	.380	80	53	65	18
19	58 0	73 0	58.7	63.2	.....	.....	.....	.....	0	.....	2	Cir. cu.	0	.....	.....	0	W.	1	S. W.	1	74.0	50.5	29 764	29.793	29.820	29.792	.389	.425	.380	80	52	76	19
20	59.5	75.0	58.6	64.4	.....	.....	.....	.....	0	.....	3	Cir. & Cu.	2	Str.	.....	0	S. W.	2	S. W.	2	75.4	49 7	29.898	29.880	29.877	29.885	.417	.399	.365	82	46	73	20
21	60.0	64.2	60.2	61.5	6 P. M.	.....	.....	.....	5	Cir. st.	10	Str.	10	Nim.	E.	3	S. E.	2	S. E.	1	68.5	52.0	29.831	29.743	29.687	29.754	.411	.490	.522	79	81	100	21
22	60.0	73.2	62.8	65.3	.....	8 A. M.	0.030	.....	10	Str.	4	Cu. st.	1	Str.	S. E.	1	S. W.	1	N. W.	1	74.0	57.0	29.672	29.658	29.628	29.653	.487	.505	.462	94	61	80	22
23	63 0	78.4	66 3	69.2	3½ P. M.*	.....	0.060	.....	4	Cir. st.	7	Cu. st.	10	Str.	.....	0	S. W.	2	S.	1	79.0	55.0	29.764	29.747	29.770	29.760	.510	.472	.467	87	48	71	23
24	63.8	78.2	65.0	69.0	.....	.....	.....	.....	0	.....	8	Str.	10	Str.	.....	0	S. W.	1	S. E.	2	78 5	51.4	29.856	29.832	29.840	29.843	.507	.593	.526	85	61	84	24
25	66.3	80.5	68.7	71.8	.....	.....	.....	.....	....	Fog	6	Str.	10	Str.	.....	0	S. W.	2	S. E.	2	80 5	59 0	29 864	29 829	29 844	29.846	.626	.670	.617	90	64	87	25
26	64.7	80.2	68.5	71.1	.....	.....	.....	.....	10	Str.	4	Cu. st.	8	Str.	S. E.	1	S. W.	4	S. W.	3	80.8	62.6	29.867	29.830	29.836	29 844	.593	.710	.599	96	68	85	26
27	64.8	81.2	68.3	71 4	4½ P. M.	Night.	0.080	.....	10	Str.	4	Cu. st	10	Nim.	S. E.	1	S E.	3	.....	0	81.5	64.2	29.801	29.710	29.688	29.733	.600	.814	.692	97	77	100	27
28	68.6	82 5	66 5	72.5	.....	.....	.....	.....	10	Str.	4	Cir. cu.	1	Str.	S.	1	S. W.	3	S. W.	2	83.0	66.5	29.741	29 732	29.733	29.735	.690	672	.573	97	60	87	28
29	66.2	76.0	66.7	69.6	11 A. M.†	.....	0.120	.....	5	Cir. st.	10	Str.	2	Str.	S. W.	2	S. W.	2	S. W.	3	76.5	62 5	29.735	29.647	29 602	29.661	.624	.826	.626	92	91	95	29
30	63.3	75.6	62.0	67.0	5 P. M.‡	.....	.....	.....	7	Cir. st.	6	Cu str.	2	Str.	N. W.	2	.....	0	N. W.	1	76.2	61.0	29.695	29.693	29.832	29.740	.449	.628	433	75	71	77	30
31	58.0	72.6	58.5	63 0	.....	.....	.....	.....	0	.....	7	Cu. st.	0	.....	N. W.	2	N. W.	3	N. W.	1	73.0	53.0	30.008	30.048	30 137	30.064	.336	.350	.424	70	44	85	31
Sums.	.....	.....	.....	.....	.....	.....	1.620	.....																										Sums.
Means	.....	.....	.....	66° 66	.....	.....	.....	.....	4.4	.....	4.9	.....	4.6	.....	.....	....	N. W.& W.	.29	....	....	76°.07	56°.69	.....	.....	.....	29.735	.474	.520	.491	34	60	83	Means
										Mean.....	4.6						S. W. & S	.53		Max	87°.20	45°.00			Max.	30.137	Mean	.495		Mean	76		
																	S. E. & E	.18					Min		Min.	29.291	Max.	.826		Max.	100		
																	N. E & N.	.00									Min.	.286		Min.	38		

* Thunder shower. † Very slight shower. Thunder in the afternoon. ‡ Few drops of rain.

FOR THE MONTH OF AUGUST, 1869.

Day of Month	THERMOMETER IN THE OPEN AIR. 7 A.M.	2 P.M.	9 P.M.	Mean	RAIN AND SNOW. Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain or melted snow in gauge, in inches.	Depth of snow, in inches.	CLOUDS. 7 A.M. Amount of cloudiness.	Kind of clouds.	2 P.M. Amount of cloudiness.	Kind of clouds.	9 P.M. Amount of cloudiness.	Kinds of clouds.	WINDS. 7 A.M. Direction.	Force.	2 P.M. Direction.	Force.	9 P.M. Direction.	Force.	THERMOMETER. Maximum.	Minimum.	BAROMETER. BAROMETER HEIGHT REDUCED TO FREEZING POINT. 7 A.M.	2 P.M.	9 P.M.	Mean.	FORCE OR PRESSURE OF VAPOR IN INCHES. 7 A.M.	2 P.M.	9 P.M.	RELATIVE HUMIDITY OR FRACTION OF SATURATION. 7 A.M.	2 P.M.	9 P.M.	Day of Month
1	57.2	76.6	61.0	64.9	.....	.....	.....	.....	0	Fog	6	Str.	0	Fog	.....	0	S.	2	S	2	77.0	53.0	30.229	30.176	30.160	30.188	.444	.502	.473	94	55	88	1
2	61.2	75.0	60.5	65.6	.....	.....	.....	.....	5	Cir. st.	9	Str.	3	Str.	.....	0	S.	3	S. W.	2	77.0	56.4	30.076	29.892	29.799	29.922	.409	.544	.473	94	52	88	2
3	60.6	79.2	64.2	68.0	.....	.....	.....	.....	10	Str.	6	Cir. st.	0	.....	S. W.	1	S. W.	1	.....	0	79.8	59.0	29.574	29.447	29.483	29.502	.505	.620	.442	94	62	73	3
4	41.0	70.4	56.5	56.0	.....	.....	.....	.....	2	Cir. st.	5	Cir. st.	2	Str.	N. W.	1	N. W.	2	N. W.	1	71 0	58.0	29.558	29 549	29.600	29.569	.408	.289	.336	75	39	72	4
5	53.2	69.8	58.5	60.5	.....	Night.*	0.050	.....	7	Cir. st.	7	Str.	10	Str.	.....	0	N. W.	1	.....	0	70.0	49.0	29.690	29.676	29.701	29.689	.347	.356	.380	84	47	76	5
6	51.2	65.0	54 5	56 9	.....	.....	.....	.....	8	Cir. st	9	Cu.	1	Str.	N. E.	3	N. E.	2	N. W.	1	67.0	58.0	29.722	29.735	29.831	29.763	.337	.311	.301	87	49	71	6
7	51.6	57.0	54.0	54 2	.....	2 P. M.*	0.040	.....	2	Str.	9	Nim.	2	Str.	.....	0	N. W.	1	N. W.	1	60 0	47.0	29.883	29.869	29 870	29.874	.347	.363	.355	90	78	84	7
8	52.7	70.0	56.0	59 6	.....	.....	.....	.....	0	.....	5	Cu. st.	1	Str.	N. W.	1	N. W.	3	N. W.	1	71.0	44.0	29 909	29.894	29.902	29.902	.340	263	.396	84	36	87	8
9	59.0	77.0	63.5	66.5	.....	.....	.....	.....	1	Cir.	5	Cir. st.	3	Str.	.....	0	W.	3	S. W.	2	77.0	50.5	29.913	29.817	29.825	29.852	.380	.389	.465	76	42	78	9
10	61.2	82.0	65.3	69.5	.....	.....	.....	.....	4	Cir. st.	7	Cir. st.	3	Str.	.....	0	N. W.	1	S. E.	2	82.0	56.4	29.846	29.808	29.805	29.820	.463	478	.483	85	44	76	10
11	63.5	81.0	68.0	70.8	.....	.....	.....	.....	3	Cir. st.	7	Cu. st.	2	Str.	.....	0	N. W.	1	N. W.	1	83 0	57.0	29.571	29.749	29.748	29.689	.520	.510	.536	89	48	77	11
12	61.0	74.0	58.0	64.3	.....	.....	.....	.....	4	Cir. st.	2	Cu. st.	3	Str.	N.	1	N. W.	2	N. W.	1	74.0	58.0	29.917	29.912	29.943	29.924	.325	.388	.393	61	65	82	12
13	60.5	72.0	60.0	64.2	.....	.....	.....	.....	0	.....	7	Cir. Cu.	7	Str.	S. W.	1	S. W.	2	S.	3	73.0	55 0	29.948	29.893	29.989	29.943	.419	.327	.426	79	42	82	13
14	59.5	70.5	58.5	62.8	.....	.....	.....	.....	2	Str.	1	Cir.	2	Str.	N. W.	2	N. W.	3	N. E.	1	71.0	52 0	29 873	29 810	29.856	29 846	.352	.257	.323	68	34	65	14
15	53 5	65.5	57.0	58.7	8½ P. M.	Night.	0.040	.....	8	Cir. Cu.	6	Str.	6	Nim.	.....	0	S.	2	S.	2	68 0	49 0	29.890	29.859	29 820	29.856	.362	.407	.429	87	69	91	15
16	57.0	75.0	63 0	65 0	.....	.....	.....	.....	4	Cir.	5	Cu. st.	2	Cir. st.	N. W.	2	N. E.	2	N. E.	1	75.0	55.0	29.816	29.880	29.843	29 846	.436	.382	416	94	44	72	16
17	53.5	68.0	59.5	60 3	.....	.....	.....	.....	6	Cir. Cu.	8	Cu.	5	Str.	N.	1	S. W.	1	S. W.	2	69 0	53.0	29.889	29.852	29.904	29 882	.348	.443	403	83	65	79	17
18	59.5	67.0	56.0	60.8	.....	.....	.....	.....	7	Cir. st.	9	Cir. Cu.	4	Cu.	S. W.	1	S. W.	1	S.	1	69.0	55.0	29.916	29 990	29 977	29.961	.411	.457	.420	79	69	94	18
19	57.0	69.0	61.0	62.3	Night.	.....	.....	.....	0	.....	7	Str.	6	Str.	S.	2	S. W.	1	S. W.	1	70.0	56.0	29.942	29.966	29.952	29.953	.459	557	.537	97	77	100	19
20	63.0	80.0	79.0	74.0	.....	9½ P. M.	0 780	.....	9	Nim.	6	Cu.	7	Nim.	S.	1	W.	1	S.	1	81.0	62.0	29.774	29.671	29.575	29.673	.586	.677	.730	100	66	74	20
21	62.0	71 0	59.2	64.1	.....	.....	.....	.....	7	Cir. Cu.	3	Cir. Cu.	0	.....	N E.	2	N.	1	N. W.	1	72 5	58 0	29.749	29.755	29.796	29.767	.369	.334	.403	66	43	79	21
22	56 8	72.2	61.5	63.5	.....	.....	.....	.....	0	.....	0	.....	0	.....	.....	0	N. W.	1	N. W.	1	74.0	48.0	29.888	29.864	29.936	29 890	.378	.329	.482	81	42	88	22
23	53 0	72.2	56.2	60.5	.....	.....	.....	.....	0	.....	1	Cir.	0	.....	N. W.	1	N. W.	2	.....	0	73.0	46.0	30.057	30 008	30.061	30.042	.351	.316	.385	86	40	84	23
24	56.2	74.0	61.0	63.7	.....	.....	.....	.....	4	Cir. st.	7	Cu. st.	1	Str.	N. W.	1	N. W.	1	N. W.	1	74.0	51 0	30.105	30.086	30 081	30 091	.413	.412	.306	90	49	40	24
25	61.8	65.0	60.8	62.5	2½ P. M †	5½ P. M.	0.140	.....	10	Str.	10	Str.	2	Str.	S. E.	3	S. E.	5	S.	2	66.5	59.0	29.968	29.739	29.591	29.766	.460	.441	.505	83	71	94	25
26	56.8	66.5	58 8	60.7	.....	.....	.....	.....	1	Str.	3	Cir. st.	0	.....	N. W.	3	N. W.	4	S. W.	2	67.0	53 0	29.634	29.622	29 671	29.642	.295	.229	.245	63	35	49	26
27	54.0	68.0	54.3	58.8	.....	.....	.....	.....	0	.....	3	Str.	4	Str.	N. W.	2	N. W.	2	S. W.	2	69 0	50.0	29.788	29.773	29.862	29.808	.256	.251	.331	61	36	77	27
28	49.5	68.0	54.5	57.3	4½ P. M.	Night.	0.840	.....	9	Str.	10	Str.	10	Nim.	.....	0	S. W.	1	.....	0	70.0	44.5	29 910	29 857	29.634	29.800	.332	.509	426	93	74	100	28
29	54.5	68.0	60.0	60.8	.....	.....	.....	.....	10	Str.	4	Cu. st.	6	Cu. st.	S. E.	1	N.	1	.....	0	69.0	53.0	29.596	29.577	29.604	29 592	.418	.476	.487	97	70	94	29
30	57.0	68 3	59.5	61.0	.....	.....	.....	.....	0	.....	4	Cu. st.	2	Str.	N. W.	2	N. W.	2	N. W.	2	68.5	54 0	29.609	29.600	29 587	29 599	.437	.305	.364	92	42	71	30
31	51.0	56.2	46.3	51.2	1½ P. M‡	.....	0.020	.....	0	.....	7	Cir.st.&Cu.	0	.....	N. W.	3	N. W.	3	....	0	61.0	46.3	29 675	29.673	29.729	29.692	.285	.442	.256	76	97	81	31
Sums.	.....	.....	.....	.....	.....	.....	1.910	.....																										Sums.
Means	.....	.....	.....	62° 25	.....	.....	.....	.....	4.0	.....	5.7	.....	3.0	.....	.....	....	N. W. & W.	.48	.....	....	71°.91	53°.10	.....	.....	.....	29 818	.397	.405	.417	83	54	80	Means
										Mean	4.2						S. W. & S.	.32		Max	83°.00	44°.00	Min.		Max.	30 229	Mean.	.406		Mean.	72			
																	S. E. & E.	.08							Min.	29.447	Max.	.730		Max.	100			
																	N. E. & N.	.12									Min.	.229		Min.	3.			

* Shower. † Slight shower in the morning. ‡ Slight shower.

FOR THE MONTH OF SEPTEMBER, 1869.

Day of Month	THERMOMETER IN THE OPEN AIR. 7 A.M.	2 P.M.	9 P.M.	Mean	RAIN AND SNOW. Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain or melted snow in gauge, in inches.	Depth of snow in inches.	CLOUDS. 7 A. M. Amount of cloudiness.	Kind of clouds.	2 P. M. Amount of cloudiness.	Kind of clouds.	9 P. M. Amount of cloudiness.	Kind of clouds.	WINDS. 7 A. M. Direction.	Force.	2 P. M. Direction.	Force.	9 P. M. Direction.	Force.	THERMOMETER. Maximum.	Minimum.	BAROMETER. BAROMETER HEIGHT REDUCED TO FREEZING POINT. 7 A. M.	2 P. M.	9 P. M.	Mean.	FORCE OF PRESSURE OF VAPOR IN INCHES. 7 A. M.	2 P. M.	9 P. M.	RELATIVE HUMIDITY OR FRACTION OF SATURATION. 7 A. M.	2 P. M.	9 P. M.	Day of Month
1	46.3	57.5	51.7	51.8	.....	.....	.....	.....	0	.....	6	Cir. cu.	10	Str.	N. W.	1	.....	0	.....	0	60.0	40.0	29.840	29.323	29.983	29.919	.268	.279	.322	85	58	83	1
2	51.8	61.0	56 0	56.3	7 A. M.*	.....	0 010	.....	10	Nim.	10	Cu. st.	9	Str.	N. E.	2	N. E.	3	N.	1	61.0	50.0	30.073	30.093	30.097	30 088	.361	.463	.363	93	85	81	2
3	56.5	65.5	55.8	59.3	.....	.....	.....	.....	4	Str.	7	Cir. cu.	6	Str.	S. W.	1	S. W.	1	S. E.	2	65.5	52.3	30.024	29.944	29.940	29.969	.352	.398	.405	76	63	90	3
4	57.7	76.5	66.6	66.9	.....	.....	.....	.....	6	Cir. st.	3	Cir.	2	Str.	S. W.	2	N. W.	2	S. W.	1	76.5	54.0	29.926	29 881	29.879	29 895	.393	.459	.457	82	50	69	4
5	60.5	79.8	59 5	66.6	.....	.....	.....	.....	9	Cir. st.	2	Cir.	2	Str.	.....	0	S. W.	2	.....	0	80.5	58.0	29.960	29.835	29.937	29.911	.480	.483	.437	91	47	85	5
6	52.4	77.0	60.0	63.1	.....	.....	.....	.....	0	.....	4	Cir. st.	2	Str.	.....	0	S. W.	2	.....	0	79.0	51.0	29.978	29.952	29.949	29.960	.390	.567	.492	97	61	94	6
7	61.7	78.5	65.5	68 6	Night.†	.....	.....	.....	10	Nim.	2	Cir. cu.	9	Str.	S. W.	2	S. W.	2	S. W.	1	80.0	61.0	29.996	29.963	29.953	29.971	.556	.651	.604	100	66	94	7
8	67.0	71.0	70.6	69.5	.....	Night.§	1.280	.....	10	Nim.	10	Nim.	10	Nim.	S.	3	S.	2	S.	5	74.0	64.0	29.787	29.679	29.316	29.594	.662	.758	.745	100	100	95	8
9	67.0	72.6	56.5	65.4	.....	.....	.....	.....	9	Str.	4	Cu. st.	3	Str.	S.	3	N. W.	3	N. W.	1	74.0	56.5	29.399	29.516	29.711	29.542	.591	.389	.378	89	48	81	9
10	58.0	66.0	59.2	60.2	6. P. M.	Night.	0.260	.....	10	Str.	4	Cu. st.	10	Nim.	N. E.	2	N. E.	1	N. E.	1	67.0	53.0	29.870	29.863	29.866	29 866	.439	.346	.452	88	54	100	10
11	54.2	63 0	54.7	57.3	.....	4 P. M.*	0.020	.....	10	Str.	7	Cir. cu.	1	Cir. st.	N. E.	2	N. W.	1	N. W.	1	66.5	53.0	29.884	29.864	29.910	29.886	.411	.379	.413	97	65	95	11
12	48.0	68 5	58.2	58.2	.....	.....	.....	.....	0	.....	5	Cir. st.	8	Str.	.....	0	N.	1	N. E.	1	69.0	45.5	30 003	29.920	30.114	30 012	.331	.367	387	98	52	79	12
13	55.6	70.0	53.5	59.7	.....	.....	.....	.....	6	Cir. st.	1	Cir. st.	0	.....	.....	0	S. W.	1	N. W.	1	70.0	52.0	30.226	30.219	30.235	30.227	.377	.459	.376	84	63	90	13
14	53.0	73.0	57.7	61.2	.....	.....	.....	.....	....	Fog	0	.....	0	.....	.....	0	N. W.	1	N. W.	1	74.0	48.7	30.242	30.097	30.102	30 147	.403	.510	.422	100	63	88	14
15	52.3	77.0	62 2	63.8	.....	.....	.....	.....	2	Cir. st.	3	Cu. st.	0	.....	N. W.	1	S. W.	1	.....	0	77 0	51.0	30.126	30.037	29.975	30.046	.382	.527	.517	96	57	91	15
16	56.6	72.0	59.5	62.7	.....	.....	.....	.....	6	Cu. st.	8	Str.	8	Cir. st.	.....	0	S. E.	2	S. E.	2	72.0	55.0	29.949	29.957	30.043	29.981	447	.422	.368	97	54	74	16
17	49.3	65.8	52.4	55.8	.....	.....	.....	.....	3	Cir. st.	5	Cu. st.	8	Cir st.	N.	1	S.	1	S.	1	66.5	48.6	30.189	30.197	30.207	30.198	.294	.217	.345	82	48	86	17
18	51.3	61.0	53.0	55.1	.....	.....	.....	.....	10	Str.	9	Cir st.	2	Cir. st.	.....	0	S. E.	2	S. E.	2	62.3	48.6	30.243	30.223	30 179	30 215	.348	.391	.382	93	72	97	18
19	55.8	74.2	68.0	66.0	.....	9 P. M.‡	0.010	.....	10	Nim.	8	Str.	7	Str.	S. E.	2	S	2	.....	0	75.0	54.0	30.083	29.966	29.896	29.982	.434	.589	.606	97	70	87	19
20	66.8	68.4	52.0	62.4	5 A. M.	8 A. M.	0.720	.....	8	Cu. st.	3	Cir. cu	0	.....	N. W.	1	N. W.	3	N. W.	1	69.3	52.0	29.706	29.808	29.968	29.827	.608	.313	.354	92	45	90	20
21	51.5	57.2	53.0	53.9	.....	.....	.....	.....	10	Str.	10	Str.	10	Str.	.....	0	.....	0	S. W.	1	57.6	49.0	30.106	30.123	30.157	30.129	.344	.322	368	90	69	90	21
22	53.0	56.0	52.8	53.9	.....	.....	.....	.....	10	Str.	10	Str.	10	Str.	S. W.	1	S. W.	3	S. W.	1	57.0	52.5	30.181	30.166	30.129	30.159	.355	.410	.375	87	90	93	22
23	54.7	70.0	52.8	59.5	.....	.....	.....	.....	10	Str.	4	Cu. st.	0	.....	S. W.	1	N. W.	1	N. W.	1	71.0	53.8	30.128	30.111	30.153	35.131	.404	.381	.389	93	51	93	23
24	44.7	73.8	54.0	57.5	.....	.....	.....	.....	....	Fog	0	.....	0	.....	N. W.	1	S. W.	2	N. W.	1	74.0	43.0	30.215	30.185	30.171	30.190	.299	.445	.385	100	53	91	24
25	55.0	67.0	54.5	58.8	.....	.....	.....	.....	10	Nim.	5	Cir. & Str.	2	Str.	S. E.	2	S. E.	3	S. E.	2	67.0	53.0	30.182	30.131	30.107	30.140	.433	.512	.415	100	77	97	25
26	60.0	66.6	67.0	64.5	9½ P. M.	.....	.....	.....	5	Cir. cu.	9	Str.	10	Str.	S.	2	S. E.	3	S. E.	4	71.0	56.0	29.964	29.859	29.773	29 865	.471	.489	.587	91	74	88	26
27	64.5	56.0	45.5	55.3	.....	4 P. M.	1.370	.....	10	Nim.	10	Nim.	3	Cir. st.	S. E.	3	S.	3	N. W.	3	67.0	45.5	29.609	29 466	29.671	29 582	.583	.442	.221	94	97	73	27
28	40.0	48.0	37.0	41.7	.....	.....	.....	.....	0	.....	5	Cu. st.	0	.....	N. W.	2	N. W.	3	N. W.	1	48.5	37.0	29.819	29.900	29 933	29.884	.205	.154	.180	82	45	81	28
29	43.5	61.5	54.0	53.0	.....	.....	.....	.....	7	Cir. st.	5	Cir. st.	10	Str.	S. W.	2	N. W.	1	S. W.	2	61.7	35.0	30.108	30.085	30.076	30.090	.198	.275	.358	69	54	85	29
30	50.0	71.5	54.3	58.6	.....	.....	.....	.....	4	Cir. & Str.	4	Cir. st.	2	Str.	.....	0	W.	3	.....	0	72.0	47.0	30.094	29.928	29.910	29.977	.335	.328	.399	93	42	95	30
31																																		31
Sums.	.....	.....	.....	.....	.....	.....	3.670	.....																										Sums.
Means	.....	.....	.....	59° 55	.....	.....	.....	.....	6.3	.....	5.4	.....	4.8	.....	.....	...	N.W & W.	.26	.....	....	68°.86	50°.67	.....	.....	.....	29.979	.405	.424	.417	91	62	88	Means
										Mean	5.5						S. W. & S	.39		Max	80°.5	35°.00	Min.		Max.	29.243	Mean	.415		Mean	80			
																		S. E. & E.	.23						Min.	29.316	Max.	.758		Max.	100			
																		N. E. & N.	.12								Min.	.154		Min.	42			

* Slight shower. † Fog early in the morning. ‡ Slight showers at intervals during the day. § Violent gale from 9 to 12 P. M.

FOR THE MONTH OF OCTOBER, 1869.

Day of Month	THERMOMETER IN THE OPEN AIR. 7 A.M.	2 P.M.	9 P.M.	Mean	RAIN AND SNOW. Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain or melted snow in gauge, in inches.	Depth of snow, in inches.	CLOUDS. 7 A. M. Amount of cloudiness.	Kind of clouds.	2 P. M. Amount of cloudiness.	Kind of clouds.	9 P. M. Amount of cloudiness.	Kinds of clouds.	WINDS. 7 A. M. Direction.	Force.	2 P. M. Direction.	Force.	9 P. M. Direction.	Force.	THERMOMETER. Maximum.	Minimum.	BAROMETER. BAROMETER HEIGHT REDUCED TO FREEZING POINT. 7 A. M.	2 P. M.	9 P. M.	Mean.	FORCE OR PRESSURE OF VAPOR IN INCHES. 7 A. M.	2 P. M.	9 P. M.	RELATIVE HUMIDITY OR FRACTION OF SATURATION. 7 A. M.	2 P. M.	9 P. M.	Day of Month
1	50.6	73.0	54.7	59.4	.....	.....	.....	.....	2	Cir.	1	Cir.	0	.....	W.	1	W.	1	S. W.	1	73.5	49 0	29.985	29.968	29.966	29 973	.345	.409	.392	93	56	90	1
2	47.0	70.5	52.2	56.6	.....	.....	.....	.....	6	Cir. st.	1	Cir. st.	1	Str.	N. W.	1	S. W.	2	.....	0	72.0	45.0	30.013	29.955	29.954	29.974	.300	.438	.382	92	59	97	2
3	58.5	67.0	60.0	61.8	2½ P. M.*	.....	.....	.....	5	Cir.	10	Str. & Nim.	10	Nim.	S. W.	2	S. W.	2	.....	0	69.0	52.0	29.910	29.826	29.822	29 853	.481	.562	.522	97	84	100	3
4	63.0	69.0	64.0	65.3	.....	.....	.....	.....	10	Nim.	10	Nim.	10	Nim.	S. E.	2	S.	5	S. E.	4	70.5	59.0	29.702	29.412	28.870	29.328	.576	.581	.585	100	82	97	4
5	57 6	64.0	46.0	55.9	.....	1½ P. M.	2.130	.....	10	Str.	10	Str.	4	Str.	S. E.	3	S. W.	2	N. W.	3	65.0	46.0	29.218	29.378	29 604	29 400	.467	.433	.215	97	73	69	5
6	39.2	48.5	38.0	41.9	†	.....	.....	.....	9	Str.	0	.....	0	.....	W.	2	N. W.	2	N. W.	1	49.0	36.0	29.747	29.789	29.879	29 805	.170	.182	.207	71	53	90	6
7	30.5	59 0	46.0	45.2	.....	.....	.....	.....	....	Fog	5	Cir.	4	Str.	S. W.	1	N. W.	1	S. W.	1	60 0	30 0	30.014	30 004	29.996	30.005	.170	.203	.267	100	40	84	7
8	36.0	62.5	48 0	48.8	.....	.....	.....	.....	....	Fog	0	.....	0	.....	.....	....	W.	1	W.	1	63.7	35.0	30 080	30.077	30 073	30 077	.201	.280	.284	95	49	85	8
9	39.8	68.0	50.0	52 6	.....	.....	.....	.....	....	Fog	0	.....	0	.....	.....	0	S. W.	1	.....	0	68.5	38.6	30.097	30.074	30.069	30.080	.246	.409	.325	100	59	89	9
10	51.0	62.5	50.0	54.5	.....	.....	.....	.....	10	Str.	0	.....	4	Cir. st.	S. E.	1	S. W.	2	S W.	2	63 7	45.0	30 047	30.007	29 934	29.996	.370	.419	.339	98	73	93	10
11	58.0	64.0	54.3	58.8	6½ A. M.	10 A. M	0.050	.....	10	Nim.	9	Cu. st	6	Cir. & Str.	S. E.	3	S. E.	3	S. W.	2	67.0	50.0	29.517	29.398	29.581	29.499	.482	.509	.342	100	84	80	11
12	39.5	61.7	52.0	51.1	.....	.....	.....	.....	....	Fog	4	Cir. cu.	8	Cir. st.	.....	0	S. W.	2	S. W.	1	63.0	39.0	29 719	29.725	29.769	29 738	.246	.369	.364	100	66	93	12
13	51.0	50.0	52.7	51.2	10½ A. M.	Night.	1.900	.....	10	Str.	10	Nim.	10	Nim.	S. E	1	S. E.	1	S. E.	2	54.2	50 0	29.727	29.530	29.176	29 478	.354	.348	.403	96	96	100	13
14	48.0	54 3	44.7	49.0	.....	.....	.....	.....	6	Cir. st.	2	Cu. st.	8	Str.	W.	1	N. W.	1	S. W.	2	55.7	44.7	29.373	29.544	29.703	29.540	.274	.224	.251	81	53	84	14
15	47.0	57.4	48 5	51.0	Night ‡	.....	.....	.....	9	Cir. st.	6	Cu. st.	9	Str.	S.	1	S. E.	2	S. E.	2	58.0	44.0	29.755	29.766	29.778	29.766	.288	.399	.320	88	84	93	15
16	62.7	52.0	49.0	51.2	.....	.....	.....	.....	10	Nim.	10	Nim.	10	Nim.	S. E.	3	S. E.	1	N. E.	2	54.0	49.0	29.669	29 595	29.516	29.593	.389	.365	.348	97	93	100	16
17	48.6	55 5	44.7	49.6	.....	8 A. M.	2.060	.....	10	Nim	5	Cir. cu.	0	.....	N. E.	3	N. W.	2	N. W.	1	56.2	44.7	29.391	29 337	29.440	29.389	.322	.292	.184	93	66	61	17
18	38.3	47.5	42.5	42.8	.....	.....	.....	.....	0	.....	8	Cu. st	6	Cir. & St.	N W.	1	N. W.	2	N. W.	2	49.0	36 0	29.594	29 647	29 690	29.644	.181	.128	.160	77	38	58	18
19	37.6	46.0	40 2	41.3	.....	.....	.....	.....	8	Cir. st.	4	Cu. st.	10	Str.	N. W.	2	S. W.	3	N W.	2	46.5	36.5	29.773	29.735	29.698	29.735	.186	.149	.154	81	47	60	19
20	31.5	39 5	31.0	34.0	.....	.....	.....	.....	1	Str.	8	Cir. st.	2	Str.	N. W.	1	N W.	2	N. W.	2	41.0	30 0	29.697	29.686	29.754	29.712	.152	.108	.134	84	44	75	20
21	31.8	48.8	40.0	40.2	Night.	.....	.....	.....	5	Cir. st.	3	Cir. & Str.	0	.....	N. W.	1	S. W.	3	S.	2	49.0	28.0	29.817	29.794	29.803	29.805	.154	.197	.225	85	57	91	21
22	46.5	44.5	42.4	44.5	§	2½ P. M.	0.260	.....	10	Nim.	10	Nim.	2	Cir.	S. E	1	N. E.	3	N. W.	1	48.0	38.0	29.732	29.802	29,892	29.809	.317	.282	.256	100	96	93	22
23	33.2	44 5	48.2	42.0	2 P. M.	Night.	0.920	.....	4	Cir. st.	10	Nim.	10	Nim.	W	1	.....	....	S. E.	3	48.2	32.0	29.960	29.874	29.643	29.826	.182	.294	.338	95	100	100	23
24	53.0	54.3	38.0	48.4	.....	.....	.....	.....	9	Str.	5	Cir. st.	0	.....	W	1	N. W.	3	N. W.	3	58.0	38.0	29.451	29.526	29.811	29.596	.399	.256	.123	98	59	54	24
25	29.0	37.0	29 2	31.7	.....	.....	.....	.....	1	Str.	8	Cir. st.	1	Str	N. W.	2	N. W.	1	.....	0	38.5	28.0	30.030	30.100	30.167	30.099	.106	.095	.136	66	43	83	25
26	26.5	40.0	28 2	31.6	.....	.....	.....	.....	9	Str.	4	Cu. st.	4	Str.	N. E.	2	S W.	3	S. W.	1	41.0	26.0	30.140	30 009	29.933	30 027	.138	.108	.146	96	43	94	26
27	26.0	35.7	27.0	29.6	.....	.....	.....	.....	2	Str.	4	Cu. st.	2	Str.	N. E.	2	N. W.	3	N. W.	2	37.0	25 0	29.826	29.730	29.742	29.766	.127	.098	.129	90	46	88	27
28	21.0	31.0	26.5	26.2	Night.	.....	.....	.....	4	Str.	7	Cir. st.	0	.....	S. W.	3	S. W.	3	S. W.	1	31.5	21.0	29.722	29.613	29.613	29.649	.105	.101	.126	93	58	88	28
29	27.0	34.0	32.2	31.1	.....	.....	.....	.....	10	Nim.	10	Nim.	10	Nim	N. E.	1	N E.	1	N E	2	35.0	26.0	29.617	29.598	29.600	29.605	.147	.162	.185	100	90	100	29
30	31.8	33.0	32.0	32.3	.....	.....	.....	.....	10	Nim	10	Nim.	10	Nim.	N E	3	N. E.	2	N. E.	3	33.5	31.5	29.542	29.502	29.592	29.545	.181	.188	.181	100	100	100	30
31	28.5	35.0	27.0	30.2	.....	9½ A. M.	1.250	9.00	10	Nim.	4	Cir. st.	0	.....	N. E.	3	N. W.	1	N. W.	1	35.5	27.0	29.768	29.829	29.842	29.813	.157	.185	.147	100	90	100	31
Sums.	.....	.....	.....	.....	.....	.....	9.570	9.00																										Sums.
Means	.....	.....	.....	44°.83	.....	.....	.....	.....	6.1	.....	5.7	.....	4 5	.....	.....	....	N. W. & W.	.34	.....	....	53°.38	38°.05	.....	.....	.....	29.646	.265	.280	.263	92	67	87	Means
									Mean		5.4						S. W. & S.	.29		Max	73°.5	21°.0	Min.		Max.	30.167	Mean	.269		Mean	82		
																	S. E. & E	.20							Min.	29.176	Max.	.585		Max.	100		
																	N. E. & N.	.17									Min.	.095		Min.	38		

* Very slight shower at 9½ A. M. † Frost in the early morning. ‡ Very slight shower at 10½ A. M. § Earthquake at 5 30 A. M., continued 30 seconds.

FOR THE MONTH OF NOVEMBER, 1869.

Day of Month	THERMOMETER IN THE OPEN AIR. 7 A.M.	2 P.M.	9 P.M.	Mean	RAIN AND SNOW. Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain or melted snow in gauge, in inches.	Depth of snow in inches.	CLOUDS. 7 A. M. Amount of cloudiness.	Kind of clouds.	2 P. M. Amount of cloudiness.	Kind of clouds.	9 P. M. Amount of cloudiness.	Kind of clouds.	WINDS. 7 A. M. Direction.	Force.	2 P. M. Direction.	Force.	9 P. M. Direction.	Force.	THERMOMETER. Maximum.	Minimum.	BAROMETER. BAROMETER HEIGHT REDUCED TO FREEZING POINT. 7 A. M.	2 P. M.	9 P. M.	Mean.	FORCE OF PRESSURE OF VAPOR IN INCHES. 7 A. M.	2 P. M.	9 P. M.	RELATIVE HUMIDITY OR FRACTION OF SATURATION. 7 A. M.	2 P. M.	9 P. M.	Day of Month
1	22.0	33.0	31 2	28.7	3 P. M.*	.....	.....	.....	7	Cir. st.	10	Str.	10	Str.	W.	1	S. W.	1	.....	0	34 5	20.0	29.852	29.800	29.850	29.834	.118	.178	.167	100	95	95	1
2	30.0	39.8	34.2	34.7	.....	.....	.....	.....	10	Str.	3	Cir. Cu.	10	Str.	.....	0	W.	1	.....	0	41.0	28.0	30.028	30 076	30.150	30.085	.149	.203	.179	89	82	90	2
3	30.0	40.5	39.0	36.5	.....	.....	.....	.....	0	.....	9	Str.	8	Str.	S. E.	1	S. W.	1	S. W.	1	41 0	29 0	30.174	30.079	29.929	30.061	.167	.219	.221	100	87	92	3
4	31.0	49 0	36.6	38.9	.....	.....	.....	.....	....	Fog	2	Cir. st	0	.....	.....	0	....	0	W.	1	49 5	30.0	29 909	29.942	29.814	29 855	.176	.284	.220	100	82	100	4
5	30.5	50.7	44.5	41.9	.....	.....	.....	.....	4	Cir †	7	Cir. & Str.	7	Str.	S. E.	1	S E.	2	S. E.	1	51.0	29.0	29 797	29 598	29 563	29.653	.173	.335	.293	100	89	100	5
6	46.5	49.7	42.8	46.3	8½ P. M.	.....	.....	.....	10	Str.	8	Str.	10	Nim.	S. E.	1	S. E.	2	S. E.	1	50.8	42.8	24.497	29.501	29.507	29.502	.321	.271	.278	100	75	100	6
7	34.5	37.0	33.2	34 9	.....	1½ P. M.	1.550	.....	10	Nim.	8	Str.	10	Str.	N. E.	2	N. W.	3	S. W.	3	43.0	33.2	28.968	28.883	29 068	28 973	.200	.199	.172	100	90	89	7
8	25.8	31.5	29.0	28.8	.....	.....	.....	.....	1	Str.	6	Cu. st.	3	Str.	S. W.	1	S. W.	1	S. W.	2	34.5	25.0	29.168	29.193	29.208	29.190	.141	.150	.142	100	84	89	8
9	29.5	36.5	30.5	32.2	.....	.....	.....	.....	3	Cir. st.	8	Cu. st.	3	Str.	S. W.	3	S. W.	4	S. W.	3	36 5	28.0	29.240	29.261	29.354	29.285	.148	.174	.136	89	80	79	9
10	32.0	36.3	28.5	32.3	.....	.....	.....	.....	7	Cir. st.	4	Cu. st.	0	.....	S. W.	2	W.	3	N. W.	3	36.8	28.5	29.387	29.433	29.559	29.460	.154	.142	.139	85	66	88	10
11	23.3	31.2	26.0	26.8	.....	.....	.....	.....	0	.....	4	Cu. st.	8	Str.	N. W.	1	N. W.	3	N. W.	3	31 5	23 3	29.623	29.602	29.587	29.604	.117	.120	.132	93	69	94	11
12	26.0	33.7	31.0	30.2	.....	.....	.....	.....	9	Str.	8	Cu. st.	8	Str.	S. W.	3	S. W.	3	S. W.	2	34 0	25.0	29.576	29.610	29.725	29.637	.123	.130	.129	88	66	74	12
13	30.5	36.0	25.2	30.6	.....	.....	.....	.....	9	Str.	2	Cu. st.	0	.....	N. W.	1	N. W.	2	N. W.	1	36.5	25.2	29.787	29.830	29 890	29.836	.148	.129	.111	86	61	80	13
14	25.0	36.0	30.3	30.4	.....	.....	.....	.....	9	Cir. st.	6	Cir. st.	9	Cir. st.	N. E.	1	N. E.	2	N. E.	1	36.5	23.0	29.863	29.747	29.742	29.784	.119	.163	.143	87	74	84	14
15	28.3	31.0	26.0	28.4	.....	.....	.....	.....	9	Str.	5	Cir. & Str.	9	Str.	N. W.	1	N. W.	2	N. W.	2	31.5	26.0	29 752	29.746	29.798	29.765	.138	.157	.115	88	89	81	15
16	23.3	26.5	22.3	24.0	.....	.....	.....	.....	10	Str.	10	Str.	5	Cir. & Str.	N. W.	3	N. W.	3	N. W.	2	27 0	22.3	29.860	29.946	30.066	29.957	.083	.089	.065	67	63	55	16
17	20.5	34.0	44.0	32.8	10½ A. M.	Night.	0.250	0.75	8	Str.	10	Nim.	10	Nim.	S. E	1	S. E	3	S. E.	4	44.0	17.0	30 058	29.807	29.274	29.713	.078	.196	.288	71	100	100	17
18	34.7	38.3	29.7	34 2	.....	.....	.....	.....	6	Str.	7	Cu. st.	0	.....	S E.	2	S. W.	3	S. W.	1	49.0	29.7	29.199	29 327	29.674	29.400	.187	.156	.181	92	67	73	18
19	20.0	40.0	35.0	31.7	.....	.....	.....	.....	1	Cir.	0	.....	9	Str.	S. E.	1	S. W.	1	S. W.	2	40 0	19.0	29.936	30.031	30.124	30.030	.109	.149	.164	100	60	80	19
20	38.5	50.7	49.2	46.1	8 A. M.	6 P. M.	0 770	.....	10	Str.	10	Nim.	10	Str.	S. E.	3	S. E.	3	S. E.	4	52.8	32.0	30.026	29.545	29.565	29.712	.190	.374	.315	81	100	89	20
21	42.5	49.5	35.0	42.3	.....	.....	.....	.....	6	Cir. st.	7	Cu. st.	2	Cir.	S. W.	1	S. W.	1	.....	0	51.0	35.0	29 675	29.702	29.712	29.696	.266	.273	.193	96	76	95	21
22	30.0	28.0	23.0	27.0	.....	.....	.....	.....	10	Nim.	0	.....	0	.....	N. W.	2	N. W.	4	N. W.	1	36.0	22 0	29.867	29.937	30.009	29.938	.167	.109	.115	100	71	93	22
23	23.5	30 8	36.2	30.2	5 P. M.	Night.	0.060	.....	10	Str.	10	Str.	10	Nim.	N. E.	1	S. E.	1	S. E.	1	36.2	22.0	30.087	30.012	29 936	30.012	.120	.174	.215	93	100	100	23
24	31.0	33.7	29.0	31.2	.....	.....	.....	.....	10	Nim.	10	Str.	4	Str.	N. E.	1	N. E.	2	N. E.	4	37.0	29.0	29.941	29.970	30.037	29.983	.176	.175	.133	100	89	83	24
25	18.0	36.5	23.5	26.0	.....	.....	.....	.....	1	Str.	0	.....	0	.....	N. E.	3	N. E.	2	N. E.	1	37 0	17.5	30.076	30.127	30.172	30.125	.067	.123	.116	68	57	87	25
26	26.5	29.5	26.8	24.3	.....	.....	.....	.....	0	.....	4	Cir. st.	8	Str.	N E.	1	N. E.	1	N. E.	1	30 0	15.5	30.160	30.066	30.037	30.088	.084	.057	.129	92	35	88	26
27	22.5	31.0	24.3	25.9	10 A. M.*	.....	.....	.....	5	Cir. st.	10	Nim	5	Str.	N. E.	1	N E.	1	N. E.	1	31.0	21.0	29.876	29.694	29.649	29.740	.096	.155	.115	80	89	87	27
28	20.0	28.0	27.0	25.0	.....	.....	.....	.....	8	Str.	7	Cu. st.	9	Str.	N. E.	1	N. E.	2	N. E.	1	29.0	18.5	29.673	29.689	29.796	29 719	.076	.100	.129	70	65	88	28
29	21.0	35.0	29.5	28.5	.....	.....	.....	.....	5	Cir. st.	7	Cir. st.	2	Str.	S. W.	2	S. W.	1	S. W.	1	35 5	18.0	29.874	29.879	29.930	29.894	.088	.142	.136	78	70	83	29
30	33.0	43.0	40.7	38.9	9½ A. M.	.....	0 730	.....	10	Str.	10	Nim.	10	Nim.	S. E.	2	S. E.	2	S. E.	1	43.7	28.0	29.862	29.574	29.570	29.669	.151	.278	.257	80	100	100	30
31																																	31
Sums.	.....	.....	.....	.....	.....	.....	3 360	.075																									Sums.
Means	.....	.....	.....	32° 32	.....	.....	.....	.....	6.3	.....	6.4	.....	6.0	.....	.....	....	N. W. & N.	.29	.....	....	38°.93	25°.42	.....	.....	.....	29.740	.144	.170	.171	89	78	88	Means
										Mean	6 2						S. W. & S.	.28		Max	52°.8	15°.5	Min.		Max.	30.174	Mean	.162		Mean	85		
																	S. E. & E.	.24							Min.	28.883	Max.	.374		Max.	100		
																	N. E. & N.	.19									Min.	.057		Min.	35		

* Very slight snow-fall. † Fog in valleys.

FOR THE MONTH OF DECEMBER, 1869.

Day of Month	THERMOMETER IN THE OPEN AIR. 7 A.M.	2 P.M.	9 P.M	Mean	RAIN AND SNOW. Time of beginning of rain or snow.	Time of ending of rain or snow.	Amount of rain or melted snow in gauge, in inches.	Depth of snow, in inches.	CLOUDS. 7 A. M. Amount of cloudiness.	Kind of clouds.	2 P. M. Amount of cloudiness.	Kind of clouds.	9 P. M. Amount of cloudiness.	Kinds of clouds.	WINDS. 7 A. M. Direction.	Force.	2 P. M. Direction.	Force.	9 P. M. Direction.	Force.	THERMOMETER. Maximum.	Minimum.	BAROMETER. BAROMETER HEIGHT REDUCED TO FREEZING POINT. 7 A. M.	2 P. M.	9 P. M.	Mean.	FORCE OR PRESSURE OF VAPOR IN INCHES. 7 A. M.	2 P. M.	9 P. M.	RELATIVE HUMIDITY OR FRACTION OF SATURATION. 7 A. M.	2 P. M.	9 P. M.	Day of Month
1	53.0	40.5	25 5	39.7	.....	7 A. M.	0.140	.....	9	Cu. st.	3	Cu. st.	5	Str.	W.	2	N. W.	3	N. W.	3	53.0	25 5	29.102	29 459	29.750	29.439	.375	.101	.070	93	40	51	1
2	11.0	26.0	9.2	15.4	.....	.....	.....	.....	5	Cu. st.	4	Cir. st.	0	.....	N. W.	2	N. W.	2	N. W.	1	26.3	9 2	29 955	29.926	29 964	29 947	.050	.056	.045	70	40	68	2
3	2 0	9.8	5.2	5.7	.....	.....	.....	.....	4	Str.	5	Cir. st.	0	.....	N. E.	3	N. E.	3	N. E.	2	10.0	2.0	29.983	29 958	30 088	30.010	.041	.019	.042	86	28	75	3
4	-2.5	15.5	20.0	11 0	3 P. M.	Night.	0.507	7.75	0	.....	10	Str.	10	Nim.	N E.	1	S. E.	1	S. E.	2	20.0	-3 0	30 226	30.098	29.865	30.063	.039	.050	.099	100	57	92	4
5	26.5	32 7	18.0	25.7	.....	.....	.....	.....	10	Str.	9	Str.	3	Str.	S.	1	.....	0	N. E.	2	33.0	18.0	29 801	29.832	30.025	29.886	.137	.162	.083	94	87	84	5
6	2.0	9.5	13 0	8.2	4 P. M.	.....	.....	.....	4	Str.	9	Str.	10	Nim.	N. E.	3	N E.	3	N. E.	4	13 0	2.0	30.183	30.146	29 856	30.062	.047	.053	.071	100	79	91	6
7	15.0	18.0	11.5	14.8	.....	1 P. M.	0.478	4 50	10	Nim.	10	Str.	0	.....	N. E.	5	N. W.	4	N. W.	2	19.3	11.5	29.445	29.615	29.833	29.631	.078	.075	.051	91	76	70	7
8	-7.5	19.5	9.0	7.0	.....	.....	.....	.....	0	.....	0	.....	0	.....	S. W.	1	N. W.	1	N. W.	1	20.0	-7.5	30.013	30.116	30.232	30.120	.024	.058	.058	79	55	89	8
9	-12.5	15 0	0 0	0.8	.....	.....	.....	.....	1	Str.	0	.....	0	.....	S. E.	1	S. W.	1	S. W.	1	16 0	-13 5	30 378	30.516	30.519	30.471	.024	.071	.024	100	82	54	9
10	-10.0	15.5	18.0	7.8	.....	.....	.....	.....	1	Str.	1	Str.	9	Str.	E.	1	N. W.	1	W.	1	18.0	-11.0	30.487	30.487	30.249	30.408	.014	.042	.075	54	48	76	10
11	7.6	27.5	20.0	18.3	.....	.....	.....	.....	9	Cu. st.	2	Str.	3	Cir.	W.	1	W.	1	W.	1	28 0	6.5	29.991	30.039	30.102	30.044	.054	.072	.084	89	48	78	11
12	24 0	31.5	32.0	29 2	2 P. M.	.....	.....	.....	10	Str.	10	Str.	10	Str.	N. E.	1	N. E.	1	N. E.	1	32.0	20 0	30 080	30 063	30 005	30.049	.112	.178	.172	87	100	95	12
13	25.5	23.5	14 0	21.0	.....	10 A. M.	1.000	5 00	10	Str.	9	Str.	0	.....	N. E.	3	N. E.	4	N.	1	32.0	14.0	30 005	30.071	30.180	30.085	.129	.110	.074	94	87	91	13
14	-2.0	21.0	11.0	10.0	.....	.....	.....	.....	1	Str.	0	.....	0	.....	W.	1	N. W.	1	N.	1	21.5	-3 6	30 215	30.090	30.220	30.175	.026	.088	.057	67	78	80	14
15	-10.0	11 0	-1.5	-0 2	.....	.....	.....	.....	1	Str.	2	Str.	0	.....	E.	1	N. W.	1	S.	1	12.0	-11 0	30.245	30.248	30.208	30.234	.009	.050	.027	31	70	68	15
16	-11.0	13 5	20.5	7.7	.....	.....	.....	.....	2	Str.	....	Fog	6	Cir. st.	.....	0	.....	0	S E.	1	20 5	-12 0	30.178	30.103	30.010	30.097	.019	.036	.078	75	45	71	16
17	30.0	33 0	33.0	32.0	5½ A. M.	6 P. M.	0.250	.....	10	Nim.	10	Nim.	5	Cir.	N. E.	1	N. E.	1	N.	1	33.0	20 5	29.930	29 863	29.907	29.900	.167	.188	.178	100	100	95	17
18	20.0	32.0	35.0	29.0	4 P. M.	.....	.....	.....	6	Cir. st.	10	Str.	10	Nim.	N. W.	1	N. E.	2	N. E.	2	35.0	19 0	29.913	29.767	29.211	29.630	.092	.144	.204	85	79	100	18
19	38.5	35 5	26.0	33 3	.....	10 A. M.	1.125	.....	10	Nim.	8	Nim.	2	Cir.	E.	1	N. W.	3	W.	2	39.0	26.0	28.891	29.106	29.478	29 158	.179	.129	.123	77	62	88	19
20	17.0	28.5	22 6	22 7	.....	.....	.....	.....	8	Cir. st.	6	Cu. st.	3	Cir. st.	S. W.	1	W.	3	S. W.	2	29.0	16.0	29.757	29 885	29 999	29 880	.086	.077	.098	92	50	81	20
21	19.0	21.0	12.5	17.5	Night.	.....	.....	.....	3	Cir. & Str.	3	Cu. st.	6	Str.	N. W.	1	N. W.	1	.....	0	24 0	12 5	30.240	30.372	30.452	30.355	.056	.056	.065	54	50	86	21
22	13.7	33.5	43.7	30.3	.....	Night.*	0.483	2 00	10	Nim.	10	Nim.	10	Nim.	N. E.	2	S. E.	2	S. E.	3	45 0	11.5	30 372	29 858	29 491	29.907	.075	.192	.285	93	100	100	22
23	34.0	31.0	25.0	30.0	.....	.....	.....	.....	1	Str.	0	.....	0	.....	N. W.	3	N. W.	3	N. W.	1	43.7	22 0	29.591	29.799	29.946	29 779	.124	.049	.100	62	28	75	23
24	19 2	27 0	20.0	22.1	.....	.....	.....	.....	2	Str.	3	Cir. cu.	0	.....	S. W.	2	N. W.	1	N. W.	1	28.0	18.0	30.192	30.292	30.287	30.257	.074	.061	.085	70	41	78	24
25	22.0	36.5	32.5	30.3	.....	.....	.....	.....	2	Cir.	4	Cir. st.	6	Str	S. E.	1	S. W.	2	S. W.	1	37.0	19.0	30.263	30.226	30.240	30.243	.094	.116	.138	79	53	75	25
26	35.3	38.5	37.0	36.9	11 A. M.	.....	.....	.....	10	Str.	10	Nim.	10	Nim.	N. E.	1	.....	0	.....	0	40.0	32.5	30.235	30.199	30.172	30.202	.197	.227	.220	95	95	100	26
27	39 3	39 3	36.0	38.2	.....	.....	.....	.....	10	Nim.	10	Nim.	10	Nim.	N. E.	1	N. E.	2	.....	0	41.0	36.0	30.009	29.932	29.871	29.937	.240	.229	.212	95	94	100	27
28	39.0	38.0	37.2	38.1	.....	Night.	1.230	.....	10	Nim.	10	Nim.	10	Nim.	.....	0	.....	0	.....	0	41.0	35 5	29.778	29.685	29.506	29.656	.238	.229	.222	100	100	100	28
29	36.0	38 0	35 5	36.5	.....	.....	.....	.....	10	Str.	10	Cir. st.	10	Str.	E.	1	S. W.	1	N. E.	1	41.0	35.0	29.445	29.535	29.607	29 529	.191	.154	.152	90	67	72	29
30	33.0	33.8	31.2	32.7	2 P. M.	7 P. M.	0.070	0.75	10	Cir. st.	10	Nim.	2	Str.	.....	0	S.	1	S W.	1	36.0	31.2	29.615	29.512	29.516	29 548	.160	.175	.140	84	89	79	30
31	33.2	35 5	29.3	32.7	.....	.....	.....	.....	7	Cir. st.	7	Cu. st.	2	Str.	S. W.	2	N. W.	3	N. W.	2	38.0	29.3	29.588	29.681	29.896	29.722	.136	.105	.136	71	50	83	31
Sums.	.....	.....	.....	.....	.....	.....	5.283	20.00																									Sums.
Means	.....	.....	.....	22° 08	.....	.....	.....	.....	6.0	.....	6.0	.....	4.6	.....	.....	.....	N. W.& W.	.39	.....	....	29°.85	13°.28	.....	.....	.....	29.949	.106	.108	.112	82	67	82	Means
										Mean....	5.5					S. W. & S	.12		Max	53°.00	-13°.50	Min.		Max.	30.519	Mean	.109		Mean	77			
																	S. E. & E	.11						Min.	28.891	Max.	.375		Max.	100			
																	N. E & N.	.38								Min.	.009		Min.	28			

* Snow followed by rain.

SUMMARY—1869.

MONTHS.	THERMOMETER IN THE OPEN AIR.											RAIN AND SNOW.		CLOUDS.	WINDS.				BAROMETER.			FORCE OR PRESSURE OF VAPOR, IN INCHES			RELATIVE HUMIDITY OR FRACTION OF SATURATION.		
	Mean of hottest day.		Mean of coldest day.		Highest temperature.		Lowest temperature.		Mean of maximum temperature.	Mean of minimum temperature.	Mean of three daily observations.	Amount of rain or melted snow in gauge—inches.	Depth of snow—inches.	Mean per centage of cloudiness.	PER CENT. OF DIRECTION.				BAROMETER HEIGHT REDUCED TO FREEZING POINT.								
	Day.	Temperature	Day.	Temperature.	Day.	Temperature.	Day.	Temperature.							N. W. and W.	S. W. and S.	S. E. and E.	N. E. and N.	Maximum.	Minimum.	Mean.	Maximum.	Minimum.	Mean.	Maximum.	Minimum.	Mean.
		°		°		°		°	°	°	°																
January	5	37.5	22	-3.8	8	43.0	19	-16.0	25 44	10.74	18.37	2.542	10.75	.61	.46	.16	.03	.35	30.391	29.178	29.767	.293	.011	.092	100	26	78
February	13	37.4	2	7.7	13	44.0	25	-8.0	29 21	14.79	21.83	4.264	32.25	.58	.46	.25	.04	.25	30.254	28.858	29.706	.191	.020	.094	100	25	74
March	27	42.3	5	1 2	28	50 0	6	-22.0	32.62	12 51	22.99	3.356	10.42	.46	.54	.32	.07	.07	30.300	29 265	29 828	.236	.005	.099	100	29	67
April	21	48.1	4	25 8	28	60 5	5	18.5	46.78	33.33	39.51	2.392	1.75	.58	.51	.26	.09	.14	30.016	29.319	29.660	.377	.071	.179	100	27	73
May	26	67 6	4	37.8	25	80.3	1	30.0	58.72	41.55	51 33	2.950	.....	.63	.43	.25	.16	.16	30.030	29 088	29.630	.546	.112	.279	100	27	73
June	3	67.7	9	52.5	3	81.5	9	38.0	68.38	50 34	59 58	3.800	.....	.56	.41	.34	.23	.02	30.143	29.346	29.797	.574	.196	.405	100	35	80
July	11	74 2	1	57.5	11	87.2	2	45.0	76.07	56.69	66.66	1.620	.....	.46	.29	.53	.18	.00	30 137	29.291	29.735	.826	.286	.495	100	38	76
August	20	74.0	31	51.2	11	83.0	8	44.0	71.91	53 10	62.25	1.910	.....	.42	.48	.32	.08	.12	30.229	29.447	29.818	.730	.229	.406	100	34	72
September	8	69.5	28	41.7	5	80 5	29	35.0	68 86	50.67	59.55	3.670	.....	.55	.26	.39	.23	.12	30.243	29.316	29 979	.758	.154	.415	100	42	80
October	4	65.3	28	26.2	1	73.5	28	21.0	53.38	38.05	44.83	9.570	9.00	.54	.34	.29	.20	.17	30.167	29.176	29.746	.585	.095	.269	100	38	82
November	6	46.3	16	24.0	20	52.8	26	15.5	38.93	25.42	32 32	3.360	0.75	.62	.29	.28	.24	.19	30.174	28.883	29.740	.374	.057	.162	100	35	85
December	1	39.7	15	-0.2	1	53.0	9	-13.5	29.85	13.28	22.08	5 283	20.00	.55	.39	.12	.11	.38	30.519	28.891	29.949	.375	.009	.109	100	28	77
	July		Jan'y		July		March																				
Year	11	74°.2	22	-3°.8	11	87°.2	6	-22°.0	50°.01	33°.37	41°.77	44.717	84.92	.55	.41	.29	.14	.16	30.519	28.858	29.780	.826	.005	.250	100	25	76