

MAINE STATE LEGISLATURE

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Public Documents of Maine:

BEING THE

ANNUAL REPORTS

OF THE VARIOUS

PUBLIC OFFICERS AND INSTITUTIONS

FOR THE YEARS

1871-72.

AUGUSTA:

SPRAGUE, OWEN & NASH, PRINTERS TO THE STATE.

1872.

ANNUAL REPORT

OF THE

Trustees, Farm Superintendent and Treasurer

OF THE

MAINE STATE COLLEGE OF AGRICULTURE

AND THE

MECHANIC ARTS.

1871.

Published agreeably to a Resolve approved February 25, 1871.

AUGUSTA :

SPRAGUE, OWEN & NASH, PRINTERS TO THE STATE.

1872.

TRUSTEES.

Hon. ABNER COBURN, Skowhegan, *President.*

Hon. LYNDON OAK, Garland, *Secretary.*

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Hon. SIDNEY PERHAM, }
Rev. SAMUEL F. DIKE, } *Examining Committee.*
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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.

As we look back on the past, we find abundant cause of congratulation that so many of the embarrassments which attended the commencement of this institution are now happily removed. The generous endowment of Congress to the several States for the purpose of furnishing a liberal education to the industrial classes, called forth a wide diversity of opinions among the friends of popular education in regard to the best methods of securing the desired results. No plan of procedure could secure the hearty coöperation of all. Those whose views are not adopted naturally look with suspicion upon a course not in harmony with their opinions.

The questions in regard to the character and location of the institution are now settled. Experience has shown that the bolder policy of establishing an independent college best meets the requirements of those who are to be educated for the active pursuits of life. The design of this institution and the methods of instruction pursued are alike different from those of the other colleges in the State. While classical studies may be best adapted to secure the highest rank in scholarship, and are peculiarly adapted to prepare one for mere literary pursuits, a different discipline is required for the training of practical men, so that they may be qualified for the business of life, and may advance the progress of arts among the laboring classes. In the shop and in the field, trained intellect is needed to develop the resources of our State, and to promote the highest intelligence of the people.

The question of location, which alienated some of the friends of the college, and which while not fully determined kept its advocates in a state of feverish anxiety, is now decided so as to admit of no discussion concerning a removal. Among the advan-

tages of the location at Orono is the fact that it is so near the centre of the State, and alike easy of access from the earlier settled towns of the western counties, and from the new and fertile farms of the Aroostook. The farm, though requiring some outlay to bring it to a high state of culture, is valuable, and affords good opportunities for experiments in the different methods of cultivation. The good understanding between the town and the college, and the cordial sympathy of the leading citizens of Orono with the officers and students, are of great advantage.

The college has entered upon its fourth year. Since the opening of the institution, three years ago, it has encountered serious obstacles, which have sometimes endangered its prosperity and threatened its very life. These have been successfully overcome, and we have reason to think they will never again endanger the prosperity of the institution.

The too sanguine expectations of the ardent friends of this college for the people have been sobered down to a just requirement. The mistrust of those who had no confidence in the plans of procedure has gradually given way. The indifference of the great mass of the community is removed; and those most directly interested are beginning to form some idea of the grandeur of the plan of placing within the reach of the industrial classes the best facilities for obtaining a liberal education, alike elevating in its nature and practical in its aims.

BUILDINGS.

The buildings commenced last year have been completed. The aim has been to have them constructed of the best materials in the most durable style. Alike attractive in appearance and convenient in arrangement, they are adapted to the wants of the institution. The new boarding-house was opened in March, and has been conducted successfully by the Steward, Rev. A. W. Reed. The dining-hall is spacious and pleasant. During the term just closed the President and two of the Professors have occupied seats at the tables with the students. There are now most desirable accommodations for one hundred and twenty-five students.

Some progress has been made in laying out and grading the grounds in front of the buildings. The work has been performed by the students, under the direction of Prof. Pike. It is designed

to have the work carried forward the ensuing season. As soon as practicable, the lawn in front of the college will be adorned with ornamental trees and shrubs.

REVISION OF THE COURSE OF STUDY.

At the opening of the college only an outline of the course of study was prepared by the Trustees, leaving the details to be supplied from time to time as the exigencies might require. Last summer, as the college was entering upon its fourth year, it was thought necessary that the curriculum should be carefully re-arranged. Provision was made for four full courses, viz., a course in Agriculture, in Civil Engineering, in Mechanical Engineering, and an Elective Course. A special course is also provided for students not wishing to take the whole amount of studies required for graduation, by allowing them to select from the studies of any term such branches as they desire, provided they are qualified to pursue these studies successfully.

An examination of these courses of study, (found in the subsequent pages of this report,) will show that the great idea of giving a liberal education to the industrial classes is well carried out. While the best preparation is made to train the students, so that they may promote the various business activities and enterprises of the State, provision is also made that those who engage in industrial pursuits may have that general culture and discipline which will secure to the graduates of this college equal rank with those from any institution. The earnest efforts of the Trustees and the Faculty of Instruction will be directed to place the best intellectual as well as practical training within the reach of all, so that no young man of good health, economical habits, and energy, need be excluded from these superior advantages.

REORGANIZATION OF THE FACULTY.

Two members of the former faculty, Prof. S. F. Peckham of the department of Chemistry, and Mr. John Swift, Instructor in Botany and Horticulture, having resigned their positions, the Trustees proceeded last summer to completely reorganize the board of instruction.

Rev. C. F. Allen, A. M., a graduate of Bowdoin College, well known as a successful teacher, and who had filled a prominent position as a pastor in some of the largest churches in the State,

was elected President. To him also was assigned the department of English Literature, Mental and Moral Science.

Prof. M. C. Fernald, A. M., who had been the acting president from the opening of the college, and who had administered its affairs with fidelity, firmness and untiring energy, during the years of trial and discouragement, is continued in the department for which he is eminently qualified, as Professor of Mathematics and Physics.

Prof. R. L. Packard, A. M., a graduate of Bowdoin College, was elected to the department of Chemistry and the Modern Languages.

Prof. W. A. Pike, C. E., a graduate of the Boston Institute of Technology, was elected to the department of Civil Engineering.

Prof. C. H. Fernald, A. M., the former popular and successful principal of Houlton Academy, was chosen Professor of Natural History.

All these entered upon their duties at the commencement of the present college year, except Prof. Packard, who is preparing to enter upon the duties of his department at the commencement of the next term.

The Trustees find great satisfaction in the belief that the several departments have been filled by men eminently qualified for the position they occupy,—men whose presence “will be an inspiration to the students who gather around them.” Most of them have had a large experience in the instruction and oversight of students. They have faith in the grand idea of furnishing a thorough, liberal and practical education to the industrial classes; and are working in harmony to render the college what all the true friends of popular education desire it should be.

FARM SUPERINTENDENCE.

Samuel Johnson, Esq., having resigned his position as Farm Superintendent, Mr. J. R. Farrington of Brewer, was elected to his place, and entered upon college duty last April. Although he has labored under many disadvantages during the past season, he has exhibited an amount of ability, energy and tact, which affords the assurance that the affairs of his department will be well managed. To his report, which is herewith submitted, we refer you for more full information concerning the condition and working of this department.

WANTS AND ESTIMATES.

In the completion of the buildings, the purchase of furniture and apparatus for the different departments, and in meeting the current expenses of the college, a debt of thirteen thousand dollars has been incurred. The Trustees regretted the creation of this debt; but the alternative was forced upon them to suffer the college to struggle along in a crippled condition, with little capacity of usefulness, and no prospect of fulfilling the design for which it was established, or to exceed the limited appropriation of last year, by furnishing the suitable facilities for the college to enter upon its fourth year, with a strong faculty, and all the conditions necessary to insure success. The Trustees had no hesitation in choosing that course which the best interests of the college and the State seemed imperatively to demand. The improved condition and prospects of the college have fully justified the course they have pursued.

There is imperative need of homes for those who have accepted the responsible position of teachers in this institution. Drawn from positions of usefulness, honor and emolument elsewhere, by the conviction that here is a grand field of labor to elevate the condition of the laboring class, and to give to ingenuous youth, who would otherwise be shut out from all hopes of liberal culture, a thorough course of education, they need homes upon the college grounds, to reach the full measure of usefulness. In fulfilment of the provisions of the organic act so wisely drawn by one of the ablest men, who, though dead, will always live in the memory of those who struggled together with him for the establishment of the college upon a sure and perpetual foundation, there should be brought to bear upon the students in the forming period of life and character all the best social influences. The homes of the officers should be accessible to the students, where they may be invited to mingle in friendly and familiar conversation upon subjects of common interest and pursuit. Such intercourse would aid essentially in discipline, and in the development of the moral and social qualities of those who are here educated. Ease of manner when brought into society and the cultivation of conversational powers so essential to finished education, is too often neglected by students. Trained up in isolation from general society and away from home influences, when they graduate they cannot exert that influence for good in the community, which their high intellectual

endowments ought to command. The President's house should afford sufficient accommodations for the social education of the students. As rents cannot be obtained at a less distance than a mile, or a mile and a half from the college buildings, it is necessary that residences for the President and one of the Professors should be constructed on the college grounds. An arrangement for a green house in connection with the Professor's house, to be warmed by one furnace, will meet for the present this want of the institution.

For these buildings there will be required the sum of..	\$8,000 00
For farm improvements.....	3,000 00
Apparatus and library.....	1,000 00
	\$12,000 00
Add to this the debt incurred in behalf of the college, as shown by Treasurer's report.....	\$11,687 72
Bills unpaid.....	1,312 28
	\$25,000 00
Making a total of.....	\$25,000 00

To carry out the designs of the institution, there is an imperative demand for a machine shop and tools.

PROSPECTS.

The education for the business of life by making use of science rather than the ancient languages, as a means of mental discipline, and by combining manual labor with the study of principles, is now arresting the attention of the most thoughtful educators of the age. The advantages of this "new education" is no longer an experiment, it has become a successful fact.

Established to promote in this method the interests of the people, the college at Orono, although the youngest of its class in the country, rests upon a firm foundation. It has encountered some formidable obstacles, and has been subjected to some severe trials. These have been successfully overcome. Up to the close of the last summer term, they had apprehended serious difficulty in filling the Board of Instruction, so as to meet fully and at once the wants of the college. They were not prepared, therefore, to offer the strong inducements that can now be presented to young men seeking the advantage of a liberal and scientific education; yet a very respectable class, as the catalogue shows, entered the

college at the commencement of the present year. Could the success of the Trustees in making such fortunate provision for instruction in the several departments been anticipated by the public, the number of admissions at the commencement of the present year would doubtless been largely increased.

With the several departments filled by men of acknowledged character and ability, having had a large experience in the management and instruction of students, working cheerfully and harmoniously for the accomplishment of a common purpose; with the present desirable accommodations for the students; with an extensive and well arranged course of study; with a carefully selected and most valuable apparatus, affording large, and, in some respects, unsurpassed facilities for illustration; with the fact that the expenses of the students are so moderate, and a large part is defrayed by their labor,—with all these advantages, it can safely be predicted, there will be in the future no lack of students at the Maine State College.

Respectfully submitted.

ABNER COBURN, *President.*

REPORT OF FARM SUPERINTENDENT.

Coming to the duties of my position at a time when preparations for the farm work of the season must be immediately entered upon, little opportunity was given for planning experiments, which might promise to be of utility to the farmers of the State.

Some experiments, however, have been made; the first of which, designed to test the comparative value of cooked and uncooked meal in feeding swine, was, in its results, strongly corroborative of those obtained from similar experiments last year. This experiment was commenced May 23d, and continued ninety days, and in its results showed the value of raw meal to cooked meal to be as 100 to 74 4-5.

A careful comparison was also made between the effect of food given twice a day, and that of food given three times a day, and the result shows a small percentage in favor of feeding twice a day.

A series of experiments for the purpose of testing the value of special fertilizers, when used on potatoes in field and garden culture; also for testing the value of gypsum, and different superphosphates, on grass and grain crops, was planned and carried out with much labor and care. By reason of the severe and long continued drouth of spring and early summer, the condition of the soil through the season was unusual; and it may be, that it was in consequence of insufficient moisture, that the peculiar properties of these fertilizers were not developed, and that their application did but little good in some cases, and in others positive injury to the crop.

The results obtained, although exceptional, will not be without value, when an opportunity is afforded of repeating the experiment under more favorable circumstances. Although not given in detail in the present report, they have been carefully recorded, and due weight will be given to them, when future experiments of a like nature shall give more abundant data for definite conclusions.

Experiment with sixty-two varieties of potatoes, conducted at the College farm, by George O. Weston of the Senior class :

May 29th; twelve hills of each variety of potatoes, were planted in rows three feet apart, and eighteen inches between the hills. The potatoes were of medium size, cut to four pieces, and dropped one piece to the hill. The soil was a sandy loam, sown to fodder corn last year. Five cords of stable manure per acre, were spread and plowed in, then an equal quantity spread and harrowed in. The land was furrowed four inches deep, and the potatoes were covered with a hoe.

VARIETY.	YIELD.			
	LARGE.		SMALL.	
	Lbs.	Oz.	Lbs.	Oz.
Andes	55	8	8	12
Bermuda.....	32	12	3	8
Black Diamond.....	53	12	14	8
Breese's Prolific.....	42	6	5	10
Buckeye	41	8	8	4
Calico	4c	4	9	4
Callao	33	7	6	10
Central City.....	41	.....	4	5
Chenery	51	4	9	4
Cinnamon Garnet	28	5	5	10
Chamberlain's Seedling	50	5	7	10
Colebrook's Seedling	48	4	3	12
Concord	46	12	6	12
Cowhorn Seedling No. 1.....	35	10	8	6
Cuzco	48	10	8	4
Dana's Seedling.....	39	.....	4	12
Dover Seedling	49	.....	10	4
Dover	31	.....	7	5
Early Golden.....	25	10	3	1
Early Henry.....	34	.....	4	15
Early June.....	41	7	3	9
Early Prince.....	18	9	4	4
Early Peachblow.....	40	14	6	4
Early Rose, Seedling No. 1.....	34	14	2	.....
Early Stevens	34	14	2	12
Excelsior	51	6	5	12
Fluke	28	11	4	5
Garnet Chili.....	25	5	7	4
Gleason	34	13	5	10
Goodrich's Seedling, V.....	38	4	7	8
Goodrich's Seedling, W.....	34	5	1	13
Goodrich's Seedling, Y.....	43	5	6	10
Goodrich's Seedling, Z.....	35	.....	5	9
Harrison	54	.....	9	10
Jackson White.....	42	.....	6	.....
Johnson.....	28	.....	5	10
Jones' Seedling.....	22	8	5	4
King of the Earlies.....	27	.....	4	5
Lapstone Kidney.....	39	.....	5	4
Orono.....	22	11	9	.....
Pale Blush Pinkeye	26	12	5	12
Patterson's Blue.....	33	12	2	.....
Pinkeye Rusty Coat	42	.....	4	5
Prairie Seedling	33	8	2	4

EXPERIMENT—(Continued.)

VARIETY.	YIELD.			
	LARGE.		SMALL.	
	Lbs.	Oz.	Lbs.	Oz.
Prince Albert.....	25	4	1	14
Rochester Seedling.....	22	4	2	4
Shaw.....	31	4	5	.....
Seedling of Garnet Chili.....	38	4	11	.....
Titicoca.....	35	.....	2	.....
Union.....	30	1	2	12
Utica Pinkeye.....	44	13	3	.....
Vanderveer.....	36	.....	2	10
Western Chief.....	45	5	5	13
White Mountain.....	15	.....	7	5
White Chili.....	20	11	9	5
Williard's Seedling.....	23	.....	4	5
White Rock.....	19	11	10	2
Worcester Seedling.....	19	10	10	2
Early Peach Blow No. 2.....	21	13	7	.....
English Blossom.....	35	8	3	.....
Early Burton.....	32	.....	11	13
Peach Blow.....	16	8	4	13

Experiment conducted by G. O. Weston, in 1870 and '71, in which are compared the results from different methods of cutting and planting potatoes:

The variety used was the Orono. The soil in which the potatoes were planted in 1870 was a clay loam; the amount of manure used was not recorded. In 1871, the potatoes were planted on a sandy loam, on which five cords per acre of stable manure were spread and ploughed under; then a like amount was spread and harrowed in. Where used without cutting, one whole potato was dropped to a hill; when cut, one piece was used to a hill. The rows were three feet apart, and the distance between the hills eighteen inches. The product of 1870 was used for seed in 1871, and treated in the same manner as in the previous year. Eight hills were planted in each method.

	1870.				1871.			
	LARGE.		SMALL.		LARGE.		SMALL.	
	Lbs.	Oz.	Lbs.	Oz.	Lbs.	Oz.	Lbs.	Oz.
Large potatoes cut into four pieces.....	18	10	8	15	34	.....	3	6
Small " planted whole.....	13	14	5	7	25	.....	7	8
Large " cut into pieces size of small potatoes.....	.....	.....	.....	.....	33	10	2	8
Medium potatoes planted whole.....	26	7	6	14	33	.....	6	12
" " cut into two pieces.....	20	11	11	4	28	12	5	.....
" " cut to two eyes.....	.....	.....	.....	.....	34	10	3	.....
" " cut to one eye.....	17	13	2	2	13	.....	2	6

EXPERIMENT—(Continued.)

	1870.				1871.			
	LARGE.		SMALL.		LARGE.		SMALL.	
	Lbs.	Oz.	Lbs.	Oz.	Lbs.	Oz.	Lbs.	Oz.
Medium potatoes cut through the center, seed end planted.....	12	7	8	2	28	6	4	8
“ “ cut through the center, butt end planted.....	13	2	7	5	19	4	5	6
“ “ only the eyes planted.....	6	9	9	5	12	4	1	6
“ “ cut into two pieces, and planted two inches deep...	21	12	10	13	19	14	2	10
“ “ cut into two pieces, and planted five inches deep...	29	1	8	7	21	6	3	10

The potatoes planted deeper came up sooner. Potatoes planted cut side up, came up sooner than those planted skin side up.

CROPS.

There have been grown upon the farm, forty tons of hay, five tons of oat fodder, two acres of corn fodder, six hundred and twenty-seven bushels of potatoes, ninety-six, bushels of barley, one hundred and twenty-eight bushels of English turnips, one hundred bushels ruta bagas, eighty-three bushels mangel wurzel, a few bushels of beets and carrots, and seventeen hundred pounds of Turban and Hubbard squashes. Green corn, peas, beans and cucumbers have been supplied to the boarding-house, also tomatoes, summer squashes and lettuce. Trophy, Keyes' Prolific, and Large Red tomatoes were grown. The Trophy were large, well formed, and yielded enormously. Keyes' Prolific were smaller, not so productive, nor so pleasing to the eye and taste. The Large Red (seeds from the Patent Office) were the earliest ripe, of good flavor, but irregular in shape.

STOCK OF THE FARM.

Thoroughbred Short Horn.—One bull, Napoleon I., eighteen months old; one cow, White Pink, four years old.

Grade Short Horn.—One heifer, three years old; two heifers, two years old; three yearling heifers.

Thoroughbred Jersey.—One bull, Champion, five years old; one bull, Slasher, eighteen months old; one bull calf.

Grade Jersey.—One heifer calf, nine months old; one heifer calf, six months old.

Native.—Six cows, three of which are well along in years, and will be disposed of as soon as practicable.

HORSES.

Four excellent team horses, which will, during the winter, be in the employ of parties engaged in lumbering. The horses will be driven by thoroughly competent men, one of whom has had charge of the team during the summer.

SWINE.

Seven, pure bred, White Chester.

SHEEP.

Twenty sheep, mostly Grade South Down.

Forty-two sheep and eleven head of cattle have been sold, and seventeen hundred pounds of pork have been made. It will be necessary to reduce the stock still further or buy hay.

IMPLEMENTS.

A Bay State Horse Rake, sent for trial by the Buckeye Mowing Machine Company, West Fitchburg, Mass., was used through the haying season, and gave entire satisfaction. Its peculiar excellencies are, ease of management and thorough neatness of work. The last quality is especially desirable in these years of short hay crops. The teeth curving well under, lift the hay and roll it forward, leaving the windrow comparatively loose and light. By this arrangement of the teeth, the grass roots are not torn from the soil, and but little of rubbish is gathered up and mixed with the hay.

Warrior Mower.—By favor of the manufacturers, the Warrior Mower, with four feet four inches cutter bar, used upon the farm last year, was taken in exchange for one of a larger size, which by reason of the longer cutter bar—five feet—was better adapted to the smooth fields and thin grass of the farm. The machine in appearance is compact and comely; for closeness and cleanliness of cut it can hardly be excelled. The larger part of our mowing was done with this machine. No weak points were developed, neither was it out of repair during the summer. For efficiency and durability it certainly takes high rank among the best mowers in use.

WANTS.

The one imperative want of the farm is a liberal application of manure. The soil has been exhausted by long continued cropping, and the mowing fields have, by frost and drouth, been almost entirely bereft of grass. The amount of dressing needed can be supplied from the resources of the farm itself, if the means of utilizing those resources are provided. A well arranged, warm barn for the stock, a manure cellar, where the droppings of the cattle can be saved and composted, a piggery, roomy and convenient, with large yards connected, in which the swine, supplied with turf from the swamp and the refuse from the garden and fields, can contribute their share to the plant food for the growing crops, are *absolutely indispensable*.

LABOR OF THE STUDENTS.

The students of the college, when assisting in the labors of the farm, have worked with diligence and evident cheerfulness. Their deportment has been uniformly respectful and kind. Their interest in the work assigned them, and the zealous and faithful manner in which their tasks have been performed, have rendered the oversight of their labor a real pleasure.

While the labor system affords educational facilities in the way of illustration and practice, and is important as a source of income to the student, it may, for reasons hereafter given, be a matter of question whether it is at present, or will in the immediate future become, pecuniarily profitable to the farm.

The price paid students for their labor is not wholly determined by its market value; their faithfulness and diligence are also taken into account. Young and inexperienced students, whose physical powers are not yet fully developed, who yet do their best in performing the tasks assigned them, if paid according to the real worth of what they accomplish, would stand comparatively low in the scale of prices, and would receive but small remuneration for their efforts, the effect of which would be discouraging in the extreme. The amount gained from the labor of those whose services are valuable beyond the price paid for them cannot be relied upon to cover the deficiency arising from this source.

Larger returns would be realized from the labors of the students if they worked in divisions, and those divisions were so arranged that when one left the field another would take its place, thus

continuing the labors of the farm without interruption through the day. Generally speaking, the labor of twelve men for ten hours can be made to yield more profit than the labor of forty men for three hours. This rule would certainly hold good when applied to the labor of students and the profit accruing therefrom. A change like that suggested it is not possible to arrange, hence more or less of loss must result from the intermittent character which the present system gives to the labors of the farm.

It is desirable to furnish employment for the students during as large a portion of their stay as possible. In a climate fitful and uncertain as ours, where the spring and autumn are often wet and otherwise unfavorable to prosecuting the labors of the farm, and with a soil peculiarly sensitive to the changes of the weather, it is not possible to extend the season of planting, cultivating and harvesting over a sufficient portion of the year to furnish the amount of work demanded. There is, however, much that *can* be done, that on a farm connected with an educational institution *ought* to be done, in the way of removing unsightly rocks and bushes from the fields and fence corners, and draining small swales and pond holes, which, since the land was first cleared of the forest growth, have produced only worthless grasses. From improvements of this sort, important and even necessary as they are, very little cash will ever be returned. To accomplish these improvements, hard work must be done with implements which require for their efficient and profitable use physical power and endurance. From the necessities of the case, also, this work must be done at a season of the year when water in the soil and the chill in the air combine to render it pecuniarily unprofitable. These are mentioned as some of the more prominent of the causes from which apparently a discrepancy must ever exist between the amount paid the students for their labor, faithful and efficient though it be, and the cash value of the returns which are realized from the labor they perform.

TREASURER'S REPORT.

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

My annual exhibit of Receipts and Expenditures from December 21, 1870 to December 1st, 1871, is herewith submitted:

General Account.

1870.		
Dec. 21	To balance account this day settled.....	\$1,620 36
1871.		
Jan. 27	paid S. F. Perley, Trustee, travelling expenses.....	100 25
	J. C. Madigan, Trustee, travelling expenses	81 25
	J. H. Lynde, printing.....	17 50
Feb. 10	Samuel Johnson, per order.....	300 00
Mar. 6	“ “ “	300 00
“ 16	M. C. Fernald, travelling expenses, &c.....	59 40
“ 25	B. A. Burr, printing.....	9 64
Aug. 18	S. L. Goodale, Trustee, expenses.....	117 00
May 27	John Swift, purchase of tools and seeds.....	100 00
June 9	J. C. Towle & Co., corn, meal, &c.....	262 37
“ 13	R. Davis & Co., merchandise.....	96 72
“ 16	J. R. Farrington, farm purposes.....	300 00
“ 17	B. A. Burr, printing.....	22 82
July 8	J. R. Farrington, per order.....	100 00
“ 15	S. F. Peckham, supplies.....	41 04
	S. F. Dike, Trustee, expenses.....	115 90
“ 22	J. R. Farrington, farm purposes.....	300 00
Aug. 11	B. A. Burr, printing.....	24 05
	Prof. S. F. Peckham, per order.....	41 28
		\$4,009 58
1871.	CREDIT.	
	Nothing.	
Dec. 1	By carried to new account.....	\$4,009 58

Construction Account.

1870.		
Dec. 22	To paid N. W. Bond, tin and stove work.....	\$150 00
“ 23	E. & N. A. Railway Co., gravel.....	15 00
1871.		
Jan. 6	W. H. Pennell & Co., gas, steam and water pipes	966 55
“ 21	William M. Rollins, lumber.....	300 40
“ 25	Thomas Kimball & Co, copper chambers.....	85 08
Feb. 17	C. B. Abbott, roofing slate.....	13 96
“ 21	William Henderson, Jr., painting.....	130 25
“ 23	S. P. Bradbury, soapstone.....	9 95

Construction Account—(Continued.)

1871.			
March	4	To paid Hill & Pearson, stove and pipe	\$12 65
"	8	William Lunt, boarding workmen	55 63
April	11	S. H. Dale & Co., cement	20 00
"	14	C. B. Brown, joiner work and stock	1,000 00
"	15	Patrick Wall, work on laboratory	14 00
"	19	David McMannus, furniture and cistern	99 75
"	27	A. P. Lansil, cistern	22 70
"	27	Samuel Johnson, cash borrowed	1,000 00
"	28	W. H. Pennell & Co., piping, &c.	300 00
"	28	Hill & Pearson, cook stove	57 00
"	29	Prof S. F. Peckham, laboratory	84 27
May	5	C. B. Brown, joiner work and stock	500 00
"	12	" " "	2,000 00
"	13	J. R. Farrington, construction	250 00
June	8	W. H. Pennell & Co., steam apparatus	200 00
"	16	C. B. Brown, construction	2,000 00
"	17	E. G. Harlow, pressed brick	8 00
"	19	S. F. Johnson, cash borrowed, per order	688 17
"	22	A. M. Roberts & Son, mats	14 25
July	4	Hinekley & Egery Iron Co., gas retort, &c.	97 77
"	20	C. B. Brown, construction	1,000 00
Aug.	4	W. H. Pennell & Co., heating apparatus	200 00
Sept.	2	" " "	2,400 00
"	2	C. B. Brown, work on dormitory	1,000 00
"	6	" " "	1,000 00
"	9	William Lunt, boarding workmen	30 00
Oct.	11	A. W. Reed, furniture, &c	100 00
"	27	C. B. Brown, balance due on contract	2,755 86
"	28	David McMillan, balance due	274 25
		M. Schwartz, window glass	4 80
		Wood, Bishop & Co., stoves, ventilators, &c.	117 13
		George T. Allamby, numbers	13 05
Oct.	31	George W. Merrill, curtain fixtures, &c.	46 66
		A. Leighton, plumbing	57 00
			19,094 13
Dec.	1	Credited in new account	4,257 22
			\$23,351 35
1870.		CREDIT.	
Dec.	21	By balance account this day settled	7,763 02
June	1	received of William Caldwell, Treasurer, in part for State appropriation	3,000 00
June	12	received as above, the balance of said appropriation	3,000 00
Sept.	2	received for discount of Treasurer's note, endorsed by the following named Trustees of College, viz: Abner Coburn, S. F. Dike, S. L. Goodale, William P. Wingate and Lyndon Oak. Said note was dated Aug. 31, 1871, c. six months, for \$10,000. Less for stamps and discount, \$411.67	9,588 33
			\$23,351 35

Congressional Endowment Account.

1871.			
Jan.	10	To paid Prof. S. F. Peckham's salary 3 months, to Dec. 1, 1870....	\$350 00
"	16	Samuel Johnson's salary 3 months, to Dec. 1, 1870	225 00
"	25	Prof. S. F. Peckham, for purchase of periodicals.....	50 00
		" " purchase of chemical apparatus, &c.	413 51
Feb.	10	John Swift, teaching	75 00
"	14	Prof. C. I. Alden, lectures on mechanics	220 00
March	1	" M. C. Fernald, 3 months' salary to date.....	450 00
"	6	" S. F. Peckham, 3 months' salary to March 1st.....	350 00
"	16	" M. C. Fernald, library purpose.....	100 00
"	25	John Swift, teaching.....	125 00
April	3	Calvin Cutter, lectures.....	100 00
"	18	Samuel Johnson, 3 months' salary.....	225 00
"	21	John Swift, teaching	200 00
"	22	C. B. Laking, teaching book-keeping.....	80 00
May	2	Mrs. M. L. Fernald, teaching French and German.....	200 00
June	1	Prof. M. C. Fernald, in part for salary	150 00
"	3	" S. F. Peckham, 3 months' salary	350 00
"	3	John Swift, purchase of botanical drawings.....	144 95
"	20	Prof. E. S. Morse, lectures.....	324 70
		" M. C. Fernald, balance of salary	300 00
		" A. S. Packard, lectures.....	180 00
July	22	J. R. Farrington, 3 months' salary.....	225 00
"	26	John Swift, balance due on salary to August 1st.....	250 00
Aug.	2	Mrs. M. L. Fernald, instruction in French and German... William E. Hoyt, descriptive geometry and mechanical drawing.....	200 00 228 33
"	4	James Dean, military tactics	40 90
"	11	E. B. Benjamin, chemicals, &c.....	79 22
"	14	Prof. S. F. Peckham, 3 months' salary.....	350 00
"	14	John Swift, salary, &c.....	48 09
"	19	J. R. Farrington, farm purposes	300 00
		" " " contracted by his prede- cessor.....	100 00
Sept.	5	Prof. M. C. Fernald, 3 months' salary	450 00
"	7	" " postage, stationery and travelling ex- penses.....	64 81
"	7	John Swift, balance of salary.....	86 30
"	7	A. W. Reed, boarding master.....	100 00
"	11	G. W. Merrill & Co., furniture.....	312 30
"	18	Prof. W. A. Pike, engineering instruments.....	190 00
Oct.	7	J. R. Farrington, farm purposes	400 00
"	14	" " 3 months' salary.....	225 00
		Bacon & Huckins, coal.....	289 36
Nov.	7	Prof. M. C. Fernald, library purposes	75 00
"	8	J. R. Farrington, farm purposes	300 00
"	13	E. & N. A. Railway Co., transportation of coal.....	36 17
"	25	Prof. W. A. Pike, 3 months' salary.....	350 00
		" C. H. Fernald, 3 months' salary.....	350 00
			\$9,663 64

CATALOGUE

OF THE

OFFICERS AND STUDENTS

OF THE

Maine State College of Agriculture and the Mechanic Arts,

ORONO, ME., NOVEMBER, 1871.

FACULTY.

Rev. CHARLES F. ALLEN, A. M.,

President and Professor of English Literature, Mental and Moral Science.

MERRITT C. FERNALD, A. M., Professor of Mathematics and Physics.

ROBERT L. PACKARD, A. M.,

Professor of Chemistry, French and German.

WILLIAM A. PIKE, C. E., Professor of Civil Engineering.

CHARLES H. FERNALD, A. M., Professor of Natural History.

JOSEPH R. FARRINGTON, Farm Superintendent.

X. A. WILLARD, A. M., Lecturer on Dairy Farming.

JAMES J. H. GREGORY, A. M.,

Lecturer on Market Farming and Gardening.

Capt. JAMES DEANE, Military Instructor.

JOHN PERLEY, Instructor in Book-keeping and Commercial Forms.

v. A. W. REED, Steward.

STUDENTS.

SENIOR CLASS.

Gould, Benjamin Flint,	.	.	.	.	Waterville.
Hammond, George Everett,	.	.	.	.	Eliot.
Haskell, Edwin James,	.	.	.	.	Saccarappa.
Hilliard, Heddle,	.	.	.	.	Oldtown.
Thomas, Eber Davis,	.	.	.	.	Brownville.
Weston, George Osmer,	.	.	.	.	Madison.

JUNIOR CLASS.

Hamlin, George Herbert,	Sidney.
Holt, Fred William,	Hampden.
Oak, John Marshall,	Garland.
Reed, Charles Emery,	Orono.
Scribner, Frank Lamson,	Manchester.
Thayer, Harvey Bates,	Garland.

SOPHOMORE CLASS.

Gerrish, Willie Herbert,	Portland.
Gurney, John Irvine,	Foxcroft.
Hunter, Rodney David,	Clinton.
Osgood, Charles Frederic,	Garland.
Reed, William Henry,	Springfield.
Wood, William Ireland,	Stetson.

FRESHMAN CLASS.

Ballentine, Walter,	Waterville.
Bellows, Gustavus,	Freedom.
Blossom, Leander Huzzy,	Turner.
Bumps, Wilbur,	Bangor.
Burleigh, Frank Pierce,	Springfield.
Carver, John Henry,	Lagrange.
Coburn, Lewis Farrin,	Brunswick.
Colesworthy, Charles Franklin,	Portland.
Durham, Charles Frederic,	Monroe.
Gage, George Newton,	E. Washington, N. H.
Goodale, Alfred Montgomery,	Saco.
Ham, Benson Hayes,	Charleston.
Hitchings, Edson Fobes,	Waterville.
Jackson, Alton Atwell,	Jefferson.
Jackson, Manley,	Jefferson.
Jones, Freeland,	Bangor.
Moore, Fred Lampson,	Sebec.
Oak, Ora,	Garland.
Rogers, Luther Woodman,	Stillman.
Sewall, Minott Wheelwright,	St. Albans.
Shaw, George Moore,	Augusta.
Spratt, George Wilbur, Jr.,	Bangor.
Spring, Charles Herbert,	Brownville.
Webb, Wesley,	Unity.

SUMMARY.

Seniors,	6
Juniors,	6
Sophomores,	6
Freshman,	24
Total,	42

DESIGN OF THE INSTITUTION.

It is the design of the Maine State College of Agriculture and the Mechanic Arts 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 a part of his 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.

Although the knowledge of Latin is not required as a condition of admission, yet the study of that language is earnestly recommended to all who intend to enter this institution.

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.

COURSES OF INSTRUCTION.

Four full Courses are provided, viz: A Course in Agriculture, a Course in Civil Engineering, a Course in Mechanical Engineering, and an Elective Course. The studies of the several Courses are essentially common for the first two years.

Branches marked thus, (E.) are Elective, and from them students may select, with the advice of the Faculty, to make up the required number (three) of daily exercises.

FIRST YEAR—FIRST TERM. Physical Geography, Colton; physical features of the globe, continents, mountain ranges, river systems, volcanoes, earthquakes, ocean currents. Algebra, Robinson. Rhetorical praxis, Day; English analysis.

SECOND TERM. Physics, Ganot; general properties of bodies, hydrostatics, pneumatics, acoustic. Algebra, Robinson. Book-keeping and commercial forms; botany, Gray.

THIRD TERM. Physics, Ganot; heat, light, electricity. Meteorology; winds, clouds, dew, rain, hail, snow, climate, &c. Geometry, Loomis. Botany, Gray & Darlington; horticulture.

English Composition and Declamation and the Reading of Ancient and Mediæval History, regular exercises throughout the year. Lectures on Physics, Meteorology, Physical Geography, Botany, Horticulture, and Agriculture, its importance and its relations to other pursuits.

SECOND YEAR—FIRST TERM. Chemistry, Elliot & Storer. Geometry, Loomis. Botany, Johnson. Horticulture. Elements of agriculture, Waring.

SECOND TERM. (E.) Chemistry, (qualitative analysis). (E.) Mineralogy, Dana. (E.) History of France. Trigonometry; plane, spherical. Mensuration. French, Magill.

THIRD TERM. (E.) Chemistry (quantitative analysis). (E.) History of England, Elizabethan Age. Surveying, Gillespie; with chain, compass, computing areas, dividing lands, levelling, topographical drawing. Navigation. French, Magill.

English Composition and Declamation, and Free-hand Drawing, regular exercises throughout the year. Lectures on Chemistry and Mineralogy, on Structural, Physiological and Systematic Botany; on Horticulture, including Market Gardening and the Culture of the Small Fruits, and on Practical Agriculture.

THIRD YEAR—COURSE IN AGRICULTURE—FIRST TERM. Human and Comparative Anatomy and Physiology, Carpenter. Origin, preparation and analysis of soils, fertilizers, ashes, &c. French, Magill.

SECOND TERM. Zoology, Tenney. Farm implements, mechanical cultivation of the soil. Farm Drainage, Waring. (E.) Rhetoric, Haven. (E.) German.

THIRD TERM. Mechanics, Peck. Dairy Farming, Flint. Entomology, Packard. (E.) Logic. (E.) German. (E.) English Literature.

Lectures on Comparative Anatomy and Zoology, Drainage, Dairy Farming, Beneficial and Injurious Insects, and English Literature.

THIRD YEAR—COURSE IN CIVIL ENGINEERING—FIRST TERM. Human and Comparative Anatomy and Physiology, Carpenter. Analytical Geometry, Todhunter. French, Magill.

SECOND TERM. (E.) Zoology. Differential Calculus, Church. Descriptive Geometry, Watson. Free-hand Drawing. Mechanical Drawing. Engineering; Henck's field book, survey and construction of roads and railways, computation of earthwork and masonry. (E.) Rhetoric, Haven. (E.) German.

THIRD TERM. Integral Calculus, Church. (E.) Descriptive Astronomy; The earth, sun, moon, gravitation, planets, comets, nebulae. Mechanics, Rankine. Drawing; plans, profiles, elevations, sections, &c. (E.) Logic. (E.) German. (E.) English Literature.

Lectures on Comparative Anatomy and Zoology, Astronomy and English Literature.

THIRD YEAR—COURSE IN MECHANICAL ENGINEERING. Same as Course in Civil Engineering, third year.

FOURTH YEAR—COURSE IN AGRICULTURE—FIRST TERM. Geology, Dana.

Stock Breeding; Goodale. Sheep Husbandry. Veterinary Art. (E.) German. (E.) English Literature. (E.) History of Civilization.

SECOND TERM. Constitution of the United States. Cultivation of the Cereals. Landscape Gardening. Rural Architecture. (E.) Mental and Moral Philosophy. (E.) International Law.

THIRD TERM. Political Economy. Rural Economy of England and the United States. Rural Law. (E.) Mental and Moral Philosophy. (E.) International Law.

Lectures on Geology, Stock Breeding, Cultivation of Grasses and the Cereals, and Rural law.

FOURTH YEAR—COURSE IN CIVIL ENGINEERING—FIRST TERM. Geology. Practical Astronomy; time, latitude, longitude. Engineering, Rankine; survey and construction of canals, drainage, field practice, building materials, [stones, bricks, mortars, cements.] Descriptive Geometry, Watson; application to masonry and carpentry. Drawing; plans, profiles, elevations, sections, &c. (E.) German. (E.) English Literature. (E.) History of Civilization.

SECOND TERM. Constitution of the United States. Engineering, Rankine; strength of materials, structures of stone, [foundations, retaining walls, arches, bridges,] hand machinery, water wheels. Descriptive Geometry, Watson; applications to masonry and carpentry. Drawing; plans, profiles, elevations, sections, &c. (E.) Mental and Moral Philosophy. (E.) International Law.

THIRD TERM. Political Economy. Engineering, Rankine; structures of wood, framing, [trusses, girders, arches, roofs, bridges,] structures of iron, [foundations, beams, girders, columns, roofs, bridges,] field practice, boilers, steam engines. Drawing; plans and specifications. (E.) Mental and Moral Philosophy. (E.) International Law.

FOURTH YEAR—COURSE IN MECHANICAL ENGINEERING—FIRST TERM. Geology, Dana. (E.) Practical Astronomy; time, latitude, longitude. Applied Mechanics, Rankine; principles of mechanism, materials, construction and strength of machinery, measurement of effect of machines, brakes, fly-wheels, governors, &c. Descriptive Geometry, Watson; applications to masonry, carpentry and machinery. Drawing; machinery. (E.) German. (E.) English Literature. (E.) History of Civilization.

SECOND TERM. Constitution of the United States. Building Materials; stones, bricks, mortars and cements. Hand Machinery, Rankine; cranes, derricks, pumps, &c., cutting tools, water wheels. Descriptive Geometry, Watson; applications to masonry, carpentry and machinery, modelling. Drawing; machinery. (E.) Mental and Moral Philosophy. (E.) International Law.

THIRD TERM. Political Economy. Steam Engines, Rankine; stationary, locomotive, marine, power and strength of boilers. Drawing; plans and specifications, projects of machinery, mills, &c. (E.) Mental and Moral Philosophy. (E.) International Law.

English Composition and Original Declamation, regular exercise during the last two years of each course. Instruction will be given, at stated times, in Military Tactics.

ELECTIVE COURSE. Students in the Elective Course will pursue the re-

quired studies common to all the other courses, and may select from the other courses and the elective studies, to make up their full course.

SPECIAL COURSE. Students may be received for less time than the full course, and may select from the studies of the first, second, or third terms of any year, such branches of study as they choose, provided they are qualified to pursue them successfully. Students in the Special Course will not be entitled to a Degree, but certificates of proficiency may be given them.

DEGREES CONFERRED. The full course in Civil Engineering entitles to the Degree of Civil Engineer; the full course in Mechanical Engineering to the Degree of Mechanical Engineer; the full course in Agriculture, or the full Elective Course, to the Degree of Bachelor of Science.

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 the 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 processes 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 two hours a day to Analysis, under the direction of the Professor of Chemistry, thus acquiring facility 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 directions 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.

The European and North American Railroad, over which trains pass several times each day, has a station at the village of Orono. The college is within nine miles of the city of Bangor, and is consequently 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 which has been used as a Dormitory for the three years past, contains eighteen rooms, and affords excellent accommodations for a limited number of students. Some of the lower rooms of this building are appropriated to general and class purposes.

The new Hall contains forty-eight rooms. The Boarding House connected with the other college buildings is open to students. With these new buildings, the institution furnishes desirable accommodations for one hundred and twenty-five students.

The Chemical Laboratory contains two apparatus rooms, a lecture room, a cabinet, a library and weighing room, a recitation room, and rooms for analytical and other purposes, and is in all respects admirably adapted to the wants of the Chemical and Mineralogical departments.

APPARATUS.

The College is furnished with new and valuable apparatus for the departments of Physical Geography, Natural Philosophy and Chemistry, and for Surveying and Civil Engineering, to which additions will be made as the exigencies of the several departments require.

LIBRARY

The Library already contains several hundred volumes, some of which have been obtained by purchase, while others have been kindly donated to the College. 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 works, but also of works of interest to the general reader.

READING ROOM.

The Reading Room is supplied with a limited number of newspapers and periodicals. Grateful acknowledgement is herewith made for the following named papers generously sent by the proprietors to the College :

The Aroostook Times, Houlton, Maine.

The Sunrise, Presque Isle, Maine.

The Piscataquis Observer, Dover, Maine.

The American Sentinel, Bath, Maine.

The Maine Farmer, Augusta, Maine.

The Maine Standard, Augusta, Maine.

The Somerset Reporter, Skowhegan, Maine.

The Kennebec Journal, Augusta, Maine.

The New England Farmer, Boston, Mass.

The Country Gentleman, Albany, N. Y.

Moore's Rural New Yorker, New York City.

The Boston Daily Advertiser is sent by Hon. S. H. Dale, Bangor.

The New York Tribune is furnished by S. Johnson, A. M.

La Semaine Agricole, by subscription.

The following journals are furnished by subscription to the Reading Room, viz: The American Chemist, Scientific American, The Chemical News, Silliman's Journal, The Gas Light Journal, Journal of the Royal Agricultural Society, (England) Boston Journal of Chemistry, Bowdoin Scientific Review, Atlantic Monthly, Appleton's Journal and Littell's Living Age.

CABINET.

A room in the Chemical Laboratory has been fitted up with cases for Minerals, and a few hundred specimens have been presented to the College. All specimens thus donated 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 students 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 chairs. All other bedding and furniture must be supplied by the students, who will also furnish their own lights. Board, washing and fuel, will be furnished at cost. The price of board has been, hitherto, three dollars per week, and fuel and washing fifty cents per week. 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 maximum amount paid will be thirty 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.

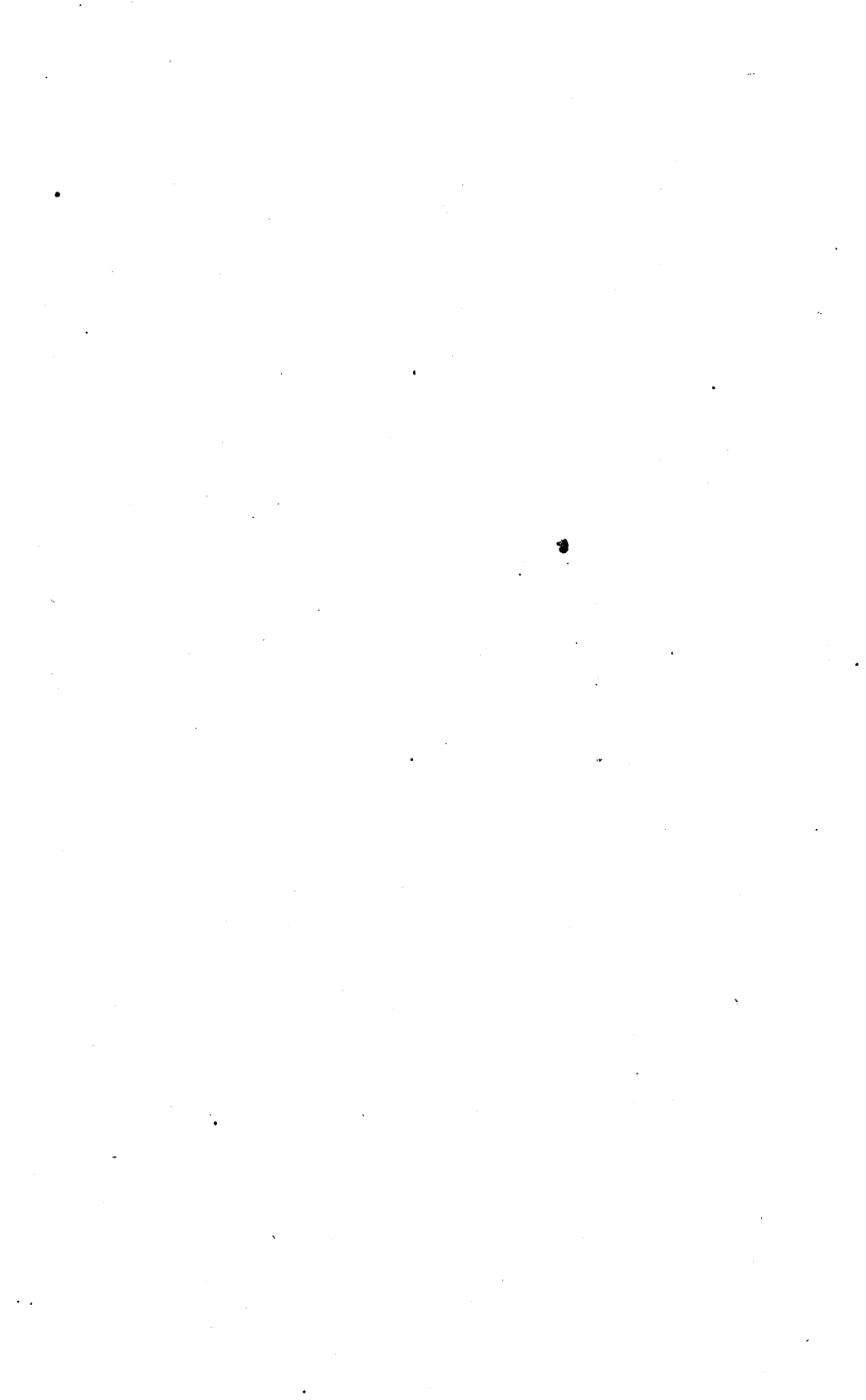
Each student is required, at the commencement of his college course, to deposit with the Treasurer of the College, a bond for \$100, signed by responsible sureties, to secure the payment of his board bill, and any incidental charges.

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.

CALENDAR.

1871. Aug. 31—Thursday, First Term commenced.
 “ Nov. 28 and 29—Tuesday and Wednesday, Examination. First Term closes. Vacation of ten weeks.
1872. Feb. 6—Tuesday, examination for advanced standing.
 “ Feb. 8—Thursday, Second Term commences.
 “ April 30 and May 1—Tuesday and Wednesday, Examination. Second Term closes. Vacation of one week.
 “ May 9—Thursday, Third Term commences.
 “ Aug. 5 and 6—Monday and Tuesday, Examination.
 “ Aug. 6—Tuesday, Exhibition Junior and Sophomore Classes.
 “ Aug. 7—Wednesday, Commencement.
 “ Aug. 8—Thursday, Examination for admission to College. Vacation of three weeks.
 “ Aug. 27—Examination for admission to College.
 “ Aug. 29—First Term commences.
 “ Nov. 26 and 27—Tuesday and Wednesday, Examination. First Term closes.



DONATIONS.

TO THE LIBRARY.

From Hon. Hannibal Hamlin. Congressional Documents and Miscellaneous Works. 278 volumes.

From John M. Oak, Garland. Documentary History of Maine. Second series. Volume I.

From A. W. Paine, Esq., Bangor. Third Annual Report of Insurance of the State of Maine.

From Samuel B. Schieffelin, New York City. The Foundations of History. (A Series of First Things.)

From Charles S. Atkins, Augusta. Fourth Annual Report of the Commissioner of Fisheries of Maine.

From Dr. A. S. Packard, Jr., Salem, Mass. Injurious Insects, New and but Little Known. Pamphlet.

From Hon. S. L. Goodale, Saco. Twenty copies Agriculture of Maine. Second Series:

From Hon. J. T. Woodward, Augusta. Public Documents, Maine. 1870. 1 volume.

From Hon. S. H. Dale, Bangor. Centennial Celebration, Bangor.

TO THE CABINET.

From Rev. Theodore Hill, West Waterville. A rib and two vertebræ of a whale.

From S. P. Bradbury, Bangor. Specimens of marble.

From Prof. M. C. Fernald, Orono. One hundred minerals.

TO THE READING ROOM.

From the publishers: The Sunrise, Piscataquis Observer, Somerset Reporter, Aroostook Times, American Sentinel, Maine Farmer, Maine Standard, New England Farmer, Moore's Rural New Yorker, Kennebec Journal, Country Gentleman. From Hon. S. H. Dale, The Boston Daily Advertiser.

TO THE FARM.

Bay State Horse Rake, by the Buckeye Mowing Machine Company, West Fitchburg, Mass.

Yearling Bull (Jersey,) by Hon. Edward Brooks, West Medford, Mass.

Exchanged a Warrior Mowing Machine, by the company, for one of larger size.

Bull Calf (Jersey,) by George Hamilton, Esq., Dexter.

Four varieties of Potatoes from Michigan, by Mr. John Swift, Detroit, Mich.

Several varieties of Seeds, from the Department of Agriculture, Washington, D. C.

Two Ewe Lambs (South Down,) from Hon. Lyman Dike of Boston, Mass.

REGISTER
OF
METEOROLOGICAL OBSERVATIONS
FOR THE YEAR 1871,

TAKEN AT THE

Maine State College of Agriculture and the Mechanic Arts,

BY PROF. M. C. FERNALD.

Latitude $44^{\circ} 53' 10''$. Longitude $68^{\circ} 38' 57''$ W. 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., *nimbus*, 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 at which it would stand were its temperature 32 degrees Fahrenheit.

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 representing all the moisture the air is capable of containing at that temperature, or complete saturation.

An examination of the tables shows that the warmest day of the year was the 30th of May, when the mean temperature was 76°; and the coldest day the 23d of January, when the mean temperature was 14° below zero.

The highest temperature (88°.6) recorded during the year, was on May 30th, and the lowest temperature (20°.6 below zero) on the 23d of January.

The range of temperature between the two extremes is 109°.2 degrees, which corresponds precisely with that of 1869. The corresponding range of temperature for 1870 was 111 degrees.

A comparison of the several months of the year with corresponding months of 1870, in regard to temperature, is given below:

January,	9°.01	colder	than	the	corresponding	month	of	1870.
February,	1°.68	warmer	“	“	“	“	“	“
March,	6°.75	“	“	“	“	“	“	“
April,	2°.66	colder	“	“	“	“	“	“
May,	1°.22	“	“	“	“	“	“	“
June,	3°.75	“	“	“	“	“	“	“
July,	1°.83	“	“	“	“	“	“	“
August,	0°.86	“	“	“	“	“	“	“
September,	3°.06	“	“	“	“	“	“	“
October,	0°.43	warmer	“	“	“	“	“	“
November,	7°.58	colder	“	“	“	“	“	“
December,	7°.00	“	“	“	“	“	“	“

It will be perceived that from April to October during essentially the growing season, the temperature was lower than during the corresponding period of the preceding year. The months of January, November and December were, in a marked degree, colder than the corresponding months of 1870, while the month of March was strikingly warmer than March 1870, and nearly 12° warmer than March 1869. The ice left the Penobscot river at Bangor on the 13th of March, eight days earlier than the earliest date (March 21st, 1842) recorded heretofore for more than a century. Light autumnal frosts were noted as early as the 11th and 12th of September, and quite a heavy frost on the morning of the 14th of September.

The mean temperature for the year, was 2°.34 lower than the mean temperature of 1870, and 0°.15 higher than that of 1869.

During the months of June and July the amount of rain was considerably less than the average rainfall for two months, and from the 1st to the 27th of August there fell but .74 of an inch. The month of September was remarkable for its small amount of rain—only 1.10 inches—while the rainfall of October was excessive, being no less than 7.50 inches. On the 12th of October, from 8¼ A. M. to 11¼ A. M., there fell 2.50 inches of rain. In 1870, the rainfall for October was 5.53 inches, and in 1869, 9.57 inches.

The total rainfall for the year was about two-thirds of an inch greater than that of 1870; and the amount of snow about two inches more than for that year.

There was during the year no gale so violent as the gales of the two preceding years. On the 19th of October, at 4.47 P. M., several slight shocks of an earthquake were perceived, continuing about 30 seconds—the direction seemingly from S. W. to N. E. It will be remembered that in 1870 an earthquake occurred on the 20th of October, and in 1869 on the 22d of the same month. The prevailing wind during the year was from the northwest. The barometer indicated the greatest pressure of the atmosphere in January, the least, in December. The least mean pressure was during the month of April.

For other facts in regard to temperature, winds, clouds rain, snow, &c., see tables and summary.

FOR THE MONTH OF JANUARY, 1871.

Day of Month	THERMOMETER IN THE OPEN AIR.				RAIN AND SNOW.				CLOUDS.				WINDS.				THERMOMETER.		BAROMETER.				FORCE OR PRESSURE OF VAPOR IN INCHES.			RELATIVE HUMIDITY OR FRACTION OF SATURATION.			Day of Month					
					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.	7 A. M.		2 P. M.		9 P. M.		7 A. M.		2 P. M.		9 P. M.		Maximum.	Minimum.	BAROMETER HEIGHT REDUCED TO FREEZING POINT.				FORCE OR PRESSURE OF VAPOR IN INCHES.			RELATIVE HUMIDITY OR FRACTION OF SATURATION.				
	7 A. M.	2 P. M.	9 P. M.	Mean.					Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.			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.	7 A. M.
1	20.5	21.3	14.7	18.8					1	Cir. st.	2	Cu. st.	1	Cir.	N. W.	2	N. W.	3	N. W.	1	30.0	14.7	29.572	29.615	29.749	29.645	.086	.066	.074	78	57	87	1	
2	4.2	24.3	17.9	15.5	9 1/2 A. M.	4 1/2 P. M.	.157	1.50	6	Cir. st.	10	Nim.	8	Cir. st.	N. W.	1	S. E.	2	N. W.	2	24.5	3.5	29.855	29.538	29.439	29.611	.046	.129	.090	87	99	92	2	
3	17.3	21.0	22.1	20.1					0		0		1	Cir. st.	W.	2	S. W.	2	S. W.	1	22.1	16.9	29.643	29.770	29.775	29.729	.056	.052	.080	59	46	68	3	
4	4.7	6.5	-11.2	0.0					0		0		0		N. W.	2	N. W.	1	S.	1	23.1	4.0	29.942	30.006	30.130	30.026	.024	.024	.023	45	41	90	4	
5	-17.1	14.2	36.2	11.1	8 1/2 A. M.	5 P. M.	.051	.50	10	Str.	10	Nim.	10	Str.	N. E.	1	N. E.	1	S.	2	36.2	-17.1	30.159	29.893	29.657	29.903	.018	.076	.178	94	93	83	5	
6	29.2	38.0	33.2	33.5	9 1/2 A. M.	Night.	.125		10	Str.	10	Str.	10	Str.	S.	1	S.	1	N.	1	38.7	29.0	29.593	29.539	29.536	29.556	.158	.218	.176	98	95	93	6	
7	23.1	16.5	3.8	14.5					8	Cu. st.	1	Cu. st.	0		N. W.	2	N. W.	2	N. W.	2	33.2	3.8	29.672	29.771	29.969	29.804	.085	.054	.038	69	58	74	7	
8	-11.2	3.8	-0.6	-2.7					0		0		5	Str.	N. W.	1	N.	1	N.	1	5.9	-12.0	30.022	30.014	30.035	30.024	.019	.034	.037	76	66	88	8	
9	-5.8	3.3	-1.0	-1.2					10	Str.	9	Str.	0		N.	3	N.	3	N. W.	3	3.3	-6.1	30.066	30.068	30.067	30.067	.029	.046	.035	89	92	84	9	
10	-10.0	12.2	5.2	2.5					1	Str.	0		0		N. W.	1	N. W.	3	N. W.	2	14.0	-10.0	30.030	29.914	29.933	29.959	.027	.032	.046	95	42	82	10	
11	0.8	19.0	22.2	14.0					5	Cir. st.	8	Str.	10	Str.	E.	1	N. E.	1	N. E.	1	23.0	0.0	30.036	30.021	29.980	30.012	.041	.056	.099	91	54	83	11	
12	23.8	27.8	28.3	26.6					9	Str.	10	Str.	10	Str.	N. E.	1	N.	1		0	28.3	22.2	30.196	30.272	30.338	30.269	.103	.129	.149	80	85	94	12	
13	30.7	37.7	35.6	34.7	Night.				10	Str.	8	Cir. st.	10	Str.		0	S.	2	N. E.	1	38.0	28.3	30.376	30.367	30.324	30.356	.155	.190	.204	89	83	97	13	
14	32.7	37.0	36.3	35.3		7 1/2 A. M.	.020		10	Nim.	0		10	Str.	N. E.	1	S. W.	1	S. E.	2	39.5	32.7	30.274	30.226	30.344	30.281	.181	.199	.174	97	90	80	14	
15	28.8	28.0	33.0	29.9	8 A. M.				10	Str.	10	Str.	10	Str.	N. E.	2	N. E.	1	N. E.	1	36.3	27.5	30.373	30.313	30.167	30.284	.142	.145	.168	89	94	89	15	
16	38.0	39.5	35.2	37.6					10	Nim.	10	Nim.	10	Nim.	N. E.	1	N. E.	1	N. E.	1	42.0	33.0	29.868	29.675	29.585	29.709	.229	.236	.200	100	97	97	16	
17	23.7	25.5	20.0	23.1		9 A. M.	1.500	3.00	10	Nim.	1	Cir. & Str.	0		N. E.	4	N. W.	2	N. W.	2	35.2	20.0	29.416	29.707	29.849	29.657	.119	.086	.084	92	63	78	17	
18	15.5	18.5	6.6	13.5					2	Str.	1	Cir. st.	0		N. W.	1	N.	2	N. W.	1	20.0	6.6	30.082	30.190	30.391	30.221	.065	.059	.048	74	58	81	18	
19	-5.5	10.0	-1.0	1.2					1	Str.	0		0		N.	1	N. W.	1	N. W.	1	10.0	-5.5	30.584	30.585	30.528	30.566	.034	.040	.035	100	58	84	19	
20	9.2	28.7	29.3	22.4					10	Str.	9	Str.	10	Str.	S.	1	S. W.	2	S.	2	30.0	-1.0	30.391	30.210	30.097	30.233	.063	.114	.139	96	72	86	20	
21	22.5	30.0	27.3	26.6	9 1/2 A. M.	12 M.	.078	.75	10	Str.	10	Nim.	10	Str.	N. E.	1	N. E.	1	N. E.	1	31.0	22.0	29.807	29.626	29.392	29.608	.112	.130	.131	93	78	88	21	
22	23.2	6.0	-10.4	6.3					9	Str.	2	Cir. st.	0		N. W.	3	N. W.	4	N. W.	4	27.3	-10.4	29.263	29.330	29.598	29.397	.108	.037	.021	86	64	81	22	
23	-20.6	-11.0	-13.0	-14.9					0		1	Cir. st.	2	Str.	N. W.	4	N. W.	3	N. W.	1	-9.5	-20.6	29.992	30.155	30.228	30.125	.011	.020	.018	73	76	74	23	
24	-17.0	-7.2	-3.5	-9.2	1 1/2 P. M.	Night.	.169	1.75	8	Cir. st.	10	Nim.	10	Nim.	N. E.	2	N. E.	2	N. E.	2	-1.5	-17.0	30.242	30.170	30.080	30.164	.017	.025	.033	88	80	90	24	
25	-7.7	2.0	-14.5	-6.7					2	Cir. st.	0		0		W.	1	N. W.	4	N. W.	4	3.0	-14.5	30.063	30.203	30.454	30.240	.028	.027	.015	92	58	72	25	
26	-18.7	-7.4	-6.0	-10.7	8 1/2 P. M.				4	Str.	10	Str.	10	Nim.	N. E.	1	N. E.	1	N. E.	1	-6.0	-18.7	30.568	30.423	30.242	30.411	.014	.006	.033	78	17	100	26	
27	-3.5	13.0	13.3	7.6		3 P. M.	.230	4.50	10	Nim.	10	Nim.	0		N. E.	1	N. E.	1	N. W.	2	13.3	-6.0	29.862	29.641	29.734	29.746	.037	.070	.050	100	91	63	27	
28	0.0	9.0	0.5	3.2					1	Str.	0		0		S. W.	1	W.	2	W.	1	9.5	-0.5	30.052	30.077	30.191	30.107	.030	.030	.039	69	46	85	28	
29	0.7	6.7	8.3	5.2	9 A. M.	3 P. M.	.107	1.50	10	Str.	10	Nim.	10	Str.	N. E.	1	N. E.	1	N. E.	1	8.3	0.5	30.156	30.126	29.950	30.077	.042	.053	.057	94	88	89	29	
30	15.0	28.3	24.5	22.6					10	Str.	2	Str.	9	Str.	S. W.	1	S. W.	2	S. W.	1	28.5	8.3	29.954	30.048	30.103	30.035	.071	.114	.109	82	74	83	30	
31	26.2	36.7	36.4	33.1	9 A. M.		.160		10	Str.	10	Nim.	10	Nim.	S.	1	S.	2	S.	2	36.7	24.0	30.021	29.806	29.593	29.807	.134	.210	.218	94	95	100	31	
Sums.							2.597	13.50	6.4		5.3		5.4				N. W. & W.	.47				21° 74	5° 08			29.988	.074	.087	.090	85	71	85	Sums.	
Means				13° 34					Mean		5.7						S. W. & S	.16	Max			42° 00	-20° 06	Min.		Max.	30 585	Mean	.084	Mean	80		Means	
																	S. E. & E	.05							Min.	29 263	Max.	.236	Max.	100				
																	N. E. & N	.32								Min.	.006	Min.	.006	Min.	17			

FOR THE MONTH OF FEBRUARY, 1871.

Day of Month	THERMOMETER IN THE OPEN AIR				RAIN AND SNOW.				CLOUDS.				WINDS.				THERMOMETER.		BAROMETER.				FORCE OR PRESSURE OF VAPOR IN INCHES.			RELATIVE HUMIDITY OR FRACTION OF SATURATION.			Day of Month				
					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.	7 A. M.		2 P. M.		9 P. M.		7 A. M.		2 P. M.		9 P. M.		Maximum.	Minimum.	BAROMETER HEIGHT REDUCED TO FREEZING POINT.				FORCE OR PRESSURE OF VAPOR IN INCHES.			RELATIVE HUMIDITY OR FRACTION OF SATURATION.			
	7 A. M.	2 P. M.	9 P. M.	Mean.					Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.			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	36.3	41.2	30.6	36.0		5 A. M.		8 Str.	3 Cir. & Str.	3 Cir.	S.	1	N. W.	3	W.	1	42.5	30.6	29.411	29.681	29.774	29.622	.205	.149	.127	95	57	74	1				
2	24.4	35.0	34.8	31.4				9 Str.	10 Str.	8 Str.	N. E.	1	S.	1	S.	3	35.7	24.0	29.906	29.698	29.340	29.648	.115	.164	.167	87	80	82	2				
3	5.5	11.5	19.2	12.1				7 Str.	4 Cir. st.	8 Cir. st.	N. W.	4	S. W.	3	S. W.	2	34.8	5.5	29.517	29.492	29.118	29.376	.035	.037	.090	63	50	85	3				
4	0.3	-6.7	-11.0	-5.8				3 Str.	1 Cir. cu.	0	N. W.	3	N. W.	5	N. W.	4	19.5	-11.0	29.181	29.294	29.405	29.293	.033	.018	.015	76	60	66	4				
5	-16.7	0.0	-3.8	-6.8				0	0	0	N. W.	3	N. W.	3	N. W.	3	0.0	-16.7	29.554	29.536	29.644	29.578	.013	.023	.026	69	54	72	5				
6	-5.5	12.0	10.8	5.8				0	0	0	N. W.	2	N. W.	1	N. W.	1	12.0	-5.7	29.755	29.792	29.949	29.832	.027	.038	.057	81	51	80	6				
7	2.8	25.8	15.0	14.5				4 Str.	0	0	S.	1	N. W.	1	N. W.	1	26.0	2.4	30.125	30.126	30.152	30.134	.043	.089	.056	86	63	65	7				
8	9.0	28.2	27.6	21.6	6 P. M.			5 Str.	9 Str.	10 Nim.	N. W.	1	S.	1	S. E.	1	30.2	8.3	30.195	30.107	30.063	30.122	.051	.115	.146	78	75	96	8				
9	30.7	33.6	31.2	31.8		Night.	4.78	10 Nim.	10 Nim.	10 Nim.	N. E.	1	E.	1	N. E.	1	36.0	27.2	29.865	29.534	29.523	29.640	.155	.196	.168	89	100	95	9				
10	29.3	26.0	13.2	22.8				4 Cu. st.	4 Cir. st.	0	S. W.	3	S. W.	3	N. W.	3	31.2	13.2	29.559	29.574	29.762	29.632	.103	.056	.042	64	40	53	10				
11	4.6	13.0	3.0	6.9				0	0	1 Str.	N. W.	2	N. W.	2	N. W.	1	13.5	3.0	29.982	30.084	30.176	30.081	.045	.034	.036	85	44	73	11				
12	-4.7	17.8	13.7	8.9	8 P. M.	Night.	.050	2 Cir. st.	10 Str.	10 Nim.	S. W.	1	S. W.	1	N. E.	1	19.0	-5.0	30.170	30.065	29.851	30.029	.033	.046	.062	93	48	76	12				
13	8.2	21.0	8.0	12.4				10 Str.	1 Str.	10 Str.	N. E.	2	N. W.	1		0	21.0	7.5	29.816	29.887	29.999	29.901	.049	.044	.048	78	39	78	13				
14	-12.2	21.0	20.0	9.6				4 Str.	6 Str.	10 Str.	S. W.	1	S. W.	1	N. E.	1	23.5	12.2	30.098	30.063	29.864	30.008	.021	.049	.084	85	43	78	14				
15	11.8	31.2	19.5	20.8				2 Str.	0	0	N. W.	1	N. W.	1	N. W.	1	31.2	11.5	29.895	29.940	29.942	29.926	.061	.067	.075	80	38	70	15				
16	25.0	32.5	32.2	29.9	11 1/2 A. M.	Night.	.623	10 Str.	10 Nim.	10 Nim.	S. E.	1	S. E.	1	S. E.	1	34.2	16.0	29.835	29.581	29.470	29.629	.117	.187	.177	87	100	97	16				
17	22.5	35.5	20.3	26.1				0	0	0	W.	2	N. W.	1	N. W.	1	36.3	20.3	29.779	29.950	29.947	29.892	.096	.085	.077	79	41	70	17				
18	30.6	36.7	39.2	35.5	6 A. M.	Night.	.873	10 Nim.	10 Nim.	10 Str.	S. E.	2	S. E.	4	S. E.	4	42.6	16.2	29.776	29.257	29.025	29.353	.173	.207	.234	100	95	97	18				
19	14.7	23.2	15.8	17.9				0	1 Str.	4 Str.	N. W.	3	N. W.	1	N. W.	1	41.5	13.8	29.496	29.621	29.708	29.608	.055	.050	.059	64	41	66	19				
20	12.6	31.0	24.6	22.7				8 Str.	4 Cir. st.	7 Str.	N. E.	1	S. W.	2	S. W.	1	31.8	12.6	29.745	29.743	29.808	29.765	.065	.111	.102	85	63	77	20				
21	3.2	13.0	10.2	8.8				1 Str.	0	0	N. W.	1	N. W.	2	N.	2	24.6	3.2	30.055	30.043	30.085	30.061	.034	.034	.044	68	44	65	21				
22	-3.7	17.0	14.8	9.4				0	0	0	W.	1	N. W.	1	N. W.	1	19.5	-4.2	30.282	30.267	30.276	30.275	.032	.040	.065	90	42	76	22				
23	6.2	26.8	19.5	17.5				1 Cir.	1 Str.	2 W.	S.	1	S. W.	2	W.	1	31.0	5.4	30.348	30.258	30.192	30.266	.050	.095	.079	88	64	74	23				
24	19.0	38.7	38.4	32.0		Night *		5 Cir. & Str.	6 Cir. st.	10 Str.	S.	1		0	S.	2	40.0	17.0	30.049	29.867	29.655	29.857	.095	.141	.198	92	59	84	24				
25	40.0	46.5	39.8	42.1				6 Cu. st.	2 Cir. cu.	6 Cu. st.	S.	2	N. W.	3	W.	2	47.2	37.5	29.361	29.351	29.449	29.387	.232	.211	.128	95	66	52	25				
26	31.8	41.3	34.6	35.6				4 Cu. st.	9 Cir. st.	6 St.	W.	2	S.	1	S. W.	2	42.7	30.5	29.668	29.649	29.615	29.644	.117	.149	.142	64	57	70	26				
27	34.8	38.2	34.8	35.9	Night.	11 A. M.	.438	10 Nim.	10 Str.	8 Cu. st.	S. E.	1	W.	1	S. W.	2	39.5	33.5	29.256	29.028	29.166	29.150	.204	.208	.135	100	90	66	27				
28	20.5	22.8	19.2	20.8				2 Cir. cu.	0	0	N. W.	3	N. W.	3		0	34.8	19.2	29.576	29.772	29.933	29.760	.078	.057	.072	71	46	69	28				
29																																	
30																																	
31																																	
Sums							2.532										30° 42'	10° 99'					29.766	.083	.096	.097	82	59	75	Sums.			
Means				19° 30'				4.5		4.0				N. W. & W.	.55		47° 2'	-16° 70'	Min.			Max.	30.348	Mean	.092		Mean	72		Means			
										4.3				S. E. & E.	.11	Max						Min.	29.025	Max.	.234		Max.	100					
														N. E. & N.	.07								Min.	29.025	Min.	.013		Min.	38				

* Slight sprinkling of rain.

FOR THE MONTH OF MARCH, 1871.

Day of Month	THERMOMETER IN THE OPEN AIR.				RAIN AND SNOW.				CLOUDS.				WINDS.				THERMOMETER.		BAROMETER.				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.	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.	7 A. M.		2 P. M.		9 P. M.		7 A. M.	2 P. M.	9 P. M.	Maximum.	Minimum.	BAROMETER HEIGHT REDUCED TO FREEZING POINT.				7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.		9 P. M.						
									Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.						Direction.	Force.	Direction.	Force.								Direction.	Force.	7 A. M.	2 P. M.	9 P. M.	Mean.
1	31.6	37.0	36.7	35.1	7 A. M.	11 A. M.	.157	1.50	10 Str.	9 Cir. st.	1 Cir. st.	S.	4	W.	2	S. W.	3	40.0	18.5	29.685	29.443	29.654	29.594	.170	.104	.157	95	47	71	1						
2	34.0	38.7	33.4	35.4	7 P. M.				7 Cu. st.	8 Str.	10 Nim.	N. W.	1	S. W.	2	S. E.	2	39.5	33.4	29.970	29.917	29.964	29.950	.144	.131	.159	73	55	82	2						
3	35.5	46.0	43.2	41.6		8 P. M.	.113		10 Nim.	10 Str.	10 Str.	S.	2	S.	3	W.	2	46.0	33.0	29.639	29.345	29.417	29.467	.201	.308	.256	95	98	93	3						
4	27.2	36.5	32.2	32.0					4 Cu. st.	3 Cir.	6 Cir. st.	S. W.	2	N. E.	1	S.	1	43.2	27.2	29.869	29.855	29.820	29.848	.105	.100	.104	71	46	57	4						
5	24.0	41.0	33.5	32.8					6 Cir. & St.	0	0	N. E.	3	W.	1	W.	1	41.3	23.7	29.793	29.794	29.846	29.811	.095	.102	.146	74	39	75	5						
6	25.0	42.0	34.2	33.7		Night *			10 Str.	10 Str.	2 Cir. st.	N. E.	1	S.	3	S. W.	1	42.4	24.0	29.851	29.733	29.738	29.781	.126	.263	.151	94	97	76	6						
7	29.0	34.0	26.3	29.8					4 Cir. cu.	0	0	N.	3	N. E.	3	N. W.	1	34.5	28.7	29.920	29.987	30.073	29.993	.129	.110	.109	80	55	76	7						
8	25.5	38.3	33.6	32.5					4 Cir. st.	4 Cir. st.	8 Str.	S. E.	1	S. W.	1	S.	2	40.0	24.8	30.150	30.125	30.112	30.129	.120	.159	.166	87	68	84	8						
9	35.0	39.0	40.3	38.1	3 P. M.	Night.	.050		10 Str.	10 Str.	10 Nim.	S. W.	2	S. W.	1	S.	1	40.3	33.0	30.099	30.017	29.965	30.027	.189	.219	.253	92	91	100	9						
10	41.3	57.2	43.5	47.3	6 P. M.	9 1/2 P. M.	.203		10 Str.	4 Cir. st.	10 Nim.	S. E.	1	S.	4	S.	2	57.2	40.3	30.012	29.949	29.949	29.970	.258	.354	.286	98	75	100	10						
11	37.5	54.0	46.0	45.8	5 P. M.	Night.	.354		4 Cir.	7 Cir. st.	10 Nim.	S. W.	1	S. W.	2	S.	3	55.0	37.0	30.099	30.117	29.965	30.092	.195	.338	.313	86	80	100	11						
12	46.1	56.7	51.3	51.4	Night.				10 Str.	7 Cu. st.	9 Cu. st.	S. W.	2	S. W.	2	S.	3	58.7	44.6	29.923	29.795	29.670	29.796	.282	.336	.289	90	70	76	12						
13	48.1	47.4	35.5	43.7		7 1/2 A. M.	.334		10 Nim	3 Cir. & St.	1 Str.	S.	1	N. W.	1	W.	1	51.3	35.5	29.544	29.622	29.724	29.630	.326	.132	.136	96	40	65	13						
14	31.2	40.3	34.7	35.4					6 Cir. st.	9 Cu. st.	10 Str.	N.	2	N. W.	2	N. W.	1	41.0	31.2	29.751	29.770	29.871	29.797	.120	.091	.119	69	36	61	14						
15	26.3	36.5	28.0	30.3					0	0	10 Str.	N. W.	1	N. W.	1	N. W.	1	36.5	25.4	30.039	30.027	30.034	30.033	.108	.074	.114	76	34	75	15						
16	22.0	36.7	31.2	30.0	5 P. M.				1 Cir. st.	8 Cir. st.	10 Nim.	N. E.	1	S. W.	1	S. E.	1	36.5	21.5	30.212	30.163	30.075	30.150	.085	.111	.154	72	51	87	16						
17	32.0	35.8	36.0	34.6		Night	.290		10 Nim.	10 Nim.	10 Str.	S. E.	1	S. E.	1	S. E.	1	36.5	31.0	29.943	29.825	29.707	29.825	.179	.191	.178	98	90	83	17						
18	39.2	40.3	36.3	38.6					5 Cir. st.	6 Str.	0	W.	1	W.	1	W.	1	40.3	36.0	29.743	29.823	29.816	29.794	.202	.208	.162	83	82	75	18						
19	30.2	42.5	29.7	34.1					6 Cir. cu.	3 Cu. st.	0	S.	1	N. W.	3	N. W.	1	42.5	29.0	29.856	29.876	30.098	29.943	.148	.112	.093	87	41	56	19						
20	21.5	33.3	28.2	27.7					3 Cir. st.	8 Cir. st.	10 Str.	N.	2	S.	1	S.	1	33.7	21.2	30.282	30.233	30.163	30.226	.083	.110	.130	72	58	83	20						
21	30.7	37.7	40.2	36.2	7 A. M.				10 Nim.	10 Nim.	10 Str.	S. E.	1	S. E.	2	S. E.	1	42.5	28.0	29.936	29.549	29.156	29.547	.165	.229	.251	95	100	100	21						
22	33.2	36.0	33.6	34.3		2 P. M.	2.010		10 Nim.	10 Str.	10 Str.	S. W.	2	S. W.	2	N. W.	3	37.0	33.2	29.128	29.156	29.368	29.217	.190	.204	.149	100	96	77	22						
23	30.3	34.2	31.6	32.0	6 P. M. †				5 Cu. st.	9 Str.	10 Str.	N. W.	3	S. W.	2	S. W.	1	36.5	29.0	29.568	29.575	29.505	29.549	.143	.169	.164	84	84	92	23						
24	27.0	25.5	22.0	24.8					10 Str.	5 Cu. st.	0	N. W.	3	N. W.	4	N. W.	1	31.6	22.0	29.513	29.550	29.624	29.562	.120	.078	.085	82	57	72	24						
25	20.3	32.6	32.4	28.4					1 Cir.	6 Cu. st.	5 Cu. st.	N. W.	4	N. W.	3	N. W.	4	33.4	18.0	29.555	29.459	29.492	29.502	.072	.131	.139	66	70	76	25						
26	29.0	41.3	34.8	35.0					0	0	1 Cir.	N. W.	3	N. W.	3	N. W.	1	41.3	27.5	29.608	29.654	29.733	29.665	.124	.149	.153	77	57	75	26						
27	29.3	28.8	26.2	28.1	1/2 P. M.	Night	.597	6.50	10 Str.	10 Nim.	10 Nim.	N. E.	1	N. E.	1	N. E.	3	34.8	26.2	29.692	29.497	29.382	29.524	.154	.160	.133	94	100	94	27						
28	22.5	32.3	29.2	28.0					10 Str.	6 Cir. cu.	2 Cir.	N. W.	2	N.	2	N.	3	33.5	21.4	29.507	29.540	29.714	29.587	.105	.146	.125	86	80	78	28						
29	17.3	34.5	29.8	27.2					0	0	0	N. W.	1	N. W.	2	N. W.	1	37.5	17.0	29.887	29.862	29.891	29.880	.075	.053	.078	79	27	46	29						
30	29.8	42.6	35.2	35.9					10 Str.	6 Cir. st.	4 Cir. st.	S. E.	1	S. W.	1	N. W.	1	43.0	28.5	29.900	29.777	29.724	29.800	.122	.151	.140	73	55	68	30						
31	30.5	42.5	30.2	34.4					1 Cir.	0	0	N. W.	1	N.	1	N. W.	1	42.5	29.0	29.728	29.682	29.782	29.731	.137	.138	.111	81	51	66	31						
Sums.							4.108	8.00											41° 02	28° 35					29.788	.150	.166	.161	84	65	78	Sums.				
Means				34° 65					6.4	5.8	5.5						Max	58° 7	17° 00	Min.				Max.	30.282	.159	.161	Mean	65	76	Means					
												S. E. & E.	.07											Max.	.354	.100	Max.	100								
												N. E. & N.	.17											Min.	.053	.27	Min.	27								

* Very light fall of snow.

† Ice left Penobscot river at Bangor.

‡ Snow squall.

FOR THE MONTH OF JUNE, 1871.

Day of Month	THERMOMETER IN THE OPEN AIR.				RAIN AND SNOW.				CLOUDS.				WINDS.				THERMOMETER.		BAROMETER.				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. 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.	7 A. M.		2 P. M.		9 P. M.		7 A. M.		2 P. M.		9 P. M.		Maximum.	Minimum.	BAROMETER HEIGHT REDUCED TO FREEZING POINT.				7 A. M. 2 P. M. 9 P. M.			7 A. M. 2 P. M. 9 P. M.			
	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.					Amount of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	Direction.	Force.	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.	7 A. M.	2 P. M.
1	50.0	75.7	59.0	61.6					10	Fog.	2	Cir. st.	8	Cir. st.	S. W.	0	N. W.	2	N.	1	76.0	48.0	29.927	29.859	29.856	29.881	.352	.309	.368	96	35	72	1
2	61.5	83.2	69.6	71.4					2	Cu. st.	2	Cir. & St.	0		S. W.	1	S. W.	4	S. W.	1	83.8	56.5	29.868	29.767	29.737	29.791	.427	.594	.540	78	52	74	2
3	69.0	86.0	71.3	75.4	6½ P. M.	7 P. M.	.020		0		5	Cu. st.	4	Str.		0		0	S. W.	1	87.8	64.0	29.794	29.753	29.731	29.759	.564	.608	.638	80	49	83	3
4	70.0	81.2	69.2	73.5		2¼ P. M.*	.020		6	Cir. & St.	8	Cu. st.	2	Str.	W.	1	N. W.	2	N. W.	1	84.2	65.0	29.716	29.622	29.637	29.658	.536	.590	.270	75	56	38	4
5	56.2	69.5	54.2	60.0					1	Cir.	2	Cir.	2	Str.	N.	2	N. W.	3	N. W.	1	70.0	52.4	29.784	29.774	29.804	29.787	.396	.396	.203	87	87	48	5
6	50.5	70.4	58.2	59.7					1	Str.	6	Str.	10	Str.	N. W.	1	S. W.	2	S. W.	2	73.0	46.5	29.854	29.808	29.722	29.795	.306	.387	.330	82	51	67	6
7	60.2	68.3	63.0	63.8	3 P. M.	7 P. M.	.090		7	Cir. st.	10	Str.	8	Str.	S. W.	2	S. W.	2	S. W.	1	70.0	55.3	29.635	29.543	29.511	29.563	.425	.551	.548	80	79	94	7
8	65.0	77.7	66.2	69.6					10	Str.	8	Cu. st.	1	Str.	S.	1	W.	1	S. W.	2	79.2	59.0	29.532	29.607	29.593	29.577	.589	.536	.563	94	56	87	8
9	64.6	69.0	57.7	63.8					0		2	Cir. cu.	0		N. W.	1	N. W.	3	N. W.	2	69.5	57.7	29.707	29.711	29.829	29.749	.341	.285	.309	56	40	64	9
10	55.3	70.0	61.8	59.0					0		2	Str.	0		N. W.	1	N. W.	1	S. W.	2	70.0	45.0	29.990	29.925	29.870	29.928	.372	.323	.337	85	44	86	10
11	56.0	62.7	59.0	59.2	Night.				10	Str.	10	Str.	10	Nim.	S.	3	S.	2	S.	1	63.0	49.4	29.700	29.564	29.462	29.575	.408	.478	.482	90	83	96	11
12	61.5	57.4	55.7	58.2		6 P. M.	.690		10	Str.	10	Nim.	8	Str.	S.	1	S.	1	W.	1	63.0	55.7	29.432	29.340	29.275	29.349	.534	.444	.420	97	94	93	12
13	57.5	64.0	55.7	59.1	2 P. M.	4 P. M.	.060		5	Cir. st.	9	Str.	9	Str.	S. W.	1	S. W.	3	S. W.	1	66.0	52.4	29.361	29.349	29.302	29.337	.370	.408	.397	78	68	88	13
14	54.6	60.7	53.4	56.2	1¼ P. M.	5 P. M.	.080		9	Str.	10	Nim.	1	Str.	S. W.	1	S. W.	2	W.	1	65.3	51.2	29.474	29.539	29.674	29.562	.380	.368	.383	87	69	93	14
15	56.7	67.7	51.2	58.5	4 P. M.	5½ P. M.	.240		3	Cir. st.	4	Cu. st.	0		N. W.	1	W.	1	W.	1	67.7	49.0	29.737	29.732	29.748	29.739	.319	.347	.370	69	51	98	15
16	49.0	54.4	55.3	52.9						Fog.	8	Cu. st.	2	Str.		0	S. W.	3	W.	2	66.0	44.0	29.786	29.771	29.782	29.780	.351	.328	.316	100	77	72	16
17	51.5	68.4	54.4	58.1					4	Cir. st.	3	Cu. st.	0		W.	1	N. W.	1	N. W.	1	68.5	47.8	29.860	29.849	29.868	29.859	.314	.313	.304	80	45	71	17
18	58.0	67.0	54.7	59.9					4	Cir. st.	8	Cir. st.	9	Str.	N. W.	1	S. W.	2	S. W.	3	69.3	50.2	29.927	29.902	29.868	29.899	.365	.397	.362	76	60	84	18
19	55.5	70.6	57.4	61.2					3	Cir. st.	3	Cir. st.	1	Str.	W.	1	S. W.	2	S. W.	2	70.6	51.3	29.922	29.689	29.689	29.769	.327	.465	.417	74	62	88	19
20	57.2	76.5	63.0	65.6	5 A. M.	7 A. M.	.320		10	Nim.	3	Cu. st.	10	Nim.	S.	1	S. W.	1	W.	1	77.6	52.5	29.683	29.630	29.544	29.619	.454	.578	.565	97	63	97	20
21	60.0	63.7	47.4	57.0	6 P. M.†	Night.	.600		0		4	Cir. cu.	0		N. W.	2	N. W.	3	N. W.	1	64.2	47.4	29.639	29.704	29.804	29.716	.379	.229	.264	73	38	80	21
22	49.8	67.0	57.7	58.2					3	Cir. st.	2	Cu. st.	8	Str.	N. W.	2	N. W.	2	N. W.	1	67.0	44.2	29.886	29.822	29.792	29.833	.258	.306	.322	72	46	67	22
23	55.6	68.0	60.3	61.3	5½ A. M.	8½ A. M.	.200		7	Cu. st.	4	Cu. st.	7	Str.	S. W.	1	N. W.	2	N. W.	1	68.7	51.3	29.645	29.609	29.704	29.653	.422	.308	.388	95	45	73	23
24	56.3	68.5	56.3	60.4					0		7	Cu. st.	0		N. W.	1	S. W.	2	W.	1	69.5	50.7	29.816	29.795	29.817	29.809	.348	.466	.355	76	66	77	24
25	51.3	77.2	58.3	62.3						Fog.	3	Cu. st.	0			0	S. W.	1	S. W.	1	77.6	45.0	29.887	29.848	29.839	29.858	.355	.393	.343	93	42	70	25
26	62.5	77.2	58.7	66.1					8	Str.	2	Cir. cu.	0		S.	1	S. W.	2	W.	1	78.5	54.0	29.800	29.744	29.762	29.769	.292	.385	.323	73	41	65	26
27	54.5	77.3	58.8	63.5					1	Cir.	2	Cir.	5	Str.	N. W.	1	S. W.	1	S.	2	77.5	48.5	29.825	29.732	29.673	29.743	.325	.340	.467	76	36	93	27
28	61.4	63.8	60.0	61.7	1¼ P. M.	2½ P. M.	.020		5	Cir. st.	10	Nim.	10	Str.	S. E.	2	S. W.	2	S. W.	1	70.2	55.4	29.573	29.498	29.500	29.524	.409	.533	.484	74	89	93	28
29	59.0	72.0	59.2	63.4	4 P. M.	4¼ P. M.	.240		10	Str.	4	Cir. cu.	4	Str.	W.	0	S. W.	1	N. W.	1	78.0	54.2	29.513	29.495	29.623	29.544	.488	.465	.303	97	59	60	29
30	55.3	67.0	52.0	58.1					0		4	Cir. cu.	2	Str.	N. W.	2	N. W.	2	N. W.	1	68.5	52.0	29.776	29.814	29.918	29.836	.262	.204	.311	59	31	80	30
Sums Means				61° 99			2.580		4	3			5.2		4.1		N. W. & W.	.45			72° 01	51° 82			29.708	.390	.411	.386	82	57	78	Sums Means	
													4.5				S. W. & S.	.51		Max	87° 8	44° 0			29.990	.396	.411	.386	Mean	72			
																	S. E. & E.	.02							29.302	.638	.638	.311	Max.	100			
																	N. E. & N.	.02									.203	.203	.311	Min.	31		

* Thunder shower. † Thunder.

FOR THE MONTH OF JULY, 1871.

Day of Month	THERMOMETER IN THE OPEN AIR.				RAIN AND SNOW.				CLOUDS.				WINDS.						THERMOMETER.		BAROMETER.				FORCE OR PRESSURE OF VAPOR IN INCHES.			RELATIVE HUMIDITY OR FRACTION OF SATURATION.			Day of Month				
					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.	7 A. M.		2 P. M.		9 P. M.		7 A. M.		2 P. M.		9 P. M.		Maximum.	Minimum.	BAROMETER HEIGHT REDUCED TO FREEZING POINT.												
	7 A. M.	2 P. M.	9 P. M.	Mean.					Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.			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.	7 A. M.	2 P. M.
1	53.5	72.8	56.4	60.9				0		2	Cir. st.	0		N. W.	1	N. W.	2	S.	2	74.2	47.0	30.058	30.033	30.002	30.031	.347	.332	.354	85	41	77	1			
2	58.0	68.7	58.0	61.6	8 1/2 P. M.	10 P. M.	.060	0		4	Cir. st.	0		S.	2	S.	3	S.	2	70.0	53.0	29.982	29.896	29.831	29.903	.382	.485	.485	79	69	100	2			
3	62.8	72.8	66.4	67.3				6	Cir. st.	3	Cir. cu.	0			0	W.	2	W.	1	79.0	55.4	29.783	29.793	29.803	29.793	.542	.438	.474	94	54	72	3			
4	59.3	77.2	60.7	65.7	Night.			1	Cir.	3	Cir.	0		N. W.	1	S. W.	2	S.	2	77.5	51.7	29.937	29.896	29.850	29.894	.359	.420	.434	71	45	81	4			
5	60.0	78.5	67.6	68.7		7 A. M.	.080	9	Str.	5	Cir. cu.	0		S. W.	1	N. W.	2	S. W.	1	81.3	56.3	29.692	29.674	29.724	29.697	.506	.437	.543	97	45	79	5			
6	68.0	80.5	67.2	71.9		Night *	.010	2	Cir.	3	Cu. st.	4	Cu. st.	N. W.	1	N. W.	1	N. W.	1	82.4	61.3	29.818	29.780	29.740	29.779	.492	.517	.434	72	50	65	6			
7	65.2	72.8	67.0	68.3				9	Cir. st.	5	Cu. st.	1	Str.	S.	1	N. W.	2	N.	3	75.2	61.0	29.523	29.392	29.400	29.438	.576	.486	.425	92	60	64	7			
8	63.3	78.0	62.0	67.8				3	Cu. st.	1	Cir. st.	0		N. W.	3	N.	3	N. W.	1	79.0	58.2	29.532	29.597	29.696	29.608	.379	.326	.448	65	34	83	8			
9	65.2	79.5	64.3	69.7	4 1/2 P. M.	7 P. M.	.080	0		8	Str.	10	Str.	N. W.	1	S.	4	S.	4	79.5	57.5	29.736	29.614	29.536	29.629	.455	.472	.541	73	46	89	9			
10	68.0	74.5	63.0	68.5				7	Cir. cu.	0		5	Str.	N.	3	N. W.	2	N. W.	1	76.2	60.7	29.569	29.612	29.650	29.610	.573	.272	.419	83	31	72	10			
11	61.3	79.1	63.8	68.0	9 1/4 P. M.	Night.	.320	8	Cir. st.	6	Cir. & St.	10	Str.	S. W.	1	S. W.	3	S. W.	2	79.0	56.8	29.733	29.729	29.700	29.721	.420	.379	.418	77	38	70	11			
12	59.7	75.0	65.0	66.6	2 1/2 P. M.	3 P. M.	.030	10	Str.	5	Cir. st.	0		N. E.	1	N. W.	1	N. W.	1	75.2	64.5	29.660	29.678	29.713	29.684	.456	.609	.483	88	70	78	12			
13	65.7	82.3	69.5	72.5				0		0		0		N. W.	1	N. W.	2	S.	2	85.0	61.0	29.814	29.817	29.815	29.815	.502	.351	.533	79	32	73	13			
14	72.5	79.8	66.0	72.8				2	Cir. st.	4	Cir. st.	10	Str.	S. W.	1	S. W.	4	S.	3	82.0	64.6	29.815	29.749	29.725	29.763	.559	.487	.593	69	48	92	14			
15	63.7	81.7	66.3	70.6				8	Str.	4	Cir. cu.	1	Str.	S. W.	1	N.	2	S.	3	83.4	61.2	29.641	29.596	29.542	29.593	.562	.548	.582	94	50	89	15			
16	64.3	76.2	62.3	67.6				4	Cir. st.	1	Cu. st.	0		W.	1	N. W.	3	N. W.	1	76.7	59.0	29.453	29.428	29.425	29.435	.539	.327	.338	89	36	59	16			
17	54.2	64.3	59.4	59.3		1 P. M. *	.010	2	Cir. st.	7	Str.	1	Cu. st.	N. W.	1	N.	3	N. W.	1	66.4	52.5	29.469	29.455	29.476	29.467	.360	.381	.376	86	63	73	17			
18	57.0	72.3	61.2	63.5	3 P. M. *	Night. *	.040	1	Cir.	5	Cu. st.	3	Str.	N. W.	2	S. W.	3	S. E.	2	72.5	54.0	29.574	29.545	29.561	29.560	.349	.383	.436	75	48	80	18			
19	61.0	77.8	62.8	67.2	12 M.	1/2 P. M.	.100	8	Str.	4	Cu. st.	0		S. W.	2	S.	3	S.	3	78.0	57.4	29.600	29.591	29.638	29.610	.486	.569	.507	90	59	87	19			
20	58.9	67.0	61.2	62.4	5 A. M.	9 A. M.	.050	10	Str.	6	Cu. st.	0		N. E.	1	N.	1	N. W.	1	68.3	57.0	29.561	29.600	29.657	29.606	.482	.595	.433	95	89	80	20			
21	59.4	75.5	59.2	64.7				0		4	Cir. cu.	1	Str.	N. W.	0	N. W.	1	S. W.	1	77.4	56.0	29.783	29.796	29.807	29.796	.448	.350	.434	88	39	86	21			
22	57.8	63.7	61.4	61.0	2 P. M.	2 1/2 P. M.	.050	7	Cir. st.	10	Nim.	0		N. W.	1	N. W.	3	S.	2	75.0	53.7	29.807	29.754	29.760	29.774	.422	.507	.475	88	86	86	22			
23	62.5	74.8	60.0	65.8				8	Cir. st.	3	Cu. st.	1	Str.	S. E.	1	S.	3	S.	2	76.0	57.3	29.886	29.890	29.946	29.907	.468	.382	.401	82	44	77	23			
24	55.0	74.3	62.2	63.8				5	Cir. st.	6	Cir. & St.	4	Cir. st.		0	N. W.	2	S.	2	75.2	52.5	30.044	30.017	30.035	30.032	.404	.490	.423	93	57	75	24			
25	58.0	79.0	62.7	66.6				4	Cir. st.	5	Cir. cu.	7	Cir. st.	N. W.	1	S. E.	3	S. W.	2	80.0	57.0	30.111	30.094	30.110	30.105	.438	.431	.441	91	43	77	25			
26	58.7	66.0	64.7	63.1	6 1/2 A. M.	2 1/2 P. M.	.340	10	Nim.	10	Nim.	6	Cir. cu.	S. W.	2	S.	2	S.	3	70.4	56.3	30.073	29.916	29.862	29.950	.469	.646	.566	94	100	92	26			
27	67.0	80.3	67.5	71.6				6	Cu. st.	0		0		S. W.	2	S. W.	2	S.	3	81.7	62.0	29.799	29.770	29.777	29.782	.571	.573	.577	86	55	84	27			
28	65.2	81.7	67.2	71.4				10	Str.	5	Cu. st.	4	Cir. & Cu.	S. E.	2	S. E.	1	S.	1	82.5	63.2	29.799	29.833	29.960	29.864	.584	.610	.564	93	56	84	28			
29	68.3	77.8	66.4	70.8	8 1/2 P. M.	Night.	.360	10	Str.	9	Str.	10	Nim.	S.	1	S. E.	2	S. E.	1	77.8	65.0	30.055	30.079	30.071	30.068	.577	.550	.601	82	57	92	29			
30	65.8	77.3	68.0	70.4	Night.			10	Str.	8	Cu. st.	9	Str.	E.	1	S. E.	3	S. E.	1	78.7	63.2	30.001	29.955	29.944	29.967	.637	.671	.635	99	71	92	30			
31	68.4	72.3	64.7	68.5		11 A. M.	.500	10	Nim.	10	Str.	9	Str.	S. E.	1	S. E.	2	S. E.	2	73.0	64.8	29.866	29.793	29.800	29.820	.647	.661	.573	92	83	93	31			
Sums.							2.130																												Sums.
Means.				67° .05				5.5		4.7		3.7				N. W. & W.	.27			77° .48	57° .78				29.771	.487	.474	.485	88	55	81	Means.			
								Mean		4.6						S. W. & S.	.49			85° .0	47° .0	Min.		Max.	30.111	.482	.671	100							
																S. E. & E.	.14							Min.	29.392	Max.	.671	100							
																N. E. & N.	.10								Min.	.272	Min.	.272	31						

* Slight shower.

FOR THE MONTH OF AUGUST, 1871.

Day of Month	THERMOMETER IN THE OPEN AIR.				RAIN AND SNOW.				CLOUDS.				WINDS.				THERMOMETER.		BAROMETER.				FORCE OR PRES-SURE OF VAPOR IN INCHES.			RELATIVE HUMIDITY OR FRACTION OF SATURATION.			Day of Month	
	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.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	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.	7 A. M.	2 P. M.		9 P. M.
	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.	Direction.	Force.	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.	7 A. M.	2 P. M.	9 P. M.	7 A. M.		2 P. M.
1	64.0	74.5	64.8	67.8					9 Str.	7 Cu. st.	10 Str.	S. E.	1	S. E.	3	S.	1	77.0	61.5	29.819	29.797	29.815	29.810	.568	.602	.573	94	70	93	1
2	63.5	78.5	63.7	68.6					10 Nim.	3 Cu. st.	0	S. E.	1	S. W.	1		0	79.0	61.2	29.806	29.793	29.801	29.800	.572	.522	.512	96	53	86	2
3	65.4	83.4	67.8	72.2					1 Cir.	2 Cir. st.	1 Str.	S. W.	1	N. W.	2		2	84.2	61.4	29.811	29.812	29.793	29.805	.528	.477	.520	84	42	75	3
4	67.5	82.3	72.0	73.9					0	2 Cir. st.	8 Str.	S. W.	1	S.	3	S.	2	85.0	64.5	29.837	29.583	29.544	29.665	.545	.579	.711	80	52	90	4
5	68.2	81.5	69.2	73.0	6 A. M.*	3 P. M.*	.040		10 Nim.	4 Cu. st.	2 Str.	S.	1	S. W.	1		0	81.8	67.0	29.455	29.489	29.437	29.460	.678	.738	.608	97	69	85	5
6	66.2	74.0	69.5	69.9					3 Cu. st.	2 Cir. cu.	4 Cir. & St.	N.	2	N. W.	3	S. W.	1	75.5	64.3	29.623	29.650	29.699	29.657	.397	.338	.485	61	40	67	6
7	63.4	80.0	66.2	69.9					0	2 Cir. cu.	2 Str.		0	N. W.	1	S.	1	80.5	61.0	29.829	29.785	29.792	29.802	.507	.400	.537	86	39	83	7
8	61.2	77.5	64.9	67.9					5 Cir. st.	2 Cir. cu.	10 Str.	S. W.	1	S.	3	S. E.	1	78.1	59.0	29.719	29.616	29.504	29.613	.502	.632	.583	93	67	94	8
9	66.4	77.1	61.5	68.3					2 Cu. st.	1 Cir. cu.	4 Cu. st.	N. W.	1	N. W.	3	N. W.	3	78.0	63.4	29.503	29.479	29.612	29.531	.637	.328	.476	97	35	87	9
10	53.5	70.0	64.2	62.6					0	3 Cir. st.	4 Cu. st.	N. W.	1	N. W.	3	N. W.	1	76.2	50.0	29.625	29.637	29.732	29.665	.309	.503	.490	74	55	81	10
11	60.3	75.3	64.1	66.6					2 Cir. st.	1 Cir.	0	N.	1	N. W.	1	S.	1	79.0	57.3	29.717	29.714	29.701	29.711	.464	.460	.572	88	52	94	11
12	60.0	76.9	68.0	68.3					2 Cir. st.	4 Cu. st.	1 Cu. st.	S. W.	1	N. E.	2	N. W.	1	78.5	58.0	29.709	29.737	29.872	29.772	.502	.557	.246	97	60	36	12
13	55.5	69.0	57.1	60.5					0	2 Cir. st.	1 Cir. st.	N. W.	1	N. E.	1		0	70.0	47.0	29.902	29.888	29.892	29.894	.320	.307	.380	72	43	81	13
14	47.9	77.5	63.0	62.8					0	1 Cir. cu.	1 Str.		0	N. W.	2		0	78.5	46.3	29.932	29.901	29.898	29.910	.322	.389	.440	96	41	75	14
15	58.5	80.0	63.0	67.2					0	0	1 Cir. st.		0	S.	2		0	80.0	55.5	29.912	29.885	29.892	29.896	.400	.424	.540	84	41	93	15
16	64.5	71.0	63.5	66.3					10 Str.	10 Str.	10 Str.	S. W.	1	S. E.	2	S.	1	71.5	61.8	29.803	29.741	29.716	29.753	.600	.717	.562	97	94	94	16
17	63.8	81.5	59.5	68.3	5 A. M.	6 A. M.	.340		9 Str.	0	0	N. W.	2	N. W.	2		0	81.9	59.5	29.664	29.634	29.770	29.689	.589	.956	.328	99	89	64	17
18	52.5	72.7	58.0	61.1	9 P. M.	Night.	.240		0	0	10 Nim.	N. W.	1	S.	3	S.	3	73.0	46.5	29.849	29.772	29.685	29.769	.365	.279	.379	95	35	79	18
19	54.3	67.5	55.4	59.1					1 Cir.	1 Cir.	0	N. W.	1	N. W.	3	N. W.	3	67.8	48.0	29.676	29.664	29.713	29.684	.388	.244	.288	91	36	65	19
20	52.5	65.7	56.3	58.2					0	2 Cir. st.	3 Str.	N. W.	3	N. W.	3	N. W.	1	66.8	47.8	29.808	29.795	29.810	29.804	.256	.270	.288	64	42	63	20
21	51.5	64.7	59.3	58.5					8 Str.	2 Cir. st.	0	W.	1	N. W.	1	N. W.	1	68.0	47.5	29.890	29.929	29.988	29.936	.324	.334	.317	84	55	62	21
22	45.7	73.5	57.2	58.8					0	0	0	N. W.	1	N. W.	2	N. W.	1	75.0	42.0	30.166	30.160	30.213	30.180	.294	.291	.312	94	35	66	22
23	57.5	71.6	60.0	63.0					1 Cir.	1 Cir.	1 Str.	N. W.	2	S.	4	S.	3	71.8	47.8	30.247	30.185	30.138	30.190	.343	.293	.431	72	38	82	23
24	66.5	77.8	68.2	70.8	9 1/2 P. M. †	10 1/2 P. M.	.120		10 Str.	4 Cu. st.	8 Cu. st.	S.	3	S.	3	S.	1	78.2	58.0	29.996	29.873	29.819	29.896	.593	.670	.642	90	70	92	24
25	63.0	77.0	63.0	67.7					0	3 Cir. st.	4 Cir. st.		0	N. W.	2	N. W.	1	77.0	61.4	29.840	29.835	29.862	29.846	.546	.356	.367	94	38	63	25
26	52.8	75.3	63.5	63.9	Night.				6 Str.	10 Str.	10 Str.	N. W.	1	S. W.	1	S.	1	75.8	50.5	29.987	29.990	29.974	29.984	.369	.314	.384	91	36	65	26
27	58.7	70.4	64.2	64.4		Night.	1.660		10 Nim.	10 Str.	10 Nim.	S. E.	1	S.	2	N.	1	71.0	57.0	29.836	29.674	29.609	29.706	.469	.675	.589	94	90	97	27
28	60.7	73.0	61.6	65.1					8 Str.	2 Cu. st.	2 Cu. st.	N.	1	N. W.	1	S.	2	73.5	58.2	29.732	29.834	29.897	29.831	.473	.409	.491	88	50	88	28
29	58.2	66.0	60.0	61.4	7 P. M.	Night.	.030		3 Cir. st.	8 Str.	10 Nim.	S. E.	1	S. E.	3	S. E.	2	70.0	56.0	29.961	29.893	29.851	29.902	.449	.425	.492	92	66	94	29
30	67.0	76.2	68.3	70.5	2 P. M.	Night.	1.420		10 Str.	8 Str.	10 Nim.	S.	3	S. E.	3	S. E.	2	76.2	58.7	29.727	29.592	29.420	29.580	.620	.764	.699	95	84	100	30
31	61.0	72.0	59.5	64.2					6 Cir. st.	5 Cu. st.	1 Cir. st.	S. W.	2	S. W.	2	N. W.	2	72.4	58.2	29.609	29.638	29.827	29.691	.483	.493	.364	89	63	71	31
Sums							3.850		3.9		4.1							75° 85	56° 08				29.788	.465	.476	.471	88	54	80	Sums
Means				65° 33				Mean	3.7						Max			85° 0	42° 0	Min.		Max.	30.247	Mean	.471		Mean	74	Means	
																						Min.	Max.	.956		Max.	100			
																							Min.	Max.	.244		Min.	35		

* Shower. † Thunder.

FOR THE MONTH OF SEPTEMBER, 1871.

Day of Month	THERMOMETER IN THE OPEN AIR.				RAIN AND SNOW.				CLOUDS.				WINDS.						THERMOMETER.		BAROMETER.				FORCE OR PRESSURE OF VAPOR IN INCHES.			RELATIVE HUMIDITY OR FRACTION OF SATURATION.			Day of Month			
					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.	7 A. M.		2 P. M.		9 P. M.		7 A. M.		2 P. M.		9 P. M.		Maximum.	Minimum.	BAROMETER HEIGHT REDUCED TO FREEZING POINT.											
	7 A. M.	2 P. M.	9 P. M.	Mean.					Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Amount of cloudiness.	Kind of clouds.	Direction.	Force.	Direction.	Force.	Direction.	Force.			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.	7 A. M.
1	53.3	68.3	58.3	60.0					0		0		2	Str.	N. W.	1	N. W.	1	N. W.	1	70.0	51.0	30.030	30.063	30.068	30.054	.315	.286	.378	77	41	77	1	
2	51.7	60.0	67.0	59.6	3 P. M.	10 P. M.	.110		7	Str.	8	Str.	3	Str.	N. E.	2	N. E.	3	N.	4	68.3	48.0	30.056	29.902	29.802	29.920	.347	.471	.360	90	91	54	2	
3	62.0	79.2	67.2	69.5					0		1	Cir.	2	Str.	N. W.	1	N. W.	2	N. W.	1	80.0	56.3	29.960	29.944	29.997	29.967	.409	.437	.549	73	44	82	3	
4	61.2	77.3	60.5	66.3					10	Cir. st.	1	Cir. cu.	4	Str.	N. W.	1	S. E.	2	N. W.	1	77.8	59.0	30.082	30.146	29.937	30.055	.516	.571	.454	95	61	85	4	
5	58.0	73.5	67.0	66.2					9	Cir. st.	5	Cu. st.	1	Str.	W.	1	S. E.	1	S. W.	1	75.0	56.4	29.988	29.896	29.882	29.922	.459	.644	.623	97	77	94	5	
6	66.3	76.5	63.5	68.8					10	Str.	0		2	Str.	S.	1	S. W.	3	S. E.	3	76.7	63.5	29.825	29.690	29.655	29.723	.615	.615	.558	95	67	94	6	
7	64.2	66.5	54.0	61.6					6	Str.	3	Cu. st.	1	Str.	S. W.	2	S. W.	3	N. W.	4	67.2	54.0	29.575	29.621	29.801	29.666	.556	.291	.243	92	45	58	7	
8	45.0	61.2	47.2	51.1					0		0		0		N. W.	2	N. W.	2	N. W.	1	62.6	42.0	30.077	30.122	30.183	30.127	.216	.245	.302	72	45	93	8	
9	42.0	65.2	51.7	53.0					0	Fog.	3	Cir.	0			0	S.	4	S. W.	3	65.2	38.1	30.241	30.161	30.083	30.162	.260	.353	.361	97	56	93	9	
10	48.0	59.5	54.3	53.9					2	Cir.	9	Str.	10	Str.	N. E.	0	N. E.	3	N. E.	1	65.0	46.4	30.047	30.038	30.026	30.037	.327	.376	.388	98	74	91	10	
11	42.5	66.7	50.0	53.1	*				1	Str.	2	Cir. cu.	1	Str.	N.	1	N. W.	2	N. W.	1	67.0	41.0	30.105	30.092	30.126	30.108	.265	.231	.254	98	35	70	11	
12	40.5	63.0	50.0	51.2	*				1	Cir.	0		2	Str.		0	S. W.	3	S. W.	2	63.3	39.0	30.222	30.190	30.119	30.177	.243	.283	.350	96	49	96	12	
13	54.0	67.7	50.7	57.5	5 P. M.	8 P. M. †	.220		1	Str.	7	Str.	2	Str.	S.	2	S. W.	3	N.	3	68.4	49.7	30.016	29.852	29.897	29.922	.371	.396	.236	88	58	63	13	
14	38.6	59.0	53.5	50.4					0		0		0		N. W.	3	N. W.	2	N. W.	3	59.0	35.8	30.066	30.100	30.151	30.106	.160	.282	.308	68	56	74	14	
15	31.3	57.7	46.8	45.3	Night.				0	Fog.	2	Str.	10	Str.		0	S. W.	2	S.	2	58.3	28.8	30.270	30.180	30.134	30.195	.176	.229	.249	100	47	77	15	
16	45.0	53.2	49.2	49.1		9 1/2 P. M.	.210		10	Nim.	10	Nim.	10	Str.	S. E.	1	N. E.	2	N. E.	2	53.4	44.2	29.913	29.761	29.670	29.781	.290	.409	.328	96	100	93	16	
17	53.5	61.0	54.3	56.3	3 P. M.	6 P. M.	.030		2	Cir. st.	9	Str.	7	Cu. st.	W.	2	W.	1	W.	2	62.8	47.7	29.669	29.659	29.648	29.659	.339	.313	.314	81	58	74	17	
18	43.3	57.4	44.2	58.3					6	Cir. st.	4	Cu. st.	0		N. W.	3	N.	3	N. W.	1	57.5	40.8	29.805	29.859	29.914	29.859	.202	.250	.236	71	53	81	18	
19	43.4	58.0	54.5	52.0	10 P. M.	Night.	.070		7	Cir. st.	8	Str.	10	Str.	S.	1	S.	3	S.	3	60.0	40.3	29.863	29.691	29.635	29.730	.249	.318	.388	88	65	90	19	
20	51.2	58.0	49.5	52.9					7	Cu. st.	5	Str.	5	Cir.	S. W.	1	W.	1	W.	1	58.8	48.2	29.679	29.766	29.769	29.738	.347	.295	.290	90	61	82	20	
21	40.5	57.0	40.3	45.9					1	Str.	1		0		N.	1	N.	1	N. W.	1	58.0	36.4	29.939	29.939	30.075	29.984	.230	.095	.164	91	20	65	21	
22	35.2	58.3	42.8	45.4					0		0		0		N. W.	1	N. W.	2	S. W.	2	58.5	29.2	30.180	30.089	30.024	30.098	.179	.146	.231	87	30	83	22	
23	37.8	61.5	48.3	49.2					5	Cir. st.	6	Cir. cu.	7	Cir. cu.	S.	1	S. W.	2	N. W.	1	62.3	36.5	29.864	29.632	29.570	29.689	.219	.316	.313	95	57	91	23	
24	47.0	71.2	59.2	59.1	9 A. M.	10 A. M.	.080		0		3	Cir. st.	0		N. W.	1	N. W.	1	N. W.	1	71.4	42.0	29.491	29.453	29.499	29.481	.312	.365	.352	96	47	69	24	
25	56.0	67.0	50.3	57.8					1	Str.	10	Str.	10	Str.	N. W.	1	S. E.	2	N. W.	1	67.8	50.3	29.630	29.731	29.785	29.717	.408	.318	.317	90	48	86	25	
26	42.1	55.1	54.7	50.6	Night.				10	Str.	10	Str.	7	Cu. st.	S. E.	3	S. E.	1	S. W.	1	57.0	40.5	29.831	29.786	29.691	29.769	.258	.372	.357	96	85	82	26	
27	55.2	58.5	52.4	55.3		9 A. M.	.380		3	Dense fog.	4	Cu. st.	0			0	S. W.	2	N. W.	2	61.0	52.4	29.567	29.507	29.566	29.527	.412	.451	.350	93	91	88	27	
28	40.3	59.0	47.7	49.0					3	Cir. st.	5	Cir. cu.	2	Str.	W.	1	N. W.	3	N. W.	2	60.7	38.2	29.520	29.486	29.561	29.522	.251	.258	.260	100	51	78	28	
29	43.5	55.7	44.2	47.8					0		3	Cu. st.	0		N. W.	1	N. W.	3	N. W.	2	56.0	41.0	29.750	29.777	29.870	29.799	.243	.212	.234	85	47	80	29	
30	41.4	53.8	39.2	44.8					0		3	Cu. st.	0		N. W.	1	N. W.	2	N. W.	1	54.2	39.2	30.002	30.036	30.114	30.051	.230	.206	.220	87	49	91	30	
31																																	31	
Suns							1.100		3	3		3	3									64° 1'	44° 53'			29.885	.313	.334	.332	89	57		Sums.	
Means				54° 70'					3	3		4	3									80° 0'	28° 8'	Min.		Max.	30.270	Mean	.326	Max.	.644	Mean	76	Means
																										Min.	29.453	Max.	.644	Min.	.095	Max.	100	20

* Light frost on lowlands. † Thunder. ‡ Frost.

SUMMARY--1871.

MONTHS.	THERMOMETER IN THE OPEN AIR.											RAIN AND SNOW.		CLLOUDS.	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.	Amount of snow—inches.	Mean percentage of cloudiness.	PER CENT. OF DIRECTION AND FORCE				BAROMETER HEIGHT REDUCED TO FREEZING POINT.			FORCE OR PRESSURE OF VAPOR, IN INCHES.			RELATIVE HUMIDITY OR FRACTION OF SATURATION.		
	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.
									Day.	Temperature.	Day.	Temperature.	Day.	Temperature.													
January.....	16	37.6	23	-14.9	16	42.0	23	-20.6	21.74	5.08	13.34	2.597	13.50	.57	.47	.16	.05	.32	30.585	29.263	29.988	.236	.006	.084	100	17	80
February.....	25	42.1	5	-6.8	25	47.2	5	-16.7	30.42	10.99	19.90	2.532	14.00	.43	.55	.27	.11	.07	30.348	29.025	29.766	.234	.013	.092	100	38	72
March.....	12	51.4	24	24.8	12	58.7	29	17.0	41.02	28.35	34.65	4.108	8.00	.59	.39	.37	.07	.17	30.282	29.128	29.788	.354	.053	.159	100	27	76
April.....	21	52.7	6	30.9	21	66.5	1	22.6	48.02	33.97	40.85	4.010	1.00	.65	.35	.21	.12	.32	30.193	29.269	29.704	.335	.052	.187	100	34	73
May.....	30	76.0	5	36.3	30	88.6	5	33.0	59.73	41.43	50.65	3.480	1.50	.48	.47	.43	.03	.09	30.167	29.136	29.763	.545	.089	.240	100	17	63
June.....	3	75.4	16	52.9	3	87.8	16	44.0	72.01	51.82	61.99	2.580	.....	.45	.45	.51	.02	.02	29.990	29.302	29.708	.638	.203	.396	100	31	72
July.....	14	72.8	17	59.3	13	85.0	1	47.0	77.48	57.78	67.05	2.130	.....	.46	.27	.49	.14	.10	30.111	29.392	29.771	.671	.272	.482	100	31	75
August.....	4	73.9	20	58.2	4	85.0	22	42.0	75.85	56.08	65.83	3.850	.....	.37	.39	.41	.14	.06	30.247	29.420	29.788	.956	.244	.471	100	35	74
September.....	3	69.5	30	44.8	3	80.0	15	28.8	64.11	44.53	54.70	1.100	.....	.35	.41	.30	.14	.15	30.270	29.453	29.885	.644	.095	.326	100	20	76
October.....	11	62.8	19	34.4	10	72.5	21	25.3	55.95	38.84	47.68	7.500	.....	.56	.29	.40	.20	.11	30.362	29.404	29.858	.644	.107	.272	100	39	76
November.....	1	43.0	30	3.4	1	53.0	30	0.0	34.53	22.95	29.00	3.580	15.00	.48	.58	.07	.10	.25	30.299	29.150	29.728	.403	.031	.132	100	44	78
December.....	4	40.4	21	-9.8	25	47.5	22	-11.5	24.87	8.16	17.43	4.163	27.50	.59	.40	.33	.07	.20	30.534	29.000	29.794	.277	.024	.090	100	42	84
Year.....	30	76° 0	23	-14° 9	30	88° 6	23	-20° 6	50° 44	33° 33	41° 92	41.630	80.50	.50	.42	.33	.10	.15	30.585	29.000	29.795	.956	.006	.244	100	17	75