SMITHSONIAN CONTRIBUTIONS TO KNOWLEDGE.
353

TABLES AND RESULTS

OF THE

PRECIPITATION, IN RAIN AND SNOW,

IN THE

UNITED STATES:

AND AT SOME STATIONS IN ADJACENT PARTS OF NORTH AMERICA, AND IN CENTRAL AND SOUTH AMERICA.

COLLECTED BY THE SMITHSONIAN INSTITUTION, AND DISCUSSED UNDER THE DIRECTION OF

JOSEPH HENRY, AND SPENCER F. BAIRD,
SECRETARIES,

BY

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SECOND EDITION.

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PUBLISHED BY THE SMITHSONIAN INSTITUTION.
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September 14, 1999

JUDD & DETWEILER, PRINTERS,
WASHINGTON, D. C.

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PREFACE.

[TO FIRST EDITION.]

THE following memoir contains in tabulated form the abstracts of all the records of observations of the rain-fall which have been made from the early settlement of this country down to the close of the year 1866, so far as they could be obtained. These records are from about one thousand two hundred stations, and consist of the observations made under the direction of the Smithsonian Institution, (assisted since 1854 by the Patent Office and Department of Agriculture,) of those by the Medical Department of the United States Army, of those by the United States Survey of the North and Northwest Lakes, of those made by the New York University System, by the Franklin Institute of Philadelphia, and also of those by other scientific institutions and individuals. For a more definite account of the various sources of information we would refer to subsequent pages. It is proper, however, that we should here express our obligations for the valuable co-operation of the Medical Department of the Army under Surgeon-General Barnes, who has given us free access to all the unpublished records, and also for that of the Department of Agriculture under the Commissioner, General Capron.

These materials were placed in the hands of Mr. Charles A. Schott, of the United States Coast Survey, whom we had previously engaged in the reduction and discussion of the observations of Kane, Hayes, McClintock, and others, which have been published from time to time in the Smithsonian Contributions to Knowledge. The tables which were prepared as the basis for future study are in themselves of much utility in regard to the practical knowledge which they afford of the special climatology of the United States, while the deductions which have been drawn from the discussion of the facts presented in these tables, and which are principally expressed in the maps of the distribution of the rain-fall, are intimately connected with the agriculture, commerce, and mechanical industry of the country, while they constitute a valuable contribution to the physical geography of the globe.

The aim was to collect information on the rain-fall from all sources of observation, whether published or in manuscript, but the effort could only be aproximately successful, since, however diligent may have been the search, much must remain undis-

covered. On this account the tables have been so constructed as to admit of continued additions and corrections.

The degree of precision of such observations, made, as they have been, by so many persons of different knowledge and experience, must, of course, vary within a considerably wide range; still it would appear from the results of the discussions of Mr. Schott that they are sufficiently exact to afford satisfactory evidence of definite laws of the rain-fall, such as he has exhibited by curves for different sections of the country. The rain-fall, which apparently is one of the most irregular of atmospheric phenomena, is nevertheless referable, from numerous observations through long periods, to definite phases of occurrence, both in time and quantity; and even the imperfections of the instruments, provided they give results in excess as well as in deficiency, in a measure compensate each other.

This memoir is one of a series embodying the results of all the labors of the Smithsonian Institution in regard to the meteorology of the United States. These will include not only all the observations which have been made under its own direction, but also the discussion of all that have been made by other parties. The whole series will embrace the tabulation and discussion of observations on the temperature, atmospheric pressure, direction and force of the wind, moisture of the air, and miscellaneous phenomena. The discussion of the temperature and the winds, which has been in progress for several years, is now well advanced, and will be published in part during the year 1872.

Since the completion of this memoir an effort has been made to increase the number of observations, and for this purpose a simple form of rain-gauge has been adopted, and of this about four hundred have been distributed to different parts of the country.

The publication of this memoir will, it is hoped, tend still further to awaken attention to this subject, and to secure a still larger number of voluntary observers, which will enhance the value of the records, since this depends both on the number and on the duration of the series.

JOSEPH HENRY,
Secretary S. I.

WASHINGTON, D. C., 1871.

PREFACE.

[TO SECOND EDITION.]

WHEN in 1870, the United States Signal Corps was charged with the meteorological service of the country, the direct and active part which the Smithsonian Institution had previously taken in the establishment and development of meteorological observations and deductions—in conformity with its settled policy—was relinquished by it, since, the important subject of meteorology being thus otherwise adequately provided for, it no longer needed the special support of the Institution.

In justice however to the numerous meteorologists, who for many years had aided the Institution by their gratuitous labors, no less than for its own interests, it was deemed desirable to publish the observations made and collected up to the time of the transfer of the meteorological service to the office organized by the General Government with special reference to it.

In June, 1875, the late Secretary of the Institution, in letters addressed to Mr. Charles A. Schott, had decided on a new edition of the Rain-Fall Tables, and authorized him to engage such assistance as was needed to carry out the plan proposed, viz: to include all the material derived from the direct labors of the Institution, together with all the accessible material from other sources up to the time of preparation for the press.

The work of collecting, arranging, and discussing the observations was prosecuted up to the time of the decease of the late Secretary of the Institution, and, after a brief interruption, was completed under my direction.

The new tables have been enriched with the addition of eight years of observations, from the beginning of 1867 to the end of 1874, for the greater portion of the stations, and in some instances include observations to the end of 1876. The general results of the graphical distribution of the rain-fall are exhibited on five charts, which were constructed between April and June, 1880; these are of the same size as the corresponding ones illustrating the distribution of the Atmospheric Temperature in the United States, published by the Institution in 1876, but, as a necessary feature, the principal mountain systems have been added to them. These charts will thus facilitate the intercomparison of these two elements of meteorology.

Besides the general addition of the results of eight years of new observations and the construction of enlarged and improved hyetic charts, I decided, in November, 1880, on the publication of the Rain-Fall Tables, *in extenso*, that is to give the amount for *each month* at every station for the entire series; this admits of ready addition from time to time, and will greatly assist the labors of future investigators. These tables will be furnished to the United States Signal Service for publication.

Improvements in the arrangement of the general tables have been made. They are now given in alphabetical order by States and by stations in each State. The second set of tables, containing the yearly amounts of precipitation, were generally brought up to the end of 1874. The explanatory notes and deductions from the charts were written anew; the remaining portion of the discussion is reprinted from the stereotyped plates of the first edition. The new edition was brought out under Mr. Schott's general direction, aided by Mr. E. H. Courtenay, with the necessary clerical assistance.

S. F. BAIRD,
Secretary S. I.

WASHINGTON, D. C., *March*, 1881.

INTRODUCTION TO RAIN-FALL TABLES.

COLLECTION AND TABULATION OF RECORDS AND RESULTS.

It is intended in the following pages to present, as a contribution towards the advancement of American climatology, the leading facts connected with the aqueous precipitation over the area of the United States; also to include such scanty records from other parts of North America and from Central and South America as could be collected. It has been the aim to bring together from all sources, records of observations of the fall of water, in rain or snow, from the earliest observers to those of the present time.

The first work, after collecting the material, was to form tables giving a summary of monthly amounts of rain-fall, arranged for each State and Territory separately, for each year. These tables served as the basis from which most of the deductions given in this memoir are derived; but, on account of their voluminous character and consequent great expense of printing, they are not published at present. They can be referred to, however, at the Institution, for more minute information* respecting the nature of the record than could conveniently be given in the printed tables, which contain all that is known or essential to the true valuation of each series. Tables A and B of this memoir are directly derived from these manuscript tables, and present their general contents in a more condensed form.

As early as 1853 and 1854 the Smithsonian Institution had collected a large number of rain records, and tabulated the monthly and annual amounts, and given other information respecting the rain-fall for stations occupied up to that period. This collection was placed in my hands in August, 1867, was revised and enlarged, and the records and results, generally, were brought up to the close of the year 1866. As no definite limit for closing the records was assigned, the tables at many stations include those for the year 1867, and, for some few localities, those for a part of 1868 also. Additions to any table can readily be made hereafter, as date and reference are given for each series.

* In these manuscript tables any break in the regularly noted series for any month is indicated by dashes, and when there was no precipitation during the interval a zero (o) is inserted. In the monthly summaries the insertion of a star (*) indicates incomplete record, the sign (†) indicates a doubtful result, and the sign (‡) an approximate result. The series of Smithsonian records of 1860 were in part lost or damaged by fire, in January, 1865; many of these, however, have since been replaced by the observers when called upon for duplicates.

SPECIAL REFERENCES TO RECORDS.

The earliest observations of the rain-fall, known to have been made within the present limits of the United States, do not go back further than the year 1738; in the eighteenth century we have but nine stations, which, with the exception of Charleston, S. C., afforded no results till after 1772. Records of the rain-fall do not become continuous at any one station till after the commencement of the present century, but the continuity may be maintained for one station or another within the United States, from about 1791 to the present time. After 1825, when the New York University system of meteorological observations was inaugurated, the records become more numerous. In 1836 was commenced the system of observations of the rain-fall under the direction of the Medical Department of the United States Army, which system, like the former, is continued to the present time, and constitutes a most important contribution to our knowledge in this branch of meteorology. In 1839 observations of the rain-fall were made under the auspices of the Franklin Institute, Pennsylvania, and maintained for a few years. In 1847 it was proposed by the Secretary of the Smithsonian Institution to establish a system of extended meteorological observations, which went into operation in 1849. In connection with the United States Patent Office, the Smithsonian Institution published *in extenso*, the meteorological observations for the years 1854 to 1859 inclusive, and the records of the large and still increasing corps of observers co-operating with the Institution constitute now the most bulky part of our meteorological collections. A valuable series of observations was commenced in 1859 under the direction of the superintendents of the survey of the North and Northwest Lakes, which under the direction of the United States Engineer Corps is still continued. The following references to sources from which material has been drawn, and which relate to the various principal systems enumerated above, deserve to be specially mentioned:—

The annual reports of the Regents of the University of the State of New York (Albany, see specially volume for 1855; the twentieth report appeared in 1868); the Army Meteorological Register for twelve years, from 1831 to 1842 inclusive, compiled from observations made by the officers of the Medical Department, at the military posts of the United States, prepared by Surgeon-General T. Lawson (Washington, 1851); the Army Meteorological Register for twelve years, from 1843 to 1854 inclusive, compiled and prepared as the preceding volume, and containing an appendix of a report on the distribution of rain, illustrated by five rain-charts, based upon the reports furnished by the military posts (Washington, 1855); the Statistical Report on the Sickness and Mortality in the Army of the United States, from 1855 to 1860, compiled and prepared under the direction of Surgeon-General T. Lawson, by R. H. Coolidge, M. D., U. S. A., (Washington, 1860); Results of Meteorological

Observations made under the direction of the U. S. Patent Office and the Smithsonian Institution, for the years 1854 to 1859 inclusive, Vol. I (Washington, 1861); and the Annual Report on the Survey of the North and Northwest Lakes, for the year ending June 30, 1867, by Bvt. Brig. General W. F. Raynolds. Among manuscripts of large extent, those kindly furnished by Capt. (now Gen.) G. G. Meade and Col. (late Lieut. Col.) J. D. Graham, Top. Eng. U. S. A., Superintendents of the Lake Survey (1858–1863), and by Bvt. Major Gen. J. K. Barnes, Surgeon-General U. S. A., for eight years (1860–1867), and subsequently for the years from 1868 to 1874 inclusive, were of great value, especially the latter, as comprising records at the military stations situated *west* of the Mississippi, upon which stations our meteorological information for the western part of the United States almost wholly depends. The records of the Smithsonian observers from 1860 to 1868 were available in manuscript; these, and the materials mentioned above, together with many series published or communicated by public institutions or by private individuals, are incorporated in the following tables and reductions.

The unit of measure of rain-fall is the English inch; in the few exceptional cases in which the record is given in units of the metric system, the latter has been changed to the former for the sake of uniformity.

DESCRIPTION OF RAIN-GAUGES AND DIRECTIONS FOR OBSERVING.

Particulars respecting the kind of rain and snow gauge, the method of observing, and other remarks and directions, will be found in the following extracts.

Rain-gauges at the Military Posts of the United States, and Regulations for their Use.—The following extract is from the preface of the Army Meteorological Register, from 1831 to 1842 inclusive (Washington, 1851): "In 1836 rain-gauges were furnished to many of the posts, by which the daily falls of rain and snow would be measured, and entered upon the tables in inches and fractions of an inch. The instrument employed is the conical rain-gauge of De Witt; and observations are ordered to be made immediately after every shower or fall of rain or snow. The following are the instructions issued by the Department for its observers: The instrument used to measure the quantity of rain which falls is the conical rain-gauge. It is to be kept remote from all elevated structures, at a distance at least equal to its height, and still further off where it can be conveniently done. It is to be suspended in a circular opening, made in a board, which is to be fixed to a post, eight feet from the ground; the opening to be five inches in diameter, and bevelled, so as to fit the cone of the gauge, into which the conical cap is to be placed, base downwards, to prevent evaporation. The measurement is made by putting down perpendicularly to the bottom of the gauge the measuring stick and applying it from its point to the water-mark on the scale, which will express the quantity in inches or their decimals. The gradu-

ation of the scale is by hundredths of an inch for the first three-tenths of an inch, and above that by tenths and half-tenths. Parts of degrees will be measured by the eye, and set down in decimals. If a rain continue for any length of time, the quantity in the gauge will be measured at suitable intervals, before the water rises high in it, and the measurements summed up at the close.

"In freezing weather, when the rain-gauge cannot be used out of doors, it must be taken into the room, and a tin vessel will be substituted for receiving the snow, rain, or sleet that may then fall. This vessel must have its opening exactly equal to that of the rain-gauge, and widen downwards to a sufficient depth, with a considerable slope. It should be placed where nothing can obstruct the descending snow from entering, and where no drift-snow can be blown into it. During a continued snow-storm the snow may be occasionally pressed down. The contents of the vessel must be melted by placing it near the fire, with a cover to prevent evaporation, and the water produced poured into the gauge to ascertain its quantity, which must then be entered on the register."

A description of the conical rain-gauge is given in Silliman's Journal of Science and Arts for April, May, and June, 1832.

Directions issued July 1, 1844, from the Surgeon-General's Office, hold the senior medical officer on duty at each military station officially responsible for the accuracy of the meteorological observations made at the station.

The following additional direction is given in the introduction to the Army Meteorological Register from 1843 to 1854 inclusive (Washington, 1855): "At every fall of rain, snow, hail, or sleet the time of its commencement and end will be recorded, and the quantity which fell is indicated by the rain-gauge."

Rain-gauges adopted by the Smithsonian Institution.—The following is an extract from the "Directions for Meteorological Observations adopted by the Smithsonian Institution, for the first-class Observers," in the annual Smithsonian Report for 1855 (Washington, 1856): "The ombrometer, or rain-gauge, is a funnel accompanied by a graduated cylindrical glass vessel, and by a reservoir. It should be placed in an open space. Trees, high buildings, and other obstacles, if too near, may have a considerable influence in increasing or diminishing the quantity of rain which falls into the funnel. The surface of the receiver should be placed horizontally about six inches above the ground." Next follows a simple mode of establishing this gauge, accompanied by a wood-cut of the same. Directions for observing are given as follows:—

"To make the observation, remove the funnel and pour the water from the jug into the large graduated glass cylinder. The opening of the funnel being one hundred square inches, one inch of rain in depth gives one hundred cubic inches of water; and each division of the glass containing a cubic inch of water, each of them

represents a hundredth of an inch of rain fallen into the ombrometer. These degrees are large enough to permit us to estimate the thousandths of an inch, etc., etc.

"The snow-gauge should be supported vertically, in an open place, between three short wooden posts, its opening being about two feet from the ground. It should be employed in the following manner: When only a small quantity of snow falls, or of snow alternating with rain, or of dry and fine snow, driven by the wind, it should be collected in the snow-gauge, as would be done in the obrometer. But when the snow falls in a sufficient quantity to cover the ground more than an inch deep, the vessel must be emptied, and plunged, mouth downward, into the snow, until the rim reaches the bottom. A plate of tinned iron or a small board may then be passed between the ground and the mouth of the gauge, and the whole reversed. In this way a cylinder of snow, of which the base is superficially one hundred inches, will be cut out and received into the vessel. The operation may be facilitated by placing on the ground a platform of strong board or plank, two or three feet square, on which the snow is received. The place selected for this purpose must be where the snow has not been heaped up or swept away by the wind, and where it presents, as nearly as possible, the mean depth of the layer that has fallen. In order to take only the snow which may fall in the interval between two observations, the board should be swept after each measurement, and the place designated by stakes. The collected snow must be melted by placing the gauge, covered with a board to prevent evaporation, in a warm room, and the quantity of water produced measured by pouring it into the glass cylinder. The rain water and melted snow water must be separately entered in the journal. During abundant rain-falls it is well to measure the water more than once a day, or at least immediately after the rain, and the quantity of rain fallen, together with the time it has lasted, is to be noted. When it freezes, it will be necessary to protect the receiver by filling in the interior of the barrel with straw."

"A series of observations has been made at the Smithsonian Institution with rain-gauges of different sizes and different forms, the result of which, as far as the observations have been carried, is to induce a preference for the smallest gauges. The one which was first distributed by the Institution and the Patent Office to the observers (represented on p. 229 of the Secretary's Report for 1855), consists of a funnel terminated above by a cylindrical brass ring, bevelled into a sharp edge at the top, turned perfectly round in a lathe, and of precisely five inches diameter. The rain which falls within this ring is conducted into a two-quart bottle placed below to receive it. To prevent any water which may run down on the outside of the funnel from entering the bottle, a short tube is soldered on the lower part of the former and incloses the neck of the latter. The funnel and bottle are placed in a box or small cask, sunk to the level of the ground, which is covered with a board

having a circular hole in its centre to receive and support the funnel. To prevent the rain-drops which may fall on this board from spattering into the mouth of the funnel, some pieces of old cloth or carpet may be tacked upon it."

"The object of placing the receiving ring so near the surface of the earth, is to avoid eddies caused by the wind, which might disturb the uniformity of the fall of rain."

"In the morning, or after a shower of rain, the bottle is taken up, and its contents measured in the graduated tube, and the quantity in inches and parts recorded in the register. The gauge or tube which was first provided for this purpose will contain when full only one-tenth of an inch of rain, the divisions indicating hundredths and thousandths of an inch. As this, however, was found to be too small for convenience, another gauge which contains an inch of rain, and indicating tenths and hundredths, was sent to observers."

Another and simpler form afterwards adopted by the Institution and Patent Office is one of those which have been experimented on at the Institution. It is a modification of a gauge which was received from Scotland, and which has been recommended by Mr. Robert Russell. It consists (see figure on p. 230 of the Secretary's Annual Report for 1855) of a large brass cylinder two inches in diameter, to catch the rain; a small brass cylinder for receiving the water and reducing the diameter of the column to allow of greater accuracy in measuring the heights; a whalebone scale divided by experiment, so as to indicate tenths and hundredths of an inch of rain. A wooden cylinder is to be inserted permanently in the ground for the protection and ready adjustment of the instrument.

To ascertain the amount of water produced from snow, a column of the depth of the fall of snow, of the same diameter as the mouth of the funnel, should be melted and measured as so much rain. The simplest method of obtaining a column of snow for this purpose, is to procure a tin tube about two feet long, having one end closed, and precisely of the diameter of the mouth of the gauge.

From measurements of this kind, repeated in several places when the depth of the snow is unequal, an average quantity may be obtained.

To facilitate transportation, the larger cylinder is attached to the smaller by a screw-joint.

A still simpler gauge has lately been devised by the Secretary of the Institution; it consists of a cylindrical tube two and a half or three inches in diameter and nine inches in length, closed with a *conical* bottom or else provided with a small cylinder projecting from a flat bottom, the object of which would be to give precise indications of the *smallest* quantities, and, with the same instrument, measure the largest amount which falls in any one shower. But, for ordinary observers, it is thought that nothing is better than a simple cylinder, three or four inches in diameter, and a wooden

measuring-rod divided into inches and tenths. Instruments of the kind last mentioned are now being distributed among observers.

To measure thousandths of inches is considered useless labor, since no two gauges can be made to give results agreeing in the hundredths of inches, owing to the irregularity in the rain-fall itself.

EXPLANATORY REMARKS ON RECORDS.

The value or precision of the observations collected from such various sources must necessarily have a wide range, and while the greater portion is supposed to come up to a standard precision, a smaller portion partakes more or less of uncertainty, either from want of reliable instruments or from defective observing. In a phenomenon so very irregular as that of the rain-fall, it is difficult to separate defective observations from correct ones; rejections of observations have, therefore, been resorted to very sparingly, and only in such few instances when other records have most undoubtedly proved their unreliability. It may be well briefly to enumerate the principal sources of error to which observations of the rain-fall were found to be liable: A defective construction of the gauge; error in the graduation or scale; improper location of gauge in reference to surrounding objects; and allowance, by rule, for water fallen as snow, instead of measuring the melted snow (or hail). Rain-gauges as commonly used, may be supposed liable to no greater error than about two per cent.; this limit includes error introduced by a defect in the graduation or in the manner of applying a measuring-rod. The most frequent cause of difference in the results by two observers at adjacent stations will generally be found in the manner of exposure of their gauges; the proper location with reference to level ground and surrounding objects, as trees, houses, or hills, being left to the judgment of observers, the rule has not always been observed to place the gauge *horizontally* at a distance from any such object of at least twice the amount of its elevation above the location of the gauge. The effect on the wind of elevated objects is to produce eddies, often felt at great distances, as may frequently be seen by the whirling motion of dust. The rule generally adopted of allowing one-tenth of the depth of snow as its equivalent amount in water, is, of course, a very rough one, as the allowance must depend upon the temperature of the snow, the form and size of the snowflakes, and the depth fallen, since the snow will be compressed by its own weight. For precise measures, the water resulting from the melted snow should always be recorded. The loss by evaporation of the water collected in the gauge, or of the snow when melting, can easily be guarded against. Respecting the elevation of the gauges above the general level of the place, so very little information could be obtained that no special mention of it is made in the tables; they were generally on the ground, or at most, but a foot above. There can hardly be too many observers even within a limited area, for instance,

such as is covered by a city of moderate extent; the results here collected give abundant proof, not only of large differences in the amount collected in single showers, in consequence of their not unfrequently sharp definition of extent, but also in the aggregate monthly and annual amounts. There are a few records of western stations which, in some parts, leave it doubtful whether a blank indicates that no rain fell or whether no observations were made; not to introduce any uncertainty in the deductions and in the absence of better information in such cases, it was assumed that no observations were taken. A more embarrassing case to the computer was the uncertainty, in many instances, whether melted snow had been included by the observer in his result or not. This question was not unfrequently difficult to decide, but, upon the whole, the discussion of the annual periodicity of the rain gave sufficient proof that no serious error has crept into the results from that source of defective information. No results at stations, when such omissions were known to exist, were admitted in the discussion.

The following tables, A and B, show the average amount of precipitation for each month, season, and year, and the amounts for a series of years, in the United States, some adjacent parts of North America, and in Central and South America. They have been, as previously stated, deduced from the manuscript tables retained in the Smithsonian Institution for future use and reference.

CONSOLIDATED TABLES

OF THE

AQUEOUS PRECIPITATION

IN THE

UNITED STATES, AND OTHER COUNTRIES OF NORTH AND SOUTH AMERICA,

SHOWING THE

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

EXPLANATION OF TABLE (A).

The headings of the different columns of the table, in general, sufficiently explain their contents, but a few additional remarks may be made, principally relating to the positions of the stations and to the continuity and combination of the records.

The geographical positions are given to the nearest minute of arc, as far as known, the longitudes are counted as usual, west from Greenwich. The positions which became known through the operations of the United States Coast and Geodetic Survey are reliable, as well as those given upon the authorities of the United States Lake Survey, directors of astronomical observatories, and in general, all those positions which have been determined by direct astronomical observations and those connected with the General Land Office. Positions given on the authority of the observer, and these are by far the most numerous, are less trustworthy, since most of them were taken from State or county maps having no adequate astronomical basis. The results for longitude depending on the electric telegraph are of such recent date that but few maps have as yet incorporated them, but longitudes of stations in their vicinity have been improved by referring to them differentially. Although no pains have been spared to render these geographical positions as trustworthy as possible, they are, in general, when taken from maps, evidently affected in the given latitudes with a probable uncertainty of from 3′ to 5′, and in the given longitudes with a probable uncertainty of from 5′ to 8′. Fortunately for the immediate wants of the discussion of the rain-fall a moderate approximation to the true position suffices.

The elevations of the stations above the ocean are given on the authority of the observers, unless corrected from other, and apparently more reliable sources. These data are known in many instances to be quite defective, as but few depend upon direct hypsometric measures, or on measured differences of level from known railroad or canal levels; those depending on barometric observations can only be regarded as rough approximations. Heights near tide-water may be considered reliable.

The tabular means given for any one month are derived from all the monthly amounts in the different years, and, unless the whole series of observations is unbroken, may differ in weight, since they may be derived from a greater or less number of years; and on account of discontinuity in the observations the numbers

in the column headed "Extent" do not always correspond with the *time elapsed* from the date of commencement to that of the close of the series, as given in the column following. The column headed "Extent" shows the number of years and months of *actual* observation. The contents of the table are generally brought up to the end of the year 1874.

When more than one series for any limited locality was on record, either covering the same period or for different years, consolidated results are given, at least for the most prominent localities. For these consolidated results, the several monthly values observed for any one month and for any one year were first combined by taking the mean, and these monthly means for the several years were afterwards united. This mode of combination must necessarily be followed on account of the annual inequality in the rain-fall. The observer's name is stated, except for the series of observations taken by the United States Army, and for those taken by the New York Academy system, and necessarily for a few other stations where the observer's name was not given. The observations of the army were generally taken by the assistant surgeon of the post, and those of the State of New York by the professors of the academies. The ABBREVIATIONS used in the last column headed "References" are principally the following:—

Ar. Met. Reg., 1855,	denotes the U. S. Army Meteorological Register, Washington, 1855.
Ar. Met. Reg., 1860,	denotes the U. S. Medical Statistics forming the third collection of the Army Meteorological Publications, Washington, 1860.
Met. Obs. Vol. 1*	denotes the Results of the Meteorological Observations made under the direction of the Patent Office and the Smithsonian Institution, Washington, 1861.
Surv. N. and N. W. Lakes	denotes Manuscript and Annual Report of the Survey of the N. and N. W. Lakes under the direction of the U. S. Topographical Engineers.
S. O.	denotes the Manuscripts by the observers operating in connection with the Smithsonian Institution.
S. Coll.	denotes Manuscripts collected at different times by the Institution.
N. Y. Acad. Sys.	denotes the Reports by the Regents of the Academies of New York.
MS. from S. G. O.	denotes the latest Observations at Military Stations west of the Mississippi River, obtained from the Surgeon General's Office, U. S. A., 1860–74.
Am. Alm.	denotes American Almanac, Boston.
Smith. Con. to Knowl.	denotes Smithsonian Contributions to Knowledge, Washington.
Sill. Jour.	denotes American Journal of Science, New Haven.
Mem. Am. Acad.	denotes Memoirs of the American Academy of Science, Boston.
Trans. Phil. Soc.	denotes Transactions of the American Philosophical Society, Phila.
London Gard. Ch.	denotes London Gardener's Chronicle, London, England.

And various others whose meanings are sufficiently apparent.

*Designated "P. O. and S. I., Vol. I," in the first edition of the Rain-fall Tables and in the Temperature Tables.

TABLES.

NORTHWEST TERRITORIES.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Fort Norman	64°30′	125°00′	200	..	..	..	..	7.37	..	..	..	..	..	..	..
2. Fort Peel's River[a]	67 32	134 30	..	4.43	2.66	2.90	3.86	4.44	5.06	5.09	6.04	2.69	6.27	5.68	4.76
3. Fort Rae	62 46	109 01	..	0.05	0.16	0.08	0.27	0.05	1.50	1.63	0.00	..	1.35	0.36	1.68
4. Fort Simpson	62 10	121 20	300	0.77	1.44	0.56	0.76	..	1.11	..	..	..	..	..	..
5. Moose Factory	51 15	80 45	30	0.92	0.79	1.06	1.29	0.95	2.28	1.16	0.90	4.26	1.81	1.57	2.07
6. Red River Settlement	49 05	97 00	653	..	..	..	0.44	4.13	8.91	7.39	7.25	6.00	..	..	..
7. Swan River Barracks	51 52	102 00	..	0.78	2.85	1.60	0.38	5.00	2.18	..	..	..	..	..	..
8. York Factory	57 00	92 26	..	0.77	0.33	0.82	0.91	3.45	1.11	2.19	2.97	1.17	1.95	1.42	1.70

NEWFOUNDLAND.

1. Bay Saint George	48 26	58 30	8	3.57	2.95	3.07	2.58	4.87	3.64	2.46	3.58	3.39	2.81	2.45	3.67
2. Channel	47 34	59 15	30	1.42	0.57	3.66	1.79	5.04	3.86	4.38	4.31	6.04	6.08	3.92	1.65
3. Fogo	49 44	54 10	28	5.35	13.45	3.83	2.70	2.78	3.53	2.15	3.97	3.04	2.00	3.03	3.95
4. Harbor Grace	47 42	53 15	60	4.59	4.47	3.89	2.33	3.68	2.73	3.73	4.40	3.80	4.22	4.67	4.79
5. Heart's Content	48 00	53 22	53	..	..	..	..	..	..	..	..	..	4.34	5.12	5.47
6. Saint John's	47 34	52 42	170	4.80	3.66	5.02	3.19	4.19	4.06	3.78	5.87	4.95	5.62	5.99	5.27

NOVA SCOTIA.

1. Albion Mines	45 34	62 42	120	3.19	3.99	4.26	3.02	2.54	2.02	2.50	3.52	3.14	6.31	5.08	4.06
2. Baddeck	46 08	60 52	..	..	1.09	..	..	1.08	..	2.79	3.81	2.19	4.20	2.05	0.55
3. Beaver Bank	..	..	..	2.54	0.93	1.67	2.20	3.78	4.73	4.01	3.60	3.67	5.14	5.44	3.32
4. Caledonia Coal Mine	46 12	59 57	60	4.73	4.92	5.30	4.94	5.30	3.79	3.87	2.91	7.03	5.96	5.18	5.51
5. Cape North	47 02	66 28	..	1.87	2.77	6.44	2.66	5.81	3.23	4.24	5.90	3.24	3.27	4.47	3.45
6. Cow Bay	46 07	59 45	..	3.55	4.12	2.60	3.95	2.10	3.78	3.80	3.30	3.04	4.13	3.79	3.47
7. Digby	44 38	65 45	40	1.73	2.30	1.39	0.91	2.64	..	2.78	8.96	3.11	2.44	1.51	2.06
8. Glacé Bay	46 10	60 00	30	5.88	4.02	4.56	4.13	3.74	3.51	3.69	4.74	3.80	5.22	5.44	4.93
9. Guysborough	44 00	64 45	..	5.38	4.73	6.19	4.27	4.20	4.46	4.42	4.11	5.61	4.92	6.54	5.18
10. Halifax	44 39	63 35	8	4.57	5.19	4.48	3.36	4.32	4.26	3.24	3.58	3.82	6.06	5.92	4.45
11. Liverpool	44 02	64 42	..	..	..	..	..	..	4.13	3.82	3.97	4.65	4.77	5.37	4.34
12. Mahone Bay	44 30	64 08	..	2.88	1.71	6.47	2.67	3.47	4.54	..	..	..	..	..	..
13. Pictou	45 40	62 45	..	4.03	3.19	3.36	2.26	2.64	3.15	4.25	3.97	3.65	4.24	5.18	4.81
14. Port Hastings	45 38	61 30	45	3.90	4.92	2.18	2.46	3.17	4.43	2.24	4.19	6.36	4.45	3.24	2.09
15. Seaforth	..	..	..	3.80	2.12	3.69	3.10	3.51	3.10	4.05	5.71	2.74	5.83	4.67	3.99
16. Shelburne	43 48	65 12	..	..	2.67	5.61	4.05	5.95	3.74	2.38	5.23	..	..	..	..
17. Sydney	46 04	60 12	27	5.11	4.56	3.88	4.42	3.17	3.73	3.95	4.50	4.29	4.70	6.52	5.18
18. Truro	45 21	63 15	40	4.16	4.27	3.86	3.00	3.08	2.85	3.98	3.79	3.07	5.41	4.88	4.09
19. Windsor[b]	44 59	64 07	200	2.36	2.11	3.42	1.96	2.35	2.51	2.69	3.47	2.57	4.01	4.38	3.27
20. Woodlands	..	..	..	..	..	..	..	..	..	..	..	4.86	4.41	..	..
21. Wolfville[c]	45 06	64 25	80	3.27	2.55	3.24	2.85	3.20	3.27	2.73	4.31	3.37	3.97	3.97	3.31
22. Yarmouth	43 50	66 05	..	2.69	2.33	2.73	3.35	3.61	3.81	2.51	4.97	1.56	4.75	5.22	2.77

[a] Formerly Fort McPherson.

[b] King's College.

[c] Acadia College.

NORTHWEST TERRITORIES.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs. mos.	Observers.	References.
1	..	..	..	..	..	May, 1862;	May, 1862	0 1	A. Flett.	S. O.
2	11.20	16.19	14.64	11.85	53.88	Mar. 1863;	Dec. 1865	2 5	A. Flett.	"
3	0.40	3.13	..	1.89	..	Dec. 1859;	Dec. 1875	1 0	L. Clarke, Jr., A. Flett.	Reps. Met. Off. of Canada; S. O.
4	..	..	..	..	..	Jan. 1861;	Apr. 1862	0 9	A. Flett, W. W. Kirby.	S. O.
5	3.30	4.34	7.64	3.78	19.06	Jan. 1861;	May, 1862	1 5	J. McKenzie.	"
6	..	23.55	..	..	..	July, 1844;	Aug. 1861	1 3	D. Gunn.	Met. Obs. Vol. 1; S. O.
7	6.98	..	..	..	..	Jan. 1876;	June, 1876	0 6	Surgeon.	Reps. Met. Off. of Canada.
8	5.18	6.27	4.54	2.80	18.79	Apr. 1874;	Dec. 1876	2 5	W. Wood, J. Fortescue.	Reps. Met. Off. of Canada; S. O.

NEWFOUNDLAND.

1	10.52	9.68	8.65	10.19	39.04	Sept. 1873;	Dec. 1876	2 11	H. McDonald.	Reps. Met. Off. of Canada.
2	10.49	12.55	16.04	3.64	42.72	Nov. 1873;	Dec. 1876	2 10	W. S. Green, N. Smith.	" "
3	9.31	9.65	8.07	22.75	49.78	July, 1873;	Dec. 1876	2 0	J. Fitzgerald.	" "
4	9.90	10.86	12.69	13.85	47.30	Nov. 1871;	Oct. 1876	4 5	A. Munn.	" "
5	..	..	..	..	..	Oct. 1876;	Dec. 1876	0 3	E. Weedon.	" "
6	12.40	13.71	16.56	13.73	56.40	Mar. 1856;	Dec. 1876	10 0	J. Delaney & Son.	Reps. Met. Off. of Canada; S. O.; Met. Obs. Vol. 1.

NOVA SCOTIA.

1	9.82	8.04	14.53	11.24	43.63	June, 1843;	Mar. 1854	5 10	H. Poole.	S. Coll.; Met. Obs. Vol. 1.
2	..	..	8.44	..	..	Feb. 1875;	Dec. 1876	1 0	R. Elmsly.	Reps. Met. Off. of Canada.
3	7.65	12.34	14.25	6.79	41.03	Sept. 1871;	Nov. 1876	4 10	J. Grove.	" "
4	15.54	10.57	18.17	15.16	59.44	Jan. 1867;	Dec. 1869	3 0	H. Poole.	Trans. N. S. Inst., Nat. Sc. Vol. 11.
5	14.91	13.37	10.98	8.09	47.35	Sept. 1871;	Aug. 1872	1 0	T. J. Bown.	Reps. Met. Off. of Canada.
6	8.65	10.88	10.96	11.14	41.63	Mar. 1873;	Dec. 1876	2 7	C. Archibald.	" "
7	4.94	..	7.06	6.09	..	Oct. 1870;	Dec. 1876	3 7	W. P. & H. H. Taylor.	" "
8	12.43	11.94	14.46	14.83	53.66	Sept. 1869;	Dec. 1876	6 7	H. Poole, C. H. Rigby.	" "
9	14.66	12.99	17.07	15.29	60.01	June, 1871;	Dec. 1874	3 7	S. R. Russell.	" "
10	12.16	11.08	15.80	14.21	53.25	Apr. 1859;	Dec. 1876	9 3	R. J. Nelson, F. Allison.	Met. Obs. Vol. 1; S. O.; Reps. Met. Off. of Canada.
11	..	11.92	14.79	..	..	June, 1871;	Dec. 1871	0 7	R. S. Sterns and J. L. Hemmeon.	Reps. Met. Off. of Canada.
12	12.61	..	..	..	..	Jan. 1872;	June, 1872	0 6	E. McNab.	" "
13	8.26	11.37	13.07	12.03	44.73	Mar. 1870;	Aug. 1873	3 6	H. A. Bayne and M. Campbell.	" "
14	7.81	10.86	14.05	10.91	43.63	Jan. 1874;	Dec. 1876	2 0	P. Grant.	" "
15	10.30	12.86	13.24	9.91	46.31	Sept. 1871;	Dec. 1873	2 4	O. McGrindon.	" "
16	15.61	11.35	..	..	..	Feb. 1872;	Aug. 1872	0 7	D. Nickerson.	" "
17	11.47	12.18	15.51	14.85	54.01	Jan. 1870;	Dec. 1876	6 11	T. C. Hill.	" "
18	9.94	10.62	13.36	12.52	46.44	Jan. 1872;	Dec. 1876	4 11	W. R. Mulholl, J. Little.	" "
19	7.73	8.67	10.96	7.74	35.10	May, 1857;	Jan. 1873	4 6	How & Everett, J. M. Hensley, Miss Fraser, M. Bowman.	Met. Obs. Vol. 1; Reps. Met. Off. of Canada.
20	..	..	..	..	..	Sept. 1871;	Oct. 1871	0 2	.....	.....
21	9.29	10.31	11.31	9.13	40.04	Sept. 1855;	Feb. 1876	15 3	Stuart & Hartt, Prof. D. F. Higgins.	Met. Obs. Vol. 1; S. O.; Reps. Met. Off. of Canada.
22	9.69	11.29	11.53	7.79	40.30	Dec. 1870;	July, 1873	2 2	H. A. Parr, H. C. Creed.	Reps. Met. Off. of Canada.

PRINCE EDWARD ISLAND.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Charlottetown	46° 18′	63° 10′	38	4.11	3.22	2.29	3.88	2.97	3.09	3.37	3.91	3.24	4.78	3.84	3.68
2. Georgetown	46 16	62 30	30	4.22	3.61	2.36	3.24	3.18	2.83	3.93	2.71	3.23	6.06	3.57	3.77

NEW BRUNSWICK.

1. Bass River	46 30	65 15	70	4.07	2.82	2.92	2.78	2.57	3.28	2.41	3.65	2.38	4.56	4.38	3.31
2. Bathurst	47 36	65 40	4	2.70	2.04	3.02	2.11	2.41	3.66	3.32	2.91	2.45	4.49	3.33	2.09
3. Chatham	47 01	65 30	56	4.64	2.95	3.98	2.66	4.17	4.86	4.06	2.86	3.21	5.10	3.64	2.74
4. Dalhousie	48 04	66 15	30	3.10	2.59	3.62	1.78	2.46	3.80	4.83	2.02	3.04	3.95	2.83	2.23
5. Dorchester	45 52	64 28	..	4.59	3.88	3.60	2.97	3.37	4.82	2.92	3.79	2.96	5.60	5.40	3.45
6. Fredericton	45 57	66 40	51	4.17	3.80	3.85	2.48	3.55	4.19	3.67	3.15	3.73	4.99	5.59	2.90
7. Grand Manan	44 45	66 48	..	..	..	..	..	..	2.82	0.69	1.22	3.50	3.00	5.67	..
8. Grindstone Isl'd Lt. H.	45 43	64 45	..	3.43	4.76	1.83	1.96	2.10	3.77	3.38	4.18	1.76	1.67	2.15	2.95
9. Mac Adam Junction	..	..	..	..	..	..	..	..	3.17	4.23	5.07	..	..	..	..
10. Petersville	45 38	66 30	..	2.80	2.48	4.32	2.58	4.69	2.85	2.74	2.14	3.08	6.00	2.73	6.39
11. Point Lepreaux Light H.	45 04	66 30	..	3.50	4.12	2.68	2.28	3.30	4.45	3.74	3.99	2.59	3.60	4.43	2.03
12. Saint Andrews	45 04	67 00	45	3.13	4.21	3.97	1.84	2.84	3.21	2.15	2.13	3.22	5.02	4.04	3.01
13. Saint John	45 22	66 04	135	5.22	4.77	4.18	3.59	4.50	3.63	3.22	4.18	4.26	4.97	6.04	4.39
14. Thurston[a]	46 00	67 00	..	2.23	2.08	1.92	1.37	2.03	2.39	2.10	2.36	3.02	3.00	2.65	2.26

QUEBEC.

1. Anticosti Island[b]	49 24	63 40	..	6.60	3.38	3.00	3.13	2.40	2.80	4.57	3.29	2.07	4.26	3.06	2.40
2. Brome	45 10	72 35	..	..	..	..	..	..	3.01	2.31	4.98	5.32	2.95	2.50	2.50
3. Cape Rozier	48 52	64 15	39	4.21	4.80	3.58	3.95	2.86	3.33	3.16	3.77	2.70	1.80	1.30	2.28
4. Carleton[c]	48 05	66 10	..	2.05	..	..	0.80	2.92	3.95	4.19	3.53	3.19	4.43	1.63	4.68
5. Charlesbourg[c]	46 51	71 15	..	..	..	..	..	2.85	1.97	3.40	3.82	3.42	5.91	0.77	..
6. Chicoutimi[c]	48 25	71 00	..	..	..	..	..	1.52	3.20	4.60	1.60	3.43	3.21	1.38	1.95
7. Cranbourne	46 20	70 48	..	4.34	2.82	5.80	2.04	2.48	4.76	5.24	3.11	5.94	3.63	3.90	3.23
8. Danville	45 50	72 00	..	2.69	2.19	2.17	1.64	3.85	4.43	7.06	5.11	6.00	3.56	2.02	2.16
9. Father Point	48 31	68 30	20	1.23	1.04	1.28	0.55	0.70	1.11	2.61	1.19	2.03	2.93	1.10	1.80
10. Huntingdon	45 05	74 15	..	2.78	1.65	2.72	2.65	2.82	2.35	3.67	3.15	3.39	4.23	2.54	2.37
11. Levis	..	..	..	3.60	2.46	0.72	1.78	3.34	3.39	5.26	3.36	2.79	5.85	3.34	3.18
12. Lotbiniere[c]	46 35	72 00	..	..	..	..	..	1.56	1.76	3.83	1.64	2.39	3.43	2.51	..
13. Montreal	45 31	73 33	182	3.78	3.23	3.43	2.36	3.21	2.75	3.99	3.06	3.40	4.12	2.90	3.31
14. Murray Bay	47 38	70 10	..	0.85	1.22	0.36	1.58	3.25	1.37	3.94	3.74	3.30	4.49	1.29	1.85
15. Pointe aux Trembles	46 42	71 40	..	..	..	..	..	2.35	3.64	4.48	3.34	3.99	4.88	2.35	..
16. Quebec	46 48	71 12	293	3.83	2.57	3.07	1.88	3.39	2.76	4.88	3.10	3.27	3.89	2.70	3.27
17. Richmond	45 40	72 08	..	1.10	1.73	2.25	1.74	2.81	2.83	7.05	7.37	4.30	3.96	2.34	2.75
18. Riviere du Loup	..	..	..	..	..	..	..	4.55	2.50	..	..	2.64	4.77	..	..
19. Saint Anne	47 24	70 05	175	3.28	1.45	..	1.88	..	..	..	..	..	..	..	..
20. Saint Martin	45 32	73 46	118	2.47	2.97	2.37	4.37	4.93	5.85	5.72	4.52	6.25	5.79	4.92	3.03
21. Stanbridge	45 08	73 00	222	1.67	1.33	2.97	2.90	2.03	1.90	3.74	5.48	2.70	4.60	2.45	2.60
22. Sherbrook[d]	45 25	71 53	..	0.77	2.49	0.36	2.45	2.24	1.61	2.08	2.33	..	..	..	..
23. Windsor	45 28	72 30	288	2.90	2.44	0.48	2.78	2.06	2.73	4.34	0.95	4.57	1.40	2.17	2.36

[a] Probably no account of snow.

[b] Light-house on S. W. Point.

[c] Convent.

[d] Observations for first five months of series at Hatley.

PRINCE EDWARD ISLAND.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
1	9.14	10.37	11.86	11.01	42.38	Apr. 1872;	Dec. 1876	4	9	H. J. Candall.	Reps. Met. Off. of Canada.
2	8.78	9.47	12.86	11.60	42.71	Oct. 1873;	Nov. 1876	2	11	Dr. Kaye.	" "

NEW BRUNSWICK.

1	8.27	9.34	11.32	10.20	39.13	Apr. 1870;	Sept. 1876	6	4	J. Fowler.	Reps. Met. Off. of Canada.
2	7.54	9.89	10.27	6.83	34.53	July, 1872;	Dec. 1876	4	6	Hon. J. Ferguson.	" "
3	10.81	11.78	11.95	10.33	44.87	Jan. 1874;	Dec. 1876	3	0	G. A. Blair.	" "
4	7.86	10.65	9.82	7.92	36.25	Sept. 1872;	Dec. 1876	3	5	J. & H. A. Johnson.	" "
5	9.94	11.53	13.96	11.92	47.35	Nov. 1871;	Dec. 1876	5	2	E. V. Tait.	" "
6	9.88	11.01	14.31	10.87	46.07	Dec. 1871;	Dec. 1876	5	1	Dr. Jack, Prof. Harrison, F. Allison.	" "
7	..	4.73	12.17	..	..	June, 1876;	Nov. 1876	0	6	.....	" "
8	5.89	11.33	5.58	11.14	33.94	Jan. 1874;	Dec. 1874	1	0	J. R. Stiles, J. Clark.	" "
9	..	12.47	..	..	..	June, 1872;	Aug. 1872	0	3	E. J. Hoben.	" "
10	11.59	7.73	11.81	11.67	42.80	Jan. 1871;	June, 1872	1	6	C. R. Mathew.	" "
11	8.26	12.18	10.62	9.65	40.71	Jan. 1874;	Dec. 1875	2	0	G. Thomas.	" "
12	8.65	7.49	12.28	10.35	38.77	Jan. 1875;	Dec. 1876	2	0	Dr. Gove.	" "
13	12.27	11.03	15.27	14.38	52.95	Aug. 1860;	Dec. 1876	14	6	G. Murdoch.	Reps. Met. Off. of Canada; S. O.
14	5.32	6.85	8.67	6.57	27.41	Jan. 1841;	Dec. 1852	12	0	R. Mossman.	London Gard. Ch.; S. Coll.

QUEBEC.

1	8.53	10.66	9.39	12.38	40.96	Apr. 1872;	Dec. 1874	2	8	E. Pope.	Reps. Met. Off. of Canada.
2	..	10.30	10.77	..	..	June, 1875;	Dec. 1876	0	10	G. F. Hall.	" "
3	10.39	10.26	5.80	11.29	37.74	Sept. 1871;	Sept. 1875	3	9	A. Trudeau.	" "
4	..	11.67	9.25	..	..	Oct. 1871;	Oct. 1876	2	3	Various.	" "
5	..	9.19	10.10	..	..	Sept. 1871;	Nov. 1873	1	3	.....	" "
6	..	9.40	8.02	..	..	Sept. 1871;	Dec. 1876	1	1	V. A. Huart.	" "
7	10.32	13.11	13.47	10.39	47.29	July, 1875;	Dec. 1876	1	6	P. Cassidy.	" "
8	7.66	16.60	11.58	7.04	42.88	Oct. 1871;	Dec. 1876	5	3	H. B. McKenzie and C. J. Devey.	" "
9	2.53	4.91	6.06	4.07	17.57	Jan. 1874;	Dec. 1876	2	5	D. Lawson and J. McWilliams.	" "
10	8.19	9.17	10.16	6.80	34.32	Jan. 1870;	Dec. 1876	7	0	Dr. F. Sheriff.	" "
11	5.84	12.01	11.98	9.24	39.07	Dec. 1871;	Oct. 1873	1	11	.....	" "
12	..	7.23	8.33	..	..	Sept. 1871;	Nov. 1874	1	3	.....	" "
13	9.00	9.80	10.42	10.32	39.54	May. 1831;	Dec. 1876	16	9	C. H. McLeod, Dr. A. Hall, J. S. Hall, J.S. McCord, C.S. Blackman, Dr. Smallwood.	Reps. Met. Off. of Canada; Met. Obs. Vol. 1; Am. Alm.; S. O.
14	5.19	9.05	9.08	3.92	27.24	Sept. 1871;	Aug. 1872	1	0	.....	Reps. Met. Off. of Canada.
15	..	11.46	11.22	..	..	June, 1872;	Oct. 1875	1	11	.....	" "
16	8.34	10.74	9.86	9.67	38.61	Sept. 1869;	Dec. 1876	7	4	E.D. Ashe, Lieut. Murray, M. J. Bell, and J. B. Donaldson.	" "
17	6.80	17.25	10.60	5.58	40.23	Oct. 1871;	Dec. 1872	1	3	J. McKay.	" "
18	..	..	..	..	..	Sept. 1871;	June, 1872	0	4	.....	" "
19	..	..	..	..	..	Jan. 1867;	Apr. 1867	0	3	J. O. Donoghue.	S. O.
20	11.67	16.09	16.96	8.47	53.19	Apr. 1851;	Jan. 1862	9	8	Dr. C. Smallwood.	Met. Obs. Vol. 1; S. Coll.; S. O.
21	7.90	11.12	9.75	5.60	34.37	Feb. 1860;	Dec. 1873	3	6	A. H. I. Gilmour.	S. O.
22	5.05	6.02	..	..	..	Jan. 1836;	Aug. 1836	0	8	Z. Thompson.	S. Coll.
23	5.32	8.02	8.14	7.70	29.18	Jan. 1806;	Dec. 1806	1	0	Fowler.	History of Vermont.

ONTARIO.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Ailsa Craig	43° 10′	81° 31′	..	3.39	0.72	2.12	1.87	1.56	3.92	1.49	3.25	4.46	0.92	2.90	3.54
2. Aylmer	42 47	81 00	..	..	6.12	4.90	3.68	3.74	2.14	3.48	1.17	3.16	4.97	2.87	1.65
3. Barrie	44 25	79 44	779	3.36	1.56	2.45	1.29	1.85	2.95	2.46	1.66	2.80	2.83	2.12	2.38
4. Beatrice	45 08	79 22	..	..	..	5.09	1.44	4.11	4.16	4.49	2.92	2.64	5.25	2.82	1.90
5. Belleville	44 10	77 28	307	4.09	3.26	4.14	2.41	2.03	2.91	2.49	1.66	3.30	3.10	2.94	3.32
6. Brampton	43 41	79 49	519	2.49	1.94	3.34	1.89	2.32	1.76	2.14	1.16	2.71	2.42	1.75	2.39
7. Brantford	43 10	80 21	..	2.68	2.86	3.79	3.82	2.77	2.64	3.27	0.13	1.85	2.62	2.66	2.50
8. Brockville	44 34	75 44	278	3.64	3.16	4.15	1.85	2.52	1.71	3.49	1.97	2.78	3.49	2.05	3.54
9. Clifton [a]	43 05	79 06	..	2.05	3.95	3.00	2.35	0.80	4.00	2.32	2.93	3.80	3.32	3.65	4.48
10. Collingwood	44 31	80 13	..	3.77	3.68	3.62	1.91	1.81	2.89	2.41	1.91	3.20	3.07	3.39	3.39
11. Cornwall	45 00	74 50	175	2.39	2.37	2.61	1.98	2.45	1.80	3.18	1.91	3.22	2.54	2.38	1.97
12. Dundas	43 15	80 05	..	2.02	1.23	3.27	2.59	1.86	3.04	3.14	2.39	3.10	2.60	1.58	2.68
13. Fitzroy Harbor	45 17	76 16	..	2.66	1.78	2.37	1.47	1.74	1.59	2.49	2.01	2.45	2.99	1.72	1.80
14. Georgina	44 17	79 24	..	2.76	2.17	2.64	1.83	1.97	2.73	2.59	1.21	2.58	2.71	2.16	2.27
15. Glencoe	42 48	81 36	..	2.03	1.27	2.84	1.72	1.61	2.53	4.33	2.00	1.41	0.58	1.39	2.94
16. Goderich	43 58	81 41	728	3.36	1.71	2.62	1.71	2.94	2.25	2.46	1.95	3.28	3.48	2.60	3.13
17. Goderich Light-house	43 45	81 45	..	4.60	2.97	3.58	1.82	4.27	1.67	2.17	1.54	3.04	4.36	3.38	4.27
18. Granton	43 12	81 21	1015	4.43	2.30	3.48	2.39	3.29	2.82	2.17	2.48	2.38	3.80	2.56	3.04
19. Gravenhurst	44 55	79 21	..	3.84	2.33	3.19	2.30	3.12	2.14	2.82	1.95	3.90	4.70	2.56	3.62
20. Hamilton	43 15	79 57	332	4.49	1.99	4.51	2.16	2.03	2.40	3.48	2.13	3.23	2.66	3.04	3.80
21. Holland Landing	44 03	79 32	..	..	..	..	2.11	1.32	1.49	1.07	1.55	..	..	..	..
22. Ingersoll	43 02	80 54	..	2.24	2.45	3.51	2.16	3.01	2.78	3.15	1.63	3.61	3.51	1.82	2.62
23. Kincardine	44 11	81 38	684	5.55	2.39	4.27	1.64	2.69	2.04	3.15	1.72	4.37	3.99	3.27	4.06
24. Kingston [b]	44 13	76 29	294	2.22	2.98	2.84	2.04	2.19	2.05	3.08	1.83	2.51	1.91	2.18	2.91
25. Lakefield	44 24	78 16	..	..	..	..	..	..	..	..	..	..	2.04	2.56	0.00
26. Little Current	45 57	81 54	608	3.26	1.97	2.02	1.60	3.28	2.26	2.82	3.18	3.66	3.42	3.34	2.15
27. London	43 00	81 16	..	1.38	0.74	2.85	1.60	2.99	2.99	1.72	2.50	3.75	2.98	1.81	2.76
28. Lucan	43 11	81 24	..	1.65	1.14	2.13	1.96	2.14	2.83	2.01	2.19	2.22	1.75	3.57	4.89
29. Markham	43 52	79 18	..	2.04	1.78	4.55	2.54	1.90	2.94	2.61	2.21	3.65	2.40	2.34	2.76
30. Michipicoten	47 56	85 06	660	1.71	1.71	3.02	2.61	1.53	1.75	1.62	2.50	3.87	1.56	4.06	1.87
31. Mount Forest	43 56	80 40	520	6.71	1.37	5.29	3.57	4.31	3.09	3.74	5.28	7.32	4.88	4.36	5.39
32. New Market	44 04	79 31	..	1.66	1.45	2.86	1.10	1.96	2.58	2.49	1.39	2.41	2.35	1.29	3.06
33. Niagara	43 09	79 06	270	2.37	2.53	1.94	1.55	1.92	2.53	1.88	2.42	2.64	1.75	3.96	1.55
34. North Douro	44 24	78 07	..	0.65	0.30	1.95	1.45	3.76	1.18	1.77	4.34	2.03	..	1.23	0.73
35. North Gwillimburg	44 17	79 34	..	3.35	1.64	3.42	1.65	1.79	2.24	1.97	1.36	2.88	2.68	2.05	2.55
36. Norwood	44 35	77 59	..	1.06	4.84	3.67	1.40	1.12	1.67	3.10	0.57	2.75	1.75	0.47	0.80
37. Orillia	44 34	79 30	..	3.30	2.46	1.78	0.95	2.66	2.82	2.48	1.34	3.34	3.64	2.84	2.72
38. Oshawa	43 55	78 54	..	1.25	..	..	0.51	2.00	2.06	..	0.55	2.94	3.45	0.40	0.58
39. Ottawa	45 25	75 42	250	4.11	2.98	3.29	1.19	2.10	1.85	2.01	1.88	3.00	2.70	2.20	3.64
40. Park Hill	42 50	81 40	..	1.60	0.99	2.30	2.00	2.95	3.45	1.59	2.23	4.59	2.24	1.89	3.20
41. Parry Sound	45 19	80 01	635	4.35	2.34	3.82	2.03	4.46	1.17	2.38	4.90	3.42	4.59	3.20	2.78
42. Pembroke	45 50	77 08	389	2.42	2.07	2.38	1.85	2.78	2.61	3.99	2.50	3.94	3.46	2.41	2.22
43. Perth	44 45	79 45	..	..	..	..	..	..	..	..	..	..	..	1.16	..
44. Peterborough	44 20	78 22	688	2.93	2.08	2.75	2.29	1.89	1.95	2.97	2.12	3.03	2.40	1.85	2.60
45. Plattsville	43 18	80 37	..	1.04	1.09	0.38	1.73	1.46	2.14	0.67	2.07	2.84	1.41	1.55	2.62
46. Point Clark	44 05	81 44	..	4.32	2.74	3.01	2.74	3.87	2.63	3.46	2.08	2.29	4.13	3.93	3.56
47. Port Dalhousie	43 14	79 17	..	1.78	2.15	3.75	2.05	2.30	1.25	2.84	1.14	2.25	1.67	1.72	2.19
48. Port Dover	42 47	80 12	635	2.94	2.56	3.27	2.18	2.35	1.20	4.04	2.79	1.90	2.56	2.08	2.30
49. Port Stanley	42 40	81 14	592	3.29	3.86	3.20	2.07	2.98	1.87	3.49	2.62	2.53	2.97	2.15	2.06
50. Presqu'Isle	44 42	80 55	..	3.89	2.02	3.80	1.37	3.69	1.30	1.96	1.32	5.20	5.10	1.65	2.88
51. Saugeen	44 28	81 24	641	4.19	1.92	3.65	1.77	2.97	2.12	1.93	1.07	2.78	4.08	2.81	2.76
52. Seaforth	43 31	81 20	..	2.86	1.45	3.70	0.65	1.60	2.15	2.12	2.28	2.00	1.30	2.76	4.42
53. Seely	45 15	79 11	..	3.90	3.35	5.38	1.74	4.27	2.95	3.73	3.46	4.46	5.30	1.90	2.24
54. Simcoe	42 51	80 20	724	3.74	1.83	3.75	2.21	2.57	2.76	3.73	3.60	2.75	2.85	2.67	3.01
55. Springfield	..	..	..	1.10	..	..	1.00	2.06	1.76	0.85	3.38	..	..	..	..

[a] Observations partly at Clifton, and partly at Suspension Bridge, N. Y.

[b] Queen's College.

ONTARIO.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
1	5.55	8.66	8.28	7.65	30.14	Dec. 1870;	June, 1873	1	11	J. Wilson, R. Mumford.	Reps. Met. Off. of Canada.
2	12.32	6.79	11.00	..	..	Feb. 1876;	Dec. 1876	0	11	E. M. Bigg.	" "
3	5.59	7.07	7.75	7.30	27.71	Sept. 1869;	Dec. 1876	7	4	H. B. Spotton.	" "
4	10.64	11.57	10.71	..	..	Mar. 1876;	Dec. 1876	0	10	J. Hollingsworth.	" "
5	8.58	7.06	9.34	10.67	35.65	Sept. 1869;	Dec. 1876	7	3	G. Dawson.	" "
6	7.55	5.06	6.88	6.82	26.31	Jan. 1871;	Dec. 1876	6	0	J. Reynolds.	" "
7	10.38	6.04	7.13	8.04	31.59	Jan. 1876;	Dec. 1876	1	0	Dr. A. F. Kemp.	" "
8	8.52	7.17	8.32	10.34	34.35	Nov. 1871;	Dec. 1876	5	2	Dr. W. R. Bigg.	" "
9	6.15	9.25	10.77	10.48	36.65	June, 1868;	Apr. 1871	1	10	W. M. Jones.	S. O.
10	7.34	7.21	9.66	10.84	35.05	Nov. 1869;	Jan. 1873	3	0	W. A. Parlane.	"
11	7.04	6.89	8.14	6.73	28.80	Jan. 1870;	Dec. 1876	6	0	J. Smith.	Reps. Met. Off. of Canada.
12	7.72	8.57	7.28	5.93	29.50	Apr. 1870;	Feb. 1874	3	8	J. Geddes, R. Robertson.	" "
13	5.58	6.09	7.16	6.24	25.07	Apr. 1870;	Dec. 1876	6	8	J. Tait.	" "
14	6.44	6.53	7.45	7.20	27.62	Oct. 1869;	Dec. 1876	7	3	Capt. Sibbald.	" "
15	6.17	8.86	3.38	6.24	24.65	Apr. 1870;	June, 1873	3	1	W. Hayden.	" "
16	7.27	6.66	9.36	8.20	31.49	Sept. 1869;	Dec. 1876	7	4	H. J. Strang, G. N. McDonald.	" "
17	9.67	5.38	10.78	11.84	37.67	Jan. 1875;	Dec. 1876	2	0	. . . . .	" "
18	9.16	7.47	8.74	9.77	35.14	Jan. 1873;	Dec. 1876	4	0	J. Grant.	" "
19	8.61	6.91	11.16	9.79	36.47	Dec. 1870;	Dec. 1876	6	1	T. W. Robinson.	" "
20	8.70	8.01	8.93	10.28	35.92	Sept. 1869;	Dec. 1876	7	4	G. Black, G. Dickson.	" "
21	..	4.11	..	..	..	Apr. 1871;	Aug. 1871	0	5	M. Bell, W. H. Thorne.	" "
22	8.68	7.56	8.94	7.31	32.49	Apr. 1871;	Dec. 1876	5	2	J. Lewis, A. and W. H. Eakins.	" "
23	8.60	6.91	11.63	12.00	39.14	May, 1870;	Dec. 1876	5	8	Dr. DeW. H. Martin.	" "
24	7.07	6.96	6.60	8.11	28.74	Jan. 1858;	Dec. 1876	5	2	Rep. Kingston Ob'y., S. Woods, J. Williamson, Lt. Irwin.	Met. Obs., Vol. I.
25	..	..	..	..	..	Oct. 1876;	Dec. 1876	0	3	H. Lefevre.	Reps. Met. Off. of Canada.
26	6.90	8.26	10.42	7.38	32.96	Sept. 1871;	Dec. 1876	5	0	G. B. Abrey.	" "
27	7.44	7.21	8.54	4.88	28.07	Dec. 1871;	Apr. 1874	1	11	Dr. S. Lett, Jr.	" "
28	6.23	7.03	7.54	7.68	28.48	Feb. 1871;	June, 1873	2	5	F. R. Jennings.	" "
29	8.99	7.76	8.39	6.58	31.72	Dec. 1869;	Dec. 1872	3	0	Dr. J. H. Hughes.	" "
30	7.16	5.87	9.49	5.29	27.81	Nov. 1863;	May, 1866	2	5	C. Rankin.	S. O.
31	13.17	12.11	16.56	13.47	55.31	May, 1872;	Dec. 1874	2	8	W. Wylie.	"
32	5.92	6.46	6.05	6.17	24.60	May, 1871;	Dec. 1876	3	4	W. R. Nason, Dr. J. Morrison.	Reps. Met. Off. of Canada.
33	5.41	6.83	8.35	6.45	27.04	Feb. 1861;	Aug. 1872	2	5	S. D. Mills, H. Phillipps.	Reps. Met. Off. of Canada; S. O.
34	7.16	7.29	..	1.68	..	Sept. 1874;	Nov. 1875	1	0	. . . . .	Reps. Met. Off. of Canada.
35	6.86	5.57	7.61	7.54	27.58	Oct. 1869;	Dec. 1876	7	3	C. Ritchie.	" "
36	6.19	5.34	4.97	6.70	23.20	Oct. 1875;	Oct. 1876	1	1	T. F. Fotheringham.	" "
37	5.39	6.64	9.82	8.48	30.33	May, 1871;	Dec. 1876	5	5	H. A. Fitton.	" "
38	..	..	6.79	..	..	Apr. 1872;	Aug. 1873	1	0	C. H. Panton.	" "
39	6.58	5.74	7.90	10.73	30.95	Apr. 1872;	Dec. 1876	4	9	G. C. and J. B. Haney.	" "
40	7.25	7.27	8.72	5.79	29.03	Jan. 1871;	Apr. 1873	2	4	G. B. Reeve.	" "
41	10.31	8.45	11.21	9.47	39.44	Oct. 1874;	Dec. 1876	2	3	R. Mosley.	" "
42	7.01	9.10	9.81	6.71	32.63	Sept. 1869;	Dec. 1876	5	11	A. Thompson.	" "
43	..	..	..	..	..	Nov. 1871;	Nov. 1871	0	1	. . . . .	. . . . .
44	6.93	7.04	7.28	7.61	28.86	Sept. 1869;	Nov. 1876	7	2	Dr. J. B. Dixon, J. F. Jefferson.	" "
45	3.57	4.88	5.80	4.75	19.00	July, 1871;	Dec. 1872	1	6	R. Treffry.	" "
46	9.62	8.17	10.35	10.62	38.76	Sept. 1871;	Dec. 1876	5	4	J. Young.	. . . . .
47	8.10	5.23	5.64	6.12	25.09	Sept. 1874;	Dec. 1876	2	4	E. F. Dwyer.	" "
48	7.80	8.03	6.54	7.80	30.17	Jan. 1874;	Dec. 1876	3	0	H. Morgan.	" "
49	8.25	7.98	7.65	9.21	33.09	Jan. 1874;	Dec. 1876	3	0	M. Payne.	" "
50	8.86	4.58	11.95	8.79	34.18	July, 1875;	Dec. 1876	1	6	J. McKenzie.	" "
51	8.39	5.12	9.67	8.87	32.05	Jan. 1874;	Dec. 1876	3	0	T. Davis, J. R. Stewart.	" "
52	5.95	6.55	6.06	8.73	27.29	Nov. 1870;	Aug. 1873	2	0	R. B. Moodie, A Straiton.	" "
53	11.39	10.14	11.66	9.49	42.68	Jan. 1875;	Dec. 1876	2	0	A. F. Merser.	" "
54	8.53	10.09	8.27	8.58	35.47	Sept. 1869;	Dec. 1876	7	4	G. Grant.	" "
55	..	5.99	..	..	..	Jan. 1872;	Aug. 1872	0	6	. . . . .	" "

ONTARIO—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
56. Stayner	44° 26′	80° 09′	714	4.02	2.18	3.24	2.36	2.21	2.42	2.94	1.63	3.28	3.31	3.41	3.57
57. Stoney Point	42 21	82 30	..	..	..	..	..	..	..	..	1.87	1.26	0.62	1.91	..
58. Stratford	43 25	81 03	1182	4.19	2.32	3.39	2.49	3.31	2.59	3.48	2.59	3.33	3.55	3.08	3.82
59. Thornhill	43 50	79 30	..	1.57	1.84	6.68	2.92	1.21	1.58	2.43	1.75	2.05	0.60	2.51	2.95
60. Toronto[a]	43 39	79 23	342	2.84	2.63	2.87	2.56	3.20	2.71	2.98	2.69	3.54	2.33	3.04	2.95
61. Vienna	42 42	81 45	..	..	..	..	..	..	1.38	3.57	1.79	2.12	2.20	3.14	3.53
62. Welland	43 00	79 27	..	2.15	1.56	1.82	2.26	1.79	1.69	3.01	1.40	2.31	2.13	1.71	1.91
63. Weston	43 43	79 35	..	4.54	2.02	7.08	3.55	1.98	3.50	2.28	1.39	3.06	1.23	1.71	3.90
64. Widder	43 13	81 48	..	1.86	1.39	2.48	2.24	1.67	4.36	7.42	2.93	3.07	3.58	2.58	3.74
65. Windsor	42 20	83 02	620	3.68	2.13	2.93	1.91	2.58	2.90	2.74	1.74	1.81	1.78	2.79	3.00
66. Woodstock	43 08	80 48	980	3.09	2.00	3.24	2.47	2.61	2.85	3.26	3.29	2.53	3.09	2.33	3.41
67. Wyoming	42 55	82 00	..	0.45	1.46	5.17	1.68	1.38	5.51	3.34	..	1.25	0.90	..	..

MANITOBA.

1. Fort Garry	49 51	97° 00′	754	0.71	0.79	0.77	0.61	2.68	4.39	2.54	5.79	1.54	0.85	1.35	0.62
2. Little Britain	..	..	..	..	..	..	0.29	1.68	4.17	2.10	4.56	1.64	0.76	1.35	1.10
3. Winnipeg[b]	49 52	97 00	..	0.84	0.86	0.81	1.11	2.44	2.84	2.31	4.13	2.54	1.11	1.35	0.96

BRITISH COLUMBIA.

1. Esquimault	48 26	123° 30′	42	3.08	2.68	2.93	0.81	1.16	0.62	0.13	0.65	0.69	2.00	4.89	4.05
2. Spence's Bridge	50 25	121 30	760	0.99	0.71	0.93	0.26	0.75	0.68	0.74	0.85	0.43	0.45	1.15	0.94

[a] Observations at the Magnetical and Meteorological Observatory.

[b] St. John's College.

ONTARIO—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
56	7.81	6.99	10.00	9.77	34.57	Feb. 1870;	Dec. 1876	5	10	R. J. Cole.	Reps. Met. Off. of Canada.
57	..	..	3.79	..	..	Aug. 1871;	Nov. 1871	0	4	W. Dickson.	" "
58	9.19	8.66	9.96	10.33	38.14	Sept. 1869;	Dec. 1876	7	4	C. J. McGregor.	" "
59	10.81	5.76	5.16	6.36	28.09	Feb. 1870;	Jan. 1872	1	5	J. Duncan.	" "
60	8.63	8.38	8.91	8.42	34.34	Jan. 1843;	Dec. 1876	33	10	. . . . .	" "
61	..	6.74	7.46	..	..	June, 1875;	Dec. 1875	0	7	. . . . .	" "
62	5.87	6.10	6.15	5.62	23.74	Nov. 1872;	Dec. 1876	4	1	H. A. Willett.	" "
63	12.61	7.17	6.00	10.46	36.24	Oct. 1869;	July, 1871	1	10	W. F. Checkley.	" "
64	6.39	14.71	9.23	6.99	37.32	Feb. 1870;	Apr. 1872	2	3	P. Goodfellow, A. Duffus.	" "
65	7.42	7.38	6.38	8.81	29.99	Sept. 1869;	Dec. 1876	7	4	J. H. Johnson, A. Sinclair.	" "
66	8.32	9.40	7.95	8.50	34.17	Feb. 1870;	Dec. 1876	6	11	Prof. J. Montgomery.	" "
67	8.23	..	..	..	..	Jan. 1871;	Oct. 1871	0	9	J. McKay.	" "

MANITOBA.

1	4.06	12.72	3.74	2.12	22.64	Sept. 1873;	Dec. 1876	3	4	J. Stewart.	Reps. Met. Off. of Canada.
2	..	10.83	3.75	..	..	May, 1874;	Dec. 1876	1	8	D. Gunn.	" "
3	4.36	9.28	5.00	2.66	21.30	Jan. 1869;	Dec. 1876	6	8	J. Stuart, W. G. Finney.	" "

BRITISH COLUMBIA.

1	4.90	1.40	7.58	9.81	23.69	Sept. 1873;	Dec. 1876	3	4	W. H. Bevis.	Reps. Met. Off. of Canada.
2	1.94	2.27	2.03	2.64	8.88	Jan. 1872;	Dec. 1876	4	0	. . . . .	" "

ARIZONA.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Camp Bowie	32° 10′	109° 50′	4872	1.02	2.37	0.77	0.24	0.28	0.40	3.67	3.28	0.99	0.27	0.77	1.20
2. Camp Colorado	34 08	114 18	..	0.15	0.07	0.25	0.08	0.02	0.00	0.03	0.25	0.00	0.30	0.50	0.20
3. Camp Crittenden	31 43	110 35	..	0.77	1.39	0.87	0.25	0.06	0.22	6.72	4.88	0.94	0.20	0.37	1.22
4. Camp Date Creek [a]	34 18	112 40	3726	1.38	1.70	1.37	1.00	0.16	0.30	4.02	3.63	0.35	0.53	0.77	1.80
5. Camp El Dorado	35 45	114 59	..	..	..	..	0.00	0.00	0.00	..	..	..	..	..	..
6. Camp Goodwin	32 52	109 51	2816	2.41	1.82	1.04	1.30	0.00	0.69	3.35	6.78	3.80	1.39	1.19	2.81
7. Camp Grant [b]	32 54	110 40	2000	0.94	0.97	0.81	1.10	0.17	0.71	2.65	2.89	1.63	0.26	1.38	1.57
8. Camp Hualpai [c]	34 15	114	5321	0.00	0.40	0.00	1.02	0.64	0.05	4.91	3.82	4.10	0.60	0.35	0.70
9. Camp Kew	..	..	..	..	..	4.00	2.70	..	..	..	..	..	..	..	..
10. Camp La Paz	33 42	114 30	..	..	..	..	..	..	..	..	..	0.00	0.20	1.30	0.00
11. Camp Lincoln	34 52	111 35	..	..	..	..	..	..	0.33	..	1.79	1.27	0.58	1.08	..
12. Camp Lowell, Tucson	32 13	110 53	2000	0.55	0.75	0.30	0.32	0.02	0.15	2.90	2.67	1.12	0.27	0.49	0.87
13. Camp McDowell	33 46	111 36	..	1.01	1.28	0.68	0.34	0.09	0.14	2.43	2.22	0.76	0.22	0.75	1.53
14. Camp Magollan [d]	..	..	..	..	..	..	..	..	..	..	0.13	..	..	..	..
15. Camp Mohave [e]	35 02	114 36	604	0.18	0.94	0.12	0.45	0.24	0.13	0.30	0.84	0.06	0.28	0.59	0.52
16. Camp Reno	33 56	111 20	..	2.46	2.76	0.88	0.03	0.00	0.50	..	..	0.02	1.00	3.50	0.70
17. Camp Skull Valley	34 45	112 30	5000	3.11	1.11	3.09	0.30	..	..	..	..	..	..	..	..
18. Camp Thomas [f]	..	..	..	..	..	..	..	..	..	..	..	0.32	0.09	..	..
19. Camp Verde	34 34	111 54	3160	0.69	1.01	0.45	0.67	0.13	0.32	1.37	2.96	0.40	0.55	1.46	0.84
20. Camp Wallen	31 31	110 11	..	2.43	1.59	0.52	0.25	0.03	0.03	5.32	4.90	0.90	0.00	0.00	2.93
21. Camp Whipple [g]	34 33	112 27	5318	1.53	2.32	1.94	0.96	0.98	0.24	4.55	3.28	0.83	0.71	0.61	1.33
22. Camp Willow Grove	35 34	113 27	4170	0.48	0.88	0.42	0.59	0.20	0.03	3.05	2.37	0.07	0.33	0.23	0.35
23. Fort Buchanan	31 40	110 55	5330	1.25	1.43	0.15	0.98	0.00	0.34	6.22	6.92	2.27	1.33	1.00	1.22
24. Fort Defiance	35 43	109 10	6500	0.98	0.70	0.84	0.67	0.52	0.74	2.44	2.73	1.86	0.70	1.16	0.87
25. Tubac	31 40	111 00	3000	0.81	0.29	..	..	..	..	..	..	..	0.00	0.35	2.57

ARKANSAS.

1. Buckhorn	35 46	91 42	..	..	..	..	..	..	..	..	..	3.00	7.12	3.06	1.23	..
2. Camden	33 32	92 48	123	..	..	..	..	..	..	..	..	..	..	3.30	4.98	..
3. Clarksville	35 27	93 32	..	2.35	1.48	..	4.80	5.33	8.41	2.20	1.25	0.30	7.95	2.30	1.50
4. Fayetteville	36 02	94 12	1350	2.70	2.34	3.33	5.83	6.42	1.69	10.60	..	..	3.74	3.05	2.37
5. Forest City	35 03	90 51	..	5.18	7.98	3.35	3.97	5.27	3.86	5.99	1.12	2.02	3.25	2.63	3.44
6. Fort Smith	35 23	94 29	460	2.19	2.77	2.69	4.86	4.42	4.08	3.58	3.41	3.01	3.27	3.59	2.64
7. Helena, near	34 32	90 36	..	3.36	8.20	6.02	5.13	8.49	7.03	4.37	5.74	9.16	3.15	3.82	5.60
8. Little Rock Arsenal	34 40	92 12	309	2.00	9.38	2.95	5.92	10.90	0.50	2.20	..	..	0.60	0.20	3.40
9. Mineral Springs [h]	33 44	94 01	600 [i]	4.78	3.43	4.68	5.65	5.02	3.52	4.50	3.44	3.98	2.76	3.04	3.08
10. Mount Ida	34 34	93 38	..	5.70	4.16	2.95	5.65	6.43	6.67	5.47	0.90	5.83	2.40	2.30	4.60
11. Pocahontas, near	36 16	91 01	..	3.35	3.05	..	..	..	..	..	..	..	1.90	2.60	4.02
12. Union County [j]	33 18	93 00	..	9.14	6.23	5.25	11.88	7.24	3.26	2.63	13.33	1.25	3.50	6.25	11.12
13. Washington	33 44	93 41	660	4.63	4.98	5.29	5.65	4.70	3.77	4.69	3.96	3.31	4.09	4.72	4.46

[a] Called Camp McPherson in 1867–8.

[b] Formerly Fort Breckenridge; also called Fort Grant.

[c] Observations for five months of 1870 at Fort Tollgate.

[d] Perhaps the same as Camp Thomas.

[e] Also called Fort Mohave.

[f] Perhaps the same as Camp Magollan.

ARIZONA.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
1	1.29	7.35	2.03	4.59	15.26	Aug. 1867;	Dec. 1874	6	8	Assistant Surgeon.	MS. from S. G. O.
2	0.35	0.28	0.80	0.42	1.85	Feb. 1869;	Feb. 1871	2	0	"	"
3	1.18	11.82	1.51	3.38	17.89	Apr. 1868;	Nov. 1871	3	7	"	"
4	2.53	7.95	1.65	4.88	17.01	May, 1867;	Nov. 1871	4	7	"	"
5	..	..	..	..	..	Apr. 1867;	June, 1867	0	3	"	"
6	2.34	10.82	6.38	7.04	26.58	Jan. 1866;	May, 1870	3	11	"	"
7	2.08	6.25	3.27	3.48	15.08	Sept. 1866;	Dec. 1874	6	10	"	"
8	1.66	8.78	5.05	1.10	16.59	Apr. 1870;	Oct. 1871	1	4	"	"
9	..	..	..	..	..	Feb. 1868;	Mar. 1868	0	2	"	"
10	..	..	1.50	..	..	Sept. 1874;	Dec. 1874	0	4	"	"
11	..	..	2.93	..	..	June, 1868;	Nov. 1868	0	5	"	"
12	0.64	5.72	1.88	2.17	10.41	May, 1867;	Dec. 1874	4	11	"	"
13	1.11	4.79	1.73	3.82	11.45	Sept. 1866;	Dec. 1874	8	2	"	"
14	..	..	..	..	..	Aug. 1870;	Aug. 1870	0	1	"	"
15	0.81	1.27	0.93	1.64	4.65	Aug. 1859;	Dec. 1874	9	1	"	Ar. Met. Reg. 1860, MS. from S. G. O.
16	0.91	..	4.52	5.92	..	Jan. 1869;	Feb. 1870	1	0	"	MS. from S. G. O.
17	..	..	..	..	..	Jan. 1867;	Apr. 1867	0	4	"	"
18	..	..	..	..	..	Sept. 1870;	Oct. 1870	0	2	"	"
19	1.25	4.65	2.41	2.54	10.85	Dec. 1868;	Dec. 1874	6	1	"	"
20	0.80	10.25	0.90	6.95	18.90	Dec. 1866;	Sept. 1869	2	8	"	"
21	3.88	8.07	2.15	5.18	19.28	June, 1865;	Oct. 1874	7	5	"	"
22	1.21	5.44	0.63	1.71	9.00	Feb. 1868;	Sept. 1869	1	7	"	"
23	1.13	13.48	4.60	3.90	23.11	Aug. 1857;	Dec. 1859	2	5	"	Ar. Met. Reg. 1860.
24	2.03	5.91	3.72	2.55	14.21	May, 1852;	Dec. 1860	8	5	"	Ar. Met. Reg. 1855 and 1860; MS. from S. G. O.
25	..	..	..	3.67	..	Oct. 1867;	Feb. 1868	0	5	"	MS. from S. G. O.

ARKANSAS.

1	..	..	11.35	..	..	Aug. 1859;	Nov. 1859	0	4	A. Younger.	Met. Obs., Vol. 1.
2	..	..	..	..	..	Oct. 1855;	Nov. 1855	0	2	J. J. McElrath.	"
3	..	11.86	10.55	5.33	..	Apr. 1871;	Feb. 1872	0	11	E. Greene.	S. O.
4	15.58	..	..	7.41	..	Oct. 1870;	Dec. 1872	1	4	C. L. McClung.	"
5	12.59	10.97	7.90	16.60	48.06	Apr. 1872;	Nov. 1873	1	8	. . . . .	"
6	11.97	11.07	9.87	7.60	40.51	May, 1837;	July, 1871	22	8	Assistant Surgeon.	Ar. Met. Regs. 1855–1860. MS. from S. G. O.
7	19.64	17.14	16.13	17.16	70.07	Dec. 1865;	June, 1873	2	1	O. F. Russell, T. M. Jacks, Jr.	S. O.
8	19.77	..	..	14.78	..	Dec. 1866;	Nov. 1867	0	10	Assistant Surgeon.	MS. from S. G. O.
9	15.35	11.46	9.78	11.29	47.88	Aug. 1870;	Dec. 1873	3	2	H. Bishop, D. C. Cowling, J. C. P. McLendon.	S. O.
10	15.03	13.04	10.53	14.46	53.06	Feb. 1872;	Nov. 1874	2	6	G. Whittington.	"
11	..	..	..	10.42	..	Oct. 1871;	Feb. 1872	0	5	Dr. J. P. Martin.	"
12	24.37	19.22	11.00	26.49	81.08	Jan. 1850;	Dec. 1850	1	0	Ross.	Pat. Off. Rep.
13	15.64	12.42	12.12	14.07	54.25	Jan. 1840;	Apr. 1872	22	5	Dr. N. D. Smith and C. White.	MS. from S. G. O.; Sm. Cont. to Knowl. Vol. XII.

[g] Also called Fort Whipple.

[h] 20 miles west of Washington.

[i] Above bed of Red River.

[j] Observations perhaps not quite reliable.

CALIFORNIA.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Alcatraz Island	37° 49′	122° 25′	..	4.93	3.27	1.64	0.84	0.11	0.01	0.00	0.00	0.02	0.28	1.55	4.61
2. Angel Island	37 51	122 26	30	3.96	2.95	2.10	1.30	0.12	0.02	0.00	0.00	0.01	0.74	2.00	5.38
3. Benicia Barracks	38 03	122 09	64	2.74	2.09	2.33	1.26	0.51	0.10	0.02	0.01	0.02	0.43	1.83	3.56
4. Cahto	39 15	123 17	1500	12.75	10.00	10.05	6.09	2.25	0.02	..	..	0.20	..	4.95	12.55
5. Camp Cady	34 58	116 32	3000	0.18	0.50	0.37	0.25	0.08	0.00	0.35	0.63	0.00	0.30	0.27	0.16
6. Camp Far West	39 07	121 18	175	3.46	0.63	6.35	2.23	0.43	0.00	0.00	0.00	1.15	0.05	1.98	4.32
7. Camp Gaston	41 01	123 34	..	11.56	8.14	8.70	4.98	1.08	0.87	0.20	0.08	0.73	1.09	8.10	11.86
8. Camp Independence	36 50	118 13	3957	1.18	0.66	0.59	0.22	0.28	0.04	0.11	0.20	0.06	0.38	0.18	2.70
9. Camp Lincoln	41 50	124 05	..	16.87	6.68	11.20	7.16	0.92	3.12	0.03	0.05	0.50	1.82	9.48	15.58
10. Camp Union	38 32	121 30	54	4.00	0.92	0.32	0.64	0.54	0.08	0.45	0.00	..	..	..	..
11. Camp Wright	39 48	123 17	..	8.82	7.04	5.57	2.09	0.60	0.24	0.01	0.02	0.44	1.23	6.50	11.41
12. Chico	39 43	121 48	150	4.06	5.06	1.84	1.42	0.64	0.33	0.00	0.00	..	0.65	2.51	5.19
13. Clayton	37 56	121 55	76	1.52	3.19	1.38	1.36	..	..	..	..	..	..	..	..
14. Crescent City	41 45	124 12	12	..	..	..	..	..	..	..	..	..	..	..	4.99
15. Downieville	39 33	120 49	2200	..	..	..	..	..	..	..	0.01	0.07	4.19	11.33	6.78
16. Drum Barracks	33 47	118 17	32	2.22	1.17	1.92	0.34	0.00	0.00	0.06	0.20	0.00	0.03	0.32	2.48
17. El Monte	34 04	118 05	..	2.55	7.53	2.70	1.20	0.20	..	..	1.00	..	0.61	1.15	3.12
18. Folsom	38 40	121 10	176	..	..	4.60	0.60	0.50	0.10	0.00	0.00	..	..	..	..
19. Fort Babbitt	36 22	119 17	384	2.20	1.02	..	0.00	0.00	..	..	..	..	0.00	0.85	1.50
20. Fort Bidwell	41 50	120 10	4680	4.11	2.72	2.64	1.04	1.27	0.96	0.30	0.28	0.58	0.40	2.05	3.88
21. Fort Crook	41 07	121 29	3390	3.16	3.76	3.52	1.60	1.25	0.64	0.32	0.01	0.66	1.07	2.82	4.37
22. Fort Humboldt	40 45	124 10	50	5.78	5.96	5.30	2.82	1.24	0.47	0.19	0.07	0.58	1.78	4.13	7.59
23. Fort Jones	41 36	122 52	2570	2.88	4.10	2.77	1.25	1.21	0.70	0.11	0.10	0.20	1.40	2.59	4.39
24. Fort Miller	37 00	119 40	402	1.65	1.76	4.29	1.91	1.05	0.00	0.00	0.00	0.03	0.28	2.63	5.40
25. Fort Point	37 48	122 29	27	4.07	2.95	1.90	1.20	0.56	0.02	0.01	0.00	0.05	0.56	1.67	4.37
26. Fort Reading	40 28	122 13	674	4.88	3.27	3.91	3.92	2.85	0.32	0.00	0.06	0.16	0.69	3.30	5.78
27. Fort Tejon	34 52	118 55	3246	1.62	3.19	2.49	3.19	1.17	0.21	0.02	0.16	2.02	1.00	1.49	4.32
28. Fort Ter-Waw	41 30	123 52	..	9.97	8.78	4.51	6.07	3.63	0.18	2.42	0.71	3.81	5.64	12.71	11.52
29. Fort Yuma	32 44	114 36	200	0.21	0.43	0.21	0.06	0.00	0.00	0.42	0.88	0.83	0.13	0.40	0.29
30. Indian Valley	40 07	120 50	3280	7.75	8.33	3.30	7.00	0.50	0.00	..	0.00	..	0.50	0.30	6.75
31. La Grange	37 15	120 27	200	..	3.67	0.30	0.45	0.00	..	..	0.00	0.00	0.90	0.14	..
32. Mare Island	38 06	122 15	29	5.08	4.03	2.50	1.14	..	0.40	0.13	..	..	0.62	1.82	7.75
33. Marsh Ranche	37 53	121 42	..	7.54	..	3.48	1.15	0.56	..	..	..	..	..	2.67	9.67
34. Marysville	39 09	121 34	80	7.63	..	..	..	0.53	..	0.04	..	..	..	..	2.34
35. Meadow Valley[a]	39 56	121 02	3700	7.41	6.05	6.21	3.20	1.99	1.09	2.40	1.13	1.53	2.41	12.10	11.52
36. Mendocino	39 18	123 46	50	12.25	17.75	5.65	2.40	..	..	..	..	0.05	0.03	4.89	11.85
37. Monterey	36 37	121 52	40	2.79	2.14	2.77	1.01	0.65	0.14	0.09	0.03	0.04	0.43	1.77	3.85
38. Murphy's	38 08	120 28	2200	7.50	6.31	7.99	2.90	2.13	0.00	..	..	0.00	0.12	..	5.20
39. New San Diego	32 43	117 10	10	..	..	0.03	0.61	..	..	..	..	0.00	0.86	0.05	0.56
40. Oakland	37 48	122 15	25	..	..	..	..	..	..	..	..	..	0.31	..	..
41. Paradise City, near	37 36	121 04	125	2.62	3.53	3.54	..	..	..	..	..	..	..	..	..
42. Paradise Valley	32 35	116 50	94	0.46	4.08	..	0.18	..	..	..	1.94	..	..	0.37	0.90
43. Point San José	37 48	122 26	..	2.64	3.13	1.32	0.48	0.31	0.05	0.00	0.00	0.01	0.48	2.13	4.67
44. Rancho de Jurupa[b]	34 02	117 27	1000	0.95	1.51	3.12	0.33	1.14	0.00	0.00	0.09	0.00	0.00	1.67	4.77
45. Sacramento	38 34	121 26	81	3.56	2.58	3.06	1.62	0.87	0.06	0.03	0.00	0.07	0.43	2.26	4.70
46. Salinas City	36 39	121 38	75	3.41	1.58	1.47	0.95	..	0.45	..	..	0.04	0.71	0.61	3.68
47. San Benito	36 08	121 02	140	4.91	1.88	0.36	0.37	0.48	0.17	..	..	..	0.05	2.15	4.79
48. San Diego	32 42	117 14	150	1.39	1.84	1.07	0.54	0.28	0.07	0.10	0.19	0.10	0.22	1.57	1.94
49. San Francisco Presidio	37 48	122 28	150	3.90	3.48	2.68	1.60	0.52	0.30	0.19	0.00	0.06	0.58	2.04	4.94

[a] Also called Silver Creek.

CALIFORNIA.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
1	2.59	0.01	1.85	12.81	17.26	Jan. 1862;	Dec. 1874	9	5	Assistant Surgeon.	MS. from S. G. O.
2	3.52	0.02	2.75	12.29	18.58	Dec 1867;	Dec. 1874	5	11	"	"
3	4.10	0.13	2.28	8.39	14.90	Nov. 1849;	Dec. 1874	18	3	"	S. Coll.; Ar. Met. Regs. 1855 & 1860; MS. from S. G. O.
4	18.30	..	..	25.30	..	Dec. 1869;	Feb. 1871	1	0	Dr. Thornton	S. O.
5	0.70	0.98	0.57	0.84	3.09	Mar. 1868;	Jan. 1871	2	6	Assistant Surgeon.	MS. from S. G. O.
6	9.01	0.00	3.18	8.41	20.60	Jan. 1850;	Mar. 1852	2	3	Dr. R. V. Abbott, U.S.A.	An. Rep. Sm. Inst. 1854; Ar. Met. Reg. 1855.
7	14.76	1.15	9.92	31.56	57.39	Jan. 1862;	Dec. 1874	12	0	Assistant Surgeon.	MS. from S. G. O.
8	1.09	0.35	0.62	4.54	6.60	Nov. 1865;	Dec. 1874	8	2	"	"
9	19.28	3.20	11.80	39.13	73.41	Sept. 1866;	May, 1869	2	8	"	"
10	1.50	0.53	..	..	..	Jan. 1865;	July, 1867	1	1	"	"
11	8.26	0.27	8.17	27.27	43.97	Dec. 1864;	Dec. 1874	9	8	"	"
12	3.90	0.33	..	14.31	..	Nov. 1869;	May, 1873	2	8	Dr. W. F. Cheney.	S. O.
13	..	..	..	..	..	Jan. 1870;	Apr. 1870	0	4	C. L. McClung.	"
14	..	..	..	..	..	Dec. 1859;	Dec. 1859	0	1	R. B. Randall.	Met. Obs. Vol. 1.
15	..	..	4.27	..	..	Nov. 1859;	Dec. 1860	0	7	Dr. T. R. Kibbe.	Met. Obs. Vol. 1.; S. O.
16	2.26	0.26	0.35	5.87	8.74	Dec. 1864;	Oct. 1871	5	5	Assistant Surgeon.	MS. from S. G. O.
17	4.10	..	..	13.20	..	Dec. 1872;	Dec. 1874	1	2	G. H. Peck.	S. O.
18	5.70	0.10	..	..	..	Mar. 1861;	Aug. 1861	0	6	S. V. Blakeslee.	"
19	..	..	..	..	..	Dec. 1864;	Feb. 1866	0	9	Assistant Surgeon.	MS. from S. G. O.
20	4.95	1.54	3.03	10.71	20.23	Jan. 1864;	Dec. 1874	8	3	"	"
21	6.37	0.97	4.55	11.29	23.18	Jan. 1858;	Apr. 1869	9	0	"	Ar. Met. Reg. 1860; MS. from S. G. O.
22	9.36	0.73	6.49	19.33	35.91	Jan. 1854;	Nov. 1866	11	2	"	Ar. Met. Regs. 1855 & 1860; MS. from S. G. O.
23	5.23	0.91	4.19	11.37	21.70	Jan. 1853;	June, 1858	5	0	"	Ar. Met. Regs. 1855 & 1860.
24	7.25	0.00	2.94	8.81	19.00	July, 1851;	June, 1858	6	9	"	" "
25	3.66	0.03	2.28	11.39	17.36	Jan. 1860;	Dec. 1874	14	11	Assist. Surgeon and F. P. Thompson.	Ar. Met. Reg. 1860; MS. from S. G. O.
26	10.68	0.38	4.15	13.93	29.14	Apr. 1852;	Mar. 1856	3	10	Assistant Surgeon.	Ar. Met. Regs. 1855 & 1860.
27	6.85	0.39	4.51	9.13	20.88	Mar. 1855;	Aug. 1864	4	11	"	Ar. Met. Reg. 1860; MS. from S. G. O.
28	14.21	3.31	22.16	30.27	69.95	Apr. 1859;	Sept. 1861	2	3	"	Ar. Met. Reg. 1860; MS. from S. G. O.
29	0.27	1.30	1.36	0.93	3.86	Jan. 1851;	Dec. 1874	16	6	"	Ar. Met. Regs. 1855 & 1860; MS. from S. G. O.
30	10.80	..	..	22.83	..	Jan. 1872;	Feb. 1873	0	11	M. E. P. Ames.	S. O.
31	0.75	..	1.04	..	..	Feb. 1872;	Nov. 1873	0	8	J. Dominica.	"
32	..	..	..	16.86	..	Jan. 1868;	Dec. 1873	2	6	Dr. J. M. Brown and W. E. Taylor.	"
33	5.19	..	..	..	..	Nov. 1867;	May, 1868	0	6	F. M. Rogers.	"
34	..	..	..	..	..	Jan. 1862;	July, 1863	0	4	W. C. Belcher.	"
35	11.40	4.62	16.04	24.98	57.04	Jan. 1861;	Nov. 1867	4	4	J. H. Whittock and M. D. Smith.	"
36	..	..	4.97	41.85	..	Sept. 1871;	Apr. 1872	0	8	Dr. Thornton.	"
37	4.43	0.26	2.24	8.78	15.71	May, 1847;	Sept. 1872	12	3	Assist. Surgeon and Dr. C. A. Canfield.	Ar. Met. Reg., 1855; S. O.
38	13.02	..	..	19.01	..	Mar. 1868;	Mar. 1869	0	10	E. Cutting.	S. O.
39	..	..	0.91	..	..	Sept. 1870;	Sept. 1871	0	7	Assistant Surgeon.	MS. from S. G. O.
40	..	..	..	..	..	Oct. 1873;	Oct. 1873	0	1	J. B. McChesney.	S. O.
41	..	..	..	..	..	Jan. 1869;	Mar. 1869	0	3	J. W. A. Wright.	"
42	..	..	..	5.44	..	Jan. 1873;	Dec. 1873	0	6	J. M. Asher.	"
43	2.11	0.05	2.62	10.44	15.22	Oct. 1866;	Dec. 1874	4	7	Assistant Surgeon.	MS. from S. G. O.
44	4.59	0.09	1.67	7.23	13.58	July, 1851;	Mar. 1854	1	11	"	Ar. Met. Reg. 1855.
45	5.55	0.09	2.76	10.84	19.24	July, 1849;	Apr. 1868	18	3	Assist. Surgeon, Dr. F. W. Hatch and Dr. T. M. Logan.	Am. Alm. 1836; Ar. Met. Reg. 1855; Sm. An. Reports 1855 & 1857; MS. from S. G. O.
46	..	..	1.36	8.67	..	June, 1872;	Dec. 1874	1	8	Dr. E. K. Abbott.	S. O.
47	1.21	..	..	11.59	..	Nov. 1861;	May, 1863	1	3	Dr. C. A. Canfield.	"
48	1.89	0.36	1.89	5.17	9.31	Jan. 1850;	Dec. 1874	24	2	Assist. Surgeon, G. W. Barnes, A. Cassidy, W. Knapp.	Ar. Met. Regs. 1855 & 1860; U. S. C. Survey; MS. from S. G. O.; MS. from Sig. Ser. Off.; S. O.
49	4.80	0.49	2.68	12.32	20.29	Mar. 1850;	Dec. 1874	20	2	Assist. Surgeon, D. F. Parkinson.	Ar. Met. Regs. 1855 & 1860; MS. from S. G. O.; S. O.

[b] Observations previous to Sept., 1852, were made at Rancho del Chino., lat. 33° 59′; long. 117° 44′; elevation 1000 ft.

CALIFORNIA—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
50. San Francisco	37° 48′	122° 24′	290	8.05	4.44	2.62	1.59	0.49	0.05	0.00	0.03	0.08	0.39	3.01	5.80
51. San Francisco	37 48	122 25	130	4.58	3.51	2.82	1.65	0.56	0.05	0.16	0.01	0.04	0.54	2.47	5.10
52. San Luis Rey	33 13	117 20	20	0.09	0.95	0.21	..	..	..	0.00	0.00	0.00	0.20	3.28	2.22
53. Santa Barbara	34 24	119 43	20	2.56	4.33	0.32	0.19	0.07	0.00	0.00	0.04	0.00	0.96	0.79	2.49
54. Santa Clara[c]	37 20	121 54	100	..	..	..	..	..	..	..	..	..	..	3.25	1.29
55. Santa Cruz	36 57	122 02	25	..	1.51	3.72	1.60	0.38	0.15	..	..	0.14	3.27	0.14	0.19
56. Santa Rosa	38 27	122 43	160	6.32	3.05	3.95	1.01	..	..	..	..	..	..	2.46	12.07
57. Stockton	37 57	121 15	..	2.65	5.04	1.60	1.64	0.58	0.38	0.03	0.01	0.00	0.36	0.85	1.46
58. Stony Point	38 40	122 50	500	..	..	..	..	..	..	..	..	0.40	..	..	..
59. Union Ranche	39 25	121 30	..	..	..	..	3.08	3.00	0.04	0.40	0.00	0.06	..	7.21	2.63
60. Vacaville	38 21	121 58	175	2.92	3.42	2.48	1.46	0.34	..	0.05	..	..	2.57	2.44	4.43
61. Visalia	36 22	119 16	2500	0.53	2.16	0.55	1.40	0.30	..	0.00	..	..	0.86	0.75	0.30
62. Watsonville	36 56	121 43	45	4.85	4.74	2.14	1.76	0.59	..	0.00	..	0.10	1.17	1.75	7.43
63. Yerba Buena Island	37 48	122 22	..	1.31	2.73	0.80	0.70	0.10	0.00	0.00	0.00	0.08	0.43	0.12	1.94

COLORADO.

1. Carson City	38 30	105 00	4700	..	..	..	..	..	..	..	..	..	..	..	1.10
2. Colorado Springs	38 50	104 49	6010	0.06	0.28	0.73	2.19	3.63	1.73	3.64	2.74	1.86	0.29	0.20	0.24
3. Denver	39 45	105 00	5250	0.82	0.60	1.13	2.03	1.86	1.12	1.73	0.84	1.54	0.69	0.93	0.48
4. Fort Collins	40 34	105 01	5000	0.45	0.25	1.29	1.53	3.05	1.15	2.55	0.55	1.00	0.72	0.11	0.10
5. Fort Garland	37 25	105 26	7864	0.49	1.04	0.79	1.43	1.06	1.68	2.87	2.15	1.18	0.52	0.67	0.98
6. Fort Lyon	38 08	102 50	4000	0.11	0.28	0.49	1.39	2.45	1.24	2.69	1.51	1.40	0.79	0.11	0.10
7. Fort Massachusetts	37 32	105 23	8365	0.34	0.86	0.61	1.15	1.36	0.71	2.01	2.84	1.80	0.87	3.61	1.07
8. Fort Morgan	40 15	103 46	4500	0.31	0.29	0.37	0.06	2.55	0.73	0.52	0.60	0.00	0.19	..	0.44
9. Fort Reynolds	38 12	104 12	4300	0.60	0.76	0.18	1.09	1.69	0.80	1.51	1.31	1.90	0.49	2.57	0.36
10. Fort Sedgwick	40 58	102 23	3600	0.79	1.77	0.95	2.23	2.13	0.26	1.21	2.00	3.00	0.40	0.03	0.67
11. Fountain	38 40	104 41	5400	..	0.07	0.37	1.67	1.32	1.06	2.93	0.65	0.61	0.76	1.35	0.25
12. Golden City	39 44	105 18	5240	0.75	1.08	0.90	2.07	3.56	2.28	1.61	0.90	1.75	1.06	0.50	0.55
13. Hot Sulphur Springs	..	..	..	..	..	..	..	..	0.01	2.18	1.62	1.34	1.81	1.25	0.67
14. Montgomery	39	106	11000	4.55	1.00	3.70	5.56	11.73	..	..	..	..	..	..	2.10
15. Mountain City	39 50	105 30	..	..	0.25	0.97	0.60	..	..	..	..	..	4.00	3.20	..
16. Pike's Peak	38 50	105 03	14146	1.32	1.16	1.21	5.20	2.98	0.58	6.00	3.72	2.31	1.80	0.33	0.39
17. South Pueblo	38 16	104 37	4732	0.23	0.14	0.17	1.38	1.16	0.66	1.92	0.48	0.51	0.20	0.14	0.54
18. Templeton Gap	38 58	105 09	6300	..	0.55	0.61	0.90	1.80	..	3.45	1.60	..	..	..	..

CONNECTICUT.

1. Brookfield	41 27	73 24	100	4.55	7.65	6.00	3.05	4.75	4.60	4.05	2.65	4.10	6.20	3.82	3.08
2. Canton	41 52	72 55	750	4.24	3.87	6.14	1.81	2.76	6.94	9.29	4.36	3.39	4.04	5.46	2.57
3. Colebrook	42 00	73 03	1210	3.16	3.58	1.54	3.05	4.17	4.73	4.83	5.37	4.37	6.74	3.73	2.89
4. Columbia	41 41	72 18	..	4.74	3.49	3.99	3.87	3.19	3.42	4.10	6.89	2.68	3.98	3.81	3.76
5. Fort Trumbull[d]	41 21	72 05	23	3.90	3.63	4.21	3.58	4.49	3.18	3.12	4.81	2.71	4.67	4.23	3.65
6. Georgetown	41 15	73 25	300	..	..	1.98	3.62	5.63	3.25	2.95	13.75	4.25	1.88	3.32	6.21
7. Hartford	41 46	72 41	60	3.38	3.56	3.71	3.30	4.07	2.83	3.80	3.35	3.06	4.00	4.86	3.87

[a] Consolidated series. Observers: Assistant Surgeon, M. Walthall, Jr., Drs. H. Gibbons and W. O. Ayres; T. Tennent, C. G. Ewing, D. F. Parkinson. [d] Combined with observations at Groton.

CALIFORNIA—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
50	4.70	0.08	3.48	18.29	26.55	Sept. 1853;	June, 1868	8	2	T. Tennent.	San Fran. Bulletin and MS.
51	5.03	0.22	3.05	13.19	21.49	Mar. 1850;	Dec. 1874	24	4	See note a.	See note b.
52	..	..	3.48	3.26	..	July, 1850;	Aug. 1851	0	10	Assistant Surgeon.	Ar. Met. Reg. 1855.
53	0.58	0.04	1.75	9.38	11.75	Mar. 1864;	Dec. 1874	2	3	Dr. W. W. Hays, Drs. L. M. Dimmick, and J. B. Shaw.	S. O.
54	..	..	..	..	..	Nov. 1859;	Dec. 1859	0	2	Prof. O. S. Frambes.	Met. Obs. Vol. 1.
55	5.70	..	3.55	..	..	Nov. 1873;	Dec. 1874	0	9	A. L. Taylor, and J. H. Hoadley.	S. O.
56	..	..	..	21.44	..	Nov. 1873;	Apr. 1874	0	6	Prof. W. B. Hardy.	"
57	3.82	0.42	1.21	9.15	14.60	Jan. 1854;	Dec. 1857	2	11	Dr. R. K. Ried, and M. Walthall.	Met. Obs. Vol. 1; Am. Alm. 1859.
58	..	..	..	..	..	Sept. 1869;	Sept. 1869	0	1	Dr. Thornton.	S. O.
59	..	0.44	..	..	..	June, 1859;	Sept. 1860	1	0	J. Shaven.	Met. Obs. Vol. 1; S. O.
60	4.28	..	..	10.77	..	Feb. 1869;	Apr. 1870	1	0	Prof. J. C. Simmons.	S. O.
61	2.25	..	..	2.99	..	Jan. 1870;	July, 1871	0	11	I. W. Blake.	"
62	4.49	..	3.02	17.02	..	Jan. 1869;	Feb. 1872	2	1	Dr. A. J. Compton.	"
63	1.60	0.00	0.63	5.98	8.21	Feb. 1869;	Sept. 1873	2	8	Assistant Surgeon.	MS. from S. G. O.

COLORADO.

1	..	..	..	..	..	Dec. 1869;	Dec. 1869	0	1	T. Macon.	S. O.
2	6.55	8.11	2.35	0.58	17.59	Dec. 1871;	Dec. 1874	3	0	E. Copley, and E. S. Nettleton.	S. O.; MS. from Sig. Ser. O.
3	5.02	3.69	3.16	1.90	13.77	Dec. 1869;	Dec. 1874	5	1	W. N. Byers, and S. T. Sopris.	" "
4	5.87	4.25	1.83	0.80	12.75	Nov. 1872;	Dec. 1874	1	9	Rollin Q. Tenney.	S. O.
5	3.28	6.70	2.37	2.51	14.86	Oct. 1858;	Dec. 1874	13	1	Assistant Surgeon.	Ar. Met. Reg. 1860; MS. from S. G. O.
6	4.33	5.44	2.30	0.49	12.56	Jan. 1867;	Dec. 1874	7	9	"	MS. from S. G. O.
7	3.12	5.56	6.28	2.27	17.23	Oct. 1852;	July, 1858	5	1	"	Ar. Met. Regs. 1855 and 1860.
8	2.98	1.85	..	1.04	..	Dec. 1866;	Apr. 1868	1	0	"	MS. from S. G. O.
9	2.96	3.62	4.96	1.72	13.26	Jan. 1869;	Nov. 1871	2	8	"	"
10	5.31	3.47	3.43	3.23	15.44	Nov. 1867;	Apr. 1871	2	1	"	"
11	3.36	4.64	2.72	..	..	Nov. 1871;	Dec. 1874	2	0	C. J. Croft,	S. O.
12	6.53	4.79	3.31	2.38	17.01	May, 1860;	Nov. 1874	2	9	J. McDonald, M. S. Blunt, G. W. Davies, and H. J. Fresch.	"
13	..	3.81	4.40	..	..	June, 1874;	Dec. 1874	0	7	W. N. Byers.	"
14	20.99	..	..	7.65	..	Dec. 1863;	May, 1874	0	6	J. Luttrell.	"
15	..	..	..	..	..	Oct. 1860;	Apr. 1861	0	5	Dr. W. T. Ellis.	"
16	9.39	10.30	4.44	2.87	27.00	Nov. 1873;	Dec. 1874	1	2	. . . . .	MS. from Sig. Ser. O.
17	2.71	3.06	0.85	0.91	7.53	Sept. 1872;	Dec. 1874	1	10	E. S. Nettleton.	S. O.
18	3.31	..	..	..	..	Feb. 1871;	Aug. 1871	0	6	A. M. Merrimann.	"

CONNECTICUT.

1	13.80	11.30	14.12	15.28	54.50	Oct. 1868;	Dec. 1870	2	2	S. W. Roe.	S. O.
2	10.71	20.59	12.89	10.68	54.87	Dec. 1861;	July, 1863	1	7	J. Case.	"
3	8.76	14.93	14.84	9.63	48.16	Dec. 1868;	Dec. 1874	5	3	C. Rockwell.	"
4	11.05	14.41	10.47	11.99	47.92	Jan. 1867;	Nov. 1874	5	6	W. H. Yeomans.	"
5	12.28	11.11	11.61	11.18	46.18	Jan. 1843;	Dec. 1874	13	3	Assistant Surgeon and E. Dewhurst.	Ar. Met. Reg. 1855; MS. from S. G. O.; S. O.
6	11.23	19.95	9.45	..	..	Mar. 1856;	Dec. 1856	0	10	A. B. Hull.	Met. Obs. Vol. 1.
7	11.08	9.98	11.92	10.81	43.79	July, 1846;	Mar. 1853	6	9	C. H. Hoadley.	Sm. Coll.

[b] References: Ar. Met. Regs. 1855 and 1860; Sm. An. Rep., 1855; Am. Alm., 1859; San Francisco Bulletin & MS.; Met. Obs., Vol. 1; MS. from S. G. O.; S. O.; MS. from Sig. Ser. O.

[a] University of the Pacific.

CONNECTICUT—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
8. Middletown	41° 33′	72° 39′	205	4.02	3.47	3.89	3.41	4.30	3.49	4.04	5.49	3.45	3.99	3.74	3.46
9. New Haven	41 18	72 57	45	3.51	3.81	3.43	3.34	4.07	3.30	4.45	3.96	4.15	3.64	3.74	3.38
10. New Haven	41 18	72 57	45	3.97	4.10	3.19	4.21	5.46	3.12	2.89	7.17	2.64	3.76	3.54	3.48
11. New Haven[a]	41 18	72 57	45	3.62	3.87	3.38	3.53	4.33	3.26	4.12	4.73	3.82	3.67	3.70	3.41
12. New London	41 21	72 07	90	3.82	2.38	2.20	5.97	5.14	2.41	3.57	7.56	2.77	3.22	4.59	4.27
13. North Greenwich[b]	41 04	73 40	300	3.36	2.32	3.71	2.46	3.32	1.49	4.27	6.44	2.68	3.63	4.15	2.23
14. Plymouth	41 40	73 04	..	3.24	3.33	4.36	2.77	3.72	1.67	8.92	4.31	2.81	4.23	5.45	3.78
15. Pomfret	41 51	71 56	587	3.39	3.37	3.40	3.45	4.03	3.94	4.35	5.43	3.88	3.59	4.31	3.98
16. Roundhill	41 03	73 40	..	7.39	2.60	1.79	6.36	2.26	1.12	6.95	3.80	..	..	..	..
17. Salisbury	41 59	73 25	737	2.29	2.79	2.62	2.89	4.62	4.01	4.71	3.60	3.26	4.68	4.90	4.67
18. Saybrook	41 16	72 20	10	5.47	2.48	3.27	4.84	3.58	3.89	3.55	5.79	3.51	3.43	4.23	4.80
19. Southington	41 35	72 54	157	4.32	2.89	4.16	4.07	3.67	3.35	3.80	6.29	2.22	3.64	3.52	3.10
20. Suffield[c]	41 59	72 39	..	5.40	2.80	2.26	4.87	4.86	0.23	3.31	5.54	3.68	6.00	3.74	..
21. Wallingford	41 27	72 50	133	4.44	3.04	4.06	4.10	4.94	4.36	3.99	6.44	4.20	3.06	3.55	4.37
22. Waterbury	41 33	73 02	363	2.96	3.33	3.61	3.16	6.72	4.45	2.79	6.27	7.44	2.44	4.78	3.15
23. West Cornwall	41 53	73 22	1000	2.00	..	..	..	..	..	..	..	..	..	..	..

DAKOTA.

1. Bismarck	46 47	100 47	1623	0.91	1.41	2.68	3.50	4.57	3.13	1.53	2.89	1.24	1.60	1.76	0.38
2. Bon Homme	42 54	97 42	..	..	..	2.13	2.60	3.30	..	..	..	..	..	..	..
3. Fargo	46 52	96 47	900	..	..	..	..	..	..	..	..	..	..	..	0.25
4. Fort Abercrombie	46 27	96 21	..	0.53	0.61	1.06	1.53	2.28	3.48	2.48	2.71	1.74	1.02	0.70	0.71
5. Fort Abraham Lincoln	46 46	100 52	2211	0.30	0.00	0.13	0.10	0.45	1.42	0.42	1.32	0.16	0.11	1.60	0.01
6. Fort Berthold	47 32	101 43	1873	..	..	..	0.16	1.40	..	..	..	0.40	0.54	0.00	0.01
7. Fort Buford	48 01	103 58	1900	0.54	0.84	0.72	0.56	2.48	1.56	1.26	1.24	0.87	0.53	0.61	0.63
8. Fort Dakota	43 30	96 45	..	..	1.02	0.47	0.56	0.97	..	..	..	3.58	1.26	0.88	0.32
9. Fort Pierre	44 23	100 20	1456	0.49	1.18	0.47	1.63	2.19	0.48	1.18	1.68	1.29	1.08	1.40	0.47
10. Fort Ransom	46 35	97 47	1438	0.79	0.44	1.33	1.47	2.34	1.90	0.51	2.55	2.16	0.47	0.75	0.59
11. Fort Randall	43 01	98 37	1245	0.41	0.47	0.89	1.12	2.71	2.22	1.86	2.14	1.84	1.11	0.45	0.30
12. Fort Rice	46 32	100 33	..	0.79	0.35	0.51	1.15	1.97	2.74	1.13	1.00	0.45	0.63	0.46	0.21
13. Fort Seward	46 54	98 43	..	0.36	0.26	0.37	0.22	3.10	4.49	1.45	3.93	0.60	0.32	0.28	0.12
14. Fort Stevenson	47 36	101 10	..	0.52	0.28	1.06	0.85	1.50	1.87	1.20	1.90	0.89	0.83	0.43	0.51
15. Fort Sully	44 50	100 35	1672	0.44	0.51	1.90	1.69	2.93	2.97	2.19	2.02	0.80	0.53	0.37	0.19
16. Fort Totten	47 56	99 16	1480	0.82	0.47	1.33	1.32	2.53	3.07	1.68	2.76	1.14	0.48	0.88	0.30
17. Fort Wadsworth	45 43	97 10	1773	0.89	0.97	1.33	1.76	3.91	4.70	3.37	2.18	1.06	2.02	0.90	1.06
18. Mouth Cherry[d]	44 24	100 24	..	..	..	..	..	9.30	6.32	..	..	..	..	..	..	..
19. Pembina	48 57	97 03	768	0.25	0.42	0.53	0.69	2.80	3.14	1.77	2.33	1.29	0.87	0.55	0.86
20. Yankton	42 53	97 30	1275	0.65	1.09	1.59	2.12	3.69	5.45	3.65	3.93	2.67	1.09	0.24	0.41
21. Yankton Indian Agency	42 52	98 24	1900	..	0.22	3.10	5.75	5.90	12.00	..	..	..	..	..	1.00

DELAWARE.

1. Delaware City	39 35	75 35	..	..	0.40	..	..	..	..	..	..	..	..	..	..
2. Dover	39 10	75 30	40	3.71	4.65	4.40	4.27	3.32	2.51	5.53	4.39	5.02	3.41	2.91	2.93
3. Fort Delaware	39 35	75 34	10	3.14	2.15	2.37	2.80	4.54	4.03	2.26	4.09	4.86	2.56	2.72	4.56
4. Georgetown	38 43	75 22	..	3.00	3.03	3.71	3.93	4.28	5.01	2.66	5.40	3.34	3.22	3.65	4.90
5. Milford	38 55	75 25	20	3.10	4.51	3.83	3.88	4.43	2.28	4.32	3.93	5.45	3.92	3.46	3.60
6. Wilmington	39 44	75 33	115	5.05	4.20	7.07	4.95	7.80	2.55	4.85	3.40	7.87	2.90	4.80	8.15

[a] Consolidated series. [b] Quaker Ridge.

CONNECTICUT—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
8	11.60	13.02	11.18	10.95	46.75	Mar. 1849;	Dec. 1874	18	9	Prof. A. W. Smith and J. Johnston.	Met. Obs. Vol. 1; Sm. Coll.; S. O.
9	10.84	11.71	11.53	10.70	44.78	Jan. 1804;	July, 1829	21	3	Prof. Olmstead and others, Yale Coll.	MS. furn. by Prof. E. Loomis.
10	12.86	13.18	9.94	11.55	47.53	June, 1864;	Dec. 1874	6	0	Various observers.	MS. furn. by Prof. E. Loomis; MS. from Sig. Ser. O.
11	11.24	12.11	11.19	10.90	45.44	Jan. 1804;	Dec. 1874	27	3	"	MS. furn. by Prof. E. Loomis; MS. from Sig. Ser. O.
12	13.31	13.54	10.58	10.47	47.90	Jan. 1856;	Dec. 1874	4	2	T. Edwards.	Met. Obs. Vol. 1; MS. from Sig. Ser. O.
13	9.49	12.20	10.46	7.91	40.06	Dec. 1870;	Nov. 1873	2	11	W. O. Alcott.	S. O.
14	10.85	14.90	12.49	10.35	48.59	July, 1862;	May, 1864	1	11	D. W. Learned.	"
15	10.88	13.72	11.78	10.74	47.12	Jan. 1854;	Apr. 1869	15	2	D. Hunt.	Met. Obs. Vol. 1; S. O.
16	10.41	11.87	..	..	..	Jan. 1874;	Aug. 1874	0	8	W. P. Alcott.	S. O.
17	10.13	12.32	12.84	9.75	45.04	Jan. 1844;	Sept. 1854	9	1	Dr. O. Plumb.	Met. Obs. Vol. 1; Sm. Coll.
18	11.69	13.23	11.17	12.75	48.84	Feb. 1854;	May, 1861	6	5	J. Rankin.	Met. Obs. Vol. 1; S. O.
19	11.90	13.44	9.38	10.31	45.03	Apr. 1870;	Dec. 1874	4	8	L. Andrews and A. Barnes.	S. O.
20	11.99	9.08	13.42	..	..	Feb. 1873;	May, 1874	1	3	M. M. Johnston.	"
21	13.10	14.79	10.81	11.85	50.55	Apr. 1856;	July, 1862	6	3	B. F. Harrison.	Met. Obs. Vol. 1; S. O.
22	13.49	13.51	14.66	9.44	51.10	June, 1866;	July, 1869	2	10	R. G. Williams.	S. O.
23	..	..	..	..	..	Jan. 1854;	Jan. 1854	0	1	T. S. Gold.	Met. Obs. Vol. 1.

DAKOTA.

1	10.75	7.55	4.60	2.70	25.60	Sept. 1874;	June, 1876	1	10	.....	MS. & Reps. from Sig. Ser. O.
2	8.03	..	..	..	..	Mar. 1872;	May, 1872	0	3	H. C. Greene.	S. O.
3	..	..	..	..	..	Dec. 1872;	Dec. 1872	0	1	Henry.	"
4	4.87	8.67	3.46	1.85	18.85	Aug. 1860;	Oct. 1874	13	6	Assistant Surgeon.	MS. from S. G. O.
5	0.68	3.16	1.87	0.31	6.02	July, 1873;	Dec. 1874	1	5	"	"
6	..	..	0.94	..	..	Sept. 1866;	May, 1867	0	6	"	"
7	3.76	4.06	2.01	2.01	11.84	Sept. 1866;	Dec. 1874	7	10	"	"
8	2.00	..	5.72	..	..	Sept. 1866;	May, 1869	0	9	"	"
9	4.29	3.34	3.77	2.14	13.54	July, 1855;	Apr. 1857	1	10	"	Ar. Met. Reg. 1860.
10	5.14	4.96	3.38	1.82	15.30	Dec. 1868;	Nov. 1871	3	0	"	MS. from S. G. O.
11	4.72	6.22	3.40	1.18	15.52	Jan. 1857;	Dec. 1874	15	6	"	Ar. Met. Reg. 1860; MS. from S. G. O.
12	3.63	4.87	1.54	1.35	11.39	July, 1868;	Dec. 1874	6	1	"	MS. from S. G. O.
13	3.69	9.87	1.20	0.74	15.50	Jan. 1873;	Dec. 1874	2	0	"	"
14	3.41	4.97	2.15	1.31	11.84	Aug. 1867;	Dec. 1874	6	2	"	"
15	6.52	7.18	1.70	1.14	16.54	Apr. 1866;	June, 1876	7	8	"	MS. from S. G. O.; MS. & Reps. from Sig. Ser. O.
16	5.18	7.51	2.50	1.59	16.78	Aug. 1869;	Dec. 1874	5	5	"	MS. from S. G. O.
17	7.00	10.25	3.98	2.92	24.15	Sept. 1866;	Dec. 1874	6	5	"	"
18	..	..	..	..	..	Apr. 1861;	May, 1861	0	2	M. C. Rousseau.	S. O.
19	4.02	7.24	2.71	1.53	15.50	Aug. 1871;	June, 1876	4	8	Assistant Surgeon.	MS. from S. G. O.; MS. & Reps. from Sig. Ser. O.
20	7.40	13.03	4.00	2.15	26.58	June, 1862;	June, 1867	3	4	G. W. Lawson.	S. O.; MS. & Reps. Sig. Ser. O.
21	14.75	..	..	..	..	Feb. 1860;	May, 1861	0	9	F. N. Greenwood.	S. O.

DELAWARE.

1	..	..	..	..	..	Feb. 1874;	Feb. 1874	0	1	J. M. Vanhelke.	S. O.
2	11.99	12.43	11.34	11.29	47.05	July, 1870;	Nov. 1874	4	3	J. H. Bateman.	"
3	9.71	10.38	10.14	9.85	40.08	Jan. 1855;	Sept. 1870	9	3	Assistant Surgeon.	Ar. Met. Reg. 1860; MS. from S. G. O.
4	11.92	13.07	10.21	10.93	46.13	July, 1857;	Dec. 1859	2	6	Dr. D. W. Mauld.	Met. Obs. Vol. 1.
5	12.14	10.53	12.83	11.21	46.71	Jan. 1858;	Dec. 1874	5	8	R. A. Martin, W. R. Phillips, A. C. Whittier & R. A. Gilman.	Met. Obs. Vol. 1.; S. O.
6	19.82	10.80	15.57	17.40	63.59	Jan. 1864;	Oct. 1865	1	10	Dr. U. D. Hedges.	S. O.

[a] Conn. Literary Institution.

[d] Near Fort Pierre.

DISTRICT OF COLUMBIA.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. District of Columbia [a]	38° 57′	76° 56′	275	1.58	2.01	0.31	3.36	7.09	1.08	4.35	7.05	1.62	1.70	0.89	5.54
2. Georgetown	38 55	77 05	..	2.39	2.18	3.68	4.52	2.98	3.62	5.36	4.48	2.00	3.08	3.01	2.08
3. Washington [b]	38 54	77 02	70	2.05	2.50	2.46	2.88	2.12	2.26	3.35	2.55	1.83	1.31	1.66	2.13
4. Washington	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5. Washington [c]	38 53	77 01	90	4.46	2.74	2.56	4.04	3.86	2.93	3.92	3.69	3.52	3.55	3.09	2.86
6. Washington [d]	38 54	77 03	110	2.69	2.62	3.13	3.31	3.51	3.52	3.80	4.11	3.43	3.43	2.76	2.54
7. Washington [e]	38 53	77 02	40	3.00	2.86	3.77	3.43	3.96	3.93	4.32	4.67	3.31	3.68	2.61	3.40
8. Washington [f]	38 54	77 02	63	2.29	3.17	3.64	3.39	3.02	2.93	3.70	6.41	6.03	3.12	2.93	2.17
9. Washington [g]	38 54	77 02	75	2.77	2.68	3.05	3.30	3.46	3.35	3.93	3.97	3.13	3.18	2.61	2.62

FLORIDA.

1. Biscayne	25 42	80 10	12	4.30	..	2.70	2.37	4.75	7.87	7.75	5.10	8.20	9.67	2.90	3.20
2. Cedar Keys [h]	29 07	83 02	35	3.45	2.80	2.94	1.74	0.82	4.59	7.61	8.23	5.78	3.27	2.71	1.84
3. Chattahoochee Arsenal	30 42	84 50	180	..	..	..	..	0.50	5.90	6.00	3.70	3.70	0.90	1.80	5.26
4. Datona	29 12	81 07	10	2.67	1.82	2.88	2.69	4.64	7.25	3.82	5.18	3.51	5.31	4.25	2.41
5. Fairview [i]	29 36	81 37	152	2.01	3.51	5.53	1.53	4.39	10.29	5.56	8.69	8.90	4.13	3.22	3.45
6. Fernandina	30 40	81 28	25	..	..	4.45	2.23	2.60	6.90	..	..	..	..	..	..
7. Fort Barrancas	30 21	87 18	20	4.05	4.28	6.10	3.83	3.79	5.25	7.29	7.72	5.39	3.18	5.22	4.13
8. Fort Brooke	27 57	82 26	20	2.29	2.97	3.24	1.69	2.95	6.82	11.46	9.55	5.56	2.18	1.93	2.73
9. Fort Dallas	25 48	80 13	20	6.02	1.62	4.87	2.44	5.97	5.37	9.37	4.15	6.78	7.93	2.40	2.14
10. Fort Deynaud	26 45	81 30	..	5.56	2.34	4.56	0.70	4.08	9.42	6.14	12.50	3.36	2.59	1.04	3.01
11. Fort George	30 25	81 25	10	0.40	3.25	3.65	1.50	5.60	3.70	4.03	2.37	6.37	5.90	3.00	2.87
12. Fort Jefferson	24 38	82 52	11	3.41	2.89	2.09	1.84	1.26	4.17	4.14	3.45	5.61	5.00	2.33	2.06
13. Fort Meade	27 45	81 47	80	1.07	1.01	1.64	1.78	4.01	7.79	7.55	6.35	4.85	1.50	0.56	1.79
14. Fort Myers	26 40	81 56	50	3.32	3.00	3.73	2.55	2.91	11.99	9.05	7.85	7.80	1.43	0.73	2.20
15. Fort Pierce [j]	27 28	80 18	30	4.33	4.01	3.16	2.77	3.93	10.05	5.92	6.65	6.93	4.74	3.07	2.46
16. Fort Shannon [k]	29 34	81 48	25	0.93	2.64	6.16	2.47	2.86	6.54	7.35	7.60	4.33	3.78	1.60	1.42
17. Gainesville	29 38	82 20	184	3.95	2.50	3.80	1.70	2.84	5.76	7.55	6.87	3.94	1.77	2.23	2.01
18. Indian Key	24 53	80 41	10	2.36	0.87	1.30	2.00	3.29	3.30	4.52	4.22	6.57	6.31	3.66	0.06
19. Jacksonville	30 20	81 39	20	2.80	3.27	3.85	2.86	3.30	6.86	6.27	8.14	7.29	3.03	2.75	2.59
20. Key West	24 33	81 48	10	2.33	1.75	1.69	1.01	2.96	4.83	3.98	5.14	6.52	4.75	2.00	2.05
21. Knox Hill [l]	30 40	85 58	148	2.72	4.54	2.42	2.47	2.73	4.72	6.25	5.67	3.35	2.77	3.33	3.21
22. Lake City [m]	30 12	82 38	185	6.09	5.10	5.58	3.92	3.80	6.42	8.33	7.28	7.98	2.29	5.33	4.78
23. Manatee	27 30	82 35	6	3.69	1.90	5.95	2.85	1.70	5.00	8.90	9.80	2.40	0.50	2.70	3.10
24. Mayport	30 22	81 25	15	..	8.30	2.05	1.43	5.63	1.71	6.19	0.86	10.42	0.11	2.83	1.66
25. Micanopy	29 30	82 18	78	3.50	2.86	3.32	2.07	4.50	4.19	8.10	8.46	4.88	1.72	2.17	1.17
26. Mosquito Inlet, near	29 12	81 02	10	1.02	0.95	3.38	1.30	1.68	6.58	3.94	9.53	6.98	13.16	2.02	3.30
27. Newport	30 10	84 15	15	2.70	5.27	7.70	5.10	3.03	8.95	6.68	10.77	6.53	1.85	3.78	1.88

[a] Northeast corner of District of Columbia, across the Anacostia, about seven miles from the Capitol.

[b] This series is reported in the first publication from the Medical Department. Observations to 1827, by R. Little. Results for 1828–9 from Elliot's Historical Sketches, (Washington, 1830,) observer not known. Some measures appear defective.

[c] On Capitol Hill, north of the Capitol.

[d] U. S. Naval Observatory; observations from 1846 to 1861 by Lieut. M. F. Maury, U. S. N. Measures of 1849–50–51 appeared unreliable, and were excluded. Observations from 1861–76 were made by Messrs. T. Hays, D. Horrigan, and N. Cahill.

DISTRICT OF COLUMBIA.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
1	10.76	12.48	4.21	9.13	36.58	Sept. 1857;	Aug. 1858	1	0	J. Wiessner.	S. Coll.
2	11.18	13.46	8.09	6.65	39.38	Feb. 1860;	Feb. 1863	2	1	C. B. Mackee.	S. O.
3	7.46	8.16	4.80	6.68	27.10	Jan. 1824;	Dec. 1829	5	9	R. Little.	S. Coll; J. Elliot's Hist. Sk.
4	..	..	..	..	37.78	Jan. 1836;	Dec. 1839	4	0	Judge Cranch.	S. Coll.
5	10.46	10.54	10.16	10.06	41.22	July, 1838;	June, 1842	3	11	Lieut. Gilliss, U. S. N.	Sen. Doc. 28th Cong. 1844-5.
6	9.95	11.43	9.62	7.85	38.85	Jan. 1846;	Dec. 1876	28	0	.....	Am. Alms.; S. Coll.; N. O. Reps.
7	11.16	12.92	9.60	9.26	42.94	May, 1852;	Dec. 1876	20	5	H. Diebitsch, W. Q. Force, H. M. Bannister and others.	S. Coll.
8	10.05	13.04	12.08	7.63	42.80	Oct. 1872;	Dec. 1876	4	3	.....	Sig. Ser. Reps.
9	9.81	11.25	8.92	8.07	38.05	Jan. 1824;	Dec. 1876	37	8	.....	.....

FLORIDA.

1	9.82	20.72	20.77	..	..	Oct. 1870;	Nov. 1874	2	4	W. H. Hunt, E. J. Sturtevant.	S. O.
2	5.50	20.43	11.76	8.09	45.78	July, 1840;	Mar. 1861	10	4	Judge A. Steele, Assistant Surgeon.	Met. Obs. Vol. 1.; S. O.; Ar. Met. Reg. 1855; S. Coll.
3	..	15.60	6.40	..	..	May, 1869;	Dec. 1870	1	1	M. Martin.	S. O.
4	10.21	16.25	13.07	6.90	46.43	Oct. 1871;	Dec. 1874	3	3	Saml. N. Chamberlain.	"
5	11.45	24.54	16.25	8.97	61.21	Feb. 1869;	Dec. 1872	2	11	W. M. L. Fiske, G. D. Robinson.	"
6	9.28	..	..	..	..	Mar. 1867;	June, 1867	0	4	Henry M. Corey.	"
7	12.46	13.72	20.26	13.79	60.23	July, 1842;	Dec. 1874	13	7	Assistant Surgeon.	MS. from S. G. O.; Ar. Met. Regs. 1855 and 1860.
8	7.88	27.83	9.67	7.99	53.37	Jan. 1840;	July, 1869	17	3	"	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
9	13.28	18.89	17.11	9.78	59.06	Jan. 1855;	May, 1858	3	5	"	Ar. Met. Reg. 1860.
10	9.34	28.06	6.99	10.91	55.30	Feb. 1855;	Apr. 1858	2	3	"	" "
11	10.75	10.10	15.27	6.52	42.64	July, 1872;	Nov. 1874	2	4	John F. Rollins.	S. O.
12	5.19	11.76	12.94	8.36	38.25	Dec. 1864;	Nov. 1873	7	2	Assistant Surgeon.	MS. from S. G. O.
13	7.43	21.69	6.91	3.87	39.90	May, 1851;	Nov. 1854	3	7	"	Ar. Met. Reg. 1855.
14	9.19	28.89	9.96	8.52	56.56	Jan. 1851;	June, 1858	7	5	"	Ar. Met. Regs. 1855 and 1860.
15	9.86	22.62	14.74	10.80	58.02	Mar. 1852;	May, 1858	6	1	"	" " "
16	11.49	21.49	9.71	4.99	47.68	Jan. 1841;	Dec. 1843	3	0	"	Ar. Met. Reg. 1855.
17	8.34	20.18	7.94	8.46	44.92	June, 1856;	Feb. 1861	4	7	J. B. Bailey.	Met. Obs. Vol. 1; S. O.
18	6.59	12.04	16.54	3.29	38.46	Jan. 1836;	Dec. 1837	2	0	Chas. Howe.	Am. Alm. 1839.
19	10.01	21.27	13.07	8.66	53.01	June, 1851;	June, 1876	13	1	Dr. A. S. Baldwin, R. McLaughlin.	Sig. Ser. Reps.; S. Coll.; Met. Obs. Vol. 1; S. O.
20	5.66	13.95	13.27	6.13	39.01	Oct. 1832;	June, 1876	28	7	Assistant Surgeon, W. C. Dennis, W. A. Whitehead, J. D. Sumet, M. J. Shanefelter.	Sig. Ser. Reps.; MS. from S. G. O.; Ar. Met. Regs. 1855 and 1860; Am. Alms.; S. Coll.; Met. Obs. Vol. 1; S. O.
21	7.62	16.64	9.45	10.47	44.18	May, 1853;	Nov. 1855	2	7	J. Newton.	Am. Alms. 1855-6; Met. Obs. Vol. 1.
22	13.30	22.03	15.60	15.97	66.90	Dec. 1857;	Oct. 1874	5	3	E. R. Ives, A. D. Wolcott.	Sig. Ser. Reps.; Met. Obs. Vol. 1; S. O.
23	10.50	23.70	5.60	8.69	48.49	Jan. 1869;	July, 1870	1	7	B. A. Couchman.	S. O.
24	9.11	8.76	13.36	..	..	Dec. 1873;	Dec. 1874	1	0	W. F. Keeler.	"
25	9.89	20.75	8.77	7.53	46.94	June, 1858;	Mar. 1862	3	10	Dr. J. B. Bean.	Met. Obs. Vol. 1; S. O.
26	6.36	20.05	22.16	5.27	53.84	July, 1870;	Sept. 1871	1	3	S. N. Chamberlain.	S. O.
27	15.83	26.40	12.16	9.85	64.24	May, 1870;	Dec. 1874	3	8	Chas. Beecher.	"

[a] Smithsonian Institution.
[b] Consolidated series, obtained by combining all D. C. observations.
[c] Near Palatka; observations for February, March, and April, 1869, at Palatka.
[d] Observations in January and February, 1841, at Fort Ried, a few miles distant.
[e] Also known as Orange Hill.
[f] Signal Service Office.
[g] Also known as Atsena Otie.
[h] Also called Fort Capron.
[i] Formerly Alligator.

FLORIDA—CONTINUED.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
28. New Smyrna	29° 00′	80° 56′	20	. .	0.42	1.73	1.51	2.98	5.75	4.77	7.05	4.87	5.32	6.55	. .
29. Orange Grove	27 28	82 35	10	. .	. .	. .	2.30	2.10	5.40	9.65	7.05	6.57	9.75	. .	. .
30. Pensacola	30 25	87 13	. .	5.67	4.67	2.37	6.54	5.62	1.49	8.25	8.69	1.66	3.56	6.47	4.28
31. Picolata	29 57	81 36	10	4.64	2.67	7.53	3.55	3.84	. .	. .	. .	4.55	4.40	4.55	3.90
32. Punta Rassa	26 29	82 00	5	2.44	0.88	0.93	2.37	3.79	6.21	6.17	9.15	6.95	2.22	1.39	1.35
33. St. Augustine [a]	29 54	81 19	25	1.87	1.91	3.96	1.47	2.34	4.15	4.70	6.86	6.81	3.14	1.61	2.18
34. St. Marks	30 10	84 12	5	5.86	2.36	7.97	5.55	2.41	8.65	2.33	9.26	7.69	2.55	4.23	2.42
35. Tallahassee	30 26	84 15	200	. .	. .	. .	. .	2.23	. .	. .	. .	. .	. .	. .	. .
36. Tampa	27 55	82 26	30	3.60	3.90	2.12	2.23	2.01	9.25	5.55	12.00	5.90	2.03	2.37	2.20
37. Warrington [b]	30 21	87 17	12	3.66	3.32	3.63	5.04	6.18	5.84	8.93	9.40	2.66	2.54	4.82	5.12
38. Wellborn	30 12	82 50	200	3.22	3.33	5.55	2.84	2.80	7.59	4.06	6.60	5.02	3.66	2.77	1.28

GEORGIA.

1. Athens	33 58	83 25	850	3.83	4.30	3.65	3.01	4.16	4.00	5.19	3.98	2.45	2.82	1·84	3.96
2. Atlanta	33 45	84 24	1050	3.74	6.24	5.03	5.45	4.21	4.30	3.40	4.72	4.55	2.16	3.85	5.15
3. Augusta [c]	33 29	81 51	150	3.56	4.89	5.88	3.70	3.61	3.66	3.76	4.50	3.59	1.89	3.30	4.44
4. Berne	30 50	81 50	25	3.65	1.85	5.89	1.67	3.21	7.18	5.51	6.35	5.79	2.74	2.05	2.88
5. Boston	30 42	83 50	. .	. .	5.30	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
6. Braddock's Point	. .	. .	. .	. .	. .	. .	. .	1.70	. .	. .	. .	1.87	. .	. .	. .
7. Cabaniss	33 15	83 50	. .	2.48	5.22	6.43	6.20	4.24	1.83	3.28	4.66	1.37	1.15	3.73	4.18
8. Catoosa Springs	34 55	85 08	. .	5.10	9.61	3.38	2.45	. .	. .	. .	. .	. .	. .	. .	. .
9. Culloden	32 51	84 06	825	5.32	7.30	7.62	1.64	1.90	1.65	9.81	1.13	9.39	3.15	7.79	7.54
10. Cuthbert	31 44	84 50	. .	. .	. .	. .	. .	. .	1.66	2.16	3.37	. .	. .	. .	. .
11. Dahlonega	34 34	84 00	. .	. .	. .	. .	12.97	4.29	11.19	10.30	. .	. .	. .	. .	. .
12. Dalton	34 47	85 00	775	11.12	13.50	5.07	. .	. .	. .	. .	. .	. .	. .	. .	. .
13. Factory Mills	33 40	84 46	. .	4.45	0.49	0.92	2.01	5.60	2.86	. .	. .	. .	. .	. .	. .
14. Forsyth	33 02	83 58	. .	3.40	5.05	9.70	9.11	2.90	4.01	. .	4.17	1.70	0.75	3.85	4.20
15. Fort Pulaski	32 02	80 53	. .	. .	. .	. .	. .	. .	0.97	4.92	6.91	2.53	1.90	. .	. .
16. Gainesville	34 18	83 53	1004	5.12	18.11	5.33	3.03	7.73	10.97	5.44	8.00	2.84	2.00	3.43	5.85
17. Hillsborough	33 10	83 38	566	8.26	4.17	4.07	3.18	2.22	4.77	. .	. .	0.12	0.55	5.35	4.22
18. La Fayette	34 45	85 20	1112	4.34	8.59	5.25	4.37	1.60	3.05	5.80	4.45	3.99	2.45	4.03	6.69
19. La Grange	33 02	85 01	. .	0.21	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
20. Macon	32 50	83 38	1300	4.98	5.36	5.40	5.62	4.03	4.54	5.63	2.71	2.79	1.09	3.80	4.53
21. Milledgeville	33 05	83 12	577	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1.14	7.09
22. Penfield	33 38	83 09	724	3.25	4.25	5.27	2.40	2.26	2.63	2.06	1.75	1.92	2.00	3.70	4.26
23. Perry	32 28	83 43	325	1.40	2.86	2.52	2.36	2.88	3.69	4.78	8.20	1.25	1.51	9.21	3.46
24. Quitman, near	30 40	83 40	. .	3.80	4.99	7.50	3.70	3.45	8.38	5.81	7.35	3.56	2.72	4.25	2.23
25. Sandersville	33 50	82 50	495	4.45	3.60	4.45	. .	. .	1.75	5.90	6.50	2.50	1.50	4.60	3.80
26. Savannah [d]	32 05	81 06	42	2.93	2.66	3.72	2.37	4.30	5.41	7.18	8.22	4.32	2.51	1.78	3.27
27. South Bend	30 20	82 03	. .	4.70	0.60	6.40	1.30	6.00	10.20	7.50	7.10	. .	0.20	4.60	2.80

[a] Observations in part at Fort Marion and U. S. Hospital. [b] Navy yard.

FLORIDA—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
28	6.22	17.57	16.74	..	..	Feb. 1853;	Nov. 1874	2	4	Assist. Surgeon, Geo. J. Alden, E. K. Sowd.	Ar. Met. Reg. 1855; S. O.
29	..	22.10	..	..	..	Apr. 1870;	Oct. 1870	0	7	W. J. Clarke.	S. O.
30	14.53	18.43	11.69	14.62	59.27	Aug. 1849;	Dec. 1852	3	5	J. Pearson.	S. Coll.
31	14.92	..	13.50	11.21	..	Jan. 1872;	Dec. 1872	0	9	Chas. F. Powell.	S. O.
32	7.09	21.53	10.56	4.67	43.85	Oct. 1872;	June, 1876	3	9	M. J. Shanefelter, J. D. Sumet, F. J. Pabst.	Sig. Ser. Reps.
33	7.77	15.71	11.56	5.96	41.00	Jan. 1844;	Nov. 1871	8	8	Assistant Surgeon, G. W. Atwood, Dr. P. B. Mauran.	Ar. Met. Reg. 1855; S. O.; Met. Obs. Vol. 1; MS. from S. G. O.
34	15.93	20.24	14.47	10.64	61.28	Nov. 1874;	June, 1876	1	8	J. A. Cody, E. P. Bayes, J. T. Minchin.	Sig. Ser. Reps.
35	..	..	..	..	..	May, 1872;	May, 1872	0	1	Truman S. Betts.	S. O.
36	6.36	26.80	10.30	9.70	53.16	July, 1871;	Dec. 1873	2	4	W. F. White.	"
37	14.85	24.17	10.02	12.10	61.14	Jan. 1854;	Dec. 1859	4	2	J. Pearson and others.	Met. Obs., Vol. 1.
38	11.19	18.25	11.45	7.83	48.72	Apr. 1871;	Dec. 1874	3	4	Geo. R. Thralls.	S. O.

GEORGIA.

1	10.82	13.17	7.11	12.09	43.19	Jan. 1845;	Oct. 1873	7	5	Prof. J. D. Easter, W. T. Grant, M. D.	Blodget's Clim.; S. O.
2	14.69	12.42	10.56	15.13	52.80	Jan. 1859;	Dec. 1874	9	1	G. W. Walker, Assist. Surg., F. Deckner & Son, Dr. J. G. Westmoreland.	Met. Obs. Vol. 1; S. O.; MS. from S. G. O.
3	13.19	11.92	8.78	12.89	46.78	May, 1844;	June, 1876	11	0	W. Haines, H. Bessant, Dr. W. H. Doughty, Assist. Surgeon, Dr. S. E. Habersham.	Met. Obs. Vol. 1; S. O.; Ar. Met. Reg., 1855; Sig. Ser. Reps.; MS. from S. G. O.
4	10.77	19.04	10.58	8.38	48.77	June, 1869;	Nov. 1873	4	4	H. L. Hillyer.	S. O.
5	..	..	..	..	..	Feb. 1861;	Feb. 1861	0	1	W. Blewett.	"
6	..	..	..	..	..	May, 1866;	Sept. 1866	0	2	Asst. Surgeon.	MS. from S. G. O.
7	16.87	9.77	6.25	11.88	44.77	May, 1872;	Dec. 1874	2	6	A. Colvard, J. M. Shannon.	S. O.
8	..	..	..	..	..	Jan. 1873;	Apr. 1873	0	4	Chas. Dickner.	"
9	11.16	12.59	20.33	20.16	64.24	Oct. 1852;	June, 1854	1	9	Prof. J. Darby.	S. Coll.; Met. Obs. Vol. 1.
10	..	7.19	..	..	..	June, 1860;	Aug. 1860	0	3	C. C. Seavey.	S. O.
11	..	..	..	..	..	Apr. 1874;	July, 1874	0	4	M. F. Stephenson, Jr.	"
12	..	..	..	..	..	Jan. 1861;	Mar. 1861	0	3	Dr. J. R. McAfee.	"
13	8.53	..	..	..	..	Jan. 1857;	June, 1857	0	6	F. T. Simpson.	Met. Obs. Vol. 1.
14	21.71	..	6.30	12.65	..	Jan. 1874;	Dec. 1874	0	11	T. G. Scott.	S. O.
15	..	12.80	..	..	..	June, 1873;	Oct. 1873	0	5	Assistant Surgeon.	MS. from S. G. O.
16	16.09	24.41	8.27	29.08	77.85	Jan. 1872;	Dec. 1874	1	7	W. T. Grant, Dr. M. F. Stephenson.	S. O.
17	9.47	..	6.02	16.65	..	Sept. 1857;	June, 1858	0	10	E. S. Glover.	Met. Obs. Vol. 1.
18	11.22	13.30	10.47	19.62	54.61	Sept. 1871;	Feb. 1873	1	6	A. K. McCutchen.	S. O.
19	..	..	..	..	..	Jan. 1855;	Jan. 1855	0	1	....	Met. Obs. Vol. 1.
20	15.05	12.88	7.68	14.87	50.48	Sept. 1865;	Dec. 1874	3	10	J. F. Adams, S. P. Sanford, J. A. Rockwell, S. J. Whitney.	S. O.
21	..	..	..	..	..	Nov. 1843;	Dec. 1843	0	2	J. M. Cotting.	S. Coll.
22	9.93	6.44	7.62	11.76	35.75	Jan. 1869;	Dec. 1870	2	0	S. P. Sanford.	S. O.
23	7.76	16.67	11.97	7.72	44.12	Apr. 1851;	July, 1853	2	3	Dr. G. F. Cooper.	Agl. Rep.
24	14.65	21.54	10.53	11.02	57.74	Dec. 1870;	Dec. 1874	3	11	J. L. Cutler.	S. O.
25	..	14.15	8.60	11.85	..	June, 1872;	Mar. 1873	0	10	Dr. H. N. Hollifield.	"
26	10.39	20.81	8.61	8.86	48.67	Aug. 1836;	June, 1876	30	10	W. S. Popple, H. R. Stockman, Dr. J. F. Posey, Assist. Surg., A. G. Oemsler.	Met. Obs. Vol. 1; Am. Alms., 1838–57; Sig. Ser. Reps.; MS. from S. G. O.
27	13.70	24.80	..	8.10	..	Dec. 1872;	Dec. 1873	1	0	Dr. F. M. Smith.	S. O.

[a] Observations combined with those at Augusta Arsenal and Summerville. [d] Observations in part at Oglethorpe Barracks.

GEORGIA—Continued.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
28. Sparta	33° 15′	82° 54′	550	6.28	5.08	4.01	3.00	4.41	3.08	4.93	6.60	3.79	2.07	4.36	6.27
29. St. Mary's	30 44	81 34	15	2.49	2.58	5.04	1.76	3.10	9.37	4.52	5.75	7.52	3.94	3.01	2.38
30. Thomaston [a]	32 56	84 30	750	3.04	1.95	4.30	2.58	3.32	1.91	5.25	5.36	1.31	0.78	5.97	4.71
31. Thomson	33 29	82 25	..	2.06	2.64	4.71	2.51	2.88	..	..	..	..	..	..	4.56
32. Trader's Hill	30 40	82 00	140	4.10	2.00	9.20	1.40	..	4.60	..	2.90	1.30	4.00	..	..
33. Tybee Island	32 00	80 52	24	4.02	2.99	5.04	4.98	2.56	10.35	2.68	3.36	4.05	1.15	1.96	1.46
34. Whitemarsh Island	32 00	81 00	18	2.86	2.22	2.85	2.38	3.93	3.72	5.06	6.08	4.82	1.51	2.21	2.67

IDAHO.

1. Camp Conner	..	..	..	1.10	0.90	..	..	..	..	..	..	..	..	..	..
2. Fort Boisé	43 40	116 00	1998	2.57	1.41	2.19	1.53	1.44	0.58	0.24	0.33	0.25	0.31	1.94	2.69
3. Fort Hall	43 04	112 27	4750	0.20	0.83	1.13	0.41	1.75	0.78	0.24	0.82	0.30	0.88	1.49	0.45
4. Fort Lapwai	46 18	116 54	2000	1.47	1.35	1.72	1.01	1.38	1.70	0.34	0.37	0.73	0.43	2.22	2.17

ILLINOIS.

1. Alto [b]	41 45	89 00	..	..	0.55	..	..	..	..	..	..	..	..	..	0.80
2. Alton	38 53	90 14	650	2.38	3.93	4.27	4.90	3.43	2.60	3.59	4.92	4.44	1.44	2.35	2.25
3. Andalusia [c]	41 25	90 45	686	2.80	1.51	0.90	4.39	4.25	3.13	2.46	2.95	3.07	1.10	3.01	1.17
4. Athens	39 57	89 45	800	2.51	2.20	2.59	4.12	4.84	5.72	3.36	2.96	3.27	2.51	2.77	2.77
5. Augusta	40 12	90 58	500	2.31	1.82	2.74	4.28	3.98	4.05	4.48	3.32	3.94	2.79	2.15	2.87
6. Aurora	41 46	88 17	696	2.39	1.56	2.86	2.94	3.62	3.15	3.88	3.36	3.83	2.71	2.01	1.82
7. Batavia [d]	41 52	88 16	636	1.77	2.12	3.30	2.89	4.22	3.56	4.93	2.14	4.11	2.75	3.30	1.59
8. Belvidere	42 16	88 48	810	2.39	1.23	2.67	2.14	2.70	5.11	4.89	3.33	3.68	1.63	2.50	2.17
9. Brighton [e]	39 00	90 13	..	1.62	2.58	1.80	1.75	2.30	4.07	3.00	2.55	3.67	2.57	2.53	1.49
10. Bruce [f]	41 09	88 50	550	..	..	..	..	9.19	..	..	..	..	..	..	..
11. Cairo	37 00	89 12	319	6.60	4.63	6.63	4.70	3.89	5.42	4.03	2.86	2.46	2.44	4.73	3.21
12. Carthage [g]	40 23	91 17	..	0.58	4.63	1.26	1.14	1.74	2.03	0.92	..	..	..	..	..
13. Channahon	41 26	88 12	630	..	..	3.28	4.16	1.58	1.81	..	..	..	..	..	..
14. Champaign [h]	40 07	88 16	..	2.70	2.43	1.84	4.28	2.74	2.75	0.80	1.93	1.35	1.19	2.07	2.52
15. Charleston	39 30	88 10	..	4.25	2.88	2.10	1.67	2.63	2.86	4.40	4.34	0.66	3.46	2.01	1.85
16. Chicago	41 54	87 38	600	2.87	2.03	2.25	2.66	3.87	3.92	3.26	2.31	3.66	2.04	2.09	2.04
17. Decatur	39 51	88 57	685	3.73	1.30	3.01	0.75	1.57	1.70	1.68	2.51	1.43	2.90	2.86	2.35
18. Dubois, near	38 14	89 16	405	2.73	3.18	4.01	4.03	4.09	4.12	4.28	2.70	3.92	1.85	2.46	3.31
19. Effingham	39 07	88 32	592	5.80	..	..	..	5.66	8.76	4.50	2.75	..	..	..	..
20. Elgin	42 03	88 16	777	1.65	2.12	3.96	3.99	5.38	3.09	3.45	2.79	4.85	1.94	3.16	1.33
21. Elmira	41 10	89 50	..	2.39	1.55	2.24	3.36	4.45	3.08	2.71	4.18	4.38	1.27	1.53	1.71
22. Elmore [i]	40 56	90 04	612	1.80	1.47	2.84	2.65	5.07	3.82	3.52	2.95	4.04	1.41	4.26	2.38
23. Evanston [j]	42 03	87 39	618	1.82	1.76	2.45	2.64	3.13	3.64	3.34	3.05	2.73	2.24	1.66	1.67
24. Galesburg [k]	40 55	90 24	795	1.64	1.55	2.68	3.00	3.06	3.70	3.68	4.21	4.10	2.64	1.66	1.81
25. Geneseo	41 25	90 14	..	4.70	1.00	1.10	1.73	2.30	2.50	2.27	2.95	4.20	1.00	1.30	2.71
26. Golconda	37 23	88 30	..	2.10	3.34	5.70	2.99	3.37	2.70	2.64	1.77	3.10	0.87	2.13	2.79

[a] Combined with observations at The Rock. [b] Also called Rochelle.
[c] Observations previous to 1871 were made at Edgington, about one mile to the west of Andalusia.
[d] Observations at three stations within a radius of a few miles. [e] Piasa Farms.

GEORGIA—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
28	11.42	14.61	10.22	17.63	53.88	Mar. 1852;	Apr. 1861	9	0	Dr. E. M. Pendleton.	S. Coll.; Met. Obs. Vol. 1; S. O.
29	9.90	19.64	14.47	7.45	51.46	Nov. 1870;	Dec. 1874	4	0	E. Barker.	S. O.
30	10.20	12.52	8.06	9.70	40.48	June, 1856;	Dec. 1859	2	7	Dr. J. Anderson.	Met. Obs. Vol. 1.
31	10.10	..	..	9.26	..	Dec. 1858;	May, 1859	0	6	Dr. W. T. Grant.	" "
32	..	..	..	..	..	Jan. 1872;	Oct. 1872	0	8	Dr. F. M. Smith.	S. O.
33	12.58	16.39	7.16	8.47	44.60	July, 1874;	June, 1876	2	0	H. R. Stockman, W. S. Topple.	Sig. Ser. Reps.
34	9.16	14.86	8.54	7.75	40.31	Sept. 1849;	Apr. 1861	11	5	R. T. Gibson.	S. Coll.; Met. Obs. Vol. 1; S. O.

IDAHO.

1	..	..	..	..	..	Jan. 1865;	Feb. 1865	0	2	Assistant Surgeon.	MS. from S. G. O.
2	5.16	1.15	2.50	6.67	15.48	Mar. 1864;	Dec. 1874	9	5	"	"
3	3.29	1.84	2.67	1.48	9.28	Mar. 1871;	Nov. 1874	2	9	"	"
4	4.11	2.41	3.38	4.99	14.89	Jan. 1864;	Dec. 1874	9	8	"	"

ILLINOIS.

1	..	..	..	..	..	Feb. 1868;	Dec. 1868	0	2	D. Carey.	S. O.
2	12.60	11.11	8.23	8.56	40.50	May, 1849;	Aug. 1850	1	4	N. Johnson.	S. Coll.
3	9.54	8.54	7.18	5.48	30.74	Feb. 1858;	Mar. 1873	3	6	Dr. E. H. Bowman and Son.	Met. Obs. Vol. 1.; S. O.
4	11.55	12.04	8.55	7.48	39.62	Jan. 1843;	Dec. 1858	15	11	J. Hall.	Met. Obs. Vol. 1.
5	11.00	11.85	8.88	7.00	38.73	Mar. 1856;	Dec. 1874	17	5	Dr. S. B. Mead.	Met. Obs., Vol. 1.; S. O.
6	9.42	10.39	8.55	5.77	34.13	Oct. 1857;	Nov. 1873	9	8	A. J. Babcock, A. & E. D. Spaulding.	" "
7	10.41	10.63	10.16	5.48	36.68	Mar. 1854;	Feb. 1861	2	8	Prof. W. Coffin, T. Mead.	" "
8	7.51	13.33	7.81	5.79	34.44	Sept. 1868;	Mar. 1872	3	1	G. B. Moss.	S. O.
9	5.85	9.62	8.77	5.69	29.93	Jan. 1856;	Feb. 1859	2	10	W. V. Eldridge.	Met. Obs. Vol. 1.
10	..	..	..	..	..	May, 1860;	May, 1860	0	1	Dr. G. O. Smith.	S. O.
11	15.22	12.31	9.63	14.44	51.60	Oct. 1872;	June, 1876	3	9	Edw. Booth, Th. Jones, J. M. Watson.	Sig. Ser. Reps.
12	4.14	..	..	..	..	Jan. 1857;	July, 1857	0	7	S. J. Wallace.	S. Coll.
13	9.02	..	..	..	..	Mar. 1861;	June, 1861	0	4	J. Fitch.	S. O.
14	8.86	5.48	4.61	7.65	26.60	Dec. 1872;	Nov. 1874	1	9	A. P. S. Stewart.	"
15	6.40	11.60	6.13	8.98	33.11	Apr. 1870;	Apr. 1871	1	1	C. Gramesby.	"
16	8.78	9.49	7.79	6.94	33.00	Mar. 1844;	June, 1876	10	1	S. Meacham, S. Brooks, J. G. Langguth, W. S. Kauffman, C. E. Brinsmade, A. M. Byrne, G. D. Hiscox.	Met. Obs. Vol. 1; Sig. Ser. Reps.; S. O.
17	5.33	5.89	7.19	7.38	25.79	Aug. 1868;	Dec. 1871	2	3	T. Dudley.	S. O.
18	12.13	11.10	8.23	9.22	40.68	Jan. 1864;	Dec. 1874	10	11	Wm. C. Spencer.	"
19	..	16.01	..	..	..	May, 1869;	Jan. 1870	0	5	Dr. Wesley Thompson.	"
20	13.33	9.33	9.95	5.10	37.71	Feb. 1858;	July, 1862	2	11	J. B. Newcomb.	Met. Obs. Vol. 1; S. O.
21	10.05	9.97	7.18	5.65	32.85	May, 1862;	Dec. 1874	8	4	O. A. Blanchard.	S. O.
22	10.56	10.29	9.71	5.65	36.21	Sept. 1864;	Dec. 1871	4	9	W. H. Adams.	"
23	8.22	10.03	6.63	5.25	30.13	Feb. 1858;	June, 1876	7	2	H. G. Meacham, C. E. Smith, W. H. Morrison, Prof. O. Marcy, E. D. Holbrook, W. Finn, J. H. Gill.	Met. Obs. Vol. 1; Sig. Ser. Reps.; S. O.
24	5.00	8.74	11.59	8.40	33.73	Feb. 1861;	Dec. 1874	11	5	Prof. A. F. Kemp, Prof. W. Livingston.	S. O.
25	5.13	7.72	6.50	8.41	27.76	Mar. 1873;	Dec. 1874	1	10	W. T. Allen.	"
26	12.06	7.11	6.10	8.23	33.50	Jan. 1866;	Sept. 1870	4	8	W. V. Eldridge.	"

[f] Also called High Open Prairie.
[h] Illinois Industrial University.
[j] Northwest University.
[s] At Prairie Garden, near Carthage.
[t] Defective record.
[u] Lombard University.

ILLINOIS—CONTINUED.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
27. Havana	40° 18′	90° 05′	475	3.10	1.72	2.24	3.31	2.78	4.21	4.46	2.66	3.96	2.45	2.27	2.89
28. Hennepin	41 15	89 20	..	2.56	1.32	1.46	3.17	3.25	3.55	2.20	3.21	2.92	2.32	2.16	1.77
29. Highland	38 44	89 40	620	3.83	1.94	3.46	4.74	3.95	3.40	3.61	3.59	2.92	4.31	2.98	3.72
30. Hoyleton	38 26	89 17	480	0.50	..	..	4.22	1.35	4.37	6.00	2.62	2.00	1.50	3.50	3.30
31. Jacksonville	39 45	90 12	676	5.85	0.90	4.15	2.10	3.25	4.15	2.70	3.20	4.95	2.25	0.75	1.10
32. Jerseyville	39 06	90 20	650	3.65	2.31	5.77	8.70	5.20	8.20	11.60	4.40	2.20	0.30	1.50	3.40
33. Joliet	41 30	88 05	..	4.25	1.75	..	3.25	0.12	..	5.62	5.00	..	1.12	..	..
34. King's Mills	42 05	88 33	..	2.40	1.93	0.69	4.41	6.34	7.69	2.88	3.50	..	..	..	..
35. Lawn	40 59	89 38	..	..	..	2.50	..	..	..	..	..	..	..	..	..
36. Lebanon[a]	38 35	89 49	500	2.62	2.46	3.73	4.07	4.86	4.53	1.27	3.54	3.25	3.06	1.49	3.05
37. Lee Center	41 45	89 17	..	..	..	..	..	..	..	..	..	..	..	..	4.55
38. Loami	39 40	89 51	675	2.43	3.23	2.25	2.72	5.13	3.02	4.09	1.68	2.82	2.80	2.77	2.40
39. Louisville	38 45	88 30	..	3.23	3.08	3.86	4.82	4.58	3.80	6.33	4.16	2.38	2.53	2.63	4.06
40. Lyndon	41 42	90 00	..	..	..	..	..	..	..	2.77	4.02	7.63	1.66	3.20	0.95
41. Magnolia, near	41 15	89 15	500	2.39	2.65	4.92	3.35	8.90	4.70	2.40	2.70	..	..	2.31	3.91
42. Manchester	39 31	90 34	683	2.91	2.83	3.37	3.40	4.45	3.45	3.39	2.72	2.88	2.58	2.37	2.32
43. Marengo	42 14	88 34	842	1.59	1.59	2.76	3.11	4.51	4.38	4.38	5.02	4.48	2.38	2.50	2.02
44. Mattoon	39 29	88 23	740	3.63	4.76	5.32	7.38	7.25	6.69	5.19	4.58	2.49	2.78	2.73	4.23
45. Mount Sterling	39 58	90 47	..	1.41	1.40	3.02	3.34	1.76	2.33	3.67	4.13	2.52	2.54	2.91	2.19
46. Murrayville	39 35	90 14	683	..	..	..	4.92	1.50	3.29	6.97	0.55	5.82	2.25	0.00	..
47. Olney	38 44	88 03	..	..	..	..	..	..	..	..	..	4.00	1.94	..	..
48. Oquawka	40 55	90 59	..	2.73	1.45	1.86	3.61	3.56	2.92	2.38	7.28	3.30	3.37	1.82	1.22
49. Orchard Farm	40 36	89 45	..	2.71	1.58	2.47	4.40	2.10	3.46	5.28	4.31	3.97	2.92	2.23	4.29
50. Osceola	41 12	89 46	..	2.61	3.58	2.35	6.52	3.94	5.30	6.60	6.00	3.30	..	4.65	2.43
51. Ottawa	41 20	88 47	500	2.40	2.39	2.78	3.10	4.23	3.50	3.96	3.31	3.16	2.66	2.21	2.41
52. Pana	39 23	89 05	735	3.60	1.40	1.50	0.65	1.15	2.03	2.88	4.25	2.85	2.03	2.90	2.07
53. Paris	39 37	87 41	600	..	..	..	..	..	..	..	..	4.55	..	..	..
54. Pekin	40 35	89 38	..	2.67	3.08	3.21	3.71	4.36	4.00	4.64	3.52	3.79	2.23	3.55	3.29
55. Peoria	40 43	89 30	440	1.80	1.92	2.87	3.18	3.63	3.21	3.82	3.66	3.20	2.22	2.19	2.67
56. Pleasant Ridge[b]	41 15	89 36	550	2.60	0.73	..	..	..	..	1.10	5.07	5.20	1.90	0.87	1.95
57. Quincy	39 55	91 25	650	2.50	2.38	4.92	3.00	2.95	3.09	4.40	5.95	4.95	6.25	2.77	1.60
58. Ridge Farm	39 53	87 38	..	..	..	..	..	10.30	2.45	1.75	2.63	5.90	1.40	..	..
59. Riley	42 11	88 35	760	2.12	1.61	2.75	3.16	3.57	3.33	4.17	3.80	4.34	2.33	2.12	2.39
60. Rockford	42 15	89 05	707	3.49	0.53	1.44	1.39	3.00	3.44	1.43	1.71	3.79	1.53	1.48	1.37
61. Rock Island Arsenal	41 32	90 31	528	1.66	1.46	1.58	2.69	3.70	3.07	3.03	3.67	3.20	1.47	2.10	1.53
62. Sandwich	41 40	88 35	665	2.67	2.42	3.79	4.21	5.78	4.58	5.33	5.41	4.25	2.64	2.44	3.08
63. Sweet Water	40 03	89 46	630	6.28	3.22	2.75	7.05	..	..	..	..	..	..	..	..
64. Tiskilwa	41 20	89 30	..	3.70	0.50	1.70	4.10	3.30	4.40	0.70	2.30	4.60	1.70	..	0.15
65. Upper Alton	38 57	90 04	650	1.84	1.43	2.96	2.30	3.85	2.43	3.10	2.71	2.23	1.81	2.41	2.06
66. Vermont	40 16	90 30	..	..	..	..	..	..	..	..	0.59	..	..	..	..
67. Wapella	40 14	88 58	..	..	1.00	4.87	..	..	..	..	..	..	..	..	..
68. Warrensburg	39 55	89 05	680	2.20	1.95	1.49	4.20	2.90	4.57	4.20	0.78	2.76	0.97	1.65	2.10
69. Warsaw, near	40 21	91 23	550	2.21	2.07	2.46	4.24	5.15	4.42	5.25	3.27	3.05	3.81	2.78	1.92
70. Waterloo	38 20	90 10	..	4.48	1.09	2.39	2.15	4.15	2.42	5.12	1.62	0.55	2.32	3.28	1.55
71. Waverly	39 36	89 58	680	1.45	3.27	3.17	3.98	2.12	1.97	5.16	1.97	3.39	2.44	3.93	3.76
72. Waynesville	40 16	89 07	..	1.53	1.52	3.08	5.75	7.12	6.00	3.88	1.62	4.00	2.63	3.12	2.22
73. West Salem	38 30	88 00	..	2.86	3.47	2.04	3.80	4.50	4.50	4.85	3.42	2.83	1.74	4.09	4.13
74. West Urbana	40 09	88 17	550	1.02	1.74	2.01	5.25	4.70	4.55	2.39	3.59	3.74	2.00	3.21	2.41
75. Wheaton[c]	41 49	88 06	682	2.09	2.08	4.34	4.67	4.73	2.74	2.90	4.90	3.04	2.90	3.56	2.48
76. Winnebago	42 17	89 12	900	2.06	1.80	2.60	3.20	3.71	4.07	3.78	3.87	4.43	2.44	2.03	1.97
77. Wyanet, near	41 30	89 45	..	2.16	1.59	2.82	3.64	4.33	4.31	3.72	4.89	4.81	2.09	2.24	2.19
78. York Neck	40 05	91 33	..	1.42	1.99	3.04	7.51	2.68	6.06	5.75	2.18	5.25	3.51	1.56	3.45

[a] McKendree College. [b] Nursery. [c] Illinois Institute.

ILLINOIS—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
27	8.33	11.33	8.68	7.71	36.05	Sept. 1870;	Dec. 1874	4	3	J. Cochrane.	S. O.
28	7.88	8.96	7.40	5.65	29.89	Jan. 1870;	Dec. 1874	4	5	E. Osborn.	"
29	12.15	10.60	10.21	9.49	42.45	Mar. 1861;	Mar. 1864	3	0	O. F. Bandelier, Jr.	"
30	..	12.99	7.00	..	..	Apr. 1864;	June, 1866	1	0	J. Ellsworth, O. J. Marsh.	"
31	9.50	10.05	7.95	7.85	35.35	Mar. 1861;	Mar. 1862	1	1	T. Dudley.	"
32	19.67	24.20	4.00	9.36	57.23	Jan. 1872;	Apr. 1873	1	4	Margaret Hamilton.	"
33	..	..	..	..	..	Oct. 1843;	July, 1845	0	8	M. K. Brownson, M.D.	S. Coll.
34	11.44	14.07	..	..	..	Jan. 1869;	Aug. 1869	0	8	Dr. A. Spaulding and Wife.	S. O.
35	..	..	..	..	..	Mar. 1867;	Mar. 1867	0	1	A. H. Thompson.	"
36	12.66	9.34	7.80	8.13	37.93	Nov. 1859;	June, 1862	1	8	N. E. Cobleigh.	Met. Obs. Vol. 1; S. O.
37	..	..	..	..	..	Dec. 1860;	Dec. 1860	0	1	E. D. Straus.	S. O.
38	10.10	8.79	8.39	8.06	35.34	Jan. 1866;	Oct. 1869	2	10	T. Dudley.	"
39	13.26	14.29	7.54	10.37	45.46	Apr. 1869;	Dec. 1874	5	9	Dr. D. H. Chase.	"
40	..	..	12.49	..	..	July, 1874;	Dec. 1874	0	6	S. A. Maxwell.	"
41	17.17	9.80	..	8.95	..	Nov. 1866;	Aug. 1868	1	4	H. A. Smith.	"
42	11.22	9.56	7.83	8.06	36.67	July, 1854;	Sept. 1874	18	4	J., R.E., & C.W.Grant, Peter Murray.	Met. Obs. vol. 1; S. O.
43	10.38	13.78	9.36	5.20	38.72	Jan. 1850;	Mar. 1869	16	3	O. P. & J. S. Rogers.	Met. Obs. vol 1; S. O.; S. Coll.
44	19.95	16.46	8.00	12.62	57.03	Aug. 1869;	Nov. 1874	3	10	W. E. Henry, Albert Puffer.	S. O.
45	8.12	10.13	7.97	5.00	31.22	Jan. 1867;	Dec. 1874	5	2	A. Duncan.	"
46	..	10.81	8.07	..	..	Apr. 1865;	Nov. 1865	0	8	J. & E. Grant.	"
47	..	..	..	..	..	Sept. 1860;	Oct. 1860	0	2	H. H. Brickenstein.	"
48	9.03	12.58	8.49	5.40	35.50	July, 1870;	June, 1873	3	0	H. M. Patterson.	"
49	8.97	13.05	9.12	8.58	39.72	Jan. 1860;	Mar. 1864	4	0	J. H. Riblet.	"
50	12.81	17.90	..	8.62	..	Jan. 1860;	May, 1861	1	4	Dr. J. S. Pashley.	"
51	10.11	10.77	8.03	7.20	36.11	Mar. 1856;	Nov. 1870	13	9	E. H. Merwin, Dr. J. O. Harris.	Met. Obs. Vol. 1; S. O.
52	3.30	9.16	7.78	7.07	27.31	June, 1869;	Aug. 1871	2	3	Dr. T. Finley.	S. O.
53	..	..	..	..	..	Sept. 1868;	Sept. 1868	0	1	C. Levings.	"
54	11.28	12.16	9.57	9.04	42.05	Jan. 1855;	Oct. 1865	6	7	J. H. Riblet.	Met. Obs. Vol. 1; S. Coll.; S. O.
55	9.68	10.69	7.61	6.39	34.37	Jan. 1856;	Dec. 1874	17	10	Dr. F. Brendel, M. A. Breed, A. L. Matthies.	Met. Obs. Vol. 1; S. O.
56	..	..	7.97	5.28	..	Aug. 1865;	Dec. 1873	1	7	V. Aldrich.	S. O.
57	10.87	13.44	13.97	6.48	44.76	May, 1870;	Mar. 1872	1	11	F. J. Hearne.	"
58	..	6.83	..	..	..	May, 1868;	Oct. 1868	0	6	B. C. Williams.	"
59	9.48	11.30	8.79	6.12	35.69	May, 1856;	Dec. 1874	15	6	J. W. James, E. Babcock.	Met. Obs. Vol. 1; S. O.
60	5.83	6.58	6.80	5.39	24.60	Nov. 1872;	Dec. 1874	2	2	W.H. Burdich,—Tickner, Thos. D. Robertson.	S. O.
61	7.97	9.77	6.77	4.65	29.16	Feb. 1866;	Dec. 1874	8	4	Assistant Surgeon.	MS. from S. G. O.
62	13.78	15.32	9.33	8.17	46.60	Dec. 1858;	Aug. 1874	14	0	Dr. N. E. Ballou.	Met. Obs. Vol 1; S. O.
63	..	..	..	..	..	Jan. 1873;	Apr. 1873	0	4	Frank V. Alkire.	S. O.
64	9.10	7.40	..	4.35	..	Jan. 1874;	Dec. 1874	0	11	V. Aldrich.	"
65	8.51	8.24	6.45	5.33	28.53	May, 1849;	Oct. 1863	7	0	P. P. Brown, Dr. J. James, A. C. Trible.	S. Coll.; Met. Obs. Vol. 1; S. O.
66	..	..	..	..	..	Aug. 1864;	Aug. 1864	0	1	. . . . .	S. O.
67	..	..	..	..	..	Feb. 1868;	Mar. 1868	0	2	T. L. Groff.	"
68	8.59	9.55	5.38	6.25	29.77	Jan. 1872;	Dec. 1873	2	0	Timothy Dudley.	"
69	11.85	12.94	9.64	6.20	40.63	May, 1856;	Mar. 1874	7	3	B. Whitaker.	S. Coll.; Met. Obs. Vol. 1.; S. O.
70	8.69	9.16	6.15	7.12	31.12	Feb. 1868;	Oct. 1874	2	2	H. Kunster, F. Sum, M. W. Horine.	S. O.
71	9.27	9.10	9.76	8.48	36.61	May, 1862;	Dec. 1865	3	3	T. Dudley.	"
72	15.95	11.50	9.75	5.27	42.47	Feb. 1858;	Mar. 1859	1	1	J. E. Cantril.	Met. Obs. Vol. 1.
73	10.34	12.77	8.66	10.46	42.23	Feb. 1856;	Oct. 1860	4	4	H. A. Fitye.	Met. Obs. Vol. 1; S. O.
74	11.96	10.53	8.95	5.17	36.61	Jan. 1857;	Dec. 1859	2	8	Dr. J. Swain.	Met. Obs. Vol. 1.
75	13.74	10.54	9.50	6.65	40.43	Dec. 1857;	Aug. 1861	2	8	Prof. G. H. Collier.	Met. Obs. Vol. 1; S. O.
76	9.51	11.72	8.90	5.83	35.96	Mar. 1857;	Dec. 1870	13	6	J. W. Tolman and Daughter.	" "
77	10.79	12.92	9.14	5.94	38.79	Aug. 1864;	Dec. 1874	9	11	E. S. & L. E. Phelps.	S. O.
78	13.23	13.99	10.32	6.86	44.40	Jan. 1864;	Dec. 1865	2	0	V. P. Gay.	S. Coll.

INDIANA.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Annapolis [a]	39° 52′	87 °12′	3090	4.85	0.80	4.04	4.35	3.05	6.00	5.13	2.85	2.40	2.60	2.40	2.15
2. Aurora	39 04	84 55	509	2.71	3.06	4.12	3.13	3.78	2.93	4.18	2.68	3.69	2.30	2.37	3.00
3. Beech Grove	39 42	85 24	941	4.37	3.68	3.29	4.87	3.60	4.45	6.92	4.13	1.87	3.28	1.62	3.22
4. Bloomington [b]	39 12	86 33	771	2.48	2.91	4.62	3.16	3.73	3.92	5.57	2.19	1.98	1.75	2.68	2.88
5. Cadiz, near	39 55	85 20	1060	2.69	2.51	5.57	5.09	2.81	2.31	5.55	1.65	4.16	3.50	4.14	2.27
6. Cannelton	37 58	86 45	400	1.99	2.70	2.34	4.10	3.81	4.54	2.20	3.07	2.36	2.52	3.18	4.05
7. Carthage	39 45	85 32	625	..	0.50	7.75	5.25	12.75	..	..	..	..	..	..	..
8. Columbia City	41 10	85 25	863	1.95	1.29	3.87	3.89	4.21	4.99	5.18	3.61	5.48	1.48	2.21	1.44
9. Evansville	38 00	87 30	390	3.05	..	3.50	6.05	5.58	2.80	5.44	1.78	3.01	..	..	..
10. Farmers' Institute	40 20	86 57	..	..	..	..	..	4.12	4.45	6.75	6.44	6.75	1.75	..	..
11. Fort Wayne	41 05	85 04	800	3.23	2.62	2.51	3.18	3.34	2.16	3.69	2.94	1.61	2.10	2.23	3.29
12. Greencastle	39 39	86 49	..	1.15	1.00	..	..	..	..	..	..	..	..	..	..
13. Independence	40 30	85 35	..	..	..	..	..	2.62	2.80	..	..	..	..	..	..
14. Indianapolis	39 47	86 09	698	3.17	2.48	4.91	3.81	4.68	4.28	4.17	2.59	2.57	2.58	2.90	3.21
15. Jalapa	40 40	85 48	..	3.56	5.94	3.07	..	7.50	2.56	2.44	3.06	6.50	0.75	4.02	2.19
16. Kendallville	41 21	85 14	975	..	3.40	3.06	6.37	6.50	6.92	7.07	2.98	4.38	..	..	..
17. Kentland	40 47	87 22	725	5.98	10.47	3.65	14.25	9.25	..	12.00	4.75	4.00	2.40	5.07	5.27
18. Laconia [c]	38 05	86 03	600	3.16	4.33	4.22	4.14	4.78	2.40	3.28	4.30	1.93	2.65	2.89	3.41
19. La Fayette	40 25	86 52	620	4.70	3.70	4.50	5.10	6.80	6.60	8.00	5.90	..	..	..	4.50
20. La Porte, near	41 37	86 43	550	3.28	1.37	3.22	3.20	3.26	5.35	6.73	5.10	2.32	2.77	4.41	1.95
21. Livonia	38 35	86 15	733	2.30	2.20	1.40	6.70	3.85	5.45	6.35	0.90	3.05	2.70	2.50	2.75
22. Logansport	40 45	86 19	600	1.55	3.41	3.66	3.24	4.43	2.81	1.60	3.89	4.03	2.57	3.84	3.11
23. Madison	38 45	85 20	450	3.48	3.44	6.59	6.19	7.17	4.40	2.92	6.11	5.69	1.09	2.16	8.62
24. Merom	39 05	87 30	..	2.52	2.76	3.48	2.76	3.86	2.35	4.07	1.66	2.34	1.86	2.27	2.89
25. Michigan City	41 42	86 49	622	1.14	1.11	1.91	2.86	4.72	4.41	3.54	3.72	2.46	2.55	1.30	1.98
26. Mishawaka [d]	41 39	86 08	..	..	..	..	..	3.56	2.10	13.15	1.15	6.20	7.04	4.81	3.43	..
27. Mt. Carmel	39 25	84 52	900	2.38	2.49	1.87	2.75	1.54	4.48	4.29	3.25	2.84	2.34	2.41	1.94
28. Mt. Hope	39 47	85 33	800	2.99	2.61	2.98	3.38	2.74	4.50	5.28	2.69	1.66	2.24	3.06	2.46
29. Muncie	40 12	85 20	1000	2.62	2.99	4.59	3.59	4.93	3.90	5.82	4.90	5.05	2.59	4.10	2.74
30. New Albany	38 19	85 50	553	3.40	3.61	2.54	2.88	3.93	2.71	2.66	3.49	3.02	2.99	3.39	5.21
31. New Castle	39 56	85 20	1000	2.33	2.12	4.53	4.39	3.48	2.34	0.82	3.64	5.88	2.20	4.02	3.47
32. New Harmony	38 10	87 54	350	2.94	3.09	3.64	3.63	3.48	3.66	3.50	3.41	3.34	2.13	2.89	3.02
33. North Liberty	41 32	86 21	..	..	..	..	..	..	4.26	4.00	4.50	3.92	..	..	..
34. Pennville	40 20	85 00	1000	0.80	0.45	..	..	..	..	..	..	..	..	..	1.25
35. Rensselaer	40 56	87 05	725	2.37	3.61	6.44	4.19	7.90	5.64	5.92	4.60	5.44	2.41	6.57	2.82
36. Richmond	39 50	84 51	850	1.71	3.06	2.95	3.61	4.39	4.15	2.50	3.89	1.37	3.03	4.08	3.14
37. Richmond	39 50	84 51	850	2.53	2.79	3.61	3.87	4.51	3.81	3.85	3.90	4.57	2.65	3.75	3.91
38. Rising Sun	38 58	84 50	550	2.97	3.52	4.93	5.16	4.07	5.72	7.81	2.84	2.56	2.69	3.52	5.15
39. Rockville	39 46	87 10	1100	2.70	0.76	7.00	3.00	3.68	1.84	3.06	2.12	2.25	5.25	3.57	2.58
40. South Bend	41 39	86 12	600	2.08	2.01	3.64	3.84	2.78	2.82	3.94	3.37	3.23	2.28	4.31	3.19
41. Spiceland	39 51	85 26	1025	2.90	2.41	3.87	3.13	3.66	3.87	4.89	2.63	3.53	2.12	2.79	2.73
42. Steam Corners	40	87	600	1.28	2.25	4.30	6.75	3.10	4.80	..	..	..	..	..	3.15
43. Sweetser	40 36	85 43	..	..	..	4.50	..	1.35	..	6.90	..	..	0.35	0.70	..
44. Valparaiso	41 28	87 00	..	..	..	..	..	..	..	11.25	3.64	..	..	..	..
45. Vevay	38 45	85 05	525	3.80	3.32	4.28	3.51	4.33	4.19	4.32	2.85	3.94	2.19	2.62	3.92
46. Warsaw	41 14	85 52	..	..	1.75	..	..	..	..	5.65	1.40	1.60	4.20	2.33	1.02

[a] Observations previous to October, 1870 at Harveysburg.

[b] Indiana University.

INDIANA.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
1	11.44	13.98	7.40	7.80	40.62	Mar. 1869;	Jan. 1871	1	10	B. C. Williams.	S. O.
2	11.03	9.79	8.36	8.77	37.95	Jan. 1866;	Nov. 1873	7	10	Geo. Sutton.	"
3	11.76	15.50	6.77	11.27	45.30	June, 1871;	July, 1874	2	11	Wm. S. Clark.	"
4	11.51	11.68	6.41	8.27	37.87	Mar. 1868;	Dec. 1874	4	11	Prof. C. M. Dodd and others.	"
5	13.47	9.51	11.80	7.47	42.25	Jan. 1860;	Feb. 1863	2	6	W. Dawson.	"
6	10.25	9.81	8.06	8.74	36.86	Jan. 1857;	Jan. 1873	4	2	— Palmer, — Evans, H. Smith.	Met. Obs. Vol. 1; S. O.
7	25.75	..	..	..	..	Feb. 1868;	May, 1868	0	4	C. M. Hobbs.	S. O.
8	11.97	13.78	9.17	4.68	39.60	Sept. 1865;	June, 1873	5	5	Dr. F. McCoy and Daughters & others.	"
9	15.13	10.02	..	..	..	Jan. 1858;	May, 1873	0	11	J. F. Crisp, S. Henrich.	Met. Obs. Vol. 1.
10	..	17.64	..	..	..	May, 1865;	Oct. 1865	0	6	J. E. Windle.	S. O.
11	9.03	8.79	5.94	9.14	32.90	Dec. 1870;	Dec. 1874	4	1	R. S. Robertson.	"
12	..	..	..	..	..	Jan. 1854;	Feb. 1854	0	2	Prof. J. Tingley.	Met. Obs. Vol. 1.
13	..	..	..	..	..	May, 1864;	June, 1864	0	2	O. Free.	S. O.
14	13.40	11.04	8.05	8.86	41.35	Jan. 1861;	June, 1876	11	9	R. Mayhew, G. Woolen.	Sig. Ser. Reps.; S. O.
15	..	8.06	11.27	11.69	..	June, 1868;	June, 1869	1	0	A. C. Irwin.	S. O.
16	15.93	16.97	..	..	..	Feb. 1854;	Sept. 1854	0	8	J. Knauer, W. B. Conventry.	Met. Obs. Vol. 1.
17	27.15	..	11.47	21.72	..	Feb. 1869;	Jan. 1871	1	0	D. Spitter.	S. O.
18	13.14	9.98	7.47	10.90	41.49	July, 1869;	Dec. 1874	5	6	A. Crosier.	"
19	16.40	20.50	..	12.90	..	May, 1854;	Jan. 1870	0	10	A. H. Bixby.	Met. Obs. Vol 1.
20	9.68	17.18	9.50	6.60	42.96	Mar. 1849;	June, 1871	3	0	R. M. Newkirk, F. G. Andrew.	S. Coll.; S. O.
21	11.95	12.70	8.25	7.25	40.15	Nov. 1871;	Oct. 1872	1	0	J. R. Howard.	S. O.
22	11.33	8.30	10.44	8.07	38.14	July, 1854;	June, 1863	4	9	J. Bartlett, T. B. Helen, C. B. Laselle, E. L. Berthoud.	S. Coll.; Met. Obs. Vol 1; S. O.
23	19.95	13.43	8.94	15.54	57.86	Jan. 1858;	July, 1866	2	1	C. Barnes, S. Collins.	Met. Obs. Vol. 1; S. O.
24	10.10	8.08	6.47	8.17	32.82	June, 1866;	Nov. 1873	7	0	T. Holmes.	S. O.
25	9.49	11.67	6.31	4.23	31.70	Mar. 1857;	Sept. 1860	2	6	W. Woodbridge, D. B. Angell, H. Blake, C. S. Woodward.	Surv. N. & N. W. Lakes; Met. Obs. Vol. 1.
26	..	20.50	15.28	..	..	Sept. 1858;	Oct. 1859	0	10	T. Vagnier, G. C. Munfield.	Met. Obs. Vol. 1.
27	6.16	12.02	7.59	6.81	32.58	June, 1869;	Nov. 1873	4	5	J. A. Applegate.	S. O.
28	9.10	12.47	6.96	8.06	36.59	Nov. 1868;	Dec. 1874	6	1	D. Deem.	"
29	13.11	14.62	11.74	8.35	47.82	Oct. 1863;	May, 1870	4	7	Dr. G. W. H. Kemper, E. J. Rice.	"
30	9.35	8.86	9.40	12.22	39.83	Apr. 1856;	Mar. 1869	3	6	C. Barnes, Dr. A. Martin, Dr. E. S. Crosier, and Assist. Sur.	Met. Obs. Vol. 1; S. O.; MS. from S. G. O.
31	12.40	6.80	12.10	7.92	39.22	June, 1863;	Apr. 1865	1	10	T. B. Redding.	S. O.
32	10.75	10.57	8.36	9.05	38.73	July, 1826;	Dec. 1874	21	9	Jno. Chappelsmith.	S. Coll. Met. Obs. Vol. 1; S. O.
33	..	12.76	..	..	..	June, 1872;	Sept. 1872	0	4	E. G. Halleck.	S. O.
34	..	..	..	2.50	..	Dec. 1864;	Feb. 1865	0	3	M. Griest.	"
35	18.53	16.16	14.42	8.80	57.91	July, 1864;	July, 1871	4	2	Dr. J. H. Loughridge.	"
36	10.95	10.54	8.48	7.91	37.88	Apr. 1851;	July, 1859	6	1	W. W. Austin, J. Moore.	Met. Obs. Vol. 1; S. O.
37	11.99	11.56	10.97	9.23	43.75	Jan. 1852;	Aug. 1868	16	8	J. Valentine, C. B. Laselle, E. B. Rambo.	" "
38	14.16	16.37	8.77	11.64	50.94	July, 1871;	Dec. 1874	3	5	Thos. E. Alden.	S. O.
39	13.68	7.02	11.07	6.04	37.81	Jan. 1860;	Jan. 1864	1	6	H. H. Anderson.	"
40	10.26	10.13	9.82	7.28	37.49	May, 1862;	Dec. 1874	3	6	D. J. Benner, J. H. Dayton, R. Burroughs.	"
41	10.66	11.39	8.44	8.04	38.53	May, 1863;	Dec. 1874	11	7	W. Dawson.	"
42	14.15	..	..	6.68	..	Dec. 1871;	Apr. 1873	0	11	R. C. Williams.	"
43	..	..	..	..	..	May, 1872;	July, 1873	0	5	A. C. Irwin.	"
44	..	..	..	..	..	July, 1869;	Aug. 1869	0	2	R. Beer.	"
45	12.12	11.36	8.75	11.04	43.27	Feb. 1865;	Dec. 1874	9	10	C. G. Boerner.	"
46	..	..	8.13	..	..	July, 1870;	Feb. 1871	0	7	G. R. Thralls.	"

[a] Also called Tobacco Landing.

[b] Observations in part at Notre Dame, about 3½ miles to the N.W.

INDIAN TERRITORY.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Baptist Mission	35° 00′	97° 00′	..	..	..	..	..	..	..	..	..	..	..	2.20	4.10
2. Camp Supply	..	..	..	0.68	3.06	0.88	5.00	1.90	0.40	1.46	0.47	4.23	0.87	1.90	1.10
3. Fort Arbuckle	34 29	97 17	1000	0.90	2.41	1.54	3.13	4.19	3.84	3.67	4.36	3.40	2.05	2.77	1.61
4. Fort Gibson	35 48	95 20	560	2.10	2.23	2.56	4.41	4.47	4.02	2.87	2.76	2.62	3.62	3.06	2.24
5. Fort Sill	34 45	98 38	..	0.73	1.47	1.78	2.49	4.17	3.32	2.88	2.00	3.99	2.57	0.93	2.19
6. Fort Towson	34 00	95 12	300	3.13	2.97	4.38	5.33	5.84	5.78	4.62	3.96	3.41	4.59	4.23	2.84
7. Fort Washita	34 11	96 38	645	1.77	2.72	2.53	3.40	5.31	4.33	3.24	2.86	3.55	2.94	3.52	1.86

IOWA.

1. Afton	41 04	94 12	1323	0.54	0.96	1.14	3.69	4.12	4.94	4.54	2.35	4.10	1.80	1.91	1.33
2. Algona	43 05	94 15	1500	1.19	2.40	1.59	2.93	3.99	4.57	2.69	5.08	2.44	2.14	1.67	1.20
3. Ames, near	42 07	93 35	790	..	..	3.70	..	..	2.55	7.70	4.96	3.64	1.80	..	..
4. Atalissa, near	41 31	91 08	600	5.95	2.00	2.53	2.83	5.33	..	..	..	..	..	..	1.75
5. Bangor	42 10	93 09	..	..	..	..	..	..	..	..	3.62	13.00	..	..	..
6. Bellevue	42 15	90 25	..	1.54	2.04	2.21	2.87	4.69	3.93	3.52	2.69	2.70	3.07	3.61	2.58
7. Boonesboro	42 04	93 55	1160	0.93	1.48	3.21	2.30	4.11	3.16	4.07	5.07	5.26	2.32	1.73	0.90
8. Border Plains	42 24	94 05	..	0.38	1.75	2.75	4.50	5.15	5.62	6.34	3.96	2.48	5.12	1.15	1.10
9. Bowen's Prairie	42 16	91 09	800	2.07	1.97	2.32	2.68	4.35	4.43	3.39	3.80	3.12	2.10	2.67	3.17
10. Brookside [a]	42 25	92 00	..	1.65	2.08	2.43	3.11	5.23	5.48	5.88	5.32	4.41	3.79	2.44	1.71
11. Burlington	40 49	91 07	600	2.30	0.53	..	..	..	..	..	1.60	3.29	0.55	0.78	..
12. Centerville	40 45	94 10	1030	..	..	..	..	..	..	..	3.87	..	..	..	..
13. Ceres	42 49	91 12	825	0.90	1.40	..	..	..	..	..	..	..	..	..	..
14. Clarinda	40 44	95 02	1044	1.28	0.51	0.99	1.34	4.83	5.07	7.05	2.22	4.23	2.37	0.32	0.73
15. Clinton [b]	41 50	90 10	630	1.92	2.88	3.90	4.33	4.02	3.88	4.54	5.09	4.52	2.85	2.10	2.68
16. Council Bluffs [c]	41 16	95 51	1000	0.57	0.49	0.66	2.55	3.85	4.85	5.56	2.66	3.68	2.25	1.32	0.88
17. Cresco	43 32	92 10	1855	1.22	0.82	1.66	2.28	3.27	4.80	2.71	3.64	3.27	2.08	1.59	0.64
18. Davenport [d]	41 30	90 39	737	2.10	2.10	3.05	4.49	5.04	4.64	4.93	4.43	4.52	2.17	1.72	2.22
19. Des Moines [e]	41 36	93 38	780	1.19	0.61	0.76	3.19	1.18	7.65	2.42	3.09	4.51	2.55	0.87	1.36
20. Denison	42 00	95 20	1199	0.70	..	..	..	..	..	..	..	..	..	..	..
21. Dubuque	42 30	90 40	715	1.90	1.60	2.30	2.23	3.59	4.66	3.74	3.33	4.10	2.65	1.99	1.57
22. Durant, near	41 36	90 57	719	0.06	1.05	3.80	1.35	0.80	4.40	2.70	4.45	..	2.05	0.00	3.20
23. Fayette Village	42 51	91 51	1000	..	0.55	..	..	..	..	..	..	..	..	..	..
24. Fairfield	41 01	91 57	940	1.90	2.47	4.17	4.85	5.07	5.37	6.40	3.73	3.98	3.14	4.96	1.90
25. Fort Atkinson	43 09	92 00	700	0.71	0.83	2.54	4.68	5.04	6.68	8.67	5.08	2.81	1.51	0.50	0.73
26. Fort Dodge [f]	42 31	94 12	944	0.81	0.77	1.66	2.33	3.99	6.10	4.16	2.37	2.34	2.35	1.46	1.56
27. Fort Madison, near	40 37	91 28	600	1.91	2.38	3.15	3.77	4.29	3.88	4.09	4.09	4.14	2.96	2.62	2.16
28. Franklin	42 45	92 11	..	1.50	2.35	..	..	..	..	..	..	..	..	..	..

[a] Also called Byron.
[b] Combined with observations at Lyons.
[c] Deaf and Dumb Institution.
[d] Griswold College.

INDIAN TERRITORY.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
1	..	..	..	..	..	Nov. 1860;	Dec. 1860	0	2	H. F. Buckner.	S. O.
2	7.78	2.23	7.00	4.84	21.95	July, 1873;	Dec. 1874	1	5	Assistant Surgeon.	MS. from S. G. O.
3	8.86	11.87	8.22	4.92	33.87	Oct. 1850;	Nov. 1870	11	10	"	Ar. Met. Regs. 1855 & 1860; MS. from S. G. O.
4	11.44	9.65	9.30	6.57	36.96	July, 1836;	June, 1876	23	8	Assist. Surg., T. S. Collins, B. C. Anderson, R. O. Trent, D. O'Leary.	Ar. Met. Regs. 1855 & 1860; MS. from S. G. O.; Sig. Ser. Reps.
5	8.44	8.20	7.49	4.39	28.52	Apr. 1870;	Dec. 1874	4	8	Assistant Surgeon.	MS. from S. G. O.
6	15.55	14.36	12.23	8.94	51.08	June, 1836;	Apr. 1854	13	10	"	Ar. Met. Reg. 1855.
7	11.24	10.43	10.01	6.35	38.03	Aug. 1843;	Dec. 1860	15	6	"	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.

IOWA.

1	2.83	8.95	11.83	7.81	31.42	Feb. 1871;	Dec. 1874	3	7	M. V. Ashby.	S. O.
2	4.79	8.51	12.34	6.25	31.89	June, 1861;	Dec. 1874	6	9	Dr. F. and E. McCoy, J. H. Warren, P. Dorweiler.	"
3	..	15.21	..	..	..	Sept. 1869;	Oct. 1871	0	7	W. D. & J. M. Cotton.	"
4	10.69	..	..	9.70	..	Feb. 1867;	Feb. 1873	0	7	B. Carpenter, A. M. Russel.	"
5	..	..	..	..	..	Aug. 1861;	Sept. 1861	0	2	Isaac M. Gidley.	"
6	9.77	10.14	9.38	6.16	35.45	Jan. 1856;	Aug. 1860	4	6	J. C. Fory.	Met. Obs. Vol. 1; S. O.
7	9.62	12.30	9.31	3.31	34.54	Jan. 1868;	Dec. 1874	4	11	E. Babcock.	S. O.
8	12.40	15.92	8.75	3.23	40.30	July, 1856;	Sept. 1859	1	11	W. K. Goss.	Met. Obs. Vol. 1.
9	9.35	11.62	7.89	7.21	36.07	May, 1868;	Nov. 1871	3	6	S. Woodworth.	S. O.
10	10.77	16.68	10.64	5.44	43.53	Apr. 1862;	Dec. 1874	10	4	A. C., D. B., & L. M. Wheaton.	"
11	..	..	4.62	..	..	Aug. 1859;	Feb. 1868	0	7	L. P. Love, J. M. Corse.	Met. Obs. Vol 1; S. O.
12	..	..	..	..	..	Aug. 1874;	Aug. 1874	0	1	D. L. Grant.	S. O.
13	..	..	..	..	..	Jan. 1868;	Feb. 1868	0	2	J. M. Hagensick.	"
14	7.16	14.34	6.92	2.52	30.94	Jan. 1872;	June, 1874	2	2	Kridelbaugh & Peterson.	"
15	12.25	13.51	9.47	7.48	42.71	Aug. 1859;	June, 1871	11	4	Dr. A. T. Hudson, Dr. R. J. Farnsworth.	Met. Obs. Vol 1; S. O.
16	7.06	13.07	7.25	1.94	29.32	Mar. 1871;	Dec. 1874	3	10	Benjamin Talbot, D. R. Witter.	S. O.
17	7.21	11.15	6.94	2.68	27.98	Oct. 1871;	Dec. 1874	3	3	Gregory Marshall.	"
18	12.58	14.00	8.41	6.42	41.41	Jan. 1861;	June, 1876	13	8	Dr. J. Langer, D. S. Sheldon, W. P. Dunwoody, J. Chamberlain, S. P. Ruthven, R. R. Martin, G. B. Pratt, and others.	S. O.; Sig. Ser. Reps.
19	5.13	13.16	7.93	3.16	29.38	June, 1844;	Nov. 1874	3	8	J. A. Nash, J. W. Stewart.	Ar. Met. Reg., 1855; S. O.
20	..	..	..	..	..	Jan. 1874;	Jan. 1874	0	1	. . . . .	S. O.
21	8.12	11.73	8.74	5.07	33.66	Jan. 1851;	June, 1876	22	11	Dr. A. & E. W. Horr, R. J. Bell, Th. Jones, D. M. Kennedy.	Met. Obs. Vol. 1; S. Coll.; Sig. Ser. Reps.
22	5.95	11.55	..	4.31	..	Feb. 1871;	Mar. 1872	1	1	F. A. Ross.	S. O.
23	..	..	..	..	..	Feb. 1860;	Feb. 1860	0	1	J. M. McKenzie.	"
24	14.09	15.50	12.08	6.27	47.94	May, 1857;	Dec. 1859	2	8	S. McBeth, Dr. J. M. Shaffer.	Met. Obs. Vol. 1.
25	12.26	20.43	4.82	2.27	39.78	May, 1844;	May, 1846	2	1	Assistant Surgeon.	Ar. Met. Reg. 1855.
26	7.98	12.63	6.15	3.14	29.90	Aug. 1851;	Mar. 1869	3	11	C. N. Jergensen, Assist. Surgeon.	Ar. Met. Reg. 1855; S. O.
27	11.21	12.06	9.72	6.45	39.44	Mar. 1848;	Dec. 1874	25	0	D. McCready.	Met. Obs. Vol 1; S. Coll.; S. O.
28	..	..	..	..	..	Jan. 1861;	Feb. 1861	0	2	D. Beal.	S. O.

[e] Observations previous to 1865 were made at Fort Des Moines, about two miles east of Des Moines City.

[f] Also called Fort Clarke.

IOWA—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
29. Grant City	42° 15′	94° 53′	..	0.72	1.80	2.36	1.86	4.23	2.07	3.87	5.30	5.15	1.33	4.07	1.66
30. Guttenberg	42 46	91 09	690	1.22	1.11	1.46	2.20	4.15	4.10	2.70	4.03	4.32	1.93	2.50	1.96
31. Hesper	43 30	91 46	720	1.87	1.65	1.59	..	..	..	..	..	3.75	4.00	3.09	0.60
32. Hopkinton	42 22	91 20	860	2.40	0.65	1.70	2.80	6.68	..	..	..	..	..	2.45	0.83
33. Independence	42 29	91 57	850	1.29	1.20	2.00	2.06	4.52	4.63	4.00	4.06	3.55	1.88	1.55	1.56
34. Iowa City	41 37	91 30	621	1.94	1.77	2.59	3.58	4.50	4.40	4.42	5.59	4.94	3.31	2.91	1.83
35. Iowa Falls[a]	42 32	93 21	1071	1.65	2.94	2.37	3.51	4.84	8.40	5.54	4.49	4.99	2.42	2.11	1.92
36. Keokuk	40 25	91 21	600	2.82	2.22	1.69	3.23	4.26	5.07	8.67	2.75	5.30	2.44	1.23	3.56
37. Lizard	42 30	94 25	..	..	4.98	..	..	..	..	..	..	..	..	..	..
38. Logan[b]	41 39	95 47	900	0.81	1.73	2.11	2.27	3.59	4.58	5.13	3.64	4.49	2.01	1.53	1.27
39. Marble Rock[c]	42 58	92 52	1039	1.32	0.86	1.15	4.60	13.70	7.50	3.95	5.85	3.70	3.45	1.90	1.85
40. Maquoketa	42 04	90 41	..	..	..	..	..	..	..	..	..	..	..	4.73	..
41. Manchester	42 29	91 38	925	2.64	0.66	0.97	2.08	1.35	4.67	6.51	4.79	3.01	3.72	0.82	1.25
42. Monticello	42 15	91 15	880	1.29	1.65	2.55	2.58	3.47	4.69	4.48	4.22	2.99	1.79	1.87	1.51
43. Mineral Ridge[d]	42 11	93 55	1200	0.73	0.01	2.00	2.45	..	..	11.30	7.80	14.40	2.30	3.90	2.51
44. Mount Pleasant	42 57	91 37	747	0.75	0.44	2.14	4.24	3.20	1.94	6.79	4.35	0.30	5.00	4.70	3.62
45. Mount Vernon	41 58	91 28	865	2.00	1.90	2.13	1.35	4.21	6.45	7.90	6.10	5.85	0.65	2.03	..
46. Muscatine[e]	41 26	91 05	586	2.02	2.27	3.08	4.24	4.30	4.71	3.68	5.18	4.18	3.19	2.73	2.44
47. Newton, near	41 42	93 03	1400	0.98	..	..	..	..	..	..	4.75	6.10	1.15	0.76	1.01
48. Osage	43 17	92 49	1185	3.20	..	..	..	..	..	..	..	..	..	..	..
49. Pleasant Plain	41 07	91 55	950	1.19	1.79	2.38	3.43	4.01	4.06	5.31	3.92	3.23	4.08	2.09	1.57
50. Plum Springs	..	..	..	0.67	..	..	..	..	..	..	..	..	..	..	..
51. Poultney	42 40	91 21	800	1.06	0.96	2.01	3.17	5.09	4.52	5.59	3.04	2.98	2.48	2.43	1.04
52. Quasqueton	42 23	91 23	888	0.74	0.52	1.33	0.32	3.96	4.20	3.15	2.29	2.16	1.79	..	0.20
53. Red Oak Junction	41 04	95 08	1061	..	..	..	3.00	4.40	4.60	4.50	2.70	..	..	..	..
54. Rockford	43 03	92 56	1044	1.70	2.60	3.30	3.80	2.70	10.20	1.90	4.20	4.40	2.10	2.70	1.20
55. Rolfe	42 50	94 28	1000	1.04	1.61	1.72	1.40	4.91	5.40	4.78	4.26	10.41	1.02	1.90	1.36
56. Rossville	43 10	91 21	1400	1.53	0.91	2.47	4.03	4.15	7.40	5.20	2.45	2.67	1.56	3.56	1.31
57. Sac City	42 25	95 00	900	3.10	5.00	2.90	6.80	8.00	5.30	5.05	5.10	3.55	1.68	4.10	2.35
58. Sioux City	42 35	96 27	1258	0.67	0.43	0.98	2.97	3.16	3.09	3.94	3.51	3.54	1.45	1.55	0.37
59. Saint Mary's	41 00	95 45	1200	..	1.25	..	..	..	..	..	..	..	..	..	..
60. Vawter's Grove[f]	41 18	94 34	1500	0.88	1.82	1.97	3.50	4.11	5.42	5.77	6.66	5.49	2.61	2.05	1.29
61. Vernon Springs	43 20	92 12	..	..	1.22	1.18	..	3.89	1.14	..	..	2.20	2.94	0.71	1.51
62. Vinton	42 10	92 02	607	..	..	..	..	4.40	10.90	4.70	7.40	3.30	1.05	2.50	4.60
63. Waterloo	42 31	92 24	666	..	..	..	0.60	3.23	3.17	3.78	7.30	3.41	..	..	..
64. Webster City	42 28	93 49	1500	..	..	..	..	..	0.50	0.17	..	7.14	1.16	..	0.06
65. West Branch[g]	41 33	91 21	1420	0.54	0.80	6.06	5.10	5.55	7.90	5.86	5.32	2.81	2.03	3.51	5.90
66. West Union	42 58	91 52	1250	1.64	0.82	2.13	1.70	3.77	3.62	4.45	4.53	2.54	1.99	1.57	1.62
67. Woodbine	41 45	95 42	1070	0.25	0.56	1.30	0.14	0.46	0.22	4.31	2.20	4.80	1.13	0.03	1.20

KANSAS.

1. Alton	37 00	97 34	..	..	..	..	..	2.90	3.10	..	..	..	..	..	..
2. Arkansas City	37 04	97 03	..	..	..	..	..	..	..	..	0.35	6.86	0.92	0.60	2.30
3. Atchison	39 34	95 08	1000	1.68	2.62	2.28	4.31	5.62	4.96	4.57	4.52	3.86	4.14	2.74	2.37
4. Atlanta	38 20	98 12	1650	0.63	0.87	1.00	2.80	2.20	4.79	1.65	1.25	9.75	1.80	3.20	0.60
5. Baxter Springs	37 01	94 44	..	2.82	1.88	2.45	3.10	3.71	3.85	3.54	4.68	4.28	2.68	2.72	2.59
6. Belleville, near	39 44	97 36	1540	0.49	0.50	0.50	3.58	5.47	3.96	2.71	1.31	4.79	0.94	0.33	0.66
7. Buffalo Creek	37 48	95 40	1000	4.90	..	..	..	10.21	5.55	7.60	4.90	4.51	3.30	0.10	3.50
8. Burlingame, near	38 45	95 45	800	1.70	1.00	1.80	2.76	4.46	4.20	3.70	2.74	2.95	2.36	1.97	1.25

[a] Also called Spring Grove. [b] Also called Harris' Grove. [c] Also called the Woodlands.

IOWA—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
29	8.45	11.24	10.55	4.18	34.42	Mar. 1869;	Apr. 1873	3	3	E. Miller & Wife.	S. O.
30	7.81	10.83	8.75	4.29	31.68	Aug. 1864;	Dec. 1874	3	9	P. Dorweiler, J. P. Dickinson.	"
31	..	..	10.84	4.12	..	Sept. 1860;	Mar. 1861	0	7	H. B. Williams.	"
32	11.18	..	..	3.88	..	Nov. 1872;	May, 1873	0	7	T. H. McBride.	"
33	8.58	12.69	6.98	4.05	32.30	Jan. 1867;	Dec. 1874	7	6	Dr. George Warne.	"
34	10.67	14.41	11.16	5.54	41.78	June, 1857;	Dec. 1874	15	0	Dr. W. Reynolds, T. S. Parvin, Frank E. Nipher.	Met. Obs. Vol. 1; S. O.
35	10.72	18.43	9.52	6.51	45.18	Nov. 1863;	Apr. 1872	8	2	N. Townsend.	S. O.
36	9.18	16.49	8.97	8.60	43.24	Feb. 1867;	June, 1876	3	10	T. S. Collins, W. Black, Dr. M. K. Taylor.	Sig. Ser. Reps.; S. O.
37	..	..	..	..	..	Feb. 1869;	Feb. 1869	0	1	J. J. Bruce.	S. O.
38	7.97	13.35	8.03	3.81	33.16	May, 1866;	Dec. 1874	7	10	J. T. Stern.	"
39	19.45	17.30	9.05	4.03	49.83	Jan. 1868;	Dec. 1873	2	1	H. Wadey.	"
40	..	..	..	..	..	Nov. 1857;	Nov. 1857	0	1	E. F. Hobart.	Met. Obs. Vol. 1.
41	4.40	15.97	7.55	4.55	32.47	Sept. 1865;	Dec. 1866	1	4	A. Mead.	S. O.
42	8.60	13.39	6.65	4.45	33.09	July, 1864;	Feb. 1872	7	1	C. Mead, M. M. Moulton, R. Smith.	"
43	..	..	20.60	3.25	..	Apr. 1869;	Mar. 1870	0	10	Z. T. Sullivan.	"
44	9.58	13.08	10.00	4.81	37.47	Dec. 1863;	Dec. 1871	1	5	A. A. Mansfield, E. L. & H. Briggs.	"
45	7.69	20.45	8.53	..	..	Jan. 1861;	Oct. 1874	1	5	Prof. Alonzo Collin.	"
46	11.62	13.57	10.10	6.73	42.02	Jan. 1846;	Dec. 1874	21	4	J. P. Walton, J. Ufford, S. Foster, T. S. Parvin.	Met. Obs. Vol. 1; Am. Alm., 1849; S. O.
47	..	..	8.01	..	..	Aug. 1869;	Jan. 1870	0	6	A. Failor.	S. O.
48	..	..	..	..	..	Jan. 1867;	Jan. 1867	0	1	Alva Bush.	"
49	9.82	13.29	9.40	4.55	37.06	Jan. 1856;	Sept. 1865	9	0	T. McConnell.	Met. Obs. Vol. 1; S. O.
50	..	..	..	..	..	Jan. 1856;	Jan. 1856	0	1	. . . . .	S. Coll.
51	10.27	13.15	7.89	3.06	34.37	Apr. 1853;	Aug. 1858	3	7	B. F. Odell.	Met. Obs. Vol. 1; S. Coll.
52	5.61	9.64	..	1.46	..	Jan. 1854;	Oct. 1855	1	4	Dr. E. C. Bidwell.	Met. Obs. Vol. 1.
53	..	11.80	..	..	..	Apr. 1872;	Aug. 1872	0	5	E. A. Harris.	S. O.
54	9.80	16.30	9.20	5.50	40.80	Sept. 1873;	Dec. 1874	1	1	H. Wadey.	"
55	8.03	14.44	13.33	4.01	39.81	Feb. 1868;	Jan. 1870	2	0	O. I. Strong.	"
56	10.65	15.05	7.79	3.75	37.24	Nov. 1857;	Dec. 1859	2	0	C. D. Beaman.	Met. Obs. Vol. 1.
57	17.70	15.45	9.33	10.45	52.93	May, 1870;	July, 1872	1	9	D. B. Nelson.	S. O.
58	7.11	10.54	6.54	1.47	25.66	Sept. 1857;	Mar. 1863	3	2	Dr. J. J. Saville, A. J. Millard.	Met. Ob. Vol. 1; S. O.
59	..	..	..	..	..	Feb. 1854;	Feb. 1854	0	1	D. E. Read.	Met. Obs. Vol. 1.
60	9.58	17.85	10.15	3.99	41.57	May, 1855;	May, 1874	7	8	A. F. Bryant and Wife.	S. O.
61	..	..	5.85	..	..	Sept. 1862;	June, 1863	0	8	G. Marshall.	"
62	..	23.00	6.85	..	..	May, 1869;	Dec. 1869	0	8	J. Wood.	"
63	..	14.25	..	..	..	July, 1864;	Apr. 1874	1	0	T. Steed, W. W. Torry.	"
64	..	..	..	..	..	June, 1870;	Dec. 1870	0	5	C. J. Croft.	"
65	16.71	19.08	8.35	7.24	51.38	Aug. 1871;	Nov. 1872	1	4	A. M. Russell.	"
66	4.08	7.60	12.60	6.10	30.38	Nov. 1869;	Nov. 1874	4	6	F. McClintock.	"
67	1.90	6.73	5.96	2.01	16.60	Dec. 1869;	Sept. 1871	1	5	D. R. Hitter.	"

KANSAS.

1	..	..	..	..	..	May, 1873;	June, 1873	0	2	J. B. Rideout.	S. O.
2	..	..	8.38	..	..	Aug. 1874;	Dec. 1874	0	5	D. Thompson.	"
3	12.21	14.05	10.74	6.67	43.67	Feb. 1866;	Nov. 1874	8	0	Dr. H. B. Horn and Daughters.	"
4	6.00	7.69	14.75	2.10	30.54	July, 1873;	Dec. 1874	1	4	L. M. Kentner, J. M. Muscott.	"
5	9.26	12.07	9.68	7.29	38.30	Oct. 1867;	Dec. 1874	7	3	Messrs. Ingraham and Hyland.	"
6	9.55	7.98	6.06	1.65	25.24	Feb. 1872;	Nov. 1874	2	6	J. W. Raynolds, O. A. A. Gardner.	"
7	..	18.05	7.91	..	..	May, 1872;	Jan. 1873	0	9	R. F. Eagle.	"
8	9.02	10.64	7.28	3.95	30.89	Feb. 1858;	Dec. 1874	6	3	E. & L. Fish, R. M. Hoskinson.	Met. Obs. Vol 1; S. O.

[d] Also known as Ridgeport. [e] Formerly Bloomington. [f] Also called Fontanelle. [g] Near Cedar Bluff.

KANSAS—CONTINUED.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
9. Burlington, near[a]	38° 12′	95° 35′	825	1.95	1.51	1.53	3.11	2.69	6.38	2.90	4.75	4.00	1.70	2.37	1.14
10. Centreville	38 14	94 59	..	..	..	..	5.80	3.80	4.25	9.30	1.35	2.35	1.02	1.95	4.42
11. Chanute	37 42	95 30	932	..	..	2.50	5.30	1.70	4.20	1.80	..	..	..	..	..
12. Council Grove	38 40	96 30	1480	1.43	1.46	1.47	3.24	6.64	4.74	4.52	5.47	5.32	2.61	1.63	1.35
13. Council City	38 42	95 50	..	0.65	3.60	2.60	0.33	2.69	1.55	3.24	3.86	..	..	..	..
14. Crawfordsville, near	37 31	94 55	..	1.40	0.02	1.55	..	4.15	5.85	15.50	2.70	..	0.85	3.55	4.20
15. Dodge City	37 46	100 00	2467	0.06	0.08	1.81	0.44	1.71	1.63	3.28	2.06	1.32	0.14	0.12	0.07
16. Douglas	37 33	97 01	..	2.05	2.15	0.87	3.28	5.60	2.50	7.05	5.31	2.31	5.00	2.30	1.26
17. Downer's Station	38 48	99 51	..	..	0.15	1.00	0.61	0.72	..	..	..	..	0.01	0.10	0.01
18. Fort Atkinson	37 47	100 14	2330	0.04	0.49	0.96	3.38	9.34	4.35	..	2.80	3.85	6.81	1.39	1.60
19. Fort Dodge	37 30	100 00	..	0.87	0.53	0.26	0.81	0.62	1.61	0.32	2.75	1.38	2.20	0.28	0.53
20. Fort Harker[b]	38 44	98 15	1600	0.64	1.93	0.74	1.32	1.74	2.17	3.77	0.80	3.98	2.16	0.74	2.37
21. Fort Hays	38 59	99 20	2107	0.57	1.27	1.88	1.83	3.22	1.81	2.00	2.42	3.39	0.91	1.47	1.93
22. Fort Larned	38 10	98 57	1932	0.32	0.89	0.44	1.70	3.03	3.29	3.80	2.54	2.85	1.32	0.78	0.46
23. Fort Leavenworth	39 21	94 54	896	1.26	1.49	1.68	2.58	3.66	5.12	4.04	3.91	3.56	1.93	2.37	1.78
24. Fort Riley	39 03	96 35	1300	0.70	0.98	0.86	1.66	2.97	3.75	3.33	3.40	3.25	1.38	1.29	0.95
25. Fort Scott	37 45	94 45	1000	1.92	1.18	1.79	3.70	7.08	8.13	4.55	3.69	2.30	2.66	3.46	1.69
26. Fort Wallace	38 55	101 34	3203	0.09	0.68	0.20	0.50	3.31	0.15	1.29	0.69	2.27	1.11	0.34	0.32
27. Gardner	38 47	95 00	800	..	0.85	2.85	4.25	0.25	3.89	5.08	1.38	3.52	3.78	..	1.26
28. Girard, near	37 32	94 54	..	2.75	3.30	..	..	..	..	..	..	..	..	..	..
29. Holden, near	37 59	97 08	..	1.75	1.38	0.60	1.97	3.20	2.35	5.30	1.73	1.00	1.00	2.10	1.43
30. Holton	39 27	95 48	1172	1.32	1.32	2.15	3.72	6.24	3.29	4.18	4.65	3.17	3.42	2.08	1.65
31. Hutchinson	38 04	98 03	1500	..	..	..	..	..	..	2.63	..	..	..	..	..
32. Independence, near	37 15	95 45	..	1.85	1.05	1.27	3.75	4.78	4.33	3.84	3.42	3.90	1.16	1.32	2.28
33. Kinsley	37 56	99 24	2200	..	7.05	..	..	..	..	..	..	..	..	..	..
34. Lawrence[a]	38 58	95 12	850	1.53	0.91	2.07	2.94	3.82	4.29	4.75	3.55	3.26	2.28	1.84	1.86
35. Leavenworth City	39 15	94 52	896	1.74	1.28	2.69	3.49	5.34	5.67	6.76	4.38	3.70	3.05	2.21	1.84
36. Lecompton	39 03	95 09	825	1.50	..	..	3.77	8.22	8.10	5.00	..	..	..	..	..
37. Le Roy, near	38 03	95 37	1012	1.62	2.02	1.95	3.12	4.92	3.95	5.04	2.74	3.57	2.10	2.58	2.35
38. Manhattan	39 13	96 39	1000	0.83	1.05	1.54	2.43	3.72	4.44	4.87	3.57	3.33	1.89	1.25	0.97
39. Mapleton	38 04	94 51	..	3.02	..	..	..	3.09	4.57	4.25	1.10	1.70	..	..	..
40. Medicine Valley Lodge	37 18	98 35	..	0.85	0.35	0.05	..	..	..	..	..	..	..	..	..
41. Neosho Falls	38 03	95 31	1094	1.72	1.48	1.54	2.30	5.05	6.51	4.48	2.68	3.06	0.77	0.84	1.28
42. Oakwood	38 11	95 04	..	2.55	1.11	3.00	..	1.33	4.65	2.53	..	..	..	..	..
43. Olathe	38 53	94 51	947	1.23	2.18	3.55	4.51	6.71	6.22	9.26	6.97	4.68	3.65	2.68	2.25
44. Osborne City	39 29	98 38	1800	..	..	..	..	..	..	..	4.69	2.29	0.56	0.13	2.46
45. Paola, near	37 36	94 57	875	1.33	0.73	2.16	3.02	4.75	4.39	5.81	6.73	2.55	3.56	1.05	1.30
46. Perry	39 04	95 24	..	..	..	..	..	..	..	..	..	4.25	0.50	1.11	..
47. Pontiac[d]	37 49	96 50	..	2.40	1.70	..	..	..	..	5.70	2.91	4.57	0.75	0.99	1.95
48. Rural	39 00	95 30	900	0.25	..	3.07	5.30	7.70	..	..	..	..	..	..	..
49. Sycamore Springs	38 02	96 42	..	..	..	..	..	5.92	4.85	11.20	3.40	..	..	..	..
50. Tanganoxie	39 00	95 00	..	..	..	..	..	..	..	..	..	..	0.75	2.98	1.40
51. Topeka	39 03	95 39	904	2.80	0.60	1.98	3.50	4.66	3.65	5.41	3.25	4.35	3.15	..	1.35
52. Williamsburg	38 45	95 37	..	1.33	0.50	3.60	3.95	4.62	2.98	6.43	5.43	2.67	3.33	1.13	0.90
53. Williamstown	39 03	95 20	915	0.79	2.67	1.70	1.98	3.43	5.97	6.55	5.66	3.25	5.38	1.97	1.17
54. Wyandotte	39 08	94 40	707	2.32	1.99	..	..	..	..	..	..	..	..	..	..

[a] Also called Avon.

[b] Also called Fort Ellsworth.

KANSAS—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs. mos.	Observers.	References.
9	7.33	14.03	8.07	4.60	34.03	Apr. 1866;	May, 1871	1 11	A. Crocker.	S. O.
10	..	14.90	5.32	..	..	Apr. 1873;	Dec. 1873	0 9	Dr. J. G. M. Beard.	"
11	9.50	..	..	..	..	Mar. 1874;	July, 1874	0 5	A. Pareis.	"
12	11.35	14.73	9.56	4.24	39.88	Jan. 1866;	Dec. 1874	8 8	Dr. A. Woodworth.	"
13	5.62	8.65	..	..	..	Feb. 1857;	Jan. 1858	0 8	E. Fish.	Met. Obs. Vol. 1.
14	..	24.05	..	5.62	..	July, 1869;	June, 1870	0 10	P. Daniels.	S. O.
15	3.96	6.97	1.58	0.21	12.72	Oct. 1874;	June, 1876	1 9	M. L. Landers, J. J. Weinberg.	Sig. Serv. Reps.
16	9.75	14.86	9.61	5.46	39.68	Aug. 1870;	June, 1873	2 4	Dr. W. W. Lamb.	S. O.
17	2.33	..	..	..	..	Oct. 1867;	May, 1868	0 7	Assistant Surgeon.	MS. from S. G. O.
18	13.68	..	12.05	2.13	..	Aug. 1852;	Aug. 1853	1 0	"	Ar. Met. Reg. 1855.
19	1.69	4.68	3.86	1.93	12.16	Nov. 1867;	Feb. 1871	2 8	"	MS. from S. G. O.
20	3.80	6.74	6.88	4.94	22.36	Sept. 1866;	Apr. 1872	2 11	"	MS. from S. G. O.
21	6.93	6.23	5.77	3.77	22.70	Sept. 1867;	Dec. 1874	6 11	"	MS. from S. G. O.
22	5.17	9.63	4.95	1.67	21.42	Jan. 1861;	Dec. 1874	10 9	"	MS. from S. G. O.
23	7.92	13.07	7.86	4.53	33.38	May, 1836;	Dec. 1874	37 7	"	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
24	5.49	10.48	5.92	2.63	24.52	Nov. 1853;	Dec. 1874	20 10	"	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
25	12.57	16.37	8.42	4.79	42.15	Jan. 1843;	Mar. 1853	10 3	"	Ar. Met. Reg. 1855.
26	4.01	2.13	3.72	1.09	10.95	June, 1873;	Dec. 1874	1 7	"	MS. from S. G. O.
27	7.35	10.35	..	..	..	Apr. 1860;	Feb. 1862	1 2	G. F. Merriam, J. Scott.	S. O.
28	..	..	..	..	..	Jan. 1871;	Feb. 1871	0 2	Percy Daniels.	"
29	5.77	9.38	4.10	4.56	23.81	Jan. 1871;	Apr. 1874	1 10	A. G. Richardson.	"
30	12.11	12.12	8.67	4.29	37.19	May, 1867;	Dec. 1874	4 11	Dr. J. Watters.	"
31	..	..	..	..	..	July, 1872;	July, 1872	0 1	A. M. Hunt.	"
32	9.80	11.59	6.38	5.18	32.95	Jan. 1872;	Dec. 1874	3 0	Dr. Wm. E. Henry.	"
33	..	..	..	..	..	Feb. 1874;	Feb. 1874	0 1	Dr. G. W. Muss, Jr.	"
34	8.83	12.59	7.38	4.30	33.10	Jan. 1861;	Dec. 1874	9 2	W. J. R. Blackman, W. L. G. Soule, A. N. Fuller, Prof. F. H. Snow, Arthur N. Fisher.	"
35	11.52	16.81	8.96	4.86	42.15	Nov. 1857;	June, 1876	11 9	E. L. Berthoud, Dr. J. Stayman, H. D. McCarty, E. McGovern.	Met. Obs. Vol 1; S. O.; Sig. Serv. Rep.
36	..	..	..	..	..	Jan. 1861;	July, 1866	0 5	W. A. McCormick, D. G. Bacon.	S. O.
37	9.99	11.73	8.25	5.99	35.96	Jan. 1867;	Dec. 1874	5 7	J. G. Shoemaker.	"
38	7.69	12.88	6.47	2.85	29.89	Jan. 1858;	Apr. 1876	15 8	I. T. Goodnow, H. L. Denison, B. F. Mudge, Prof. W. K. Kedzie, H. F. McFarland.	Met. Obs. Vol. 1; S. O.; Sig. Serv. Reps.
39	..	9.92	..	..	..	Jan. 1858;	Sept. 1858	0 6	Dr. S. O. Himoe.	Met. Obs. Vol. 1.
40	..	..	..	..	..	Jan. 1874;	Mar. 1874	0 3	J. C. Kirkpatrick.	S. O.
41	8.89	13.67	4.67	4.48	31.71	Mar. 1859;	Apr. 1870	3 8	E. M. Groesbeck, B. F. Goss.	Met. Obs. Vol 1; S. O.
42	..	..	..	..	..	Jan. 1874;	July, 1874	0 6	Dr. J. G. M. Beard.	S. O.
43	14.77	22.45	11.01	5.66	53.89	Jan. 1864;	Oct. 1872	8 1	W. Beckwith.	"
44	..	..	2.98	..	..	Aug. 1873;	Dec. 1873	0 5	R. B. Foster.	"
45	9.93	16.93	7.16	3.36	37.38	May, 1869;	July, 1873	4 3	L. D. Walrad.	"
46	..	..	5.86	..	..	Sept. 1873;	Nov. 1873	0 3	A. M. Russell.	"
47	..	..	6.31	6.05	..	July, 1873;	Dec. 1874	1 1	R. P. Edgington.	"
48	16.07	..	..	..	..	Jan. 1872;	May, 1872	0 4	Wm. H. Cotton.	"
49	..	19.45	..	..	..	May, 1873;	Aug. 1873	0 4	A. T. Hubbard.	"
50	..	..	..	..	..	Oct. 1874;	Dec. 1874	0 3	S. Dawson.	"
51	10.14	12.31	..	4.75	..	Mar. 1858;	Mar. 1873	1 3	Wm. Neiswender, F. W. Giles.	Met. Obs. Vol. 1.
52	12.17	14.84	7.13	2.73	36.87	May, 1871;	Feb. 1873	1 10	D. Fogle.	S. O.
53	7.11	18.18	10.60	4.63	40.52	Aug. 1870;	Feb. 1872	1 7	J. M. Cotton & Wife.	"
54	..	..	..	..	.	Jan. 1860;	Feb. 1860	0 2	J. H. Miller.	"

[a] Kansas University.

[b] N.W. ¼ Sec. 1, township 26, range 6 E.

KENTUCKY.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Arcadia	37° 34′	84° 42′	900	4.44	3.99	3.70	3.87	4.27	3.63	5.66	..	4.28	2.43	2.60	2.95
2. Ballardsville	38 25	85 22	461	4.10	1.43	2.91	3.59	6.40	5.72	2.90	4.86	3.20	3.12	4.28	2.74
3. Bardstown[a]	37 51	85 32	..	2.90	4.44	2.59	4.91	4.60	3.45	4.58	5.15	2.44	2.29	3.26	9.36
4. Beech Fork	37 45	85 12	..	..	..	..	..	..	3.60	2.10	3.60	2.50	1.00	5.00	3.12
5. Blandville	36 56	89 08	..	3.53	6.35	4.92	5.57	4.89	3.57	3.50	2.17	2.23	3.88	3.00	3.24
6. Chilesburg[b]	38 04	84 18	900	4.33	4.22	3.96	4.40	4.28	4.20	4.18	3.86	3.57	2.27	3.46	4.36
7. Clinton	36 40	89 07	..	1.57	3.82	5.70	5.10	2.35	2.04	4.65	3.95	5.87	2.25	1.95	1.35
8. Crab Orchard Springs	37 26	84 30	..	3.22	4.30	3.67	1.41	4.43	3.65	..	..	..	3.93	1.95	2.57
9. Danville	37 40	84 48	900	3.67	3.45	3.79	3.90	4.61	3.75	4.47	3.73	3.56	1.89	2.84	3.99
10. Georgetown	30 25	84 30	800	..	..	0.50	..	..	..	..	..	..	..	..	..
11. Harrodsburg	37 46	84 55	850	..	..	2.12	..	2.02	0.46	0.56	..	..	..	..	..
12. Lexington[c]	38 07	84 32	950	3.59	4.59	5.44	4.15	3.48	4.32	6.24	3.23	2.03	2.10	3.41	4.44
13. Louisville	38 15	85 50	450	4.66	4.34	4.91	4.60	3.64	4.86	4.95	2.46	2.28	2.90	3.81	4.40
14. Millersburg	38 23	84 09	804	3.32	2.44	4.50	3.68	4.01	3.07	3.15	5.09	2.77	2.49	3.46	3.15
15. Newport Barracks	39 06	84 29	500	2.54	2.32	2.99	3.64	4.70	3.91	3.41	3.28	3.50	1.94	3.20	3.96
16. Nicholasville	37 56	84 38	940	5.74	4.42	4.68	5.46	3.04	2.75	4.11	4.14	2.03	2.31	4.61	2.06
17. Ohio River[d]	39 04	84 40	812	..	..	..	..	5.10	3.30	6.34	5.64	2.74	..	..	..
18. Paris	38 15	84 17	810	2.65	3.05	2.58	3.56	3.41	4.59	3.61	3.86	2.16	2.37	4.00	5.69
19. Prospect Hill	38 40	83 33	700	5.51	3.50	4.62	2.90	3.33	3.44	5.63	5.70	1.33	3.25	1.88	6.12
20. Springdale	38 07	85 44	570	3.55	3.75	4.57	4.44	4.64	4.99	4.20	3.88	3.11	2.98	3.69	4.74
21. Taylor Barracks	..	..	..	2.36	5.45	6.10	..	..	..	6.23	..	..	2.00	1.82	1.85
22. Taylorsville	38 02	85 25	600	..	..	..	1.33	1.21	4.07	..	..	..	..	..	..
23. Winchester	38 04	84 13	875	3.04	2.60	2.49	4.76	2.74	3.03	3.33	2.38	2.09	1.49	2.60	1.82

LOUISIANA.

1. Baton Rouge	30 26	91 11	41	5.01	4.25	4.54	4.88	4.70	5.19	6.92	6.49	3.73	2.67	6.11	6.04
2. Black River[e]	31 30	91 46	108	7.54	4.88	3.84	4.60	2.98	4.38	2.98	3.31	1.49	4.18	4.25	9.55
3. Collins	30 30	90 20	20	8.90	3.25	5.92	3.18	6.50	12.80	10.35	4.40	6.10	12.50	7.87	6.50
4. Delphi	32 33	91 00	..	3.90	5.25	4.38	8.95	11.83	3.62	2.68	0.52	2.32	2.08	4.47	6.03
5. Fort Jesup	31 35	93 25	80	4.70	2.76	4.72	4.86	3.80	4.61	3.36	2.97	3.02	3.80	2.97	4.03
6. Fort Pike	30 10	89 38	10	4.79	2.62	5.76	4.40	4.84	8.52	7.92	3.44	8.43	3.72	6.81	4.62
7. Fort Wood	30 09	89 47	20	5.57	1.88	6.48	5.37	4.28	7.03	5.63	4.64	4.13	5.65	8.72	4.15
8. Monroe	32 31	92 07	100	..	..	..	..	..	..	..	..	..	..	..	..
9. Moss Grove[f]	31 37	91 47	68	..	..	..	..	..	3.33	1.43	4.76	..	7.43	..	..
10. New Orleans	29 56	90 03	25	4.96	3.80	4.57	4.37	4.31	5.26	6.73	5.85	3.91	3.02	4.43	3.96
11. Plaquemine	30 16	91 15	30	7.00	4.00	4.40	5.80	5.50	8.70	10.60	7.00	3.30	2.08	4.00	4.70
12. Point Pleasant	32 00	91 30	..	..	2.10	3.38	6.84	5.05	4.35	7.06	1.52	3.42	0.86	2.26	7.25
13. Rapides	31 08	92 20	76	6.50	3.15	4.20	4.65	6.40	6.85	8.45	5.30	1.25	3.60	6.80	10.25
14. Rosedale[g]	30 00	91 48	15	4.70	2.88	6.33	3.52	7.57	9.30	6.07	4.96	3.09	2.65	..	1.80
15. Shreveport	32 30	93 45	237	4.69	4.96	6.16	6.72	4.62	3.11	3.67	2.65	5.55	3.01	4.57	7.11
16. St. Francisville	30 49	91 22	80	4.08	3.52	3.96	7.29	5.30	3.76	6.37	2.95	3.15	3.67	5.15	6.07
17. St. Francisville	30 49	91 22	80	6.00	..	..	..	..	..	..	..	..	..	..	4.00
18. Vidalia[c]	31 35	91 30	200	..	..	..	2.00	15.00	..	..	..	..	..	..	..
19. West Feliciana	30 40	91 20	96	5.60	4.85	5.60	8.00	5.45	3.70	6.10	5.04	3.80	2.80	4.00	6.40

[a] St. Joseph's College. [b] Also called Pine Grove. [c] Sayre Institute. [d] Campbell county, 8 miles above Cincinnati.

KENTUCKY.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
1	11.84	..	9.31	11.38	..	Nov. 1869;	June, 1872	2	5	Howard Shriver.	S. O.
2	12.90	13.48	10.60	8.27	45.25	July, 1856;	Jan. 1862	1	7	Dr. J. Swain.	Met. Obs. Vol. 1.; S. O.
3	12.10	13.18	7.99	16.70	49.97	Jan. 1858;	Oct. 1861	2	8	J. H. Luenemann, B. Schlickers, T. H. Miles.	" "
4	..	9.30	8.50	..	..	June, 1860;	Dec. 1860	0	7	Dr. C. D. Case.	S. O.
5	15.38	9.24	9.11	13.12	46.85	Nov. 1871;	Nov. 1874	3	0	Edw. W. Horr.	"
6	12.64	12.24	9.30	12.91	47.09	Jan. 1858;	Dec. 1874	16	8	Dr. S. D. Martin.	S. O.; S. Coll.
7	13.15	10.64	10.07	6.74	40.60	May, 1868;	July, 1869	1	3	T. H. Cleland.	S. O.
8	9.51	..	..	10.09	..	Nov. 1872;	Nov. 1873	0	10	Jno. T. Tarrant.	"
9	12.30	11.95	8.29	11.11	43.65	Jan. 1854;	Dec. 1874	14	7	Prof. O. Beatty, J. C. Faber.	Met. Obs. Vol. 1; S. O.
10	..	..	..	..	..	Mar. 1873;	Mar. 1873	0	1	J. E. Letton.	S. O.
11	..	..	..	..	..	Mar. 1872;	July, 1872	0	4	J. E. Letton.	"
12	13.07	13.79	7.54	12.62	47.02	Aug. 1859;	June, 1876	5	5	N. & S. R. Williams, W. S. Jewell, E. Lloyd.	Sig. Ser. Reps.; Met. Obs. Vol. 1; S. O.
13	13.15	12.27	8.99	13.40	47.81	Apr. 1858;	June, 1876	7	1	J. W. Craig, J. H. March, E. E. Clements, S. R. Williams, S. Manley.	Sig. Ser. Reps.; Met. Obs. Vol. 1; S. O.
14	12.19	11.31	8.72	8.91	41.13	Jan. 1854;	Apr. 1862	4	0	G. S. Savage.	Met. Obs., Vol. 1.; S. O.
15	11.33	10.60	8.64	8.82	39.39	Jan. 1855;	Dec. 1874	14	9	Assistant Surgeon.	Ar. Met. Reg. 1860; M. S. from S. G. O.
16	13.18	11.00	8.95	12.22	45.35	Jan. 1861;	June, 1863	2	4	J. McD. Mathews.	S. O.
17	..	15.28	..	..	..	May, 1861;	Sept. 1861	0	5	M. G. Williams.	"
18	9.55	12.06	8.53	11.39	41.53	Jan. 1855;	Dec. 1859	4	6	Dr. L. G. Ray.	Met. Obs. Vol. 1.
19	10.85	14.77	6.46	15.13	47.21	Mar. 1849;	Dec. 1850	1	10	Prof. O. Beatty.	S. Coll.
20	13.65	13.07	9.78	12.04	48.54	July, 1841;	Dec. 1872	30	1	L. Young & Wife.	Met. Obs. Vol. 1; S. O.; S. Coll.; Am. Alm.
21	..	..	..	9.66	..	Oct. 1870;	Mar. 1871	0	6	Assistant Surgeon.	MS. from S. G. O.
22	..	..	..	..	..	Apr. 1866;	July, 1866	0	4	H. C. Mathis.	S. O.
23	9.99	8.74	6.18	7.46	32.37	Dec. 1872;	Nov. 1874	1	8	J. M. Ogden.	"

LOUISIANA.

1	14.12	18.60	12.51	15.30	60.53	Jan. 1843;	Dec. 1874	16	8	R. H. Day, Asst. Surg.	Ar. Met. Reg. 1860; S. O.
2	11.42	10.67	9.92	21.97	53.98	Dec. 1856;	May, 1859	2	3	Dr. A. R. Kilpatrick.	Met. Obs. Vol. 1.
3	15.60	27.55	26.47	18.65	88.27	Nov. 1870;	Apr. 1873	1	9	H. C. Collins.	S. O.
4	25.16	6.82	8.87	15.18	56.03	Apr. 1871;	Oct. 1874	2	4	T. H. Cleland.	"
5	13.38	10.94	9.79	11.49	45.60	Jan. 1836;	Dec. 1845	9	11	Assistant Surgeon.	Ar. Met. Reg. 1855.
6	15.00	19.88	18.96	12.03	65.87	Apr. 1843;	Aug. 1849	3	5	"	"
7	11.60	16.13	17.30	18.50	63.53	Apr. 1843;	Apr. 1846	2	11	"	"
8	..	..	..	..	54.00	1808–1818		10	0	.....	Rep. by Dr. Barton, State Med. Soc. 1851.
9	..	9.52	..	..	..	June, 1860;	Oct. 1860	0	4	Dr. E. Merrill.	S. O.
10	13.25	17.84	11.36	12.72	55.17	Aug. 1833;	June, 1876	30	0	Assistant Surgeon, Dr. E. H. Barton, D. T. Lillie, I. Stathem, R. W. Foster, T. Harrison, N. Gorom.	Ar. Met. Regs. 1855 and 1860; Am. Alms.; S. Coll.; Trans. Am. Med. Soc. Phila. 1856; Met. Obs. Vol. 1; S. O.; Sig. Ser. Reps.; Sill. Jour. 1837.
11	15.70	26.30	9.38	15.70	67.08	Jan. 1845;	Dec. 1850	6	0	.....	Rep. by Dr. E. H. Barton, State Med. Soc. 1851.
12	15.27	12.93	6.54	..	..	Feb. 1872;	Dec. 1874	1	7	E. Turner.	S. O.
13	15.25	20.60	11.65	19.90	67.40	Jan. 1848;	Dec. 1850	3	0	.....	Rept. by Dr. E. H. Barton, State Med. Soc. 1851.
14	19.42	20.33	..	9.38	..	Apr. 1872;	May, 1874	1	10	G. N. Leoni.	S. O.
15	17.50	9.43	13.13	16.76	56.82	Jan. 1869;	June, 1876	4	8	F. P. Leavenworth, J. O. Dowd, Dr. J. L. Moore, J. J. Weinberg, P. J. Huneke.	Sig. Ser. Reps.; S. O.
16	16.55	13.08	11.97	13.67	55.27	.....		5	0	.....	San. Rep. by Dr. Barton.
17	..	..	..	..	..	Dec. 1856;	Jan. 1857	0	2	B. R. Gifford.	Met. Obs. Vol. 1.
18	..	..	..	..	..	Apr. 1867;	May, 1867	0	2	Albert Teele.	S. O.
19	19.05	14.84	10.60	16.85	61.34	1820–1833		13	0	.....	Rep. by Dr. E. H. Barton, State Med. Soc. 1851.

[a] Plantation. [b] Plantation near Trinity. [c] Plantation near New Iberia.

MAINE.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Augusta	44° 19′	69° 47′	..	..	..	..	..	..	..	1.85	..	..	..	..	..
2. Bangor	44 49	68 46	40	4.62	2.86	..	2.93	2.30	..	7.77	4.31	..	..	..	..
3. Bath	43 55	69 49	50	4.31	3.37	2.88	2.89	3.59	2.55	2.31	3.07	1.77	3.35	3.27	3.72
4. Belfast	44 26	69 00	..	2.70	1.88	2.67	3.53	3.20	3.45	..	0.90	3.76	3.73	4.55	4.27
5. Bethel	44 20	70 51	650	3.51	3.47	3.77	4.93	3.91	2.62	6.12	1.56	3.19	5.08	..	2.01
6. Biddeford	43 30	70 27	45	3.40	3.88	3.23	4.39	5.74	3.48	3.09	4.57	3.36	5.24	4.18	5.19
7. Blue Hill	44 25	68 34	50	..	..	..	..	..	..	5.50	..	..	..	..	..
8. Brunswick	43 54	69 57	74	3.24	2.75	3.72	3.43	4.55	3.69	3.65	4.37	3.03	3.74	4.65	3.85
9. Bucksport	44 40	68 48	90	2.08	3.01	2.26	3.03	4.63	2.63	2.69	3.89	3.72	5.74	5.12	4.46
10. Carmel	44 47	69 00	175	2.20	..	..	..	..	..	..	..	..	..	..	..
11. Cave Spring	..	..	..	3.02	2.62	2.90	..	..	..	..	..	..	..	..	..
12. China	44 26	69 38	600	..	..	3.70	2.91	..	..	3.25	..	..	..	..	..
13. Cornish	43 44	70 51	780	3.69	3.45	4.06	3.74	3.67	3.26	4.10	4.66	3.04	4.82	4.81	3.37
14. Cushing	44 00	69 15	200	..	..	4.97	..	..	..	..	..	..	..	..	..
15. Dexter	45 02	69 18	650	3.24	2.94	4.69	2.91	2.88	3.31	3.75	1.60	2.78	3.32	4.31	2.99
16. Eastport	44 54	66 59	40	2.37	3.18	3.66	3.12	3.74	4.32	3.95	4.69	3.53	5.80	3.93	1.89
17. East Wilton	44 36	70 14	..	4.16	2.75	4.96	2.05	2.70	3.60	3.98	4.05	4.15	6.77	5.15	3.23
18. Embden	44 57	69 58	..	..	..	..	..	..	..	..	..	..	..	..	2.21
19. Exeter[a]	45 00	69 10	190	3.22	3.02	4.78	2.35	3.54	2.15	3.03	2.31	2.40	..	..	..
20. Fort Kent	47 15	68 35	575	3.75	2.60	1.77	1.06	2.63	1.36	7.72	2.57	1.36	4.41	3.86	3.36
21. Fort Preble	43 39	70 14	53	3.03	3.27	3.22	3.80	4.75	2.94	2.96	4.14	3.05	4.08	4.33	3.36
22. Fort Sullivan	44 54	66 59	78	3.14	2.87	3.14	2.60	3.25	2.54	4.03	3.63	3.41	4.07	3.75	3.90
23. Foxcraft[b]	45 12	69 13	..	..	..	..	..	..	4.05	6.24	3.23	4.52	6.43	..	..
24. Fryeburg	44 00	71 04	..	2.45	3.18	2.12	3.52	3.86	3.29	2.17	5.59	3.69	4.84	5.99	4.41
25. Gardiner	44 14	69 48	76	3.48	2.99	3.61	3.42	3.94	3.28	3.22	3.83	3.01	4.21	3.85	3.62
26. Hampden	44 43	68 50	180	4.00	2.55	4.53	2.39	4.43	3.09	4.72	..	..	..	..	..
27. Hancock Barracks	46 07	67 49	620	2.86	1.91	1.84	2.82	2.95	3.81	4.83	3.27	2.74	3.92	3.29	2.71
28. Houlton	46 07	67 49	470	4.77	4.64	5.54	3.13	3.10	1.70	3.15	4.25	3.15	8.75	3.39	5.10
29. Kennebec Arsenal	44 19	69 46	..	3.55	2.25	1.23	5.33	2.82	2.79	2.91	5.10	1.09	3.14	0.30	4.30
30. Lee	45 25	68 18	..	2.25	4.06	6.27	3.73	6.43	1.33	2.68	2.77	2.40	3.92	4.18	3.43
31. Lincolnville	44 18	69 00	75	..	..	..	..	..	1.62	1.20	7.50	4.90	..	..	..
32. Linneus	46 04	67 58	..	0.25	..	..	..	..	..	..	2.56	..	..	..	..
33. Lisbon[c]	44 04	70 07	130	2.49	3.18	4.22	3.72	4.90	3.56	3.39	3.92	3.71	5.27	5.58	3.16
34. Millbridge	44 35	67 53	50	..	..	..	..	6.10	6.15	..	..	..	..	..	..
35. Monson	45 18	69 32	..	3.16	2.44	..	..	..	2.75	4.38	5.12	3.44	5.87	3.04	3.25
36. Montville	44 24	69 21	675	2.03	1.30	8.85	2.28	2.07	2.77	..	5.66	..	..	4.27	4.39
37. Mount Desert	44 21	68 22	75	4.89	3.55	4.16	3.70	4.19	3.84	4.14	4.87	3.98	5.08	7.01	4.97
38. New Sharon	44 39	70 03	..	..	..	1.90	..	..	..	..	..	..	..	..	..
39. North Bridgeton	44 02	70 48	300	3.35	1.45	2.30	..	..	..	..	..	..	..	..	..
40. North Haven	44 08	68 52	22	2.60	2.25	2.42	2.69	2.32	2.83	2.75	2.65	2.63	3.89	3.47	1.85
41. Old Town[d]	44 58	68 42	137	3.81	3.40	3.91	3.15	3.24	3.07	2.35	4.08	3.20	5.35	5.07	2.92
42. Orland	44 35	68 45	180	1.65	2.35	2.65	0.83	..	..	..	..	1.75	6.61	1.96	2.35
43. Oxford[e]	44 08	70 33	182	3.17	3.15	3.20	3.44	3.36	2.87	3.31	3.67	2.78	7.24	3.90	2.55
44. Palermo[f]	44 24	69 31	650	3.12	2.44	2.61	..	3.00	3.46	4.38	8.90	6.50	3.83	5.54	1.87
45. Perry	45 00	67 05	100	3.86	3.41	4.34	3.82	5.03	3.89	3.68	3.42	3.20	5.73	6.32	3.65
46. Portland	43 39	70 15	187	4.03	2.38	4.04	3.66	3.48	3.17	4.36	4.15	3.35	4.10	3.21	3.60
47. Prospect	44 28	68 46	207	..	..	2.19	..	..	..	..	..	..	..	..	..
48. Rumford Point	44 30	70 37	600	..	2.50	3.10	2.38	7.45	3.05	6.90	5.10	0.85	2.65	4.38	3.75

[a] Combined with observations at East Exeter.
[b] Academy.
[c] Combined with observations at Webster.
[d] Combined with observations at Orono.

MAINE.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent. yrs. mos.	Observers.	References.
1	..	..	..	..	..	July, 1874;	July, 1874	0 1	G. B. Slattery.	S. O.
2	..	..	..	..	..	July, 1844;	July, 1845	0 7	A. Young, Jr.	S. Coll.
3	9.36	7.93	8.39	11.40	37.08	Jan. 1832;	Dec. 1840	9 0	John Hayden.	Am. Alm. 1842.
4	9.40	..	12.04	8.85	..	Sept. 1859;	May, 1863	1 10	G. E. Brackett.	Met. Obs. Vol. 1; S. O.
5	12.61	10.30	..	8.99	..	Jan. 1861;	Feb. 1862	1 1	A. G. Gaines.	S. O.
6	13.36	11.14	12.78	12.47	49.75	July, 1848;	Feb. 1854	4 1	J. G. Garland.	Am. Alm. 1850; Met. Obs. Vol. 1.
7	..	..	..	..	..	July, 1864;	July, 1864	0 1	. . . . .	S. O.
8	11.70	11.71	11.42	9.84	44.67	Apr. 1808;	Dec. 1859	32 1	P. Cleveland.	Sm. Con. to Knowl. 1867.
9	9.92	9.21	14.58	9.55	43.26	Jan. 1849;	Nov. 1873	6 2	W. Haskell, J. Barry, R. Buck, James A. Colsom.	S. Coll; S. O.
10	..	..	..	..	..	Jan. 1854;	Jan. 1854	0 1	J. J. Bell.	Met. Obs. Vol. 1.
11	..	..	..	..	..	Jan. 1874;	Mar. 1874	0 3	T. W. Cothane.	S. O.
12	..	..	..	..	..	Apr. 1873;	July, 1874	0 4	G. J. Nelson, J. R. Clifford.	"
13	11.47	12.02	12.67	10.51	46.67	Apr. 1856;	Dec. 1874	18 7	G. W. Guptill, S. West.	Met. Obs. Vol. 1; S. O.
14	..	..	..	..	..	Mar. 1873;	Mar. 1873	0 1	J. R. Clifford.	S. O.
15	10.48	8.66	10.41	9.17	38.72	June, 1858;	June, 1863	4 6	B. F. Wilbur.	Met. Obs. Vol. 1; S. O.
16	10.52	12.96	13.26	7.44	44.18	Jan. 1833;	June, 1876	5 3	T. C. & Th. A. Taylor.	Am. Alm. 1836: Sig. Ser. Reps.
17	9.71	11.63	16.07	10.14	47.55	Nov. 1871;	Nov. 1873	2 1	Dr. H. Reynolds.	S. O.
18	..	..	..	..	..	Dec. 1874;	Dec. 1874	0 1	W. A. Pane.	"
19	10.67	7.49	..	..	..	Jan. 1858;	Sept. 1861	1 0	S. Gilman, Dr. J. B. Wilson.	Met. Obs. Vol. 1; S. O.
20	5.46	11.65	9.63	9.71	36.45	Sept. 1844;	Aug. 1845	1 0	Assistant Surgeon.	Ar. Met. Reg. 1855.
21	11.77	10.04	11.46	9.66	42.93	Nov. 1840;	Dec. 1874	18 1	"	MS. from S. G. O.; Ar. Met. Reg. 1855.
22	8.99	10.20	11.23	9.91	40.33	Jan. 1841;	Sept. 1873	12 0	"	MS. from S. G. O.; Ar. Met. Reg. 1855.
23	..	13.52	..	..	..	June, 1863;	Oct. 1863	0 5	M. Pitman.	S. O.
24	9.50	11.05	14.52	10.04	45.11	Feb. 1849;	May, 1856	5 0	G. B. Barrows.	C. So.; S. Coll.; Met. Obs. Vol. 1.
25	10.97	10.33	11.07	10.09	42.46	Jan. 1837;	Dec. 1874	34 11	F. & R. H. Gardiner.	S. Coll.; Met. Obs. Vol. 1; S. O.
26	11.35	..	..	..	..	Jan. 1844;	July, 1844	0 7	J. Herrick.	S. Coll.
27	7.61	11.91	9.95	7.48	36.95	June, 1836;	Aug. 1845	9 3	Assistant Surgeon.	Ar. Met. Reg. 1855.
28	11.77	9.10	15.29	14.51	50.67	Jan. 1869;	Aug. 1871	2 6	C. H. Fernald.	S. O.
29	9.38	10.80	4.53	10.10	34.81	May, 1857;	Aug. 1858	1 4	Assistant Surgeon.	Ar. Met. Reg. 1860.
30	16.43	6.78	10.50	9.74	43.45	June, 1864;	Sept. 1867	2 11	B. H. Towle, E. Pitman.	S. O.
31	..	10.32	..	..	..	June, 1873;	Sept. 1873	0 4	Joseph Crehore.	"
32	..	..	..	..	..	Aug. 1863;	Jan. 1864	0 2	. . . . .	S. O.
33	12.84	10.87	14.56	8.83	47.10	Apr. 1859;	Mar. 1872	12 11	A. Robinson & A. P. Moore.	Met. Obs. Vol. 1; S. O.
34	..	..	..	..	..	May, 1872;	June, 1872	0 2	M. S. Pinkham.	S. O.
35	..	12.25	12.35	8.85	..	Sept. 1856;	Nov. 1857	0 10	B. F. Wilbur.	Met. Obs. Vol. 1..
36	13.20	..	..	7.72	..	Nov. 1871;	Dec. 1872	0 10	A. J. Clifford.	S. O.
37	12.05	12.85	16.07	13.41	54.38	Sept. 1870;	Dec. 1874	4 3	J. D. Parker.	"
38	..	..	..	..	..	Mar. 1860;	Mar. 1860	0 1	Dr. J. F. Pratt.	"
39	..	..	..	..	..	Jan. 1861;	Mar. 1861	0 3	M. Gould.	"
40	7.43	8.23	9.99	6.70	32.35	May, 1870;	Jan. 1876	5 9	J. G. Spaulding.	U. S. Coast Survey.
41	10.30	9.50	13.62	10.13	43.55	Jan. 1870;	Dec. 1874	5 0	H. M. Burnham, A. J. Clifford, M. C. Fernald.	S. O.
42	..	..	10.32	6.35	..	Nov. 1872;	Nov. 1874	0 10	F. H. Chase, F. Buck.	"
43	10.00	9.85	13.92	8.87	42.64	Feb. 1860;	Dec. 1874	6 5	H. D. Smith & G. W. Verrill.	"
44	..	16.74	15.87	7.43	..	Nov. 1871;	Aug. 1874	1 5	B. C. Wentworth, J. R. Clifford.	"
45	13.19	10.99	15.25	10.92	50.35	Feb. 1854;	July, 1865	9 5	W. D. Dana.	Met. Obs. Vol 1; S. O.
46	11.18	11.68	10.66	10.01	43.53	Feb. 1856;	June, 1876	7 5	H. Willis, Wm. H. Ohler, A. B. Williams, A. R. Thornett, W. T. Boyd.	Sig. Ser. Reps.; Met. Obs. Vol. 1; S. O.
47	..	..	..	..	..	Mar. 1867;	Mar. 1867	0 1	V. G. Eaton.	S. O.
48	12.93	15.05	7.88	..	..	Oct. 1866;	Apr. 1869	1 2	W. Pettingill.	"

* Combined with observations at Norway.

† Combined with observations at North Palermo.

MAINE—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
49. Saco	43° 31′	70° 26′	69	3.91	3.09	3.83	1.33	4.55	2.39	4.01	4.42	2.32	4.03	5.57	4.61
50. Sebec	45 18	69 10	..	1.95	1.92	3.05	..	..	..	..	..	..	..	..	..
51. Standish	43 45	70 37	280	3.25	3.05	3.77	2.97	4.86	3.57	3.63	3.96	3.13	3.97	4.54	2.60
52. Steuben	44 31	67 58	50	4.35	4.62	4.76	4.56	5.50	3.56	3.76	3.51	3.79	4.56	4.96	5.33
53. Steuben	44 31	67 58	50	4.69	4.55	4.75	4.85	5.41	3.42	3.85	3.66	3.94	4.75	5.06	5.53
54. Surry	44 30	68 30	50	4.98	3.20	1.80	3.30	2.89	4.53	2.60	3.46	3.38	4.59	5.13	3.64
55. Topsham	43 54	69 57	100	3.10	1.85	5.35	6.80	..	..	..	..	..	..	..	1.85
56. Vassalboro[a]	44 27	69 42	..	4.71	2.07	2.77	..	..	..	..	..	..	..	..	2.67
57. West Waterville	44 33	69 46	250	3.52	3.40	4.10	3.09	3.82	2.14	2.78	3.12	3.11	4.79	3.96	3.20
58. Williamsburg	45 21	69 06	..	3.24	4.09	3.62	3.98	4.27	3.52	4.46	4.27	7.35	7.84	4.20	3.45

MARYLAND.

1. Agricultural College	38 59	76 57	..	4.50	8.11	2.42	4.62	4.00	5.47	5.11	5.97	3.53	2.70	6.60	1.83
2. Annapolis	38 58	76 30	20	3.40	3.51	4.53	4.23	5.13	4.50	4.94	4.52	4.21	3.73	3.40	3.60
3. Baltimore	39 17	76 37	80	2.76	3.24	3.91	3.20	4.05	3.38	4.34	4.62	3.40	3.29	3.44	3.24
4. Bladensburg	38 57	76 56	75	2.98	2.32	3.86	3.96	3.89	3.50	4.30	3.21	3.07	2.54	2.64	3.00
5. Catonsville[b]	39 17	76 42	500	1.25	..	..	..	..	..	..	..	..	..	..	..
6. Chestertown[c]	39 13	76 04	85	2.99	1.90	3.20	4.69	4.42	3.82	2.99	7.01	3.37	2.86	3.16	2.49
7. Cumberland	39 39	78 45	600	1.82	2.55	1.73	3.27	2.83	2.90	3.87	3.07	1.95	3.35	1.66	1.33
8. Elkton	39 38	75 50	35	..	..	..	..	..	..	3.23	..	..	..	..	3.49
9. Ellicott City[d]	39 16	76 43	300	0.65	3.35	3.30	2.55	1.68	..	..	..	6.46	8.41	1.72	..
10. Emmittsburg[e]	39 43	77 20	498	2.54	2.71	3.83	3.69	5.23	4.41	3.72	4.10	4.01	3.81	3.25	3.14
11. Fallston	39 30	76 24	300	3.05	3.11	3.76	3.87	3.77	2.13	3.84	6.70	4.55	4.30	3.36	2.06
12. Fort Foote	38 46	77 01	..	1.87	2.10	2.71	3.40	3.00	2.36	3.12	4.57	3.59	2.70	2.39	1.63
13. Fort McHenry	39 16	76 35	36	2.49	2.62	3.43	3.17	3.36	3.14	3.05	3.94	3.25	3.22	3.17	3.58
14. Fort Severn	38 59	76 29	20	3.96	3.02	3.13	1.97	4.55	4.03	4.14	3.83	8.42	3.46	4.29	3.81
15. Fort Washington	38 42	77 04	60	3.14	3.40	3.63	3.52	4.47	3.45	3.79	4.59	2.98	3.06	3.99	3.56
16. Frederick	39 24	77 24	274	3.18	2.65	2.42	3.84	3.85	5.14	3.32	2.70	3.75	2.14	2.66	3.21
17. Green Spring Furnace	39 37	77 55	500	1.90	2.33	1.98	2.57	3.83	3.35	3.72	6.38	3.32	3.93	2.93	1.90
18. Leitersburg, near	39 42	77 30	..	3.81	2.36	2.68	4.55	3.57	3.94	2.43	3.05	4.47	2.54	2.82	3.04
19. Linwood	39 30	77 10	..	..	..	..	..	2.14	1.74	..	..	..	..	..	..
20. Mount Airy	39 22	77 05	..	5.43	4.42	5.57	5.09	2.88	1.71	4.47	7.63	4.98	4.70	2.83	5.15
21. New Market	39 22	77 12	500	2.18	2.33	2.02	7.38	3.15	1.11	5.51	7.00	5.10	2.80	3.92	1.54
22. Reisterstown	39 30	76 45	1100	2.86	3.49	2.13	5.15	3.04	0.82	3.53	5.87	4.85	2.84	3.09	1.78
23. Sam's Creek	39 28	77 03	1100	1.10	1.80	2.50	2.50	5.07	3.32	4.15	6.00	2.50	3.89	3.14	1.50
24. Schellman Hills	39 25	77 00	700	3.53	3.03	3.94	4.42	5.93	3.98	4.54	3.78	4.22	3.88	3.63	3.65
25. St. Inigoes	38 10	76 20	10	2.85	7.06	6.10	6.03	5.52	1.28	5.07	8.85	6.46	5.92	3.91	5.23
26. St. Mary's	38 10	76 28	45	3.55	3.41	4.26	4.06	4.03	3.17	3.61	5.35	3.01	2.78	3.39	2.91
27. Union Bridge	39 34	76 10	400	..	..	..	..	10.06	..	..	..	..	..	..	..
28. Woodlawn	39 39	76 04	..	3.12	3.70	4.07	3.81	4.62	3.85	4.46	5.13	4.12	4.11	3.78	2.98
29. Woodstock[g]	39 19	76 51	400	2.30	2.72	3.26	3.45	3.24	1.78	3.89	5.78	4.32	3.78	3.35	1.67

[a] Oak Grove Seminary. [b] St. Timothy's Hall. [c] Washington College. [d] St. Clements Hall.

MAINE—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
49	11.61	9.71	10.82	11.92	44.06	Sept. 1843;	June, 1848	4	10	J. Garland, J. M. Batchelder.	Am. Alms.
50	..	..	..	..	..	Jan. 1872;	Mar. 1872	0	3	Edwin Pitman.	S. O.
51	11.60	11.16	11.64	8.90	43.30	May, 1865;	Dec. 1874	7	10	J. P. Moulton.	"
52	14.82	10.83	13.31	14.30	53.26	May, 1850;	Nov. 1866	12	2	J. D. Parker.	S. C.; Met. Obs. Vol. 1; S. O.
53	15.01	10.93	13.75	14.77	54.46	Mar. 1854;	May, 1870	13	5	J. D. Parker.	Met. Obs. Vol. 1; S. O.
54	7.99	10.59	13.10	11.82	43.50	July, 1872;	Dec. 1874	2	5	L. H., O. H., & S. Tripp.	S. O.
55	..	..	..	6.80	..	Dec. 1860;	Apr. 1861	0	5	W. Johnson.	"
56	..	..	..	9.45	..	Feb. 1860;	Mar. 1862	0	9	J. Van Blarcom.	"
57	11.01	8.04	11.86	10.12	41.03	Aug. 1863;	Dec. 1874	11	4	B. F. Wilbur.	"
58	11.87	12.25	19.39	10.78	54.29	Oct. 1863;	Aug. 1871	4	3	E. Pitman.	"

MARYLAND.

1	11.04	16.55	12.83	14.44	54.86	Mar. 1861;	July, 1862	1	1	Dr. M. Johns.	S. O.
2	13.89	13.96	11.34	10.51	49.70	Jan. 1857;	Dec. 1874	15	0	W. R. Goodman, A. C. Gorgas.	Met. Obs. Vol. 1; S. O.; Sig. Ser. Reps.
3	11.16	12.34	10.13	9.24	42.87	Jan. 1818;	June, 1876	22	5	Dr. L. Brantz, Dr. A. Zumbrock, Dr. Edmondson, Prof. A. M. Mayer, H. Penrod, W. T. Boyd, R. J. Bell, J. Kabernagle.	Met. Obs. Vol. 1; S. O.; Sig. Ser. Reps.; S. Coll.
4	11.71	11.01	8.25	8.30	39.27	June, 1856;	Aug. 1865	7	5	B. O. Loundes.	Met. Obs. vol 1; S. O.
5	..	..	..	..	..	Jan. 1867;	Jan. 1867	0	1	G. S. Grape, E. L. Raulett.	S. O.
6	12.31	13.82	9.39	7.38	42.90	June, 1855;	July, 1864	4	11	Prof. J. R. Dutton.	Met. Obs. Vol. 1; S. O.
7	7.83	9.84	6.96	5.70	30.33	Aug. 1871;	Dec. 1874	3	4	E. T. Shriver.	S. O.
8	..	..	..	..	..	Dec. 1843;	July, 1844	0	2	F. Finch.	S. Coll.
9	7.53	..	16.59	..	..	Jan. 1872;	Apr. 1873	0	9	H. M. Shepherd.	S. O.
10	12.75	12.23	11.07	8.39	44.44	Jan. 1867;	Nov. 1873	6	4	Prof. C. H. Jourdan, E. Smith.	"
11	11.40	12.67	12.21	8.22	44.50	Sept. 1870;	Dec. 1874	4	4	G. G. Curtiss.	"
12	9.11	10.05	8.68	5.60	33.44	July, 1871;	Dec. 1874	3	6	Assistant Surgeon.	MS. from S. G. O.
13	9.96	10.13	9.64	8.69	38.42	May, 1836;	Dec. 1874	31	11	"	Ar. Met. Regs. 1855 and 1860.
14	9.65	12.00	16.17	10.79	48.61	Mar. 1843;	July, 1845	2	5	"	Ar. Met. Reg. 1855.
15	11.62	11.83	10.03	10.10	43.58	May, 1851;	Nov. 1871	5	5	"	Ar. Met. Reg. 1855; MS. from S. G. O.
16	10.11	11.16	8.55	9.04	38.86	Jan. 1852;	Apr. 1872	11	10	L. F. Steiner, H. M. Baer, J. K. Hanshew.	Met. Obs. Vol 1; S. Coll.; S. O.
17	8.38	13.45	10.18	6.13	38.14	Jan. 1872;	Nov. 1873	1	11	E. G. Kinsell.	S. O.
18	10.80	9.42	9.83	9.21	39.26	Sept. 1858;	June, 1862	3	9	J. E. Bell.	Met. Obs. Vol 1; S. O.
19	..	..	..	..	..	May, 1871;	June, 1871	0	2	Chas. F. Hanshen.	S. O.
20	13.54	13.81	12.51	15.00	54.86	Jan. 1872;	Nov. 1874	2	10	Dr. E. A. Vannort.	"
21	12.55	13.62	11.82	6.05	44.04	Aug. 1873;	Dec. 1874	1	5	Dr. H. H. Hopkins.	"
22	10.32	10.22	10.78	8.13	39.45	Nov. 1872;	Dec. 1874	2	2	R. H. Murphy.	"
23	10.07	13.47	9.53	4.40	37.47	June, 1871;	Aug. 1874	2	1	F. J. De Villiss.	"
24	14.29	12.30	11.73	10.21	48.53	Jan. 1849;	Oct. 1865	14	1	H. M. Baer.	S. Coll.; Met. Obs. Vol. 1.; S. O.
25	17.65	15.20	16.29	15.14	64.28	Sept. 1871;	Dec. 1874	3	2	Jas. F. Ellicott.	S. O.; Sig. Ser. Reps.
26	12.35	12.13	9.18	9.87	43.53	Jan. 1861;	Feb. 1871	7	3	J. Stephenson.	S. O.
27	..	..	..	..	..	May, 1864;	May, 1864	0	1	W. Gillingham.	"
28	12.50	13.44	12.01	9.80	47.75	Jan. 1865;	Dec. 1874	10	0	J. O. McCormick.	"
29	9.95	11.45	11.45	6.69	39.54	Dec. 1870;	Dec. 1874	4	1	A. H. Valente.	"

[s] Mt. St. Mary's College. [t] Near Sykesville. [u] Woodstock College.

MASSACHUSETTS.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Amherst[a]	42° 22′	72° 34′	267	3.16	3.00	3.19	3.31	4.12	3.81	4.16	4.48	3.23	4.06	3.87	3.57
2. Andover	42 38	71 10	..	2.43	1.44	1.08	4.05	3.33	2.08	3.56	5.31	1.06	0.70	2.25	1.15
3. Baldwinsville	42 37	72 04	847	3.44	1.13	3.69	2.43	6.53	1.75	1.58	4.67	2.31	4.84	4.31	3.68
4. Barnstable	41 42	70 19	20	3.12	6.33	..	7.01	7.09	2.08	3.51	4.66	3.75	4.50	4.12	6.50
5. Boston[b]	42 21	71 03	82	3.13	3.19	3.47	3.58	3.75	3.06	3.52	3.95	3.08	3.14	3.51	3.23
6. Boston	42 21	71 03	82	..	..	..	..	..	..	..	..	..	..	..	..
7. Bradford[c]	42 46	71 05	..	1.98	1.67	3.25	2.40	1.55	1.47	1.98	3.65	2.00	5.40	2.90	3.08
8. Bridgewater[d]	42 02	71 00	150	3.77	2.26	3.94	3.89	2.70	3.98	2.77	2.79	2.92	2.54	2.09	3.79
9. Cambridge[e]	42 23	71 07	71	3.95	2.97	3.55	3.72	3.86	3.10	3.42	5.02	3.98	3.40	3.77	3.97
10. Canton	42 10	71 08	90	4.22	2.78	..	..	..	..	..	..	..	..	2.60	4.98
11. Charlestown[f]	42 22	71 04	60	2.66	2.22	4.08	3.20	3.33	2.36	2.88	3.42	3.03	3.52	2.86	2.27
12. Chelsea[g]	42 25	71 00	40	4.75	2.10	3.10	4.60	3.00	1.50	1.50	2.80	2.00	2.10	2.60	1.25
13. Clinton	42 25	71 42	..	2.25	..	3.40	..	2.47	6.19	5.12	5.69	7.62	2.03	..	..
14. Fall River	41 43	71 09	200	..	..	..	..	..	..	..	0.92	5.94	1.83	4.44	2.57
15. Falmouth	41 33	70 37	20	..	..	3.89	..	..	..	..	..	..	..	..	..
16. Fitchburg	42 35	71 50	484	0.80	3.12	6.31	3.95	3.71	2.57	5.96	4.18	2.38	4.91	4.83	0.35
17. Florida	42 42	73 02	2500	3.79	4.26	4.00	11.50	..	..	..	..	..	..	1.21	1.10
18. Fort Sewall	42 30	70 50	..	3.51	3.08	3.76	2.36	5.68	1.43	..	..	..	..	..	3.88
19. Fort Warren	42 19	70 55	..	2.85	3.45	3.56	3.66	4.32	2.80	2.44	5.10	2.38	3.37	2.34	3.31
20. Framingham	42 19	71 26	150	4.99	2.86	..	3.28	3.31	1.34	3.13	7.12	2.28	5.47	3.97	3.65
21. Georgetown	42 43	71 00	225	3.23	3.36	3.76	2.60	4.40	..	1.40	4.71	9.25	1.52	4.33	3.36
22. Hinsdale	42 27	73 08	1360	4.26	3.77	5.60	3.18	3.45	5.16	5.35	3.19	6.07	6.77	3.05	1.93
23. Kingston	42 00	70 48	65	4.05	3.34	3.78	4.12	4.46	2.95	3.87	4.52	3.56	5.10	3.22	3.64
24. Lake Cochituate	42 18	71 23	134	..	..	..	..	..	..	..	..	..	..	..	..
25. Lawrence	42 42	71 10	143	3.50	2.60	3.60	3.90	4.05	3.46	3.98	5.42	3.91	3.66	3.56	3.55
26. Lynn	42 28	70 57	..	2.05	3.14	2.56	4.31	3.53	2.76	1.98	4.64	2.93	4.20	4.12	3.36
27. Lowell	42 38	71 19	..	..	..	..	..	..	..	..	..	..	..	..	..
28. Lunenburg	42 35	71 43	450	4.14	3.46	4.11	4.80	4.92	4.54	3.62	4.19	3.74	4.00	4.21	4.06
29. Mendon	42 06	71 34	..	2.72	2.71	2.96	3.20	4.06	3.08	3.49	5.00	3.46	3.20	3.05	2.46
30. Milton	42 16	70 44	115	4.02	2.85	3.05	3.83	3.98	3.00	2.52	4.89	2.83	3.42	3.54	3.32
31. Nantucket	41 17	70 06	30	3.92	2.89	3.25	4.02	3.75	3.27	2.48	2.72	3.16	3.57	3.38	4.77
32. New Bedford[h]	41 39	70 56	90	3.52	3.39	3.61	3.64	3.78	2.95	2.99	3.98	3.31	3.50	3.88	3.81
33. Newbury	42 47	70 54	25	1.63	1.00	1.20	..	0.58	..	..	..	..	..	..	0.66
34. Newburyport	42 48	70 52	46	3.22	2.74	1.69	3.14	3.71	2.52	2.66	6.86	1.83	3.93	3.45	3.60
35. North Adams[i]	42 42	73 07	710	5.17	4.05	3.70	4.74	8.60	4.92	8.14	2.98	3.92	3.55	5.12	3.06
36. North Attleboro	41 59	71 20	175	3.72	3.00	1.61	5.01	4.72	2.47	3.56	4.82	3.60	3.22	3.59	4.70
37. North Billerica	42 35	71 17	20	..	0.80	..	..	..	..	2.10	6.95	3.15	2.70	4.00	..
38. Northampton	42 19	72 38	100	..	..	..	..	..	1.37	10.13	2.93	2.95	2.34	..	..
39. Plainfield	42 31	72 56	..	..	..	2.75	..	..	..	..	..	..	..	..	..
40. Princeton	42 28	71 53	1113	3.31	3.96	1.87	4.98	3.00	2.57	4.47	4.96	2.83	4.82	4.40	3.59
41. Richmond[j]	42 23	73 22	1100	5.38	5.69	5.77	5.16	7.80	7.38	6.87	5.99	5.12	5.50	6.63	5.04
42. Salem	42 31	70 53	46	..	..	..	..	..	..	..	6.16	3.80	5.05	6.20	..
43. Sandwich	41 45	70 30	20	5.28	2.35	5.84	3.06	3.44	1.70	3.98	7.57	2.59	2.56	5.54	4.08
44. Somerset	41 47	71 08	40	4.14	3.84	2.18	5.39	4.31	2.54	3.40	5.52	2.94	3.95	3.65	3.70
45. Southboro	42 18	71 32	..	..	..	0.75	..	..	..	..	..	..	..	..	..
46. Southwick	42 03	72 46	265	2.94	4.26	2.29	5.42	4.85	2.89	4.62	3.66	3.00	5.73	4.94	3.87
47. Springfield	42 06	72 35	200	2.31	3.42	2.95	3.41	4.73	3.28	4.67	4.57	2.90	4.48	4.34	3.12

[a] Amherst College.

[b] Combined with Observations at Fort Independence.

[c] Observations made with great care, snow and ice carefully melted.

[d] Normal School.

[e] Harvard Observatory.

[f] The gauge is said to have been badly placed in this case, receiving only the water falling vertically.

MASSACHUSETTS.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
1	10.62	12.45	11.16	9.73	43.96	Aug. 1835;	Dec. 1874	39	1	Prof. E. S. Snell.	Met. Obs. Vol. 1; S. Coll.; S. O.
2	8.46	10.95	4.01	5.02	28.44	Jan. 1874;	Dec. 1874	1	0	L. F. Griffin.	S. O.
3	12.65	8.00	11.46	8.25	40.36	Aug. 1863;	Dec. 1865	2	3	E. Dewhurst.	"
4	..	10.25	12.37	15.95	..	Aug. 1852;	Aug. 1853	0	11	B. R. Gifford.	S. Coll.
5	10.80	10.53	9.73	9.55	40.61	Jan. 1818;	June, 1876	38	7	Dr. E. Hale, Prof. J. Lovering, Assistant Surgeon, D. C. Ralston, G. H. Rohe.	Ar. Met. Regs. 1855 & 1860; S. Coll.; Am. Alm.; Met. Obs. Vol. 1; MS. from S. G. O.; Sig. Ser. Reps.
6	..	..	..	..	47.50	1838–1867		29	0	J. P. Hall, W. H. Bradley, Dr. E. Hale.	S. Coll.
7	7.20	7.10	10.30	6.73	31.33	Jan. 1772;	Dec. 1773	2	0	— Williams.	Trans. Phil. Soc. Vol. 2, 1773.
8	10.53	9.54	7.55	9.82	37.44	June, 1856;	Jan. 1861	2	10	C. M. Barrows.	Met. Obs. Vol 1; S. O.
9	11.13	11.54	11.15	10.89	44.71	Jan. 1784;	Sept. 1872	31	2	Prof. Winlock, W. C. Bond, S. H. Percy.	Am. Alm.; S. Coll.; Williams' History of Vt.
10	..	..	..	11.98	..	Jan. 1857;	Jan. 1858	0	5	D. H. Ellis.	Met. Obs. Vol. 1.
11	10.61	8.66	9.41	7.15	35.83	Jan. 1792;	Dec. 1802	11	0	— Barrett.	Mem. Am. Acad.; Blodgett's Clim.
12	10.70	5.80	6.70	8.10	31.30	Jan. 1861;	Dec. 1862	1	10	J. L. Fox, W. F. Patton.	S. Coll.
13	..	17.00	..	..	..	May, 1860;	Mar. 1861	0	8	Dr. G. M. Morse.	S. O.
14	..	..	12.21	..	..	Aug. 1861;	Dec. 1874	0	7	C. V. S. Remmington, C. C. Terry.	"
15	..	..	..	..	..	Mar. 1863;	Mar. 1863	0	1	Dr. N. Barrows.	"
16	13.97	12.71	12.12	4.27	43.07	Jan. 1861;	Dec. 1861	1	0	G. Raymond.	"
17	..	..	..	9.15	..	Jan. 1857;	Dec. 1874	0	9	J. Davis, L. F. Whitcomb.	Met. Obs. Vol. 1; S. O.
18	11.80	..	..	10.47	..	Dec. 1864;	June, 1865	0	7	Assistant Surgeon.	MS. from S. G. O.
19	11.54	10.34	8.09	9.61	39.58	Jan. 1865;	Dec. 1874	9	5	"	" "
20	..	11.59	11.72	11.50	..	Apr. 1843;	Feb. 1850	1	10	G. A. Hyde.	S. Coll.
21	10.76	..	15.10	9.95	..	Feb. 1865;	May, 1872	2	11	H. M. & S. A. Nelson.	S. O.
22	12.23	13.70	15.89	9.96	51.78	Aug. 1868;	Dec. 1874	3	10	E. Dewhurst.	"
23	12.36	11.34	11.88	11.03	46.61	July, 1866;	Apr. 1874	7	10	G. S. Newcomb.	"
24	..	..	..	..	50.81	Jan. 1852;	Dec. 1867	16	0	J. Vannemar.	Hist. of Cochituate Water Works.
25	11.55	12.86	11.13	9.65	45.19	Jan. 1856;	Dec. 1874	17	6	Jno. Fallon.	Met. Obs. Vol. 1; S. O.
26	10.40	9.38	11.25	8.55	39.58	1849–1853		4	0	J. Batchelder.	S. Coll.
27	..	..	..	..	44.49	Jan. 1849;	Dec. 1867	19	0	J. B. Francis, J. P. Hall, W. H. Bradley.	Cochituate Water Works.
28	13.83	12.35	11.95	11.66	49.79	Jan. 1841;	Dec. 1874	34	0	G. A. Cunningham.	S. Coll.; S. O.
29	10.22	11.57	9.71	7.89	39.39	Mar. 1854;	Dec. 1874	14	1	Dr. J. G. Metcalf.	Met. Obs. Vol. 1; S. O.
30	10.86	10.41	9.79	10.19	41.25	Jan. 1867;	Dec. 1874	7	7	A. K. Teele.	S. O.
31	11.02	8.47	10.11	11.58	41.18	Jan. 1847;	Mar. 1861	13	2	W. Mitchell.	Met. Obs. Vol 1; S. Coll.; S. O.
32	11.03	9.92	10.69	10.72	42.36	Oct. 1813;	Dec. 1874	61	2	S. Rodman and E. T. Tucker.	S. Coll.; S. O.
33	..	...	..	3.29	..	May, 1864;	Mar. 1873	0	10	J. H. Caldwell.	S. O.
34	8.54	12.04	9.21	9.56	39.35	July, 1843;	Dec. 1874	5	6	M. C. Jones, Dr. H. C. Perkins.	Met. Obs. Vol. 1; S. O.
35	17.04	16.04	12.59	12.28	57.95	Oct. 1871;	Dec. 1874	2	1	B. D. Frost.	S. O.
36	11.34	10.85	10.41	11.42	44.02	Sept. 1852;	Mar. 1857	4	3	H. Rice.	Met. Obs. Vol. 1; S. Coll.
37	..	..	9.85	..	..	July, 1872;	Feb. 1874	0	9	E. Mason and Son.	S. O.
38	..	14.43	..	..	..	June, 1874;	Oct. 1874	0	5	T. F. Wurts.	"
39	..	..	..	..	..	Mar. 1857;	Mar. 1857	0	1	F. Shaw.	Met. Obs. Vol. 1.
40	9.85	12.00	12.05	10.86	44.76	Jan. 1854;	Dec. 1857	3	5	J. Brooks.	" "
41	18.73	20.24	17.25	16.11	72.33	Jan. 1854;	Dec. 1872	10	4	W. Bacon.	Met. Obs. Vol 1; S. O.
42	..	..	15.05	..	..	Aug. 1873;	Nov. 1873	0	4	E. S. Cassino.	S. O.
43	12.34	13.25	10.69	11.71	47.99	Apr. 1863;	Dec. 1866	2	1	Dr. N. Barrows.	"
44	11.88	11.46	10.54	11.68	45.56	June, 1872;	Dec. 1874	2	7	E. Slade.	"
45	..	..	..	..	..	Mar. 1873;	Mar. 1873	0	1	H. B. Chapin.	"
46	12.56	11.17	13.67	11.07	48.47	May, 1849;	May, 1857	6	0	A. Holcomb.	Met. Obs. Vol. 1; S. Coll.
47	11.09	12.52	11.72	8.85	44.18	Jan. 1848;	June, 1876	12	9	L. C. Allin, F. A. Brewer, J. Weatherhead, N. Durmont, J. G. Murray.	Met. Obs. Vol. 1; S. Coll.; S. O.; Sig. Ser. Reps.

[e] U. S. Naval Hospital.

[i] Engineers Office.

[h] Three gauges by different makers were employed and the mean taken.

[j] The amount recorded appears excessive.

MASSACHUSETTS—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
48. Stow	42° 30′	71° 35′	250	2.50	2.78	3.98	3.52	4.05	2.68	3.84	3.20	3.13	4.06	2.33	3.03
49. Thatcher's Island	42 38	70 34	..	1.93	5.27	6.91	4.71	2.47	1.61	..	..	..	..	..	..
50. Topsfield	42 39	70 56	..	3.62	3.51	4.43	3.05	3.67	2.50	4.22	3.59	3.23	3.71	3.39	3.36
51. Vineyard Haven	41 28	70 36	15	5.38	2.70	1.77	2.90	2.43	2.24	0.93	1.98	2.53	2.12	2.68	4.10
52. Waltham	42 23	71 15	..	..	..	..	3.85	3.61	3.24	3.60	4.47	..	..	..	..
53. Waltham	42 23	71 15	..	..	..	..	..	..	..	..	..	..	..	..	..
54. Watertown [a]	42 21	71 11	100	2.87	2.87	3.30	3.70	3.75	3.61	2.64	4.41	2.99	3.85	3.99	4.11
55. Wendell	42 33	72 23	..	..	..	..	..	..	2.05	6.62	0.53	0.00	0.15	4.30	1.00
56. West Dennis	41 40	70 11	25	..	..	..	..	..	..	..	..	2.32	1.94	..	..
57. West Newton	42 21	71 15	55	2.63	2.10	2.37	3.64	5.27	3.98	2.54	4.16	3.91	5.66	2.35	2.26
58. Westfield	42 06	72 45	180	3.99	3.00	3.84	3.47	4.56	3.82	4.92	4.91	2.95	4.51	3.88	4.29
59. West Springfield	42 07	72 38	300	4.18	3.67	2.94	4.29	8.21	3.55	5.28	5.94	5.78	4.03	2.56	2.04
60. Weymouth	42 12	70 56	150	5.06	..	1.30	7.67	4.32	2.22	2.91	8.00	4.57	3.32	1.83	5.23
61. Williamstown [b]	42 43	73 13	686	2.28	2.17	3.07	2.65	3.32	3.22	4.19	4.24	3.54	3.22	2.83	2.72
62. Wood's Hole	41 32	70 40	25	3.61	5.14	3.72	5.76	3.43	2.27	2.83	3.08	2.89	3.26	5.73	3.88
63. Worcester [c]	42 16	71 49	528	3.92	3.23	3.61	3.91	4.14	3.29	3.76	4.92	3.61	4.36	4.04	3.78

MICHIGAN.

1. Adrian	41 58	84 11	1240	3.74	1.49	1.90	5.84	4.60	6.11	..	..	..	..	..	..
2. Alpena	45 05	83 28	586	2.04	1.23	1.91	1.70	4.12	2.56	3.81	2.94	5.71	4.19	2.02	1.66
3. Ann Arbor [d]	42 19	83 44	891	1.66	1.73	1.91	3.18	2.76	3.66	3.92	2.41	2.92	2.57	2.74	3.14
4. Battle Creek	42 22	85 15	750	1.84	2.19	2.04	2.99	3.21	3.75	3.21	2.62	2.91	2.34	2.95	1.83
5. Benzonia	44 37	86 08	620	4.08	1.20	4.18	2.23	2.84	2.20	3.33	2.74	5.38	3.56	3.35	4.39
6. Brooklyn	42 06	83 36	1020	2.01	2.59	1.86	5.03	7.00	1.50	2.00	3.95	3.26	3.57	2.53	3.87
7. Central Mine	47 00	88 54	1177	5.91	4.53	2.43	4.33	1.45	1.42	1.52	3.42	3.98	2.84	2.59	5.72
8. Coldwater	41 59	85 02	..	3.44	1.37	2.73	2.36	2.70	5.25	2.80	2.58	2.75	2.92	2.89	3.66
9. Cooper [e]	42 25	85 38	690	2.56	1.15	4.76	5.06	6.28	4.82	3.02	4.83	6.46	3.15	2.75	2.03
10. Copper Falls Mine [f]	47 26	88 22	1230	5.00	1.88	1.35	1.80	1.89	2.84	2.00	3.89	6.80	3.60	4.30	6.56
11. Detroit	42 20	83 03	597	2.10	1.68	2.82	2.83	2.86	3.79	3.82	2.49	3.27	2.67	2.50	2.01
12. Detroit	42 20	83 03	597	2.89	3.30	3.51	4.00	3.47	4.99	6.03	3.43	5.10	3.56	4.14	3.76
13. Eagle River Mine	47 25	88 26	1020	3.75	1.55	0.75	0.83	..	1.74	2.00	3.40	1.60	2.20	..	5.55
14. Escanaba	45 48	88 26	596	1.13	1.10	2.46	1.89	4.17	4.88	2.94	5.90	4.80	3.10	2.67	1.05
15. Eureka Valley	47 06	88 51	800	5.82	1.80	..	..	..	..	..	..	3.81	..	..	4.55
16. Flint [g]	43 02	83 42	..	2.84	1.46	1.74	2.41	2.33	5.62	2.60	1.18	4.00	2.79	3.61	2.14
17. Fort Brady	46 30	84 28	600	1.82	1.09	1.35	1.66	1.98	2.76	3.40	3.04	4.67	3.32	2.85	2.14

[a] Arsenal. [b] Hopkins Observatory, Williams College. [c] State Lunatic Asylum. [d] Michigan University.

MASSACHUSETTS—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
48	11.55	9.72	9.52	8.31	39.10	Jan. 1795;	Dec. 1804	10	0	— Newell.	Mem. Am. Acad.; Blodgett's Clim.
49	14.09	..	..	..	..	Jan. 1876;	June, 1876	0	6	. . . . .	Sig. Ser. Reps.
50	11.15	10.31	10.33	10.49	42.28	Apr. 1860;	Feb. 1871	9	11	S. A. Merriam, N. W. Brown.	S. O.
51	7.10	5.15	7.33	12.18	31.76	Aug. 1872;	Dec. 1874	2	5	D. W. Stephens.	"
52	..	11.31	..	..	..	Apr. 1824;	Aug. 1865	17	6	Boston Manuf. Co.	Waltham Free Press, 1865.
53	..	..	..	..	43.52	1849-	1867	16	0	. . . . .	Hist. of Cochituate Water Works.
54	10.85	10.66	10.83	9.75	42.09	June, 1836;	Nov. 1844	7	3	Assistant Surgeon.	Ar. Met. Reg. 1855.
55	..	9.20	4.45	..	..	June, 1874;	Dec. 1874	0	7	B. B. Cutler.	S. O.
56	..	..	..	..	..	Sept. 1864;	Oct. 1864	0	2	E. Tappan.	"
57	11.28	10.68	11.92	6.99	40.87	June, 1867;	May, 1871	2	9	J. H. Bixby.	"
58	11.87	13.65	11.34	11.28	48.14	Mar. 1852;	May, 1866	10	8	E. Davis.	Met. Obs. Vol. 1; S. O.
59	15.44	14.77	12.37	9.89	52.47	Nov. 1849;	Oct. 1850	1	0	. . . . .	S. Coll.
60	13.29	13.13	9.72	..	..	Aug. 1856;	Jan. 1859	1	4	Dr. N. Q. Tirrell.	Met. Obs. Vol. 1.
61	9.04	11.65	9.59	7.17	37.45	Jan. 1816;	Dec. 1874	23	9	W. P. Alcott, L. H. Andrews, Profs. A. Hopkins, Dewey and Williams.	S. Coll.; Met. Obs. Vol. 1; Mem. Am. Acad.; S. O.
62	12.91	8.18	11.88	12.63	45.60	Jan. 1854;	June, 1876	3	11	B. R. Gifford, J. K. P. Purdum.	Met. Obs. Vol. 1; Sig. Ser. Reps.
63	11.66	11.97	12.01	10.93	46.57	Jan. 1841;	May, 1872	30	4	J. Draper, J. Cotton.	Am. Alm.; S. Coll.; S. O.

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1	12.34	..	..	..	..	Jan. 1870;	Mar. 1874	1	1	D. Helme, J. J. Breedon.	S. O.
2	7.73	9.31	11.92	4.93	33.89	Oct. 1872;	June, 1876	3	9	J. W. Paxton, — Bayes, T. S. Collins, W. Baber, W. H. Ray.	S. O.; Sig. Serv. Reps.
3	7.85	9.99	8.23	6.53	32.60	Apr. 1849;	July, 1872	7	6	L. Woodruff, Prof. N. H. Winchell and Wife.	Met. Obs. Vol. 1; S. Coll.; S. O.
4	8.24	9.58	8.20	5.86	31.88	Mar. 1849;	Dec. 1859	9	2	Dr. W. M. Campbell.	S. Coll.; Met. Obs. Vol 1.
5	9.25	8.27	12.29	9.67	39.48	Jan. 1871;	Dec. 1873	3	0	W. Wilson.	S. O.
6	13.89	7.45	9.36	8.47	39.17	Sept. 1852;	Mar. 1854	1	2	Dr. M. K. Taylor.	Met. Obs. Vol. 1; S. Coll.
7	8.21	6.36	9.41	16.16	40.14	July, 1867;	Oct. 1871	4	4	S. H. Whittlesey.	S. O.
8	7.79	10.63	8.56	8.47	35.45	July, 1868;	July, 1871	3	0	N. L. Southworth.	"
9	16.10	12.67	12.36	5.74	46.87	June, 1854;	Oct. 1862	3	4	O. C. Walker.	Met. Obs. Vol. 1; S. O.
10	5.04	8.73	14.70	13.44	41.91	Dec. 1855;	Aug. 1857	1	7	C. S. Whittlesey.	Met. Obs. Vol. 1; S. Coll.
11	8.51	10.10	8.44	5.79	32.84	Apr. 1836;	June, 1876	30	5	J. M. Bigelow, G. Duffield, J. Brennan, W. Finn, H. Fenton, Dr. W. A. Raymond, J. W. Colliflower, F. W. Higgins, Asst. Surg., T. V. Van Heusen, E. P. Austin, H. Clague, C. B. Rabaut.	S. Coll.; Met. Obs. Vol. 1; S. O.; Ar. Met. Reg., 1855; Surv. N. & N. W. Lakes.
12	10.98	14.45	12.80	9.95	48.18	Dec. 1848;	Nov. 1856	6	10	Dr. W. A. Raymond, G. Duffield.	S. Coll.; Met. Obs. Vol. 1.
13	..	7.14	..	10.85	..	Dec. 1855;	Oct. 1856	0	10	M. A. Goff, J. S. Morgan.	Met. Obs. Vol. 1; S. Coll.
14	8.52	13.72	10.57	3.28	36.09	Oct. 1872;	June, 1876	3	9	E. Lloyd, J. M. Watson, S. W. Naylor.	Sig. Ser. Reps.
15	..	..	..	12.17	..	Sept. 1863;	Feb. 1864	0	4	W. Van Orden.	S. O.
16	6.48	9.40	10.40	6.44	32.72	Apr. 1854;	Dec. 1855	1	9	Drs. D. Clark, and M. Miles.	Met. Obs. Vol 1; S. Coll.
17	4.99	9.20	10.84	5.05	30.08	July, 1836;	Dec. 1874	20	3	Assistant Surgeon.	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.

* Amount of rain given, apparently excessive. † Near Eagle Harbor. ‡ Scientific Institute.

MICHIGAN—CONTINUED.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
18. Fort Gratiot	42° 59′	82° 29′	598	2.19	1.76	2.82	2.51	2.69	3.52	3.33	2.87	4.10	2.66	2.10	1.80
19. Fort Mackinac	45 51	84 40	728	1.36	0.84	1.21	1.14	2.15	2.67	3.48	2.85	3.00	2.07	1.99	1.21
20. Fort Wayne	42 20	83 05	..	3.54	1.54	1.04	1.14	1.83	3.71	4.78	0.92	1.37	1.21	1.79	3.05
21. Fort Wilkins[a]	47 28	88 02	630	0.83	1.72	3.84	2.95	1.63	1.12	..	..	..	0.50	2.91	2.45
22. Grand Haven	43 05	86 15	588	2.05	1.41	1.22	1.71	3.69	3.46	2.37	2.86	3.40	2.90	2.35	1.67
23. Grand Rapids	43 00	85 42	780	2.91	1.54	3.28	2.75	3.43	4.39	2.93	2.31	3.77	2.89	3.13	2.22
24. Holland	42 49	86 08	..	3.26	2.14	3.24	2.60	3.73	2.26	2.76	3.21	4.91	2.99	3.61	2.92
25. Homestead	44 36	86 02	..	1.99	0.90	..	..	..	..	..	..	..	..	..	..
26. Houghton	46 50	88 30	600	..	..	..	..	..	..	..	2.23	..	..	..	..
27. Hudson	41 53	84 22	..	..	..	..	..	..	..	..	..	2.13	1.05	3.81	0.62
28. Lake George	46 15	85 00	..	..	..	..	..	..	..	3.68	..	2.94	..	..	..
29. Lansing, near[b]	42 46	84 36	895	1.68	1.63	2.48	2.34	2.57	4.18	3.77	2.62	2.86	1.70	1.80	1.75
30. Litchfield	42 05	84 46	1040	2.80	2.43	2.96	3.62	4.21	4.45	4.09	2.91	4.03	3.44	2.57	2.39
31. Macon	42 05	83 52	..	2.80	2.55	1.90	2.25	3.10	6.10	..	..	..	..	2.40	4.00
32. Marquette	46 32	87 35	710	2.91	2.28	2.24	3.81	3.66	3.51	3.26	2.84	4.56	2.39	3.24	2.25
33. Marquette	46 32	87 35	710	1.64	1.63	1.84	2.37	2.68	3.73	2.99	3.14	3.54	3.06	2.45	1.83
34. Mill Point	43 06	86 10	..	2.75	2.55	1.15	..	..	..	..	..	..	..	..	..
35. Monroe	41 56	83 27	551	2.08	2.14	2.76	2.89	2.99	3.07	3.39	2.59	3.61	2.07	2.10	2.07
36. Muskegon	43 15	86 16	..	3.03	1.02	2.50	2.25	3.75	3.70	2.50	3.65	1.40	2.20	3.23	3.85
37. Newark	42 30	86 00	..	..	..	..	2.46	..	..	..	..	..	..	..	..
38. New Buffalo	41 50	86 46	661	2.53	1.74	3.64	4.55	4.81	3.67	2.68	4.86	5.48	3.77	3.98	2.49
39. Northport	45 08	85 40	592	3.64	2.28	2.41	2.94	3.13	3.74	4.00	2.84	4.61	4.40	3.37	2.57
40. Old Mission	44 45	85 30	600	..	..	..	0.92	..	5.60	2.50	1.40	3.60	..	..	..
41. Olivet College	42 36	84 52	968	4.74	1.96	3.07	2.79	3.11	4.48	3.22	1.20	2.57	1.54	2.20	2.87
42. Otsego	42 30	85 42	..	2.00	1.50	..	..	..	..	..	..	..	..	..	..
43. Ontonagon	46 53	89 30	630	2.26	1.13	1.52	1.76	2.33	2.01	2.20	3.24	2.51	2.14	2.20	2.88
44. Pennsylvania Mine	47 20	88 15	1200	..	..	..	0.50	..	..	..	..	..	..	..	..
45. Pleasanton	44 29	86 10	750	2.68	3.35	2.72	4.09	1.72	5.80	6.40	4.20	4.15	6.05	5.75	4.10
46. Port Huron	42 58	82 27	606	2.91	2.27	4.64	1.65	4.00	2.55	2.14	1.51	2.14	2.81	1.70	2.72
47. Redford Center	42 25	83 20	650	..	..	..	..	..	6.00	2.92	5.60	..	..	..	..
48. Romeo	42 44	83 02	714	1.01	1.85	0.89	1.97	2.25	4.53	0.00	1.42	1.23	0.98	3.24	3.32
49. Saugatuck	42 40	86 12	..	2.20	2.50	0.94	..	..	..	..	..	4.02	4.58	3.51	3.51
50. Saint Mary's	46 20	84 10	585	..	..	..	..	..	5.43	..	..	..	..	..	..
51. Saint James[c]	45 44	85 00	596	1.25	..	1.75	0.75	2.31	7.32	2.88	3.92	1.48	1.95	0.93	1.20
52. Sugar Island	46 29	84 20	574	1.20	0.96	3.66	..	..	3.47	..	..	..	..	..	0.98
53. South Haven	42 25	86 18	..	..	..	..	1.22	3.80	3.15	..	..	..	..	..	..
54. Tawas City[d]	44 16	83 31	583	1.73	0.91	1.98	2.26	1.82	1.82	1.72	2.24	2.39	2.15	2.13	1.46
55. Thunder Bay Island	45 02	83 17	610	2.73	2.44	2.58	2.60	2.10	2.51	3.08	2.24	3.13	2.76	2.18	2.32
56. Traverse City	44 45	85 40	598	5.06	1.85	3.65	1.98	2.12	2.63	3.22	1.78	4.95	4.32	4.00	2.67
57. Ypsilanti	42 15	83 40	735	1.34	1.72	3.29	3.29	3.00	3.05	1.78	3.65	4.03	2.72	2.70	2.23

[a] Copper Harbor, Keewenaw Point.

[b] State Agricultural College.

MICHIGAN—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
18	8.02	9.72	8.86	5.75	32.35	July, 1836;	Aug. 1859	11	1	Assistant Surgeon, C. N. Turnbull.	Ar. Met. Reg. 1855; Surv. N. & N. W. Lakes.
19	4.50	9.00	7.06	3.41	23.97	July, 1836;	Dec. 1859	13	1	Assistant Surgeon.	Ar. Met. Regs. 1855 and 1860.
20	4.01	9.41	4.37	8.13	25.92	July, 1873;	Nov. 1874	1	5	"	MS. from S. G. O.
21	8.42	..	..	5.00	..	Oct. 1845;	June, 1846	0	9	"	Ar. Met. Reg. 1855.
22	6.62	8.69	8.65	5.13	29.09	Sept. 1859;	June, 1876	6	10	A. J. Berry, H. Squire, J. M. Frantz.	Sig. Serv. Reps.; Surv. N. & N. W. Lakes.
23	9.46	9.63	9.79	6.67	35.55	Apr. 1854;	Dec. 1874	11	10	E. S. Holmes, L. H. Streng, A.O.Currier, E. A. Strong.	Met. Obs. Vol. 1; S. O.
24	9.57	8.23	11.51	8.32	37.63	June, 1856;	Feb. 1869	7	4	L. H. Streng.	Met. Obs. Vol. 1; S. O.
25	..	..	..	..	..	Jan. 1870;	Feb. 1870	0	2	G. E. Steele.	S. O.
26	..	..	..	..	..	Aug. 1866;	Aug. 1866	0	1	J. B. Minick	"
27	..	..	6.99	..	..	Sept. 1874;	Dec. 1874	0	4	A. H. Boies.	"
28	..	..	..	..	..	July, 1859;	Sept. 1859	0	2	A. W. Whipple and E. Perrault.	Met. Obs. Vol. 1.
29	7.39	10.57	6.36	5.05	29.38	Aug. 1863;	Dec. 1874	10	9	Prof. R. C. Kedzie.	S. O.
30	10.79	11.45	10.04	7.62	39.90	June, 1866;	Dec. 1874	8	7	R. Bullard.	"
31	7.25	..	..	9.35	..	Jan. 1871;	Dec. 1871	0	8	D. Howell.	"
32	9.71	9.61	10.19	7.44	36.95	Sept. 1857;	July, 1863	4	8	P. White, Dr. G. H. Blaker.	Met. Obs. Vol 1; S. O.
33	6.89	9.86	9.05	5.10	30.90	Sept. 1857;	June, 1876	12	11	H. S. Bacon, W. H. Clendenon.	Met. Obs. Vol. 1; Sig. Serv. Reps.; Surv. N. & N. W. Lakes.
34	..	..	..	..	..	Jan. 1861;	Mar. 1861	0	3	L. M. S. Smith.	S. O.
35	8.64	9.05	7.78	6.29	31.76	Jan. 1854;	Nov. 1873	14	8	J. Lane, H. J. and F.E. Whelpley, G.W. and W. Bowlsby.	Surv. N. & N. W. Lakes; Met. Obs. Vol. 1; S. O.
36	8.50	9.85	6.83	7.90	33.08	Oct. 1868;	Jan. 1871	1	9	H. A. Pattison.	S. O.
37	..	..	..	..	..	Apr. 1856;	Apr. 1856	0	1	L. H. Streng.	Met. Obs. Vol. 1.
38	13.00	11.21	13.23	6.76	44.20	July, 1857;	May, 1862	3	6	J. B. Crosby.	Met. Obs. Vol. 1; S. O.
39	8.48	10.58	12.38	8.49	39.93	Jan. 1867;	Dec. 1874	6	8	G. N. Smith.	S. O.
40	..	9.50	..	..	..	Apr. 1869;	Sept. 1869	0	5	C. P. Avery.	"
41	8.97	8.90	6.31	9.57	33.75	Dec. 1870;	Dec. 1874	3	8	Prof. A. F. Kemp, O. Hosford.	"
42	..	..	..	..	..	Jan. 1868;	Feb. 1868	0	2	M. Chase.	"
43	5.61	7.45	6.85	6.27	26.18	Aug. 1859;	Apr. 1873	8	1	H. Setley, Dr. E. Ellis, Gen. W. F. Raynolds, H. B. Smith.	Surv. N. & N. W. Lakes; S. O.
44	..	..	..	..	..	Apr. 1869;	Apr. 1869	0	1	R. H. Griffith.	S. O.
45	8.53	16.40	15.95	10.13	51.01	Dec. 1868;	Aug. 1870	1	9	J. D. Millard.	"
46	10.29	6.20	6.65	7.90	31.04	Feb. 1858;	June, 1876	2	2	J. Allen, N. D. Lane, Dr. G. A. Stockwell.	Sig. Serv. Reps.; Met. Obs. Vol. 1; S. O.
47	..	14.52	..	..	..	June, 1861;	Aug. 1861	0	3	Dr. C. C. Smith.	S. O.
48	5.11	5.95	5.45	6.18	22.69	Jan. 1856;	Mar. 1857	1	3	Dr. S. L. Andrews.	Met. Obs. Vol. 1.
49	..	..	12.11	8.21	..	Sept. 1855;	Mar. 1856	0	7	L. H. Streng.	" "
50	..	..	..	..	..	June, 1859;	June, 1859	0	1	.....	" "
51	4.81	14.12	4.36	..	..	Sept. 1852;	May, 1856	1	9	J. J. Strang.	Met. Obs. Vol. 1; S. Coll.
52	..	..	..	3.14	..	Mar. 1865;	Dec. 1866	0	6	J. W. Paxton.	S. O.
53	..	..	..	..	..	Apr. 1872;	June, 1872	0	3	O. C. Lathrop.	"
54	6.06	5.78	6.67	4.10	22.61	Sept. 1858;	Dec. 1866	8	4	J. Oliver and C. H. Whittemore.	Surv. N. & N. W. Lakes; Met. Obs. Vol. 1; S. Coll.
55	7.28	7.83	8.07	7.49	30.67	Aug. 1858;	Dec. 1873	13	0	C. N. Turnbull, J. Carr, W. P. Smith, J. W. Paxton, J. J. Malden, Gen. W. F. Raynolds.	Surv. N. & N. W. Lakes; S. O.; Met. Obs. Vol. 1; S. Coll.
56	7.75	7.63	13.27	9.58	38.23	Dec. 1872;	Dec. 1874	2	1	S. E. Wait.	S. O.
57	9.58	8.48	9.45	5.29	32.80	Jan. 1859;	Sept. 1864	4	8	C. S. Woodward.	Met. Obs. Vol. 1; S. O.

[a] Beaver Island.

[b] Ottawa Point.

MINNESOTA.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Afton	44° 53′	92° 50′	950	1.19	1.26	1.77	1.90	4.72	3.40	3.82	6.65	4.30	1.98	1.55	1.43
2. Beaver Bay	47 12	91 18	1270	2.26	1.20	1.56	2.65	2.50	3.00	3.26	2.99	3.86	1.87	1.24	1.21
3. Breckinridge	46 16	96 36	963	0.94	0·91	1.94	1.40	2.07	4.55	1.57	5.93	1.20	1.33	0.64	0.60
4. Burlington	47 01	91 42	645	1.51	1.71	2.26	2.47	6.47	4.33	5.42	4.75	3.48	4.24	2.34	1.37
5. Chatfield	43 50	92 14	900	0.86	3.72	3.62	4.95	5.40	6.11	4.24	3.26	4.69	2.69	2.58	1.24
6. Chippeway Agency	47 06	94 30	..	..	..	2.38	..	..	..	..	..	..	..	..	..
7. Douglas County [a]	45 48	95 23	..	..	..	..	..	..	2.96	..	..	..	..	..	..
8. Duluth	46 48	92 05	624	0.72	0.89	2.11	1.40	2.97	6.83	3.86	4.75	4.84	2.10	1.93	0.90
9. Excelsior	44 57	93 35	..	..	..	0.67	2.90	..	..	..	..	..	..	..	..
10. Forest City	45 11	94 30	..	0.70	..	1.52	1.98	5.95	2.69	5.24	5.30	3.58	2.38	1.94	1.15
11. Fort Ridgely	44 30	94 45	1230	1.55	1.26	1.62	1.85	3.01	2.57	2.64	3.90	3.17	1.49	1.20	1.21
12. Fort Ripley [b]	46 10	94 24	1130	0.86	0.93	1.53	1.59	2.96	4.51	4.28	3.31	3.36	1.68	1.75	0.92
13. Fort Snelling	44 53	93 10	820	0.99	0.75	1.24	2.18	2.98	3.61	3.44	3.09	3.40	1.34	1.46	0.83
14. Hastings	44 44	92 54	709	1.49	0.57	1.46	3.41	1.28	5.42	2.43	2.51	2.35	1.63	2.55	0.41
15. Holding's Ford	45 44	94 30	..	..	1.40	..	1.30	2.40	7.55	0.70	2.00	..	..	..	..
16. Hutchinson	44 52	94 22	1050	..	..	..	..	..	..	..	..	..	..	0.00	0.75
17. Itasca	45 16	93 32	856	1.20	2.12	1.30	2.55	5.85	2.95	3.45	..	..	..	..	4.40
18. Kandotta	45 45	94 55	..	0.50	..	..	..	..	..	..	..	..	..	..	..
19. Koniska	45 10	94 10	..	2.05	2.65	2.02	2.18	3.44	1.10	2.35	4.42	5.43	1.87	1.17	0.58
20. Lac qui parle [c]	45 00	95 30	946	1.25	0.69	1.74	2.22	3.82	4.31	3.65	3.88	3.11	1.63	1.73	1.04
21. Lake Hook	44 58	94 25	1050	0.84	1.07	1.11	1.36	6.25	4.50	8.26	4.81	5.25	3.37	1.65	0.62
22. Lake Winibigoshish	47 30	94 40	..	0.97	7.07	0.85	..	1.42	..	..	..	..	..	..	..
23. Litchfield	45 12	94 45	1125	0.60	1.34	1.55	2.70	3.48	5.60	2.80	3.05	2.75	1.75	1.35	0.48
24. Madelia	44 00	94 30	1007	1.27	1.80	2.11	1.37	3.93	1.73	3.15	4.99	5.38	0.52	1.49	1.14
25. Minneapolis	44 58	93 15	856	1.85	1.06	2.69	3.04	3.32	5.23	3.19	4.91	4.25	2.14	1.75	1.81
26. New Ulm	44 19	94 30	821	0.93	1.05	1.45	1.84	3.26	4.04	4.13	3.21	2.48	1.87	1.14	0.55
27. Pope County [d]	45 43	95 28	..	0.80	0.54	3.37	5.41	3.13	..	..	..	..	..	..	..
28. Princeton	45 34	93 38	..	2.55	0.83	1.83	2.76	4.06	3.80	2.50	3.88	4.98	1.54	2.15	..
29. Red Wing [e]	44 33	92 30	800	2.12	1.20	1.80	3.73	3.18	8.91	4.54	3.08	..	..	1.37	1.25
30. Ripley	..	..	..	..	..	..	..	..	..	..	..	..	..	0.60	..
31. Rochester	44 02	92 28	990	1.05	2.60	0.22	..	..	..	..	..	..	..	..	..
32. Saint Anthony	44 58	93 16	821	1.42	1.78	1.47	2.44	3.06	2.69	4.66	2.05	3.19	..	0.79	0.40
33. Saint Cloud	45 39	94 12	1034	..	..	..	..	6.83	6.29	2.09	1.54	5.28	..	..	..
34. Saint Paul	44 56	93 05	800	0.93	1.09	1.69	2.45	3.67	4.58	3.03	4.53	3.61	2.06	1.42	0.99
35. Sibley	44 30	94 12	1494	1.02	0.85	1.08	1.38	2.82	3.36	3.13	3.44	3.64	2.06	1.36	0.60
36. Stillwater	45 04	92 45	756	..	..	..	..	..	..	..	..	..	..	1.54	..
37. Sylvan Park	46 50	95 45	1800	0.81	0.90	1.69	2.22	5.44	17.23	9.75	11.00	..	1.15	1.55	0.83
38. Wabashaw	44 30	92 15	850	2.13	0.63	1.20	..	3.40	4.11	7.10	1.30	..	..	..	1.44
39. Waterford	44 30	93 15	1000	..	..	..	..	..	..	..	5.44	..	..	..	..
40. White Bear Lake, near	45 37	95 30	..	..	1.47	1.04	..	3.20	..	..	..	..	..	..	0.27
41. White Earth [f]	47 40	96 20	1670	0.70	1.85	3.37	..	..	..	..	..	18.51	6.55	0.80	0.92
42. White Water	44 10	92 00	2000	1.20	3.00	1.40	2.50	7.20	2.38	1.82	2.60	2.30	2.70	2.10	1.00

[a] Township 127 north, range 37 W.

[b] Also called Fort Gaines.

[c] Also known as Hazlewood, Omahoo, and Dakota Mission.

MINNESOTA.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
1	8.39	13.87	7.83	3.88	33.97	Jan. 1869;	Mar. 1872	2	2	Dr. B. F. Babcock and Wife.	S. O.
2	6.71	9.25	6.97	4.67	27.60	Nov. 1858;	Nov. 1874	13	9	H. and C. Weiland, T. Clarke.	Met. Obs. Vol 1; S. O.
3	5.41	12.05	3.17	2.45	23.08	Oct. 1872;	June, 1876	3	9	H. Frey, M. L. Hearne.	Sig. Serv. Reps.
4	11.20	14.50	10.06	4.59	40.35	Jan. 1858;	Oct. 1860	2	7	A. A. Hibbard.	Met. Obs. Vol. 1; S. O.
5	13.97	13.61	9.96	5.82	43.36	May, 1859;	May, 1861	1	8	T. F. Thickstun.	" "
6	..	..	..	..	..	Mar. 1871;	Mar. 1871	0	1	H. M. Mation, M. D.	S. O.
7	..	..	..	..	..	June, 1862;	June, 1862	0	1	O. E. Garrison.	"
8	6.48	15.44	8.87	2.51	33.30	Oct. 1872;	June, 1876	3	9	R. R. Martin, — Ruthven, T. S. Collins.	Sig. Ser. Reps.
9	..	..	..	..	..	Mar. 1873;	Apr. 1873	0	2	M. E. Jaquith.	S. O.
10	9.45	13.23	7.90	..	..	June, 1858;	Apr. 1866	3	8	A. C. & H. L. Smith.	Met. Obs. Vol. 1; S. O.
11	6.48	9.11	5.86	4.02	25.47	July, 1853;	Apr. 1867	13	4	Assistant Surgeon.	Ar. Met. Regs., 1855 & 1860; MS. from S. G. O.
12	6.08	12.10	6.79	2.71	27.68	Jan. 1850;	Dec. 1874	22	9	"	Ar. Met. Regs., 1855 & 1860; MS. from S. G. O.
13	6.20	10.14	6.40	2.57	25.31	July, 1836;	Dec. 1874	29	4	"	Ar. Met. Regs., 1855 & 1860; MS. from S. G. O.
14	6.15	10.36	6.53	2.47	25.51	June, 1861;	May, 1862	1	0	T. F. Thickstun.	S. O.
15	..	10.25	..	..	..	June, 1873;	July, 1874	0	7	M. H & T. M. Young.	"
16	..	..	..	..	..	Nov. 1874;	Dec. 1874	0	2	C. A. Wyman.	"
17	9.70	..	..	7.72	..	Dec. 1860;	July, 1861	0	8	O. H. Kelley.	"
18	..	..	..	..	..	Jan. 1859;	Jan. 1859	0	1	A. Whitefield.	Met. Obs. Vol. I.
19	7.64	7.87	8.47	5.28	29.26	Mar. 1869;	Mar. 1873	2	8	M. H. & T. M. Young.	S. O.
20	7.78	11.84	6.47	2.98	29.07	May, 1854;	July, 1862	5	2	S. R. & J. B. Riggs, A. W. Huggins.	Met. Obs. Vol. 1; S. O.
21	8.72	17.57	10.27	2.53	39.09	Jan. 1872;	Nov. 1873	1	8	S. Pendergast.	S. O.
22	..	..	..	..	..	Jan. 1857;	May, 1857	0	4	B. F. Odell.	Met. Obs. Vol. 1.
23	7.73	11.45	5.85	2.42	27.45	July, 1870;	July, 1872	2	1	H. C. Wadsworth.	S. O.
24	7.41	9.87	7.39	4.21	28.88	Jan. 1869;	Dec. 1870	2	0	W. W. Murphy.	"
25	9.05	13.33	8.14	4.72	35.24	Jan. 1866;	Dec. 1874	8	10	W. Cheney.	"
26	6.55	11.38	5.49	2.53	25.95	Mar. 1864;	Dec. 1874	10	9	C. Roos.	"
27	11.91	..	..	..	..	Jan. 1862;	May, 1862	0	5	O. E. Garrison.	"
28	8.65	10.18	8.67	..	..	Jan. 1856;	Aug. 1860	2	9	O. E. Garrison, S. M. Byers.	Met. Obs. Vol. I; S. O.
29	8.71	16.53	..	4.57	..	Nov. 1855;	Jan. 1873	1	0	A. M. Stephens, J. Brooks, J. M. Beaman.	" " "
30	..	..	..	..	..	Nov. 1864;	Nov. 1864	0	1	. . . . .	S. O.
31	..	..	..	..	..	Jan. 1869;	Mar. 1869	0	3	A. Milmine.	"
32	6.97	9.40	..	3.60	..	Jan. 1854;	Dec. 1874	1	9	Dr. C. F. Anderson, Prof. Mitchell & Wife.	Met. Obs. Vol. 1; S. O.
33	..	9.92	..	..	..	May, 1860;	Aug. 1861	0	8	O. E. Garrison.	S. O.
34	7.81	12.14	7.09	3.01	30.05	Jan. 1859;	June, 1876	17	1	J. W. Heimstreet, A. B. Paterson, W. O. Bailey.	Sig. Serv. Rep.; S. O.
35	5.28	9.93	7.06	2.47	24.74	May, 1865;	Dec. 1874	7	11	C. W. & C. E. Woodbury.	S. O.
36	..	..	..	..	..	Nov. 1858;	Nov. 1858	0	1	A. Van Voorhies.	Met. Obs. Vol. 1.
37	9.35	37.98	..	2.54	..	Jan. 1871;	Aug. 1873	1	9	Dr. D. Pyle.	S. O.
38	..	12.51	..	4.20	..	Dec. 1857;	Aug. 1858	0	8	S. L. Hillier.	Met. Obs. Vol. 1.
39	..	..	..	..	..	Aug. 1873;	Aug. 1873	0	1	J. S. Nichols.	S. O.
40	..	..	..	..	..	Feb. 1861;	Dec. 1861	0	4	O. E. Garrison.	"
41	..	..	25.86	3.47	..	Sept. 1869;	Mar. 1870	0	7	Dr. D. Pyle.	"
42	11.10	6.80	7.10	5.20	30.20	June, 1871;	July, 1874	1	3	J. K. C. Winters.	"

[a] Township 126 north, range 38 W., Sec. 17. [e] Hamlin University. [f] Reservation.

MISSISSIPPI.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Baldwyn	34° 30′	88° 35′	500	4.00	6.40	..	..	..	..	..	..	..	..	..	2.50
2. Brookhaven, near	31 34	90 24	430	6.04	5.66	7.46	8.68	4.87	4.77	5.91	4.77	3.21	2.48	5.01	6.03
3. Church Hill	31 42	91 16	250	2.69	5.28	3.47	3.01	3.47	3.30	3.72	4.20	3.91	2.40	3.86	6.66
4. Clinton[a]	32 20	90 20	..	4.85	8.03	11.38	..	..	..	..	..	..	..	..	..
5. Coleman	34 40	89 40	210	9.20	11.70	16.50	19.60	..	..	..	..	..	..	..	2.70
6. Columbus	33 31	88 28	227	5.61	6.28	5.84	5.90	3.91	3.75	4.40	3.85	2.90	2.22	5.20	5.60
7. Early Grove	35 00	90 00	484	..	..	..	..	..	..	..	..	..	..	..	2.60
8. East Pascagoula	30 20	88 33	20	..	..	..	..	5.55	1.64	7.63	5.03	3.29	4.82	1.83	..
9. Enterprise	32 12	88 50	285	..	..	..	8.60	..	..	..	..	..	..	..	10.30
10. Fayette	31 43	91 07	..	2.45	1.35	11.20	8.60	5.35	5.00	6.05	4.75	4.90	1.25	3.65	4.00
11. Grenada	33 48	89 50	..	5.55	6.94	7.14	8.44	3.81	3.64	4.66	2.04	1.98	2.19	4.09	4.78
12. Hernando	34 48	90 00	275	..	..	..	..	..	..	..	..	..	0.89	3.17	5.17
13. Holly Springs	34 45	89 25	..	1.04	4.47	8.46	8.69	5.18	2.68	5.32	4.14	3.78	1.95	1.97	4.25
14. Jackson	32 29	90 12	350	5.94	5.87	3.39	4.65	3.50	4.57	6.22	3.39	0.89	2.24	7.15	6.79
15. Jackson	32 29	90 12	350	5.93	3.89	8.24	13.19	3.25	3.85	5.95	4.06	2.02	1.19	6.12	3.59
16. Kingston	31 24	91 26	..	0.75	3.50	9.62	..	..	..	..	..	..	..	..	..
17. Lake Washington	33 00	91 06	..	..	..	..	..	..	..	1.70	0.09	..	..	..	..
18. Marion	32 25	89 46	168	7.43	6.90	5.76	10.25	4.50	3.90	4.70	2.67	3.10	2.17	5.10	5.73
19. Natchez[b]	31 34	91 24	264	5.19	5.26	4.76	5.48	4.21	3.55	5.10	3.79	4.17	3.06	4.18	5.64
20. Oxford[c]	34 23	88 29	300	2.61	3.59	1.93	5.15	1.70	5.63	4.01	5.44	1.11	1.45	8.67	2.34
21. Pass Christian	30 20	89 12	20	..	8.32	1.32	1.49	1.80	5.18	5.36	3.50	5.70	3.23	8.34	1.74
22. Paulding[d]	32 02	89 03	215	3.27	4.88	3.50	8.94	2.16	3.72	3.79	5.43	2.59	2.39	3.39	7.20
23. Philadelphia	32 48	89 06	550	3.40	5.40	6.26	6.65	1.70	4.65	3.70	3.20	2.40	2.05	..	4.40
24. Port Gibson[e]	31 59	91 00	..	4.79	4.20	3.31	5.31	..	..	..	3.95	4.35	1.88	5.78	..
25. Ship Island	30 12	88 57	15	6.30	7.07	0.39	8.46	..	..	..	..	..	2.65	2.75	2.61
26. Vicksburg	32 23	90 53	350	5.03	4.87	5.24	5.37	3.94	3.24	4.55	3.50	3.37	2.52	4.39	5.23
27. Wesson	31 50	90 30	500	5.68	3.50	3.02	2.65	6.75	11.50	3.30	3.05	2.65	0.87	5.80	..

MISSOURI.

1. Allenton, near	38 29	90 45	482	2.25	2.64	4.94	3.46	4.55	4.13	3.69	3.62	3.76	2.56	2.91	2.63
2. Athens	40 30	91 45	..	1.31	3.10	3.07	4.73	1.19	2.19	3.95	1.70	2.96	4.95	2.75	1.43
3. Bolivar	37 35	93 30	1000	2.40	0.95	4.90	3.65	3.40	3.70	3.10	2.81	1.20	0.12	6.50	4.48
4. Cape Girardeau[f]	37 20	89 34	..	4.00	4.83	..	..	4.39	2.71	5.85	4.97	0.94	2.63	5.94	3.11
5. Cassville	36 41	93 56	3000	..	1.82	1.80	3.40	4.51	1.68	1.69	0.80	..	0.85	2.18	1.97
6. Cave Spring	37 20	93 30	1300	2.82	2.74	3.19	4.87	3.10	1.70	1.70	2.47	3.57	3.60	4.03	2.47
7. Corning	40 17	95 33	25[g]	1.29	0.78	1.07	1.74	2.71	3.40	2.65	1.89	2.87	1.98	0.93	0.62
8. Dundee[h]	38 30	91 10	536	2.55	5.61	14.50	11.50	5.75	7.00	..	3.75	..	4.50	5.50	4.87
9. Easton	39 46	94 42	920	1.73	0.97	..	..	1.10	8.40	6.67	4.43	6.64	2.74	0.63	1.46
10. East Prairie[i]	36 50	89 20	..	2.36	2.10	3.48	4.35	2.26	1.99	6.75	3.58	1.80	1.47	2.78	3.23
11. Edina	40 10	92 12	..	1.74	1.35	2.30	3.81	1.94	3.88	3.31	2.12	4.63	1.82	1.18	2.40
12. Edinburg	40 06	93 50	..	0.25	..	..	..	..	..	..	..	2.79	2.10	3.00	2.25

[a] Mississippi College.

[b] Observations from February, 1799, to December, 1803, at Forest, four miles east of Natchez, communicated by the author, W. Dunbar, to President Jefferson, and by him to the Am. Phil. Soc.

MISSISSIPPI.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
1	..	..	..	12.90	..	Dec. 1871;	Feb. 1872	0	3	Dr. S. K. Jennings.	S. O.
2	21.01	15.45	10.70	17.73	64.89	Jan. 1869;	Dec. 1874	6	0	W. E. A. & T. J. R. Keenan & Wife, T. B. Moore.	"
3	9.95	11.22	10.17	14.63	45.97	Jan. 1850;	July, 1855	5	7	Dr. F. B. Coleman.	Am. Alm. 1856.
4	..	..	..	..	..	Jan. 1871;	Mar. 1871	0	3	R. S. Jackson.	S. O.
5	..	..	..	23.60	..	Dec. 1872;	Apr. 1874	0	5	T. B. Coleman.	"
6	15.65	12.00	10.32	17.49	55.46	May, 1855;	May, 1872	16	7	J. T. Tarrant, Assistant Surg., Prof. J. S. Lull.	Met. Obs. Vol. 1; S. Coll.; S. O.; MS. from S. G. O.
7	..	..	..	..	..	Dec. 1870;	Dec. 1870	0	1	W. M. Abernethy.	S. O.
8	..	14.30	9.94	..	..	Aug. 1849;	Sept. 1853	1	7	Assistant Surgeon.	Ar. Met. Reg. 1855.
9	..	..	..	..	..	Dec. 1870;	Apr. 1873	0	2	E. S. Robinson.	S. O.
10	25.15	15.80	9.80	7.80	58.55	Jan. 1867;	Dec. 1874	1	11	T. H. Cleland, G. C. Armstrong.	"
11	19.39	10.34	8.26	17.27	55.26	Jan. 1869;	Dec. 1874	5	9	A. Moore, I. S. Payne, Assistant Surgeon.	MS. from S. G. O.; S. O.
12	..	..	..	..	..	Oct. 1859;	Dec. 1859	0	3	Dr. W. M. Johnston.	Met. Obs. Vol. 1.
13	22.33	12.14	7.70	9.76	51.93	Aug. 1867;	Nov. 1872	3	0	T. B. Coleman, Asst. Surg.	S. O.; MS. from S. G. O.
14	11.54	14.18	10.28	18.60	54.60	June, 1849;	Dec. 1855	4	2	A. R. Greer, Hatch and others.	S. Coll.; Met. Obs. Vol. 1.
15	24.68	13.86	9.33	13.41	61.28	Jan. 1854;	Dec. 1874	2	4	Assistant Surg.	Met. Obs. Vol. 1; MS. from S. G. O.
16	..	..	..	..	..	Jan. 1867;	Mar. 1867	0	3	J. E. Smith.	S. O.
17	..	..	..	..	..	July, 1854;	Aug. 1854	0	2	J. A. Shepherd.	Met. Obs. Vol. 1.
18	20.51	11.27	10.37	20.06	62.21	Mar. 1868;	Mar. 1873	3	4	Dr. T. W. Florer.	S. O.
19	14.45	12.44	11.41	16.09	54.39	Feb. 1799;	June, 1870	21	10	R. and W. McCary, W. Dunbar, Dr. H. Tooley, J. E. Smith, Assistant Surgeon.	Am. Alm.; Met. Obs. Vol. 1.; S. O.; MS. from S. G. O.; Am. Phil. Soc.
20	8.78	15.08	11.23	8.54	43.63	Jan. 1855;	June, 1856	1	6	Prof. L. Harper.	Met. Obs. Vol. 1.
21	4.61	14.04	17.27	..	..	July, 1843;	July, 1860	1	6	J. A. Shepherd, & Asst. Surg.	Ar. Met. Reg. 1855; S. Coll.
22	14.60	12.94	8.37	15.35	51.26	Feb. 1858;	Apr. 1871	3	6	E. S. Robinson.	Met. Obs. Vol. 1; S. O.
23	14.61	11.55	..	13.20	..	Feb. 1870;	Oct. 1871	1	6	L. A. Bowden.	S. O.
24	..	..	12.01	..	..	Aug. 1855;	Apr. 1857	0	10	Prof. J. B. Elliott.	Met. Obs. Vol. 1.
25	..	..	..	15.98	..	Oct. 1867;	Apr. 1868	0	7	Assistant Surgeon.	MS. from S. G. O.
26	14.55	11.29	10.28	15.13	51.25	Jan. 1840;	June, 1876	22	0	N. W. & A. L. Hatch, J. Dascomb, & Asst. Surg.	Am. Alm.; S. Coll.; MS. from S. G. O.; Sig. Ser. Reps.
27	12.42	17.85	9.32	..	..	Aug. 1872;	Mar. 1874	1	5	J. Bithie & J. Peake.	S. O.

MISSOURI.

1	12.95	11.44	9.23	7.52	41.14	July, 1864;	July, 1871	6	6	A. Fendler.	S. O.
2	8.99	7.84	10.66	5.84	33.33	Jan. 1864;	July, 1866	2	1	J. T. Caldwell.	"
3	11.95	9.61	7.82	7.83	37.21	Dec. 1868;	Jan. 1870	1	2	J. A. Race.	"
4	..	13.53	9.51	11.94	..	Oct. 1856;	Jan. 1858	1	1	J. Knoud.	Met. Obs. Vol. 1.
5	9.71	4.17	..	..	..	Feb. 1860;	June, 1861	1	2	M. L. Wyrick.	S. O.
6	11.16	5.87	11.20	8.03	36.26	Jan. 1871;	Dec. 1874	2	1	T. W. Cothane, R. H. McCord.	"
7	5.52	7.94	5.78	2.69	21.93	Apr. 1870;	Dec. 1874	4	4	H. Martin.	"
8	31.75	..	..	13.03	..	May, 1860;	June, 1861	0	11	S. S. Bailey.	"
9	..	19.50	10.01	4.16	..	Sept. 1864;	Nov. 1866	1	7	P. B. Sibley.	"
10	10.09	12.32	6.05	7.69	36.15	Jan. 1868;	Dec. 1870	3	0	A. Miller.	S. Coll.
11	8.05	9.31	7.63	5.49	30.48	May, 1859;	Dec. 1866	7	8	I. C. Agnew.	"
12	..	..	7.89	..	..	Sept. 1866;	Jan. 1867	0	5	J. E. Vertrees.	S. O.

[a] University of Mississippi. [d] Combined with observations at Prairie Line and Fellowship. [e] Elliott's Academy.
[f] St. Vincent's College. [g] Above Missouri River. [h] Amount apparently excessive. [i] Near Charleston.

MISSOURI—CONTINUED.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
13. Frankford	39° 30′	91° 25′	..	..	..	..	..	..	..	..	..	..	3.01	2.96	0.61
14. Gallatin	39 55	94 05	..	5.30	0.20	..	4.31	..	..	4.57	4.90	4.70	1.20	0.11	..
15. Hannibal	39 44	91 23	486	0.31	1.23	2.90	2.15	5.75	4.50	1.25	1.84	1.90	2.91	0.50	0.89
16. Harrisonville	38 38	94 25	..	1.39	2.66	2.57	4.78	4.75	5.09	4.34	5.06	5.80	2.30	2.57	2.32
17. Hematite	38 11	90 37	475	2.47	2.12	3.69	3.38	4.35	3.29	4.09	4.69	2.82	2.82	2.78	2.63
18. Hermitage	37 56	93 15	1037	1.65	1.06	2.91	3.40	3.76	3.86	4.67	3.34	2.66	2.04	2.74	2.17
19. High Hill	38 53	91 25	879	1.70	2.44	1.60	4.93	4.03	4.40	4.26	1.81	4.91	2.57	1.38	..
20. Jefferson City	38 35	92 16	650	..	1.70	..	..	..	..	..	..	..	..	..	1.65
21. Jefferson Barracks	38 28	90 15	472	2.27	2.16	3.01	3.13	4.67	4.97	4.79	3.86	3.27	3.10	3.23	2.42
22. Kansas City	39 05	94 40	710	1.59	0.78	2.33	3.39	3.92	4.06	3.43	2.60	2.92	3.89	1.96	1.38
23. Keytesville	39 27	93 03	650	..	..	..	4.40	3.56	4.67	5.70	4.50	4.50	2.95	..	..
24. Laborville	38 33	90 43	..	..	1.30	3.73	16.10	7.00	2.10	..	..	..	..	..	..
25. Luray, near	40 25	91 57	754	..	..	3.69	3.65	..	..	..	..	..	..	..	..
26. Mount Vernon	37 04	93 55	1420	3.19	3.12	2.73	4.73	6.55	2.07	4.39	3.15	2.90	3.85	2.06	2.08
27. Nevada	37 50	94 23	850	3.52	1.67	2.86	4.47	6.00	4.70	8.45	2.20	2.75	4.77	1.31	1.87
28. North Springfield	37 15	93 20	1460	1.20	1.41	3.07	4.51	5.25	3.47	4.76	2.00	0.60	5.64	2.70	0.70
29. Oregon	39 59	95 09	1100	1.69	1.74	2.18	3.55	4.46	4.61	4.68	4.80	3.26	2.20	1.70	1.84
30. Palmyra [a]	39 47	91 37	664	..	..	..	..	1.87	1.72	2.76	1.89	2.37	0.51	4.49	5.66
31. Paris, near	39 30	92 00	700	3.80	1.50	0.90	1.80	1.20	4.55	1.40	1.80	2.40	1.30	0.50	1.30
32. Richland, near	37 51	92 24	1134	3.25	2.87	2.45	3.70	3.19	2.67	4.00	2.25	4.08	2.07	0.88	4.87
33. Rhineland, near [b]	38 42	91 46	800	..	2.44	0.84	2.04	1.36	..	..	..	..	..	..	1.08
34. Rolla near [c]	37 58	91 44	950	2.27	2.18	3.39	4.27	4.01	3.22	4.38	3.53	3.62	2.15	2.27	2.21
35. St. Louis	38 37	90 12	481	2.07	2.43	3.59	3.56	4.56	5.37	3.94	3.70	2.81	2.91	2.86	2.89
36. St. Joseph	39 45	94 53	844	0.99	0.69	1.24	3.27	3.34	5.70	6.03	5.68	1.90	2.63	3.10	1.48
37. Springfield	37 12	93 12	1382	..	1.50	3.10	3.26	..	..	4.48	..	..	..	..	..
38. Stockton	37 43	93 48	800	..	4.38	..	1.25	..	..	..	..	..	..	..	1.95
39. Stoutland	37 48	92 34	1500	1.90	3.10	2.23	3.50	2.75	3.40	2.95	1.10	3.80	3.85	3.00	3.57
40. Union	38 25	91 07	616	1.75	2.03	1.74	2.76	4.78	3.46	5.64	1.46	7.20	2.40	1.11	2.05
41. Warrensburg	38 45	93 40	600	3.52	0.50	2.22	2.59	4.31	7.67	2.75	4.00	2.55	1.22	3.74	1.93
42. Warrenton	38 50	91 15	825	..	0.41	..	..	..	..	..	..	..	..	..	..
43. Wet Glaze	37 57	92 35	1450	2.57	1.95	2.07	4.42	3.87	2.77	3.37	2.17	3.20	2.30	2.60	6.40
44. Wyaconda Prairie [d]	40 12	91 37	..	1.38	1.89	3.65	6.43	2.49	3.16	4.93	2.75	6.09	4.18	2.47	3.58

MONTANA.

1. Bozeman	45 41	111 03	4839	0.38	2.11	1.02	..	1.86	5.90	..	1.04	2.61	0.23	0.51	0.89
2. Camp Baker	46 41	111 11	4538	0.88	0.97	0.59	0.60	2.05	1.33	0.49	1.34	0.62	0.79	2.59	0.09
3. Camp Cook	47 48	109 38	..	0.13	0.38	0.42	0.42	1.72	2.72	1.08	0.14	0.73	1.05	0.74	1.41
4. Deer Lodge City	46 26	112 32	4240	0.72	0.73	1.22	1.38	2.74	2.03	0.90	1.04	1.17	0.50	0.76	0.88
5. Fort Benton [e]	47 50	110 40	2730	0.78	0.46	0.68	1.12	3.54	1.37	2.15	0.96	0.63	0.46	0.56	0.55
6. Fort Ellis	45 40	111 00	4878	0.53	0.71	1.69	1.40	4.08	1.95	0.45	1.20	1.21	0.67	0.50	1.35
7. Fort Shaw	47 30	111 48	6000	0.32	0.39	0.43	0.40	1.35	1.25	0.56	0.49	0.56	0.30	0.48	0.42
8. Fort Sheridan	..	..	..	1.20	0.17	0.63	0.28	8.48	3.53	1.50	7.10	2.15	0.39	1.05	1.45
9. Fort C. F. Smith	45 20	107 56	..	0.56	0.66	1.13	0.73	2.89	1.68	0.15	0.02	0.22	0.25	2.42	1.24
10. Fort Union	48 03	104 00	2000	..	..	..	..	..	..	..	..	..	9.00	8.80	..

[a] St. Paul's College. [b] Vogel's Farm, near Rhineland. [c] 3½ miles west of Rolla.

MISSOURI—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
13	..	..	..	..	..	Oct. 1874;	Dec. 1874	0	3	J. Grant.	S. O.
14	..	..	6.01	..	..	July, 1872;	Apr. 1873	0	8	A. H. Weston.	"
15	10.80	7.59	5.31	2.43	26.13	Jan. 1854;	May, 1855	1	4	O. H. P. Lear.	Met. Obs. Vol 1.
16	12.10	14.49	10.67	6.37	43.63	Oct. 1863;	Sept. 1870	6	5	J. Christian.	S. O.
17	11.42	12.07	8.42	7.22	39.13	Apr. 1868;	Mar. 1872	4	0	J. M. Smith.	"
18	10.07	11.87	7.44	4.88	34.26	Sept. 1867;	Dec. 1869	2	3	I. & Dr. W. Moore.	"
19	10.56	10.47	8.86	..	..	Jan. 1873;	Nov. 1873	0	11	W. S. Chapin.	"
20	..	..	..	..	..	Dec. 1868;	Feb. 1872	0	2	N. de Wyl.	"
21	10.81	13.62	9.60	6.85	40.88	July, 1840;	July, 1862	20	11	Assistant Surgeon.	Ar. Met. Regs., 1855 & 1860; MS. from S. G. O.
22	9.64	10.09	8.77	3.75	32.25	Mar. 1870;	Nov. 1874	3	8	G. R. & S. W. Salisbury.	S. O.
23	..	14.87	..	..	..	May, 1869;	July, 1873	0	11	C. Veatch, H. H. Mann.	"
24	26.83	..	..	..	..	Feb. 1864;	June, 1864	0	5	W. Muir.	"
25	..	..	..	..	..	Mar. 1861;	Apr. 1861	0	2	B. P. Hanan.	"
26	14.01	9.61	8.81	8.39	40.82	July, 1871;	July, 1874	2	10	W. Harris.	"
27	13.33	15.35	8.83	7.06	44.57	Sept. 1871;	May, 1874	2	5	P. J. Bend, Dr. E. R. Morerod.	"
28	12.83	10.23	8.94	3.31	35.31	May, 1871;	July, 1872	1	3	R. H. McCord.	"
29	10.19	14.09	7.16	5.27	36.71	July, 1855;	Apr. 1877	21	10	W. Kaucher.	Sm. Inst., (Letter Dated May 9, 1877); Sig. Serv. Reps.
30	..	6.37	7.37	..	..	June, 1856;	Nov. 1857	1	1	G. P. Comings.	Met. Obs. Vol. 1.
31	3.90	7.75	4.20	6.60	22.45	Feb. 1860;	Jan. 1862	1	4	W. F. Maxey.	S. O.
32	9.34	8.92	7.03	10.99	36.28	June, 1872;	June, 1874	2	0	S. L. Goodwin.	"
33	4.24	..	..	..	..	Dec. 1859;	May, 1860	0	5	C. Vogel.	Met. Obs. Vol. 1; S. O.
34	11.67	11.13	8.04	6.66	37.50	Apr. 1866;	Dec. 1874	8	8	H. Ruggles.	S. Coll.; S. O.
35	11.71	13.01	8.58	7.39	40.69	July, 1836;	June, 1876	40	0	Asst. Surgeon, Drs. G. Engelmann & Wislizenus, B. D. Kribben, J. H. Luenemann, C. J. B. Leib, J. Straetmans, B. B. Brown, G. Prender, A. Fendler.	Ar. Met. Regs. 1855 & 1860; S. O.; Trans. St. Louis Acad. Sci.; S. Coll.; Met. Obs. Vol. 1; Sig. Serv. Reps.
36	7.85	17.41	7.63	3.16	36.05	May, 1857;	Apr. 1873	2	10	H. Bullard, E. B. Neely.	Met. Obs. Vol. 1; S. O.
37	..	..	..	..	..	July, 1857;	Apr. 1858	0	4	J. A. Stephens.	Met. Obs. Vol. 1.
38	..	..	..	..	..	Feb. 1860;	Feb. 1861	0	4	W. Wells.	S. O.
39	8.48	7.45	10.65	8.57	35.15	Mar. 1872;	Dec. 1874	1	10	A. Y. Carlton, E. D. Denny.	"
40	9.28	10.56	10.71	5.83	36.38	Jan. 1866;	June, 1867	1	5	I. Moore.	"
41	9.12	14.42	7.51	5.95	37.00	July, 1868;	Dec. 1874	1	8	J. E. Pollock, S. L. Goodwin.	"
42	..	..	..	..	..	Feb. 1860;	Feb. 1862	0	1	M. A. Tidswell.	"
43	10.36	8.31	8.10	10.92	37.69	Jan. 1872;	Dec. 1874	2	10	A. Y. Carlton.	"
44	12.57	10.84	12.74	6.85	43.00	Apr. 1862;	Dec. 1868	5	4	G. P. Ray.	"

MONTANA.

1	..	..	3.35	3.38	..	Aug. 1872;	Dec. 1873	0	11	Peter Koch.	S. O.
2	3.24	3.16	4.00	1.94	12.34	Jan. 1871;	Dec. 1874	2	3	Assistant Surgeon.	MS. from S. G. O.
3	2.56	3.94	2.52	1.92	10.94	Oct. 1866;	Sept. 1869	2	7	"	" "
4	5.34	3.97	2.43	2.33	14.07	Nov. 1869;	Dec. 1873	3	10	G. Stewart.	S. O.
5	5.34	4.48	1.65	1.79	13.26	Jan. 1869;	June, 1876	7	1	W. McGillivray, J. F. Tenney, S. V. Clevenger, Asst. Surg.	MS. from S. G. O.; Sig. Ser. Reps.; S. O.
6	7.17	3.60	2.38	2.59	15.74	Aug. 1868;	Dec. 1874	3	5	Assistant Surgeon.	MS. from S. G. O.
7	2.18	2.30	1.34	1.13	6.95	Oct. 1867;	Dec. 1874	7	3	"	" "
8	9.39	12.13	3.59	2.82	27.93	Jan. 1874;	Dec. 1874	1	0	R. H. Clendennin.	S. O.
9	4.75	1.85	2.89	2.46	11.95	Nov. 1866;	June, 1868	1	8	Assistant Surgeon.	MS. from S. G. O.
10	..	..	..	..	..	Oct. 1857;	Nov. 1857	0	2	"	S. Coll.

[a] Near Canton.

[b] Combined with Benton.

MONTANA—CONTINUED.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
11. Helena City	46° 37′	112° 00′	4150	1.85	0.46	1.32	2.20	4.30	2.22	0.48	0.25	0.95	1.30	0.50	3.95
12. Missoula	46 45	113 45	3300	2.15	0.79	1.22	0.99	4.24	1.41	1.01	0.19	0.75	0.44	1.23	3.05
13. Trout Creek	46 42	111 48	..	0.69	0.44	..	..	..	..	..	..	..	..	..	..
14. Virginia City	45 18	111 58	5465	0.53	0.52	1.17	0.68	4.79	2.12	1.28	2.82	1.35	0.55	0.68	0.15

NEBRASKA.

1. Bellevue	41 08	95 55	..	1.09	1.42	2.15	2.21	3.81	3.73	4.37	2.45	3.33	1.93	1.05	1.52
2. Blair	41 32	96 07	1111	..	..	..	..	..	..	..	1.61	..	..	..	..
3. Clear Creek	41 16	96 41	..	..	..	..	..	..	0.75	0.76	..	6.63	1.51	1.45	0.33
4. Dakota City	42 25	96 25	1090	0.63	0.50	0.65	..	..	..	..	..	..	..	1.38	1.17
5. Decatur	42 00	96 16	35[a]	..	..	0.63	1.09	3.24	4.79	4.23	..	..	..	..	..
6. De Soto	41 31	96 05	1100	0.56	1.10	1.22	2.92	4.69	4.54	5.12	2.59	5.09	1.69	1.24	1.30
7. Emerson	40 40	96 00	1300	0.58	0.76	1.50	2.47	4.62	4.87	5.47	1.27	3.08	1.99	1.60	1.17
8. Fontanelle	41 32	96 27	1000	..	..	..	..	3.00	6.20	9.40	..	6.23	1.00	2.42	2.90
9. Fort Kearney	40 38	98 57	2360	0.56	0.43	1.25	2.26	4.30	3.69	4.74	2.70	2.29	1.57	0.97	0.46
10. Fort McPherson	41 00	100 30	2695	0.22	0.32	0.40	1.81	4.33	3.63	1.92	2.01	2.28	0.37	0.46	0.71
11. Glendale	40 55	96 05	1300	0.91	2.10	2.00	3.03	6.49	5.73	4.50	5.30	3.69	1.23	1.12	1.52
12. Howard	40 30	95 56	..	..	..	..	..	..	..	..	..	..	..	1.35	0.65
13. Ionia	42 41	96 50	3000	..	..	..	..	..	..	6.50	1.50	..	..	..	..
14. Lincoln	40 50	96 45	1647	..	..	..	2.40	..	..	..	..	..	..	..	..
15. Nebraska City	40 41	95 51	1005	2.54	0.65	1.85	1.82	6.02	5.36	1.81	2.26	6.23	2.06	1.23	0.19
16. Norfolk	42 02	97 20	..	..	0.34	0.75	0.94	5.52	5.10	..	1.99	1.93	0.75	0.28	0.55
17. North Platte	41 08	100 46	2789	0.17	0.19	0.45	3.36	2.33	1.05	2.12	0.66	1.40	0.80	0.55	0.21
18. Nursery Hill	40 40	96 13	1266	..	7.75	3.86	6.72	2.94	..	..	..	..	..	..	..
19. Omaha[b]	41 15	95 56	1300	1.06	0.74	1.34	2.79	3.55	4.69	5.94	4.37	3.76	2.20	1.19	1.21
20. Omaha Agency	42 07	96 22	..	0.40	0.82	1.02	2.85	4.34	2.95	3.21	2.54	3.11	1.26	1.40	1.68
21. Plattsmouth	41 00	95 50	1018	0.65	1.55	2.51	..	3.15	18.02	3.75	1.20	6.66	2.11	1.13	1.20
22. Plymouth, near	40 15	97 00	1360	..	..	..	..	6.05	4.15	0.50	1.55	1.35	0.25	0.50	..
23. Richland[c]	41 22	96 16	1350	1.09	0.93	1.82	..	..	..	..	..	3.41	..	..	0.35
24. Red Cloud	40 05	98 30	1650	0.41	0.25	0.37	0.01	..	7.65	5.67	2.52	..	0.30	0.00	0.35
25. Rock Bluffs	40 56	95 50	1100	3.30	..	..	..	..	..	..	..	..	..	..	..
26. Santee Agency	42 46	97 50	..	0.72	0.72	0.70	2.42	3.16	4.30	2.63	1.89	0.96	1.06	1.32	0.81
27. Section 14	41 22	96 12	1025	2.22	0.60	..	..	..	..	..	..	..	..	..	..
28. Sidney Barracks	41 09	102 58	4073	0.43	0.23	0.77	1.42	3.77	1.17	1.41	1.88	0.76	1.07	0.17	0.17
29. West Point	41 50	96 41	1337	..	..	..	3.72	6.45	4.75	..	..	..	..	..	..

NEVADA.

1. Camp Halleck	40 49	115 20	5790	1.01	1.13	1.09	0.70	1.87	0.75	0.27	0.17	0.21	0.71	1.39	1.68
2. Camp McDermit	41 58	117 40	4700	1.41	1.13	0.82	0.78	1.42	0.47	0.19	0.06	0.15	0.39	0.59	1.12
3. Camp McGarry	41 40	119 00	6000	4.31	0.41	6.00	0.43	3.73	0.56	0.00	0.22	0.82	1.02	1.99	2.97
4. Camp Winfield Scott	41 34	117 30	..	4.29	2.31	1.54	0.37	1.77	0.69	0.20	0.24	1.03	0.06	1.00	3.83
5. Fort Churchill	39 17	119 19	4284	1.42	0.61	0.21	0.10	1.27	0.13	1.16	0.22	0.05	0.18	1.04	1.04
6. Fort Ruby	40 04	115 31	6153	2.24	0.23	1.63	1.57	2.04	0.59	0.59	1.62	0.51	1.89	0.94	1.76

[a] Above Missouri River.

[b] Observations for four months in 1860 and 1861 at Pioneer Grove.

MONTANA—Continued.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
11	7.82	2.95	2.75	6.26	19.78	Jan. 1866;	Oct. 1869	2	0	A. C. Wheston.	S. O.
12	6.45	2.61	2.42	5.99	17.47	Nov. 1870;	Dec. 1874	3	5	J. M. Minnesinger.	"
13	..	..	..	..	..	Jan. 1874;	Feb. 1874	0	2	P. Koch.	"
14	6.64	6.22	2.58	1.20	16.64	Feb. 1871;	June, 1876	3	8	E. M. Goddard, R. B. Watkins, J. B. Campbell.	Sig. Ser. Reps.; S. O.

NEBRASKA.

1	8.17	10.55	6.31	4.03	29.06	Mar. 1858;	Dec. 1874	15	3	E. E. Caldwell, W. Hamilton.	Met. Obs. Vol. 1.; S. O.
2	..	..	..	..	..	Aug. 1873;	Aug. 1873	0	1	P. F. Peterson.	S. O.
3	..	..	9.59	..	..	June, 1874;	Dec. 1874	0	6	A. F. Bryant.	"
4	..	..	..	2.30	..	Jan. 1868;	Jan. 1869	0	6	H. H. Brown.	"
5	4.96	..	..	..	..	Mar. 1869;	July, 1869	0	5	Dr. S. C. Case.	"
6	8.83	12.25	8.02	2.96	32.06	May, 1867;	Dec. 1874	7	4	C. Seltz.	"
7	8.59	11.61	6.67	2.51	29.38	June, 1871;	Dec. 1874	3	2	Wm. Dunn.	"
8	..	..	9.65	..	..	Sept. 1863;	Nov. 1869	0	10	H. Gibson, J. Evans.	"
9	7.81	11.13	4.83	1.45	25.22	Mar. 1849;	Jan. 1868	14	4	Assistant Surgeon.	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
10	6.54	7.56	3.11	1.25	18.46	Dec. 1866;	Dec. 1874	7	0	"	MS. from S. G. O.
11	11.52	15.53	6.04	4.53	37.62	Mar. 1866;	Oct. 1869	3	6	Dr. A. L. Child and Daughter.	S. O.
12	..	..	..	..	..	Nov. 1874;	Dec. 1874	0	2	C. Blodgett.	"
13	..	..	..	..	..	July, 1865;	Aug. 1865	0	2	L. T. Hill.	"
14	..	..	..	..	..	Apr. 1870;	Apr. 1870	0	1	Dr. G. A. Goodrich.	"
15	9.69	9.43	9.52	3.38	32.02	May, 1859;	Oct. 1874	2	6	E. E. Mason, Prof. P. Zahner, J. M. Pettinger, J. S. Phebus.	Met. Obs. Vol. 1; S. O.
16	7.21	..	2.96	..	..	Feb. 1873;	Dec. 1874	1	3	Lewis Sessions.	S. O.
17	6.14	3.83	2.75	0.57	13.29	Oct. 1874;	June, 1876	1	9	J. R. Williams, E. Garland.	Sig. Ser. Reps.
18	13.52	..	..	..	..	Feb. 1865;	May, 1865	0	4	R. O. Thompson.	S. O.
19	7.68	15.00	7.15	3.01	32.84	June, 1857;	June, 1876	10	3	W. N. Byers, J. G. Rain, J. T. Allen, Assist. Surgeon, Th. Cleary.	Met. Obs. Vol. 1; S. O.; MS. from S. G. O.; Sig. Ser. Reps.
20	8.21	8.70	5.77	2.90	25.58	Jan. 1868;	Oct. 1873	5	2	W. Hamilton, S. O. Lee.	S. O.
21	..	22.97	9.90	3.40	..	July, 1873;	Dec. 1874	1	4	Dr. A. L. Child.	"
22	..	6.20	2.10	..	..	May, 1873;	Nov. 1873	0	7	W. F. Ware.	"
23	..	..	..	2.37	..	Jan. 1867;	Sept. 1871	0	8	J. S. Bowen.	"
24	..	15.84	..	1.01	..	Mar. 1872;	Aug. 1874	1	1	J. H. and E. Kellogg.	"
25	..	..	..	..	..	Jan. 1861;	Jan. 1861	0	1	H. C. Pardee.	"
26	6.28	8.82	3.34	2.25	20.69	May, 1871;	Dec. 1874	3	6	Geo. S. Truman.	"
27	..	..	..	..	..	Jan. 1861;	Feb. 1861	0	2	A. M. J. Bowen.	"
28	5.96	4.46	2.00	0.83	13.25	June, 1872;	Dec. 1874	2	7	Assistant Surgeon.	MS. from S. G. O.
29	..	..	..	..	..	Apr. 1873;	June, 1873	0	3	N. H. Shaw.	S. O.

NEVADA.

1	3.66	1.19	2.31	3.82	10.98	Nov. 1867;	Dec. 1874	5	8	Assistant Surgeon.	MS. from S. G. O.
2	3.02	0.72	1.13	3.66	8.53	Feb. 1866;	Dec. 1874	6	4	"	" "
3	10.16	0.78	3.83	7.69	22.46	Nov. 1865;	Oct. 1868	2	0	"	" "
4	3.68	1.13	2.09	10.43	17.33	Jan. 1867;	Apr. 1870	2	8	"	" "
5	1.58	1.51	1.27	3.07	7.43	Jan. 1862;	May, 1869	3	9	"	" "
6	5.24	2.80	3.34	4.23	15.61	May, 1863;	Oct. 1868	2	0	"	" "

* Also known as Elkhorn City.

NEW HAMPSHIRE.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Amoskeag	43° 00′	71° 30′	..	..	..	..	..	..	3.59	2.47	..	..	..	..	3.35
2. Antrim	43 02	71 55	..	3.18	2.60	..	..	..	..	4.04	4.10	3.45	5.15	7.20	3.30
3. Auburn	42 59	71 22	..	..	..	..	..	..	2.60	9.84	7.63	4.00	2.70	3.20	0.76
4. Barnstead [a]	43 22	71 15	..	2.36	1.98	2.60	2.18	4.03	1.98	2.49	4.66	2.00	4.77	3.12	1.83
5. Claremont	43 24	72 21	539	2.79	3.11	4.35	3.35	4.22	3.16	3.78	5.17	3.56	4.10	2.78	3.18
6. Concord	43 12	71 29	374	2.76	3.04	2.22	3.52	3.97	2.64	3.68	4.17	3.43	4.26	3.62	3.01
7. Contoocookville	43 15	71 42	450	2.53	2.14	1.60	3.00	3.60	3.15	5.39	4.28	3.32	4.43	4.55	2.45
8. Dunbarton	43 06	71 35	750	2.70	3.25	3.05	3.34	5.00	3.65	4.52	4.01	5.09	5.96	4.00	2.60
9. Farmington	43 22	71 07	300	4.91	..	..	..	..	..	..	..	..	..	..	..
10. Francestown	42 59	71 48	..	..	..	..	..	..	2.37	5.26	..	1.48	7.91	..	..
11. Fort Constitution	43 04	70 42	40	2.42	2.64	2.16	3.44	3.43	3.01	2.40	3.80	2.43	3.29	3.23	3.32
12. Gorham	44 35	71 27	..	1.05	..	0.40	4.96	..	..	..	..	..	..	..	..
13. Great Falls*	43 15	70 55	250	3.53	5.06	3.42	4.77	1.61	3.42	1.60	0.21	5.32	3.37	6.96	1.91
14. Hanover [b]	43 42	72 17	530	2.86	2.70	2.99	3.14	3.78	3.89	3.41	3.79	3.17	4.01	3.40	3.52
15. Keene	42 56	72 16	..	..	..	..	3.30	1.70	..	4.00	6.70	..	5.30	2.50	1.25
16. Laconia	43 39	71 30	..	3.25	3.31	3.65	3.56	3.86	3.72	3.64	4.14	4.27	4.19	3.07	3.92
17. Lake Village	43 35	71 30	..	3.44	2.68	3.57	3.36	3.71	3.52	3.94	3.90	4.18	4.44	3.06	3.81
18. Littleton [c]	44 20	71 49	..	2.59	1.49	2.36	1.79	4.68	0.75	5.18	4.60	1.80	2.43	1.05	2.30
19. Londonderry	42 53	71 20	300	3.69	3.93	2.47	4.50	5.53	2.33	2.07	4.89	2.07	5.26	5.01	3.86
20. Loudon Ridge	43 20	71 25	475	5.50	3.13	..	4.52	4.55	6.20	5.50	3.92	2.50	..	7.80	3.80
21. Manchester	42 59	71 28	300	2.71	3.57	2.03	4.45	5.24	1.84	2.99	6.33	3.84	3.68	4.06	3.85
22. Mount Washington	44 16	71 18	6293	3.10	3.04	5.21	3.40	5.35	7.33	8.59	7.74	10.17	6.00	3.63	3.56
23. Plaistow	42 50	71 08	..	4.25	2.83	1.47	4.03	3.77	1.77	4.94	3.70	2.40	4.45	4.02	1.50
24. Portsmouth	43 05	70 46	50	3.39	2.47	2.04	1.01	3.02	2.72	2.20	3.41	1.99	3.76	2.29	1.58
25. Portsmouth	43 05	70 46	38	2.98	2.55	2.91	5.03	3.31	2.60	6.80	3.50	2.12	1.81	2.47	0.59
26. Salisbury [d]	43 23	71 45	..	1.65	1.25	2.40	1.30	..	..	..	..	..	..	..	..
27. Shelburne	44 23	71 14	700	2.36	2.11	2.21	3.05	2.60	2.82	5.48	2.95	3.82	6.30	2.64	1.75
28. Stratford	44 40	71 39	1000	2.66	2.84	3.73	2.63	3.55	2.97	4.09	4.12	3.63	4.03	3.49	2.98
29. Tamworth	43 51	71 20	450	5.19	3.38	4.55	3.86	3.03	2.81	5.52	3.47	2.81	7.10	4.73	4.08
30. West Enfield	43 38	72 07	..	3.72	1.46	2.50	5.37	3.25	3.69	9.25	4.28	3.69	5.85	2.96	1.75
31. Whitefield	44 23	71 39	1332	3.10	1.87	2.19	2.71	2.23	3.99	3.67	5.51	2.15	4.18	2.81	2.19

NEW JERSEY.

1. Allowaystown	39 33	75 20	..	3.81	3.52	2.65	2.43	2.97	3.28	2.76	8.98	3.37	5.73	4.17	3.27
2. Atco	39 46	74 53	130	3.77	3.62	2.07	4.75	2.29	2.87	3.57	6.01	4.79	3.94	3.81	3.24
3. Atlantic City	39 22	74 26	4	2.42	2.75	3.58	4.61	2.57	2.77	1.43	3.00	3.91	1.98	3.24	3.25
4. Barnegat	39 46	74 06	5	4.40	3.14	5.50	6.53	2.94	2.73	4.63	3.38	6.64	1.95	4.60	3.99
5. Bloomfield	40 48	74 12	120	3.39	2.99	2.74	4.05	4.61	3.64	4.19	4.54	2.41	3.30	3.47	3.11
6. Branchburg [e]	40 36	74 44	..	3.62	4.30	3.01	4.65	4.07	1.52	7.65	6.84	3.25	6.52	4.06	4.28
7. Burlington	40 04	74 51	60	3.51	3.65	3.19	4.33	5.87	5.04	3.51	5.31	3.38	3.36	2.88	4.69
8. Cape May	38 56	74 56	8	3.95	4.74	4.61	4.82	2.71	3.39	2.79	6.52	4.98	2.58	3.29	3.39
9. Chester [f]	40 00	74 57	15	3.07	3.42	3.46	3.20	4.75	3.53	4.08	4.13	3.86	3.92	3.25	3.71
10. Dover	40 54	74 34	619	4.11	3.12	2.55	2.58	7.62	7.55	4.99	7.75	10.85	3.28	2.98	3.98
11. Freehold	40 15	74 16	..	..	..	1.80	1.08	9.25	2.91	1.89	1.18	1.82	7.92	2.14	2.63	2.08
12. Greenwich	39 24	75 20	30	2.95	3.85	4.73	2.51	4.74	3.17	2.81	4.29	4.05	2.94	3.25	2.60
13. Haddonfield [g]	39 53	75 02	50	3.04	3.31	4.07	3.40	6.12	3.49	3.31	4.79	5.47	3.51	3.38	4.06
14. Jamesburg	40 22	74 27	..	..	..	..	..	..	..	..	2.52	..	..	..	..
15. Jersey City	40 43	74 01	55	4.08	2.90	3.23	4.58	3.10	3.85	5.23	5.70	3.94	3.65	3.98	2.89
16. Lambertville	40 23	74 57	96	3.29	3.21	3.21	3.31	4.31	3.29	4.16	5.16	4.00	3.62	3.30	3.76

[a] Combined with observations at North Barnstead. [b] Dartmouth College. [c] Combined with observations at North Littleton.
[d] Record apparently not very reliable. [e] Observations in part at Readington.
* Combined with observations at Salmon Falls.

NEW HAMPSHIRE.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
1	..	..	..	..	..	Dec. 1873;	July, 1874	0	3	A. Colby.	S. O.
2	..	..	15.80	9.08	..	July, 1872;	Feb. 1873	0	8	W. Hurlin.	"
3	..	20.07	9.90	..	..	June, 1874;	Dec. 1874	0	7	F. T. Hills.	"
4	8.81	9.13	9.89	6.17	34.00	Mar. 1856;	Oct. 1869	5	3	R. F. Hanscom, C. H. Pitman.	Met. Obs. Vol 1; S. O.
5	11.92	12.11	10.44	9.08	43.55	Sept. 1857;	Feb. 1869	8	4	A. Chase, F. N. Freeman.	" " "
6	9.71	10.49	11.31	8.81	40.32	Jan. 1849;	Mar. 1870	9	5	Dr. W. Prescott, E. P. Colby, H. E. Sawyer, J. T. Wheeler.	Met. Obs. Vol 1; S. Coll.; S. O.
7	8.20	12.82	12.30	7.12	40.44	Jan. 1871;	Dec. 1874	3	11	E. D. Couch.	S. O.
8	11.39	12.18	15.05	8.55	47.17	Apr. 1868;	Dec. 1874	6	5	A. Colby.	"
9	..	..	..	..	..	Jan. 1861;	Jan. 1861	0	1	L. Bell.	"
10	..	..	..	..	..	June, 1857;	Oct. 1857	0	4	Dr. M. N. Root.	Met. Obs. Vol. 1.
11	9.03	9.21	8.95	8.38	35.57	Apr. 1836;	Sept. 1853	12	5	Assistant Surgeon.	Ar. Met. Reg. 1855.
12	..	..	..	..	..	Jan. 1874;	Apr. 1874	0	3	F. Odell.	S. O.
13	9.80	5.23	15.65	10.50	41.18	Jan. 1854;	June, 1855	1	5	G. B. & H. E. Sawyer.	Met. Obs. Vol 1.
14	9.91	11.09	10.58	9.08	40.66	Jan. 1835;	Dec. 1854	19	0	Prof. I. & A. A. Young.	Met. Obs. Vol. 1; S. Coll.
15	..	..	..	..	..	Apr. 1843;	Dec. 1843	0	7	G. A. Wheelock.	S. Coll.
16	11.07	11.50	11.53	10.48	44.58	Jan. 1857;	Dec. 1866	4	0	Cot. & Wool Man. Co	"
17	10.64	11.36	11.68	9.93	43.61	Jan. 1857;	Dec. 1866	4	0	" " "	"
18	8.83	10.53	5.28	6.38	31.02	Mar. 1863;	July, 1864	1	5	R.C.Whiting,R.Smith.	S. O.
19	12.50	9.29	12.34	11.48	45.61	Mar. 1849;	Feb. 1857	6	11	R. C. Mack.	S. Coll.; Met. Obs. Vol. 1.
20	..	15.62	..	12.43	..	Jan. 1862;	Feb. 1863	0	11	Dr. I. S. French.	S. O.
21	11.72	11.16	11.58	10.13	44.59	Feb. 1852;	Mar. 1861	4	3	S. N. Bell.	S. Coll.; Met. Obs. Vol. 1.; S. O.
22	13.96	23.66	19.80	9.70	67.12	June, 1859;	June, 1876	4	0	J. H. Hall, W. Line, A. R. Thornett.	Met. Obs. Vol. 1; Sig. Ser. Reps.
23	9.27	10.41	10.87	8.58	39.13	Apr. 1873;	Dec. 1874	1	6	Wm. Hurlin.	S. O.
24	6.07	8.33	8.04	7.44	29.88	June, 1843;	—— 1848	4	0	Dr. Delany.	S. Coll.
25	11.25	12.90	6.40	6.12	36.67	Sept. 1866;	Mar. 1868	1	4	J. Hatch.	S. O.
26	..	..	..	..	..	Jan. 1863;	Apr. 1864	0	7	E. D. Couch.	S. Coll.
27	7.86	11.25	12.76	6.22	38.09	Oct. 1858;	Dec. 1874	3	8	F. Odell, J. Collins.	Met. Obs. Vol. 1; S. O.
28	9.91	11.18	11.15	8.48	40.72	Mar. 1856;	Dec. 1873	16	3	B. Brown.	" " "
29	11.44	11.80	14.64	12.65	50.53	Feb. 1867;	Aug. 1873	4	0	A. Brewster.	S. O.
30	11.12	17.22	12.50	6.93	47.77	July, 1856;	Dec. 1858	2	1	N. Purmort.	Met. Obs. Vol. 1.
31	7.13	13.17	9.14	7.16	36.60	July, 1869;	Dec. 1874	5	0	L. D. Kidder.	S. O.

NEW JERSEY.

1	8.05	15.02	13.27	10.60	46.94	Nov. 1871;	Nov. 1873	2	1	H. C. Perry.	S. O.
2	9.11	12.45	12.54	10.63	44.73	Jan. 1872;	Dec. 1874	3	0	H. A. Green.	"
3	10.76	7.20	9.13	8.42	35.51	Dec. 1873;	June, 1876	2	7	W.F.Slater, C.Cramer.	Sig. Ser. Reps.
4	14.97	10.74	13.19	11.53	50.43	Dec. 1873;	June, 1876	2	7	F. Mangels, E. D. Holbrook, W. H. Ray, C. M. Hobbs, & R. J. Lewis.	" "
5	11.40	12.37	9.18	9.49	42.44	Mar. 1849;	Dec. 1862	10	4	R. L. Cooke.	Met. Obs. Vol. 1; S. Coll.; S. O.
6	11.73	16.01	13.83	12.20	53.77	Dec. 1866;	Nov. 1873	1	9	J. Fleming.	S. O.
7	13.39	13.86	9.62	11.85	48.72	July, 1856;	Mar. 1868	5	9	Dr. E. R. Schmidt, A. Frost, J. C. Deacon.	Met. Obs. Vol. 1; S. O.
8	12.14	12.70	10.85	12.08	47.77	Oct. 1872;	June, 1876	3	9	T. F. Townsend.	Sig. Ser. Reps.
9	11.41	11.74	11.03	10.20	44.38	May, 1863;	Oct. 1873	9	9	T. J. Beans.	S. O.
10	12.75	20.29	17.11	11.21	61.36	Dec. 1866;	Jan. 1869	2	1	H. Shriver.	"
11	13.24	4.89	12.69	..	..	Feb. 1874;	Dec. 1874	0	11	C. F. Richardson.	"
12	11.98	10.27	10.24	9.40	41.89	Mar. 1864;	Feb. 1873	9	0	R. C. Sheppard.	"
13	13.59	11.59	12.36	10.41	47.95	Mar. 1864;	Dec. 1870	6	7	S. Wood.	"
14	..	..	..	..	..	Aug. 1863;	Aug. 1863	0	1	. . . . .	"
15	10.91	14.78	11.57	9.87	47.13	Mar. 1871;	Dec. 1874	3	10	T. F. Howard.	. . . . .
16	10.83	12.61	10.92	10.26	44.62	July, 1843;	Jan. 1874	18	2	G. H. Larison, L. H. Parsons.	Met. Obs. Vol 1; S. Coll.; Am. Alm.; S. O.

[f] Observations in part at the junction of the Delaware and Rancocus Rivers, about 4 miles N. W. of Chester.

[g] Also known as Coles' Landing.

NEW JERSEY—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
17. Long Branch	40° 18′	73° 58′	10	3.59	3.76	5.71	6.51	3.34	3.28	5.30	7.07	7.52	3.28	6.95	3.29
18. Madison	..	..	..	5.45	2.25	2.15	..	..	..	..	..	..	..	..	..
19. Middletown	40 24	74 07	50	5.72	2.55	1.16	2.50	4.50	4.10	3.40	1.70	2.50	4.00	3.13	1.37
20. Moorestown	39 58	74 57	104	5.00	2.62	1.42	8.41	3.51	2.20	..	..	6.14	1.42	2.64	2.01
21. Mount Holly	39 59	74 48	30	1.16	0.80	1.20	..	..	..	..	2.68	4.07	1.38	2.30	2.36
22. Navesink Highlands	40 24	73 59	111	5.68	2.32	3.61	4.52	5.74	2.00	1,65	2.61	..	..	..	..
23. Newark	40 44	74 10	35	3.59	3.39	3.52	3.88	4.32	3.69	4.21	4.61	3.64	3.71	3.70	3.87
24. New Brunswick [a]	40 30	74 27	90	1.90	3.14	2.49	3.87	5.24	6.75	4.33	6.22	4.72	4.36	3.07	2.91
25. New Germantown	40 41	74 45	320	3.46	2.45	3.29	3.63	3.50	4.36	4.93	5.05	3.31	5.29	3.67	2.55
26. Newton	41 04	74 45	659	4.05	2.78	4.89	1.76	3.57	3.48	1.92	..	..	..	..	2.45
27. Paterson	40 56	74 10	60	3.19	3.81	4.48	3.10	6.22	5.56	5.83	5.59	4.21	4.73	3.61	3.68
28. Peck's Beach	39 11	74 40	5	3.54	3.99	4.13	7.17	1.73	2.66	2.21	3.79	6.27	1.24	4.01	4.86
29. Rio Grande	39 01	74 53	13	5.80	6.46	5.93	4.37	6.38	4.47	7.06	1.84	3.85	6.12	6.88	5.95
30. Sandy Hook	40 28	74 90	12	3.47	3.49	5.70	6.71	3.15	4.15	3.21	5.43	7.14	2.97	4.22	3.01
31. Seaville	39 11	74 45	18	1.50	8.90	3.24	6.10	9.60	5.72	4.28	5.40	3.40	5.90	2.60	..
32. Sergeantville	40 27	74 57	..	5.20	2.18	4.67	7.75	10.99	5.84	3.55	6.15	1.05	..	1.17	..
33. South Orange [b]	40 45	74 15	..	3.75	2.99	2.99	4.44	3.09	3.18	6.00	4.66	4.22	4.63	3.34	3.35
34. Squan Beach	40 08	74 02	6	3.71	3.03	4.79	8.31	2.99	3.76	4.39	6.20	8.31	2.73	5.50	3.89
35. Trenton	40 14	74 45	60	3.46	3.65	3.60	3.82	4.13	4.16	4.81	5.14	3.71	4.61	3.89	3.35
36. Vineland	39 29	75 01	119	4.43	3.95	3.76	4.08	4.26	3.49	4.52	5.21	4.58	3.97	4.00	3.44

NEW MEXICO.

1. Albuquerque	35 06	106 38	5032	0.31	0.22	0.28	0.32	0.23	1.37	1.05	1.93	0.83	0.81	0.40	0.36
2. Cantonment Burgwin [c]	36 26	105 30	7900	0.72	0.47	0.51	0.81	0.25	0.36	0.85	1.71	1.01	0.44	0.97	0.55
3. Cebolleta [d]	35 15	107 20	6200	0.30	1.61	0.36	0.75	0.12	0.14	0.55	1.22	3.60	1.59	0.68	1.13
4. Fort Bascom	35 24	103 50	3726	0.13	0.00	0.09	1.55	1.46	2.24	2.99	1.86	0.27	1.89	0.75	0.50
5. Fort Bayard	32 46	108 30	4450	0.87	1.37	0.73	0.50	0.31	0.94	2.64	3.76	1.33	0.43	0.52	1.04
6. Fort Conrad	33 47	106 48	4576	0.06	0.11	0.14	0.04	0.33	0.78	1.28	1.18	1.25	0.50	0.78	0.31
7. Fort Craig	33 38	107 00	4619	0.28	0.37	0.37	0.20	0.13	0.72	2.21	2.94	2.03	0.84	0.56	0.41
8. Fort Cummings	32 27	107 40	4778	0.72	0.26	0.40	0.25	0.25	1.72	3.05	4.83	1.11	0.35	0.17	1.92
9. Fort Fillmore	32 14	106 42	3937	0.05	0.42	0.17	0.13	0.18	0.47	1.89	1.80	1.53	0.55	0.94	0.29
10. Fort Lowell	36 39	106 40	..	0.71	0.96	0.76	0.50	0.02	0.17	1.96	3.07	1.42	0.08	0.67	1.17
11. Fort McRae	33 18	107 03	4500	0.10	0.22	0.43	0.71	1.29	1.34	1.36	3.45	1.59	0.33	0.40	0.37
12. Fort Selden	32 23	106 55	..	0.26	0.31	0.22	0.16	0.20	0.72	1.99	2.12	1.18	0.41	0.27	0.65
13. Fort Stanton	33 29	105 38	5000	0.58	0.97	1.37	0.72	0.76	1.82	3.51	4.69	2.27	1.58	0.63	1.23
14. Fort Sumner	34 25	104 08	..	0.23	0.35	0.97	0.36	1.05	1.95	3.18	2.37	1.47	1.21	0.64	1.24
15. Fort Thorn	32 40	107 09	4500	0.48	0.86	0.50	0.10	0.24	0.21	2.65	3.79	4.23	0.33	0.71	0.53
16. Fort Tulerosa	33 05	105 55	..	2.24	4.94	1.38	1.34	0.55	0.63	3.65	8.45	1.20	1.29	0.38	7.08
17. Fort Union	35 54	105 01	6744	0.54	0.39	0.45	0.45	1.22	2.41	4.63	4.88	2.18	0.72	0.83	0.39
18. Fort Webster	32 43	108 10	6350	0.40	1.00	0.07	2.23	1.14	2.98	3.67	2.75	2.36	0.80	1.87	0.19
19. Fort Wingate	35 29	107 45	6982	1.45	2.81	0.55	0.85	0.56	0.95	2.83	2.72	1.15	1.37	0.90	1.18
20. Las Vegas	35 35	105 13	6418	..	4.23	0.01	1.06	2.82	0.00	5.10	..	0.00	0.00	0.12	3.12
21. Los Pinos	34 51	106 39	5000	0.08	0.00	0.00	0.00	0.53	0.00	..	..	0.00	..	0.00	0.40
22. Santa Fé [e]	35 41	165 57	7044	0.59	1.01	0.71	0.75	0.71	1.37	2.58	2.87	1.64	1.00	0.81	0.87
23. Socorro	34 05	106 50	4560	0.04	0.48	0.60	0.43	0.07	0.09	0.84	1.30	0.24	1.81	1.34	0.62

[a] Rutger's College. [b] Combined with Orange. [c] Nine miles north of Taos; also known as Camp Burgwin.
[d] Observations for the last three months of 1851 at Laguna, some miles to the southeast.

NEW JERSEY—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
17	15.56	15.65	17.75	10.64	59.60	Nov. 1861;	June, 1876	2	8	H. A. Stokes, E. D. Holbrook, W. McKee, J. R. Williams. I. T. Shadle, W. E. Smith, W. H. Ray.	S. O.; Sig. Ser. Reps.
18	..	..	..	..	..	Jan. 1874;	Mar. 1874	0	3	F. Miller.	S. O.
19	8.16	9.20	9.63	9.64	36.63	June, 1831;	May, 1832	1	0	.....	S. Coll.
20	13.34	..	10.20	9.63	..	Jan. 1874;	Dec. 1874	0	10	T. J. Beans.	S. O.
21	..	..	7.75	4.32	..	Jan. 1861;	Dec. 1874	0	9	Dr. M. J. Rhees, Dr. F. Ashhurst.	"
22	13.87	6.26	..	..	..	Jan. 1861;	Aug. 1861	0	8	Prof. L. Harper.	"
23	11.72	12.51	11.05	10.85	46.13	May, 1843;	Dec. 1874	31	5	W. A. Whitehead.	Daily Advertiser, 1855; Met. Obs. Vol. 1; S. O.
24	11.60	17.30	12.15	7.95	49.00	Jan. 1866;	May, 1870	3	10	G. H. Cook & J. E. Hasbrauck.	S. O.
25	10.42	14.34	12.27	8.46	45.49	Nov. 1868;	Dec. 1874	6	1	A. B. Noll.	"
26	10.22	..	..	9.28	..	Dec. 1868;	July, 1869	0	8	Dr. T. Ryerson.	"
27	13.80	16.98	12.55	10.68	54.01	Dec. 1863;	Apr. 1871	6	11	W. Brooks.	"
28	13.03	8.66	11.52	12.39	45.60	Jan. 1874;	Jan. 1876	2	1	J. O. Barnes.	Sig. Ser. Reps.
29	16.68	13.37	16.85	18.21	65.11	Apr. 1868;	Dec. 1874	4	2	J. R. Palmer.	S. O.
30	15.56	12.79	14.33	9.97	52.65	Jan. 1874;	June, 1876	2	6	J. R. Williams, J. J. Manry, W. McElroy.	Sig. Ser. Reps.
31	18.94	15.40	11.90	..	..	Mar. 1865;	Apr. 1868	1	11	B. Cole.	S. O.
32	23.41	15.54	..	..	..	Jan. 1857;	Mar. 1858	1	0	J. T. Sergeant.	Met. Obs. Vol 1.
33	10.52	13.84	12.19	10.09	46.64	Sept. 1870;	Dec. 1874	4	3	Dr. W. I. Chandler, W. H. Stockwell.	S. O.
34	16.09	14.35	16.54	10.63	57.61	Jan. 1874;	Jan. 1876	2	1	D. M. Kennedy, E. F. Brady.	Sig. Ser. Reps.
35	11.55	14.11	12.21	10.46	48.33	Sept. 1865;	Dec. 1874	9	3	E. R. Cook.	S. O.
36	12.10	13.22	12.55	11.82	49.69	Aug. 1867;	Dec. 1874	7	5	Dr. J. Ingraham.	"

NEW MEXICO.

1	0.83	4.35	2.04	0.89	8.11	Feb. 1850;	July, 1867	12	2	Assistant Surgeon.	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
2	1.57	2.92	2.42	1.74	8.65	Sept. 1854;	May, 1860	5	9	"	MS. from S. G. O.; Ar. Met. Regs. 1855 and 1860.
3	1.23	1.91	5.87	3.04	12.05	Dec. 1849;	Dec. 1851	2	1	"	Ar. Met. Reg. 1855.
4	3.10	7.09	2.91	0.63	13.73	Dec. 1864;	Oct. 1870	2	3	"	MS. from S. G. O.
5	1.54	7.34	2.28	3.28	14.44	Mar. 1867;	Dec. 1874	7	6	"	" "
6	0.51	3.24	2.53	0.48	6.76	Oct. 1851;	June, 1855	3	9	"	Ar. Met. Reg. 1855.
7	0.70	5.87	3.43	1.06	11.06	Jan. 1855;	Dec. 1874	15	9	"	Ar. Met. Reg. 1860; MS. from S. G. O.
8	0.90	9.60	1.63	2.90	15.03	Mar. 1869;	July, 1873	4	4	"	MS. from S. G. O.
9	0.48	4.16	3.02	0.76	8.42	Sept. 1851;	Dec. 1859	8	3	"	Ar. Met. Regs. 1855 and 1860.
10	1.28	5.20	2.17	2.84	11.49	Oct. 1868;	June, 1874	4	6	"	MS. from S. G. O.
11	2.43	6.15	2.32	0.69	11.59	Apr. 1864;	Dec. 1874	5	0	"	" "
12	0.58	4.83	1.86	1.22	8.49	Nov. 1865;	Dec. 1874	8	5	"	" "
13	2.85	10.02	4.48	2.78	20.13	Jan. 1856;	Oct. 1872	8	9	"	Ar. Met. Reg. 1860; MS. from S. G. O.
14	2.38	7.50	3.32	1.82	15.02	May, 1864;	July, 1869	4	8	"	MS. from S. G. O.
15	0.84	6.65	5.27	1.87	14.63	Jan. 1854;	Dec. 1858	4	11	"	Ar. Met. Regs. 1855 and 1860.
16	3.27	12.73	2.87	14.26	33.13	May, 1873;	Oct. 1874	1	5	"	MS. from S. G. O.
17	2.12	11.92	3.73	1.32	19.09	Sept. 1851;	Dec. 1874	17	5	"	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
18	3.44	9.40	5.03	1.59	19.46	Feb. 1852;	Dec. 1853	1	11	"	Ar. Met. Reg. 1855.
19	1.96	6.50	3.42	5.44	17.32	Dec. 1864;	Dec. 1874	9	1	"	MS. from S. G. O.
20	3.89	..	0.12	..	..	Apr. 1850;	July, 1851	0	11	"	Ar. Met. Reg. 1855.
21	0.53	..	..	0.48	..	Jan. 1865;	May, 1866	0	11	"	MS. from S. G. O.
22	2.17	6.82	3.45	2.47	14.91	Feb. 1850;	Dec. 1874	19	10	"	Ar. Met. Regs. 1855 and 1860; MS. from S.G.O.; Sig.Ser.Reps.
23	1.10	2.23	3.39	1.14	7.86	Nov. 1849;	Aug. 1851	1	9	"	Ar. Met. Reg. 1855.

* Observations in part at Fort Marcy, about one mile from Santa Fé.

NEW YORK.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Adams[a]	43° 49′	75° 59′	667	5.90	2.84	4.57	2.60	2.17	4.26	4.13	1.76	3.63	5.66	4.08	3.70
2. Albany	42 40	73 45	130	2.75	2.60	2.84	3.08	3.77	4.50	4.28	3.56	3.54	3.85	3.11	2.68
3. Alfred	42 15	77 50	..	1.96	1.69	2.26	..	..	..	..	..	..	..	..	..
4. Amsterdam	42 54	74 12	..	..	..	..	..	..	6.45	..	..	..	..	..	..
5. Angelica	42 18	78 03	1500	2.69	0.85	2.45	2.73	1.44	4.86	3.45	3.59	2.03	3.51	2.06	2.19
6. Auburn	42 55	76 35	650	2.57	2.02	2.18	2.18	3.45	3.57	3.13	3.23	3.20	3.38	2.85	2.72
7. Argyle	43 11	73 30	290	2.49	1.98	3.10	3.23	2.37	2.78	4.53	5.35	2.80	3.94	3.16	2.09
8. Baldwinsville	43 09	76 20	..	1.32	0.75	2.10	..	..	..	..	..	..	..	..	1.60
9. Barnesville	42 38	74 26	1200	..	..	..	9.90	11.25	4.00	..	..	..	..	..	..
10. Beaver Brook	41 30	74 37	700	..	..	5.75	..	4.50	3.92	2.45	1.83	7.02	2.98	5.40	0.50
11. Bellport	40 44	72 52	15	4.78	2.83	3.73	3.40	3.77	3.99	2.49	3.23	4.89	2.36	3.26	4.71
12. Belleville	43 47	76 06	300	2.07	1.81	1.77	1.84	2.74	2.66	2.09	2.63	2.53	4.40	3.03	2.45
13. Belleville	43 47	76 06	300	1.76	1.93	1.35	1.97	2.39	2.55	2.69	2.40	3.37	4.00	2.97	2.14
14. Beverly[b]	41 22	73 56	180	3.20	3.24	3.85	4.20	4.65	3.74	3.94	5.50	3.94	3.92	4.04	3.45
15. Benton Center	42 40	77 05	..	1.52	..	2.41	5.30	1.32	2.02	4.11	3.07	2.25	2.19	2.33	1.26
16. Boonville	43 29	75 20	..	..	..	..	..	..	3.00	1.02	3.01	3.96	..	..	..
17. Boyd's Corners Reservoir	41 22	73 39	565	3.09	3.24	3.52	3.64	5.18	4.27	3.69	5.97	4.23	5.00	3.47	3.05
18. Breslau	40 58	72 10	10	6.70	4.85	4.48	3.24	..	..	..	4.69	2.92	2.35	4.30	3.97
19. Bridgewater	42 52	75 17	1286	4.26	2.85	3.01	4.26	3.32	5.37	4.82	2.74	2.56	4.37	2.12	4.35
20. Brookhaven[c]	40 47	72 48	13	4.08	4.98	4.60	4.32	4.77	3.39	3.53	4.24	4.18	4.14	4.40	4.66
21. Brooklyn	40 41	73 58	125	2.66	2.77	2.69	2.94	2.98	3.41	3.16	3.74	2.83	3.10	3.23	3.02
22. Buffalo	42 53	78 52	600	2.61	2.29	3.21	2.45	2.79	2.76	3.13	2.75	4.01	3.43	3.17	2.89
23. Caldwell	43 24	73 43	300	..	..	..	..	..	..	3.00	6.55	5.35	8.45	..	..
24. Cambridge[d]	43 00	73 25	500	2.90	2.59	2.03	2.98	3.49	4.30	3.58	4.18	2.76	3.48	2.80	2.14
25. Canandaigua	42 55	77 16	813	3.00	3.43	2.31	2.42	4.91	3.74	3.30	3.47	2.83	3.13	2.82	2.56
26. Canajoharie	42 51	74 42	284	2.70	1.30	0.85	1.30	3.91	4.52	3.60	1.42	2.00	3.64	2.76	..
27. Canton	44 36	75 11	304	2.64	1.15	2.26	1.78	2.45	2.38	3.99	3.05	3.40	4.12	2.33	3.08
28. Carlton	43 20	78 16	250	3.37	1.78	3.08	2.77	1.79	2.36	2.71	1.50	1.87	2.61	2.77	2.94
29. Cazenovia	42 55	75 51	1260	2.86	2.52	3.15	3.05	3.50	4.41	4.19	3.68	3.49	3.65	2.90	3.08
30. Ceres	42 08	78 00	..	4.38	5.48	10.80	5.45	1.35	4.06	4.28	2.80	3.91	0.80	3.95	2.15
31. Champion	43 57	75 41	..	3.41	1.67	2.46	..	..	..	..	..	..	..	..	..
32. Charlotte	43 15	77 37	273	1.73	1.72	2.28	2.41	2.92	2.43	2.90	2.95	2.89	3.03	2.56	2.09
33. Chatham	42 24	73 36	..	1.10	2.80	..	14.00	..	..	..	..	..	..	..	..
34. Cherry Valley	42 48	74 45	1335	2.66	2.57	2.80	3.03	4.04	4.35	4.24	3.45	3.55	3.90	3.18	3.07
35. Clinton[e]	43 03	75 24	1127	2.30	2.42	2.38	2.61	3.09	3.54	3.65	3.12	3.23	3.52	2.97	2.78
36. Constantia	43 15	76 02	424	..	..	..	..	..	..	..	2.67	..	..	..	..
37. Cooperstown	42 42	74 57	1300	2.51	2.44	2.79	2.67	2.52	4.49	5.04	3.65	2.67	3.95	2.58	2.28
38. Croton Dam	41 12	73 54	136	2.99	2.99	4.20	3.78	5.68	4.66	5.22	6.16	4.78	4.79	5.26	2.83
39. Cuba	42 12	78 18	1502	2.78	1.96	3.72	3.13	2.54	3.43	2.21	3.27	3.47	2.52	2.73	2.97
40. Dansville	42 35	77 44	672	2.11	3.62	1.99	1.80	3.27	1.20	..	1.61	5.75	2.52	1.32	2.66
41. Delhi[f]	42 16	74 58	1384	1.67	0.92	3.36	3.59	2.59	2.73	4.36	2.97	2.70	3.45	4.59	4.23
42. Depauville, near	44 06	76 06	350	3.35	3.44	4.28	2.58	3.48	2.91	2.94	2.99	4.25	4.94	4.20	4.00
43. East Hampton[g]	40 58	72 28	16	2.93	2.30	2.54	3.82	3.66	2.98	2.60	3.22	3.27	3.65	3.16	3.17

[a] Hungerford Collegiate Institute.
[b] Also known as Philipstown and Ardenia.
[c] Called also Moriches.
[d] Washington County Academy.

NEW YORK.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
1	9.34	10.15	13.37	12.44	45.30	Jan. 1872;	Dec. 1874	3	0	A. B. Watkins, R. S. Bosworth.	S. O.
2	9.69	12.34	10.50	8.03	40.56	Jan.[a] 1826;	June, 1877	36	6	H. M. Paine, Beck & Cook, H. Donhauser and others.	Anns. of Dud. Obs.; N. Y. Acad. Sys.; S. O.; Sig. Ser. Reps.
3	..	..	..	..	..	Jan. 1852;	Mar. 1852	0	3	Various Observers.	N. Y. Acad. Sys.
4	..	..	..	..	..	June, 1871;	June, 1871	0	1	J. W. Bursing.	S. O.
5	6.62	11.90	7.60	5.73	31.85	Jan. 1856;	Nov. 1874	3	8	C. P. Arnold, Dr. E. M. Alba.	Met. Obs. Vol 1; S. O.
6	7.81	9.93	9.43	7.31	34.48	Jan. 1827;	Apr. 1861	22	6	J. B. Dill and others.	N.Y.Acad.Sys.; Blodgett's Clim.; S. O.
7	8.70	12.66	9.90	6.56	37.82	Apr. 1864;	Dec. 1874	4	4	G. M. Hunt.	S. O.
8	..	..	..	3.67	..	Feb. 1860;	Mar. 1867	0	7	J. Bowman.	"
9	..	..	..	..	..	Apr. 1870;	June, 1870	0	3	G. S. France.	"
10	..	8.20	15.40	..	..	Mar. 1854;	Dec. 1854	0	9	C. S. Woodward.	Met. Obs. Vol. 1.
11	10.90	9.71	10.51	12.32	43.44	Aug. 1857;	June, 1862	4	6	H. W. Titus.	S. Coll.
12	6.35	7.38	9.96	6.33	30.02	. . . . .		9	0	. . . . .	Dove in Pogg. Ann.
13	5.71	7.64	10.34	5.83	29.52	1830–1842		7	0	Various Observers.	N. Y. Acad. Sys.
14	12.70	13.18	11.90	9.89	47.67	Feb. 1856;	Dec. 1874	16	10	T. B. Arden.	Met. Obs. Vol. 1; S. O.
15	9.03	9.20	6.77	..	..	Jan. 1873;	Dec. 1874	0	11	S. H. Chapman.	S. O.
16	..	7.03	..	..	..	June, 1852;	Sept. 1852	0	4	Various Observers.	N. Y. Acad. Sys.
17	12.34	13.93	12.70	9.38	48.35	June, 1866;	Feb. 1872	5	9	. . . . .	S. Coll.
18	..	..	9.57	15.52	..	Mar. 1872;	Mar. 1873	0	10	Prof. Frank Miller.	. . . . .
19	10.59	12.93	9.05	11.46	44.03	Jan. 1834;	Dec. 1837	4	0	Various Observers.	N. Y. Acad. Sys.
20	13.69	11.16	12.72	13.72	51.29	Mar. 1864;	Dec. 1874	10	9	E. A. Smith & daughters.	S. O.
21	8.61	10.31	9.16	8.45	36.53	Dec. 1860;	July, 1874	12	6	J. P. Mailler, J. S. Meeker, Bea & Son, Dr. L. J. Williams, J. Palmer, S. R. Probasco, Surgs. J. A. Lockwood, & T. L. Smith.	Engineers' Office, City Hall; S.O.; S. Coll.
22	8.45	8.64	10.61	7.79	35.49	Jan. 1832;	June, 1877	24	3	Asst. Surg., E. O. Salisbury, W. S. King, E. Dorr, W. Ives, J. Mitchell, B. M. Pursell and Gen. W. F. Raynolds.	Ar. Met. Reg. 1855; Met. Obs. Vol. 1; S. O.; Surv. N. & N.W. Lakes; Ives Clim. of Buffalo, 1867; N. Y. Acad. Sys.; Sig. Ser. Reps.; S. Coll.
23	..	..	..	..	..	July, 1870;	Oct. 1870	0	4	A. M. Strong.	S. O.
24	8.50	12.06	9.04	7.63	37.23	1830–1843		11	0	Various Observers.	N. Y. Acad. Sys.
25	9.64	10.51	8.78	8.99	37.92	1830–1837		7	0	"	" "
26	6.06	9.54	8.40	..	..	Jan. 1830;	1835	3	0	"	" "
27	6.49	9.42	9.85	6.87	32.63	Apr. 1855;	Dec. 1873	3	7	E. W. Johnson, L. A. Lee.	Met. Obs. Vol. 1; S. O.
28	7.64	6.57	7.25	8.09	29.55	Feb. 1871;	Dec. 1874	3	11	M. P. Godfrey.	S. O.
29	9.70	12.28	10.04	8.46	40.48	Jan. 1830;	Dec. 1874	27	7	Prof. W. Soule, A. White.	N. Y. Acad. Sys.; Met. Obs. Vol. 1; S. O.
30	17.60	11.14	8.66	12.01	49.41	Jan. 1874;	Dec. 1874	1	0	D. Edwards.	S. O.
31	..	..	..	..	..	Jan. 1844;	Mar. 1844	0	3	Dr. T. V. Hough.	S. Coll.
32	7.61	8.28	8.48	5.54	29.91	July, 1859;	Dec. 1866	7	6	A. Mulligan & Gen. W. F. Raynolds.	Surv. N. & N. W. Lakes; Met. Obs. Vol. 1.
33	..	..	..	..	..	Jan. 1854;	Apr. 1854	0	3	C. T. Chase.	Met. Obs. Vol. 1.
34	9.87	12.04	10.63	8.30	40.84	1830–1851		13	0	Various Observers.	N. Y. Acad. Sys.
35	8.08	10.31	9.72	7.50	35.61	—— 1830;	Mar. 1865	25	1	Prof. O. Root & Dr. H. M. Paine.	N. Y. Acad. Sys.; Met. Obs. Vol. 1; S. O.
36	..	..	..	..	..	Aug. 1861;	Aug. 1861	0	1	S. Clark.	S. O.
37	7.98	13.18	9.20	7.23	37.59	Oct. 1869;	Sept. 1874	5	2	G. P. Reese.	"
38	13.66	16.04	14.83	8.81	53.34	Jan. 1860;	Feb. 1872	12	2	. . . . .	S. Coll.
39	9.39	8.91	8.72	7.71	34.73	Jan. 1840;	Dec. 1841	2	0	— Talcott.	N. Y. Acad. Sys.
40	7.06	..	9.59	8.39	..	Aug. 1859;	Jan. 1863	1	5	J. J. Brown.	Met. Obs. Vol. 1; S. O.
41	9.54	10.06	10.74	6.82	37.16	Sept. 1851;	Dec. 1852	1	3	— McKoom.	N. Y. Acad. Sys.; S. Coll.
42	10.34	8.84	13.39	10.79	43.36	Sept. 1865;	Dec. 1874	9	4	H. Haas.	S. O.
43	10.02	8.80	10.08	8.40	37.30	Jan. 1828;	Aug. 1852	16	8	Various Observers.	N. Y. Acad. Sys.; S. Coll.

[a] Hamilton College. [f] Delaware Academy. [g] Clinton Academy.

NEW YORK.—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
44. Elmira	42° 05′	76° 50′	860	1.60	0.65	2.32	3.60	2.45	3.18	2.28	1.85	2.07	1.38	2.58	1.92
45. Fairfield Academy	43 05	74 55	1185	2.62	1.79	2.32	2.49	3.13	4.29	4.21	3.65	3.08	3.56	2.46	2.71
46. Falconer	42 05	79 10	..	2.90	3.00	2.60	..	..	..	..	..	..	..	..	..
47. Fishkill Landing	41 30	73 59	42	2.98	2.05	3.15	2.97	3.68	3.99	4.00	4.40	3.16	2.66	3.97	2.92
48. Flatbush [a]	40 39	73 58	54	3.32	2.85	3.41	3.53	3.78	3.95	3.74	4.42	3.11	3.51	3.79	3.46
49. Fordham [b]	40 54	73 50	147	3.29	3.72	4.41	3.87	4.68	4.68	4.53	4.89	3.27	4.69	3.88	3.47
50. Fort Ann	43 22	73 28	1430	5.51	1.55	2.97	4.60	3.71	..	4.45	2.75	4.09	4.15	2.83	2.51
51. Fort Columbus [c]	40 42	74 01	23	3.07	3.18	3.34	3.38	4.54	3.84	3.79	4.85	3.44	3.42	3.37	3.83
52. Fort Edward	43 13	73 33	175	3.72	1.72	2.84	4.00	5.26	7.85	4.92	4.71	4.27	8.57	4.29	5.76
53. Fort Hamilton [d]	40 36	74 02	25	3.02	3.25	3.18	3.50	4.23	3.94	3.89	4.48	3.27	2.93	3.21	3.35
54. Fort Niagara	43 15	79 05	262	2.34	2.05	2.26	2.16	2.69	2.51	3.28	2.65	3.22	2.56	2.50	2.30
55. Fort Ontario	43 34	76 12	295	2.63	2.22	2.24	1.82	1.98	2.85	2.81	2.08	2.45	3.81	2.72	3.06
56. Fort Porter	42 50	78 55	660	2.00	2.02	2.84	2.28	2.76	2.69	3.21	2.04	4.38	2.75	3.03	2.77
57. Fort Wadsworth	40 36	74 02	..	3.50	1.32	0.75	3.10	2.80	1.59	4.68	5.85	6.03	2.87	4.70	3.34
58. Fredonia	42 26	79 21	715	2.04	1.84	1.99	1.93	3.32	3.83	3.34	3.78	4.46	4.31	3.27	2.93
59. Friendship	42 12	78 10	1536	..	..	..	..	..	1.90	2.45	1.42	2.81	..	1.29	..
60. Gaines	43 16	78 15	414	2.60	1.72	3.49	2.64	2.47	3.74	3.79	2.40	3.12	1.65	3.01	2.83
61. Germantown	42 05	73 52	..	2.50	2.75	3.60	5.00	3.90	6.10	1.45	6.20	6.50	3.50	4.15	6.30
62. Geneva	42 53	77 00	567	1.60	1.12	1.76	3.25	3.36	3.12	3.05	3.39	2.72	2.99	2.17	1.87
63. Glasco	42 00	74 00	150	3.62	3.55	5.45	6.41	3.73	4.08	2.95	4.43	2.26	4.89	2.93	2.52
64. Goshen [e]	41 23	74 20	425	2.50	2.42	2.52	2.14	3.30	3.53	2.98	2.55	2.74	2.95	2.27	3.40
65. Gouverneur [f]	44 20	75 27	400	2.30	2.45	1.67	1.79	2.20	2.82	2.56	1.99	2.84	3.21	2.18	1.88
66. Gouverneur	44 20	75 27	400	2.30	1.92	2.16	1.71	2.37	2.60	2.56	1.99	3.13	3.34	2.70	2.28
67. Granville	43 20	73 17	250	2.06	1.44	1.79	2.07	3.52	3.18	3.52	2.89	2.65	2.88	3.06	2.46
68. Groton	42 35	76 22	1000	3.00	2.10	6.20	4.40	2.20	6.70	5.10	3.30	4.80	5.60	1.70	4.30
69. Hartwick	42 37	75 00	1100	2.35	1.74	2.25	4.45	3.52	3.65	3.80	2.87	2.18	3.72	3.17	2.62
70. Hector	42 30	76 55	850	1.90	0.60	2.70	1.88	..	..	..	..	..	..	..	0.70
71. Henrietta	43 03	77 39	600	1.66	1.82	1.06	3.22	1.84	3.48	1.53	3.01	3.42	3.99	1.38	0.54
72. Hempstead	..	..	..	5.09	2.78	1.88	8.35	2.31	..	..	..	..	..	..	..
73. Hermitage	42 45	78 16	1500	5.19	3.64	4.28	3.76	4.64	3.40	4.96	5.10	3.70	4.80	4.76	3.50
74. Homer [g]	42 38	76 11	1095	1.72	2.89	2.66	3.41	5.06	4.36	6.51	3.04	4.39	4.36	4.79	3.79
75. Houseville	43 40	75 32	900	1.96	2.92	3.03	3.03	3.03	2.13	4.45	3.49	4.03	4.55	4.00	2.43
76. Houseville	43 40	75 32	900	3.04	2.84	3.99	2.89	3.92	2.64	4.45	3.85	4.89	4.54	4.93	3.59
77. Hudson	42 14	73 47	150	2.37	1.97	3.22	2.28	3.09	3.60	3.66	2.60	2.23	4.51	2.67	3.09
78. Ithaca	42 25	76 30	417	1.81	1.76	2.51	3.00	3.54	3.83	3.31	2.99	3.40	3.25	2.87	2.27
79. Jacksonville	42 30	76 38	950	1.45	2.68	0.40	1.90	1.62	3.10	4.34	3.09	2.48	3.28	1.26	2.54
80. Jamaica [h]	40 42	73 48	30	2.50	2.23	2.83	3.05	3.54	3.69	3.94	4.09	3.38	3.48	3.49	2.85
81. Jamestown	42 06	79 16	1454	3.18	2.74	3.12	3.44	3.30	3.61	4.86	3.69	3.61	3.80	3.82	3.99
82. Johnstown	42 59	74 22	250	3.14	2.72	3.78	2.63	3.34	4.35	4.12	3.35	2.72	3.36	3.57	3.29
83. Kensico	41 10	73 50	600	0.90	1.90	0.40	0.10	..	..	..	..	..	..	..	1.50
84. Kinderhook	42 22	73 23	125	2.21	1.53	2.48	2.97	3.41	4.55	4.35	3.35	2.94	3.25	2.69	2.75
85. Kingston	41 55	74 00	188	2.92	1.93	2.74	2.15	3.43	3.49	3.72	2.81	2.26	3.11	3.37	3.17
86. Lake	43 30	73 30	..	2.90	1.78	1.67	4.09	4.75	4.84	5.51	3.97	3.70	4.58	3.27	3.68
87. Lansingburg	42 45	73 40	30	2.29	2.07	2.16	2.40	2.78	3.92	3.55	2.52	3.02	3.19	2.82	2.59
88. Ledyard [i]	42 43	76 42	447	1.44	0.99	1.66	2.30	2.76	3.33	3.21	3.03	3.46	2.74	2.40	1.50
89. Lewiston [j]	43 09	79 04	280	1.38	1.30	1.54	1.64	2.19	2.72	2.27	2.10	2.68	2.44	1.69	1.15

[a] Erasmus Hall. [b] St. John's College. [c] On Gouverneur's Island, N. Y. Harbor.
[d] At the Narrows, N. Y. Harbor. [e] Farmers' Hall. [f] High School.

NEW YORK.—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
44	8.37	7.31	6.03	4.17	25.88	Jan. 1851;	Oct. 1852	1	6	Various Observers.	N. Y. Acad. Sys.; S. Coll.
45	7.94	12.15	9.10	7.12	36.31	1828–1872		17	4	W. A. Brownell and others.	N. Y. Acad. Sys.; S. O.
46	..	..	..	..	..	Jan. 1854;	Mar. 1854	0	3	L. A. Langdon.	Met. Obs. Vol. 1.
47	9.80	12.39	9.79	7.95	39.93	Jan. 1856;	Oct. 1866	8	4	W. H. Denning.	Met. Obs. Vol. 1; S. O.
48	10.72	12.11	10.41	9.63	42.87	Jan. 1826;	Nov. 1873	42	10	E. T. Mac, W. W. Howard and others.	N. Y. Acad. Sys.; Met. Obs. Vol. 1; S. O.
49	12.96	14.10	11.84	10.48	49.38	July, 1856;	Feb. 1872	12	8	Prof. C. Pernot, Dr. S. Spooner, J. Aubier, Prof. A. T. Monroe.	Met. Obs. Vol. 1; S. O.; S. Coll.
50	11.28	..	11.07	9.57	..	Nov. 1863;	May, 1866	1	9	P. A. McMoore.	S. O.
51	11.26	12.48	10.23	10.08	44.05	Jan. 1836;	Dec. 1874	33	6	Assistant Surgeon.	Ar. Met. Regs., 1855 & 1860; MS. from S. G. O.
52	12.10	17.48	17.13	11.20	57.91	Nov. 1857;	Nov. 1869	1	8	Prof. S. Sias, J. S. Cooley.	Met. Obs. Vol. 1; S. O.
53	10.91	12.31	9.41	9.62	42.25	Jan. 1839;	Dec. 1874	27	11	Assistant Surgeon.	Ar. Met. Regs., 1855 & 1860; MS. from S. G. O.
54	7.11	8.44	8.28	6.69	30.52	Oct. 1841;	Dec. 1874	19	0	Gen. W. F. Raynolds, L. Leffman, & Asst. Surg.	Surv. N. & N. W. Lakes; S. O.; Ar. Met. Reg. 1855.; Met. Obs. Vol. 1; MS. from S. G. O.
55	6.04	7.74	8.98	7.91	30.67	Jan. 1844;	Oct. 1874	13	9	Assistant Surgeon.	Ar. Met. Regs., 1855 & 1860; MS. from S. G. O.
56	7.88	7.94	10.16	6.79	32.77	Dec. 1865;	Dec. 1874	8	5	"	MS. from S. G. O.
57	6.65	12.12	13.60	8.16	40.53	June, 1873;	Dec. 1874	1	7	"	" "
58	7.24	10.95	12.04	6.81	37.04	—— 1830;	Feb. 1864	16	3	D. J. Pratt and others.	N. Y. Acad. Sys.; Blodgett's Clim.; S. O.
59	..	5.77	..	..	..	June, 1867;	Nov. 1867	0	5	G. W. Fries.	S. O.
60	8.60	9.93	7.78	7.15	33.46	Jan. 1839;	Dec. 1842	4	0	Various Observers.	N. Y. Acad. Sys.
61	12.50	13.75	14.15	11.55	51.95	Apr. 1866;	May, 1868	1	9	S. W. Roe.	S. O.
62	8.37	9.56	7.88	4.59	30.40	—— 1841;	Aug. 1868	20	6	Dr. W. D. Wilson.	N. Y. Acad. Sys.; S. Coll.; Met. Obs. Vol. 1; S. O.
63	15.59	11.46	10.08	9.69	46.82	June, 1869;	Nov. 1874	3	6	D. B. Hendricks.	S. O.
64	7.96	9.06	7.96	8.32	33.30	1834–1849		10	0	Various Observers.	N. Y. Acad. Sys.
65	5.66	7.37	8.23	6.63	27.89	—— 1830;	Dec. 1855	18	1	"	N. Y. Acad. Sys.; Met. Obs. Vol. 1.
66	6.24	7.15	9.17	6.50	29.06	July, 1837;	Dec. 1874	26	11	P. O. Williams, S. Allen, D. Wright, W. D. Cummings, E. H. Russell, and H. D. Landy.	Met. Obs. Vol. 1; S. O.
67	7.38	9.59	8.59	5.96	31.52	1834–1849		15	0	Various Observers.	N. Y. Acad. Sys.
68	12.80	15.10	12.10	9.40	49.40	May, 1872;	May, 1873	1	1	S. Johnson.	S. O.
69	10.22	10.32	9.07	6.71	36.32	1830–1849		10	0	Various Observers.	N. Y. Acad. Sys.
70	..	..	..	3.20	..	Dec. 1872;	Dec. 1874	0	6	C. E. Adriance.	S. O.
71	6.12	8.02	8.79	4.02	26.95	Jan. 1835;	Dec. 1836	2	0	Various Observers.	N. Y. Acad. Sys.
72	12.54	..	..	..	..	Jan. 1874;	May, 1874	0	5	S. R. Probasco.	S. O.
73	12.68	13.46	13.26	12.33	51.73	Oct. 1860;	Aug. 1864	3	10	A. A. Hibbard.	"
74	11.13	13.91	13.54	8.40	46.98	Sept. 1850;	Feb. 1856	2	6	E. C. Reed.	N. Y. Acad. Sys.
75	9.09	10.07	12.58	7.31	39.05	Mar. 1849;	Dec. 1866	5	2	W. D. Yale.	S. Coll.; Met. Obs. Vol. 1; S. O.
76	10.80	10.94	14.36	9.47	45.57	Jan. 1854;	Aug. 1872	6	7	W. D. Yale.	Met. Obs. Vol. 1; S. O.
77	8.59	9.86	9.41	7.43	35.29	—— 1830;	Jan. 1870	15	8	Dr. G. P. Hackenberg and others.	N. Y. Acad. Sys.; S. O.
78	9.05	10.13	9.52	5.84	34.54	—— 1830;	Dec. 1874	19	3	Various Observers.	" " "
79	3.92	10.53	7.02	6.67	28.14	May, 1873;	Dec. 1874	1	8	F. D. Carman.	S. O.
80	9.42	11.72	10.35	7.58	39.07	Jan. 1827;	Dec. 1852	25	0	Various Observers.	N. Y. Acad. Sys.
81	9.86	12.16	11.23	9.91	43.16	Nov. 1850;	Dec. 1874	8	0	S. W. Roe & S. G. Love.	N. Y. Acad. Sys.; S. O.; S. Coll.
82	9.75	11.82	9.65	9.15	40.37	1830–1845		12	0	Various Observers.	N. Y. Acad. Sys.
83	..	..	..	4.30	..	Dec. 1873;	Dec. 1874	0	6	C. J. McIlvaine.	S. O.
84	8.86	12.25	8.88	6.49	36.48	Jan. 1830;	Dec. 1846	17	0	Various Observers.	N. Y. Acad. Sys.
85	8.32	10.02	8.74	8.02	35.10	1830–1849		19	0	"	" "
86	10.51	14.32	11.55	8.36	44.74	Dec. 1856;	Nov. 1858	1	11	P. Reid.	Met. Obs. Vol. I.
87	7.34	9.99	9.03	6.95	33.31	1826–1846		20	0	Various Observers.	N. Y. Acad. Sys.; Blodgett's Clim.
88	6.72	9.57	8.60	3.93	28.82	1830–1846		9	0	"	N. Y. Acad. Sys.
89	5.37	7.09	6.81	3.83	23.10	1830–1850		14	0	"	" "

[g] Cortland Academy. [h] Union or Clinton Hall. [i] Cayuga Academy.

[j] Amount supposed too small; gauge on roof 50 feet from ground.

NEW YORK—CONTINUED.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
90. Leyden	43° 34′	75° 22′	1312	6.65	4.05	4.47	2.91	2.55	5.31	4.56	4.84	6.29	7.60	4.00	7.70
91. Liberty	41 45	74 46	1474	1.58	4.22	3.91	5.79	3.39	4.77	2.73	3.53	2.79	2.86	3.88	4.46
92. Lima	42 53	77 40	..	..	1.00	..	..	..	..	..	..	..	..	..	..
93. Little Genesee	42 00	78 15	1500	3.22	2.58	3.34	2.24	2.26	3.53	4.31	2.81	2.89	3.22	2.95	3.11
94. Lockport	43 09	78 44	..	2.84	1.93	2.24	2.10	1.55	2.61	3.33	2.13	2.54	2.71	2.80	2.68
95. Lodi [a]	42 36	76 50	1000	1.25	1.36	0.99	3.22	2.35	3.59	3.50	1.92	2.39	2.76	1.81	2.31
96. Lowville	43 47	75 30	847	2.38	2.54	2.12	2.11	2.73	3.48	3.52	3.04	2.82	3.24	3.03	2.54
97. Luzerne	43 18	73 50	500	..	..	..	..	..	..	..	..	..	..	2.15	2.81
98. Madison Barracks	43 57	76 04	262	2.54	2.17	2.89	2.27	2.59	2.58	3.58	2.99	3.52	4.63	3.07	2.48
99. Madrid	44 43	75 09	280	1.82	2.13	2.20	1.34	2.40	2.44	4.27	1.84	2.07	3.49	3.28	3.10
100. Madrid	44 43	75 09	280	1.62	2.40	2.60	4.21	2.54	3.85	1.98	3.39	4.41	1.66	..	..
101. Malone	44 50	74 18	703	2.24	2.46	2.54	2.59	3.00	3.64	3.35	1.96	3.71	3.23	2.27	2.71
102. Martinsburg	43 43	75 28	..	..	..	2.96	2.62	6.24	..	..	..	..	..	..	..
103. McGrawville	42 34	76 11	1450	3.91	0.68	3.50	2.29	4.22	10.89	2.51	2.88	3.20	..	..	..
104. Mexico	43 27	76 14	331	2.60	2.12	2.23	1.53	2.76	2.56	3.16	2.08	3.38	4.16	3.40	3.71
105. Mexico	43 27	76 14	423	3.09	..	0.86	2.16	3.65	1.52	2.17	3.34	5.95	4.19	3.37	5.16
106. Mexico	43 27	76 14	..	2.09	1.97	2.14	1.47	2.80	2.43	3.09	2.10	3.02	4.00	3.18	3.19
107. Middleburg	42 35	74 22	..	2.20	1.97	4.50	5.10	6.10	4.45	6.30	5.80	2.33	5.50	3.22	1.20
108. Middlebury	42 48	78 08	800	1.46	1.77	2.26	2.46	2.92	3.40	3.30	2.81	2.83	2.88	2.56	1.79
109. Milo	42 39	77 01	868	2.19	2.75	2.75	1.93	3.94	3.25	3.73	2.64	2.25	3.23	1.97	1.94
110. Millville	43 10	78 20	600	2.47	1.85	1.68	1.95	2.13	2.84	2.88	2.24	4.61	3.33	3.09	2.45
111. Minaville [b]	42 54	74 15	..	3.14	2.48	4.01	3.24	4.45	3.73	3.27	2.43	4.45	3.77	3.25	2.71
112. Montgomery	41 32	74 13	300	2.64	2.22	2.24	2.32	3.05	4.06	3.36	2.62	2.53	3.28	2.74	3.12
113. Mount Pleasant	41 03	73 52	125	2.16	1.50	2.55	3.57	3.63	3.33	4.31	3.83	3.03	3.27	2.44	2.67
114. Newburg	41 31	74 00	65	2.73	2.46	2.53	2.09	4.51	3.65	3.50	3.58	2.74	3.54	3.09	2.43
115. Newark Valley	42 12	76 11	..	1.90	2.70	3.91	2.10	3.50	3.33	4.13	5.80	2.20	3.33	1.90	3.05
116. New York City [c]	40 50	73 56	25	3.57	3.67	3.61	3.71	4.11	3.77	4.59	4.72	3.74	3.67	3.79	3.57
117. Nichols	42 01	76 28	800	3.20	4.15	2.87	7.93	0.20	9.00	5.20	0.11	5.15	2.00	5.04	4.82
118. North Hammond	44 23	75 45	..	3.08	2.56	3.17	2.10	3.61	2.55	3.58	3.09	4.17	5.44	3.58	2.80
119. North Salem	41 20	73 34	361	2.93	2.40	3.04	3.14	4.06	3.37	4.03	4.15	3.14	4.21	3.16	3.33
120. North Volney	43 20	76 28	350	4.47	2.36	4.94	3.20	1.92	3.78	5.51	1.66	3.27	5.08	3.11	2.53
121. Ogdensburg	44 40	75 28	232	2.10	2.65	3.66	2.97	2.45	5.02	3.38	3.43	2.61	2.32	3.34	3.70
122. Oneida Institute	43 04	75 38	500	3.07	1.59	1.48	2.32	2.54	3.31	3.27	3.08	2.69	3.72	2.15	1.97
123. Onondaga	42 56	76 08	1260	2.01	1.49	1.82	2.12	3.20	3.74	3.12	3.62	2.76	3.10	2.66	1.99
124. Onondaga	42 56	76 08	1260	1.93	1.41	1.76	2.01	3.13	3.52	3.58	3.79	2.76	3.28	2.54	1.88
125. Oswego	43 25	76 34	250	3.30	2.68	3.50	3.22	3.20	3.19	3.82	3.01	3.58	3.94	3.72	3.26
126. Ovid [d]	42 41	76 52	800	1.82	1.58	1.48	3.63	3.48	7.13	3.88	2.57	3.15	4.73	3.03	1.49
127. Oxford	42 23	75 40	961	2.47	2.21	2.27	2.52	3.60	4.27	3.77	3.34	3.35	3.36	2.73	2.47
128. Oyster Bay	40 52	73 32	50	2.68	1.11	3.58	5.28	7.36	3.49	4.40	2.09	2.37	1.28	1.98	2.12
129. Palermo	43 20	76 20	327	3.34	3.55	2.74	1.91	2.46	3.27	3.51	2.17	3.52	3.94	3.84	4.01
130. Palmyra	43 04	77 13	450	1.16	0.82	1.03	2.24	1.66	2.67	3.65	2.70	2.93	2.78	2.60	2.25
131. Penn Yan	42 42	77 04	740	1.38	1.44	1.65	2.43	3.01	3.31	3.16	2.81	2.73	2.61	2.11	1.67
132. Pierrepont Manor	43 48	76 13	617	2.15	1.74	2.94	2.80	3.15	2.70	3.56	3.28	3.69	4.60	3.87	3.16
133. Plainville	43 00	77 16	..	4.57	4.74	2.08	5.32	4.77	7.26	..	..	..	..	..	..
134. Plattsburg Academy	44 41	73 26	186	1.85	1.65	2.42	2.48	2.65	3.19	3.47	2.97	3.12	3.70	2.36	2.12

[a] Also called Townsendville and Covert.

[b] Locust Grove Farm.

[c] Series embraces observations made at New York Central Park, N. Y. Cooper Institute, N. Y. Hospital, N. Y. D. D.

NEW YORK—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
90	9.93	14.71	17.89	18.40	60.93	Mar. 1869;	July, 1870	1	4	C. C. Merriam.	S. O.
91	13.09	11.03	9.53	10.26	43.91	Oct. 1850;	Apr. 1856	2	7	J. Felt, Jr., — Watkins.	Met. Obs. Vol. 1; N.Y. Acad. Sys.
92	..	..	..	..	..	Feb. 1861;	Feb. 1861	0	1	Prof. S. A. Lattimore.	S. O.
93	7.84	10.65	9.06	8.91	36.46	July, 1866;	Dec. 1873	7	4	D. Edwards.	"
94	5.89	8.07	8.05	7.45	29.46	June, 1870;	Dec. 1874	4	6	B. W. Clark.	"
95	6.56	9.01	6.96	4.92	27.45	Jan. 1854;	Dec. 1858	4	5	J. Lefferts.	Met. Obs. Vol. 1.
96	6.96	10.04	9.09	7.46	33.55	Jan. 1827;	July, 1872	22	10	A. J. Barrett, J. C. House and others.	N. Y. Acad. Sys.; Met. Obs. Vol. 1; S. O.
97	..	..	..	..	..	Nov. 1870;	Dec. 1870	0	2	A. M. Strong.	S. O.
98	7.75	9.15	11.22	7.19	35.31	Jan. 1840;	Dec. 1874	14	2	Assistant Surgeon.	Ar. Met. Reg. 1855; MS. from S. G. O.
99	5.94	8.55	8.84	7.05	30.38	1849–1852		2	10	E. A. Dayton.	S. Coll.
100	9.35	9.22	..	..	..	Jan. 1854;	Oct. 1859	1	4	E. A. Dayton.	Met. Obs. Vol. 1.
101	8.13	8.95	9.21	7.41	33.70	—— 1830;	Apr. 1877	10	8	P. Belville.	Sig. Ser. Reps.
102	11.82	..	..	..	..	Mar. 1844;	May, 1844	0	3	Dr. F. B. Hough.	S. Coll.
103	10.01	16.28	..	..	..	Jan. 1857;	Sept. 1857	0	9	J. M. Smith.	Met. Obs. Vol. 1.
104	6.52	7.80	10.94	8.43	33.69	—— 1837;	Dec. 1852	14	3	Various Observers.	N. Y. Acad. Sys.
105	6.67	7.03	13.51	..	..	Mar. 1856;	Jan. 1857	0	11	J. R. French.	Met. Obs. Vol. 1.
106	6.41	7.62	10.20	7.25	31.48	. . . . .		12	0	. . . . .	Dove in Pogg. Ann.
107	15.70	16.55	11.05	5.37	48.67	Feb. 1871;	Nov. 1873	2	5	W. Roe.	S. O.
108	7.64	9.51	8.27	5.02	30.44	1826–1848		17	0	— Dewey.	Blodgett's Clim.
109	8.62	9.62	7.45	6.88	32.57	May, 1869;	Dec. 1872	2	10	G. D. Baker.	S. O.
110	5.76	7.96	11.03	6.77	31.52	Jan. 1841;	Dec. 1847	7	0	Various Observers.	N. Y. Acad. Sys.
111	11.70	9.43	11.47	8.33	40.93	Dec. 1867;	Jan. 1871	3	2	D. S. & J. W. Bussing.	S. O.
112	7.61	10.04	8.55	7.98	34.18	1830–1842		11	0	Various Observers.	N. Y. Acad. Sys.
113	9.75	11.47	8.74	6.33	36.29	1830–1844		13	0	"	" "
114	9.13	10.73	9.32	7.62	36.85	Jan. 1830;	Feb. 1871	25	5	J. H. Gardiner & others.	N. Y. Acad. Sys.; S. O.
115	9.51	13.26	7.43	7.65	37.85	Dec. 1868;	Apr. 1872	2	11	S. Johnson.	S. O.
116	11.43	13.08	11.20	10.81	46.52	Apr. 1844;	June, 1877	29	9	J. Dascey, Prof. O. W. Morris, Dr. W. W. Sanger, F. J. Slade, C. C. Wakely, Prof. C. A. Joy, M. M. Marsh, J. M. Aubier, J. Hogan, D. Draper, H. E. Cole, M. F. Tighe, F. M. M. Beall, H. J. Penrod.	Am. Alm.; S. Coll.; S. O.; Met. Obs. Vol. 1; Sig. Ser. Reps.
117	11.00	14.31	12.19	12.17	49.67	Dec. 1873;	Dec. 1874	1	1	R. Howell.	. . . . .
118	8.88	9.22	13.19	8.44	39.73	June, 1866;	Dec. 1874	8	5	C. A. Wooster.	S. O.
119	10.51	11.55	10.24	8.66	40.96	Jan. 1830;	Dec. 1856	20	8	J. F. Jenkins, M. J. Lobdell.	N.Y. Acad. Sys.; Met. Obs. Vol. 1.
120	10.06	10.95	11.46	9.36	41.83	July, 1872;	Dec. 1874	2	6	J. M. Patrick.	S. O.
121	9.08	11.83	8.27	8.45	37.63	Sept. 1850;	June, 1860	5	8	W. E. Guest.	N. Y. Acad. Sys.; S. O.; Met. Obs. Vol. 1.
122	6.34	9.66	8.56	6.63	31.19	1844–1852		6	0	Various Observers.	N. Y. Acad. Sys.
123	7.14	10.48	8.52	5.49	31.63	1832–1843		11	0	"	" "
124	6.90	10.89	8.58	5.22	31.59	. . . . .		..		. . . . .	Dove in Pogg. Ann.
125	9.92	10.02	11.24	9.24	40.42	Apr. 1856;	June, 1877	18	7	J. H. Hart, F. B. Hough, W. S. Malcolm.	Met. Obs. Vol. 1; S. O.; Sig. Ser. Reps.
126	8.59	13.58	10.91	4.89	37.97	Jan. 1856;	Sept. 1858	2	7	J. W. Chickering.	Met. Obs. Vol. 1.
127	8.39	11.38	9.44	7.15	36.36	1830–1852		20	0	Various Observers.	N. Y. Acad. Sys.
128	16.22	9.98	5.63	5.91	37.74	Jan. 1835;	Dec. 1837	3	0	"	" "
129	7.11	8.95	11.30	10.90	38.26	Jan. 1860;	Dec. 1874	10	6	E. B. Bartlett.	S. O.
130	4.93	9.02	8.31	4.23	26.49	—— 1834;	Dec. 1856	2	7	Various Observers.	N. Y. Acad. Sys.; S. Coll.
131	7.09	9.28	7.45	4.49	28.31	Jan. 1829;	Dec. 1874	39	5	G. A. Youngs, Dr. H. P. Sartwell.	N. Y. Acad. Sys.; S. Coll.; S. O.
132	8.89	9.54	12.16	7.05	37.64	Jan. 1859;	Oct. 1865	6	10	W. C. Pierrepont.	20th An. Rep. Reg. Univer. N.Y.
133	12.17	..	..	..	..	Jan. 1857;	June, 1857	0	6	J. H. Norton.	Met. Obs. Vol 1.
134	7.55	9.63	9.18	5.62	31.98	Jan. 1840;	Dec. 1874	18	6	Asst. Surg. and others.	Ar. Met. Reg. 1855; N. Y. Acad. Sys.; S. Coll.; Blodgett's Clim.; Met. Obs. Vol. 1; MS. from S. G. O.

Institute, N. Y. 5th Avenue, N. Y. Columbia College, N. Y. Penitentiary Hospital, N. Y. 86th Street Reservoir, N. Y. Rutger's College, N. Y. Rutherfurd Observatory, N. Y. Signal Service, N. Y. St. Francis Xavier's College.

[d] Seneca Falls Collegiate Institute.

NEW YORK—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
135. Pompey	42° 52′	76° 02′	1300	1.69	1.60	1.26	1.78	3.08	4.21	4.12	3.19	2.93	3.23	2.10	1.57
136. Pompey Hill	42 52	76 09	1737	2.24	2.08	1.09	..	2.80	2.45	1.70	..	..	8.02	3.40	3.46
137. Potsdam [b]	44 40	75 01	394	1.40	1.06	1.48	1.70	3.02	3.31	4.03	2.81	3.11	3.34	1.93	1.44
138. Poughkeepsie [c]	41 40	73 55	..	3.34	2.08	3.22	2.87	3.60	3.66	4.09	4.41	2.54	3.94	3.35	3.23
139. Prattsburg [a]	42 34	77 20	1494	1.95	1.82	2.37	2.71	3.13	3.94	3.27	2.63	3.40	2.91	2.33	2.48
140. Red Hook	41 58	73 52	..	2.86	1.54	2.39	3.18	3.03	3.99	4.31	2.83	2.45	2.75	2.46	2.36
141. Rockland [d]	41 09	74 00	124	1.11	5.47	6.00	1.62	4.42	..	..	..	..	..	..	..
142. Rochester	43 08	77 40	500	2.27	2.26	2.48	2.58	2.99	3.09	3.30	2.73	3.27	3.28	2.72	2.68
143. Rodman	43 52	75 58	600	7.90	2.20	3.30	3.20	2.10	3.95	3.95	3.05	3.25	5.35	5.70	3.55
144. Sackett's Harbor	43 55	76 07	266	1.98	2.46	2.89	2.95	3.36	2.51	2.98	3.10	3.44	4.01	4.13	2.92
145. Sag Harbor	41 00	72 18	40	3.68	2.60	3.37	4.45	3.47	2.41	3.38	3.67	3.62	3.88	4.12	4.42
146. Saratoga	43 04	73 47	960	1.50	..	..	3.30	7.10	2.80	2.90	..	3.60	..	..	..
147. Schenectady [e]	42 47	73 57	300	4.91	2.49	2.45	3.06	3.50	3.32	3.16	2.67	1.98	3.39	1.94	4.67
148. Seneca Falls	42 54	76 50	463	1.44	2.24	2.38	2.82	3.49	3.16	3.85	2.61	2.70	3.97	3.66	3.46
149. Sing Sing [f]	41 09	73 52	158	4.43	4.49	5.72	5.89	8.57	7.41	6.98	9.26	5.53	7.46	6.69	4.22
150. Sing Sing	41 09	73 52	125	1.79	3.56	0.82	1.50	6.18	2.27	2.43	5.29	3.85	4.48	2.66	2.00
151. Sloansville	42 41	74 31	..	2.28	3.71	5.72	3.41	8.75	..	..	..	..	..	..	..
152. Smithville	43 52	76 06	300	4.71	5.39	2.99	..	..	..	..	..	..	..	3.35	..
153. Somerville	44 10	75 00	412	3.09	1.66	2.17	2.17	2.70	1.47	4.34	2.42	2.33	3.77	2.63	1.93
154. South Hartford	43 18	73 25	400	2.40	2.77	3.29	2.79	4.11	4.11	3.40	4.83	2.81	3.94	3.99	3.32
155. South Trenton	43 13	75 15	835	3.90	5.10	4.94	3.66	4.22	4.69	5.46	4.63	4.29	4.73	4.23	4.05
156. Spencertown	42 19	73 41	750	2.59	1.68	1.22	4.62	4.26	4.07	3.97	4.09	3.00	2.96	2.66	3.43
157. Springville	42 30	78 42	1060	1.18	2.37	1.84	3.95	2.17	3.95	3.60	3.64	4.60	5.82	3.03	2.30
158. Stapleton	40 39	74 04	50	3.45	2.60	..	..	..	..	..	..	..	3.83	..	1.26
159. Starkey	42 32	76 58	..	..	..	..	..	..	..	..	..	..	..	3.30	2.33
160. Suffern	41 07	74 08	..	..	..	1.59	..	..	..	..	..	..	..	..	..
161. Syracuse	43 02	76 14	407	2.26	2.10	2.68	2.81	3.16	3.66	3.53	2.53	3.62	3.91	3.39	3.10
162. Tarrytown	41 05	73 51	152	3.07	3.20	3.84	3.26	4.56	3.80	5.03	5.41	3.69	4.22	4.23	3.27
163. Theresa	44 12	75 48	365	2.13	2.13	3.06	3.41	4.56	1.95	2.26	2.65	3.95	3.77	3.68	3.48
164. Throg's Neck	40 48	73 47	19	1.92	2.96	2.75	2.24	3.80	2.66	2.11	3.72	4.90	2.29	3.88	4.19
165. Troy	42 44	73 41	58	3.16	2.17	2.58	3.34	3.49	3.95	4.26	3.86	3.54	2.77	2.90	1.86
166. Utica	43 05	75 13	473	2.92	2.72	2.87	3.19	3.28	4.48	4.87	3.74	3.39	2.94	3.63	3.41
167. Virgil	42 30	76 15	1100	..	..	..	..	..	3.48	4.00	7.65	2.30	3.00	4.70	..
168. Wampsville [g]	43 07	75 48	500	4.06	3.30	4.14	5.18	6.13	6.90	7.75	7.79	6.89	6.02	5.71	4.14
169. Wappinger Falls	41 38	73 50	..	..	..	..	..	..	..	..	..	..	..	..	0.65
170. Warrensburg	43 28	73 42	682	..	..	..	..	..	..	8.25	3.46	0.90	..	..	..
171. Warsaw	42 44	78 10	..	..	..	2.47	2.54	1.79	..	..	..	..	..	..	..
172. Waterburg	42 30	76 25	800	3.44	1.88	4.00	4.49	1.89	2.61	4.59	4.02	2.44	4.65	2.24	2.55
173. Waterford	42 47	73 43	70	3.42	1.97	2.95	3.60	3.15	4.24	4.58	3.55	2.95	2.87	2.61	2.58
174. Watertown	43 58	75 54	268	1.65	0.21	1.65	1.44	3.72	1.41	1.83	3.71	3.84	3.83	1.85	2.05
175. Watervliet Arsenal [h]	42 43	73 50	50	2.07	2.08	2.19	2.92	3.56	3.73	3.51	3.10	3.24	3.00	2.94	2.33
176. Waverly Village	42 22	78 59	1300	2.34	1.42	..	..	..	..	..	..	..	..	..	..
177. Wellsville	42 07	78 00	1480	..	..	..	2.25	2.50	..	3.53	3.69	5.50	..	..	2.62
178. West Concord	42 32	78 52	2000	..	..	1.50	..	..	..	..	..	..	..	1.00	..
179. West Day	43 20	74 08	1200	2.78	2.00	4.05	1.65	3.47	6.50	6.73	3.67	3.28	2.93	2.84	3.24
180. West Point	41 24	73 57	167	3.18	3.19	3.30	4.07	5.14	3.66	4.22	5.26	3.52	3.93	3.82	3.53
181. Willett's Point	40 48	73 46	..	3.55	2.11	2.54	3.25	2.38	3.09	3.93	5.71	2.94	3.33	3.04	1.89
182. Wilson	43 17	78 50	250	0.84	1.38	..	..	..	..	..	..	..	..	0.90	1.37
183. White Plains	41 02	73 46	273	8.60	1.90	1.90	5.15	3.10	1.00	6.05	6.35	4.75	2.20	3.88	6.87

[a] Franklin Academy. [b] Saint Lawrence Academy. [c] Dutchess County Academy. [d] Female Institute.
[e] Union College. [f] Amount excessive; the gauge supposed to have been improperly placed.

NEW YORK—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	mos.	Observers.	References.
135	6.12	11.52	8.26	4.86	30.76	Jan. 1830;	Dec. 1852	16	3	Various Observers.	N. Y. Acad. Sys.
136	..	..	..	7.78	..	May, 1856;	Mar. 1858	0	9	J. F. Kindall, S. M. Ingalls.	Met. Obs. Vol. 1.
137	6.20	10.15	8.38	3.90	28.63	Jan. 1828;	Dec. 1848	20	0	Various Observers.	Blodgett's Clim.; N.Y.Acad. Sys.
138	9.69	12.16	9.83	8.65	40.33	—— 1830;	Apr. 1870	15	1	Miss Swallow & others.	N. Y. Acad. Sys.; S. O.
139	8.21	9.84	8.64	6.25	32.94	. . . . .		9	0	Various Observers.	N. Y. Acad. Sys.
140	8.60	11.13	7.66	6.76	34.15	Jan. 1830;	Dec. 1842	11	0	"	" "
141	12.04	..	..	..	..	Jan. 1869;	May, 1869	0	5	C. de la Verny,—Nyack.	S. O.
142	8.05	9.12	9.27	7.21	33.65	Jan. 1831;	June, 1877	44	8	F. M. M. Beall, L. E. Sebree, L. Wetherell, Dr. E. S. Marsh, H. W. Matthews, Dr. W. M. L. Fiske, Dr. C. Dewey, & Dr. M. M. Matthews.	Am. Alm.; Regts. of Univ. 1868; N.Y. Acad. Sys.; S. Coll.; S.O.
143	8.60	10.95	14.30	13.65	47.50	June, 1873;	Dec. 1874	1	7	S. Johnson.	S. O.
144	9.20	8.59	11.58	7.36	36.73	July, 1859;	Dec. 1866	7	6	Gen. W. F. Raynolds, H. Metcalf.	Surv. N. & N. W. Lakes; Met. Obs. Vol. 1.
145	11.29	9.46	11.62	10.70	43.07	Mar. 1849;	Dec. 1858	8	5	E. N. Byram.	S. Coll.; Met. Obs. Vol. 1.
146	..	..	..	..	..	Apr. 1858;	Sept. 1859	0	6	W. H. Riker.	Met. Obs. Vol. 1.
147	9.01	9.15	7.31	12.07	37.54	Jan. 1835;	June, 1864	4	3	Various Observers.	N.Y. Acad. Sys.; Met. Obs. Vol. 1; S. O.
148	8.69	9.62	10.33	7.14	35.78	Jan. 1850;	Dec. 1852	3	0	J.P. Fairchild & others.	N. Y. Acad. Sys.; S. Coll.
149	20.18	23.65	19.68	13.14	76.65	Sept. 1862;	Jan. 1875	11	2	H. Lownsberg.	S. Coll.
150	8.50	9.99	10.99	7.35	36.83	Mar. 1849;	Aug. 1852	2	3	C. F. Maurice.	"
151	17.88	..	..	..	..	May, 1868;	Jan. 1870	0	6	G. W. Potter.	S. O.
152	..	..	..	..	..	Jan. 1854;	Nov. 1856	0	7	J. E. Breed.	Met. Obs. Vol. 1.
153	7.04	8.23	8.73	6.68	30.68	Apr. 1849;	Apr. 1852	3	0	Dr. F. B. Hough.	S. Coll.
154	10.19	12.34	10.74	8.49	41.76	Aug. 1863;	Nov. 1873	10	2	G. M. Ingalsbe.	S. O.
155	12.82	14.78	13.25	13.05	53.90	Aug. 1863;	Dec. 1874	10	6	Capt. S. Barrows.	"
156	10.10	12.13	8.62	7.70	38.55	July, 1854;	June, 1861	5	3	F. C. P. Hyde, L. S. Packard and others.	Met. Obs. Vol. 1; S. O.
157	7.96	11.19	13.45	5.85	38.45	Jan. 1834;	Dec. 1835	2	0	Various Observers.	N. Y. Acad. Sys.
158	..	..	..	7.31	..	Oct. 1867;	Feb. 1868	0	4	S. L. Hillier.	S. O.
159	..	..	..	..	..	Nov. 1874;	Dec. 1874	0	2	H. L. Denison.	"
160	..	..	..	..	..	Mar. 1863;	Mar. 1863	0	1	J. H. Warren.	"
161	8.65	9.72	10.92	7.46	36.75	Jan. 1840;	Dec. 1852	9	5	Various Observers.	N. Y. Acad. Sys.
162	11.66	14.24	12.14	9.54	47.58	Jan. 1860;	Apr. 1872	12	4	. . . . .	S. Coll.
163	11.03	6.86	11.40	7.74	37.03	Aug. 1861;	May, 1868	6	7	S. O. Gregory.	S. O.
164	8.79	8.49	11.07	9.07	37.42	Dec. 1863;	Feb. 1866	1	2	E. Morris, F. M. Rogers.	"
165	9.41	12.07	9.21	7.19	37.88	Jan. 1854;	Dec. 1874	9	1	Prof. E. H. Allen, D. Green, J. W. Heimstreet, W. Fenton, W. L. Haskin.	Met. Obs. Vol. 1; S. O.
166	9.34	13.09	9.96	9.05	41.44	—— 1826;	Dec. 1870	24	4	J.G. Williams & others.	N. Y. Acad. Sys.; S. O.
167	..	15.13	10.00	..	..	June, 1873;	Nov. 1873	0	6	J. E. Winslow.	S. O.
168	15.45	22.44	18.62	11.50	68.01	Mar. 1856;	Nov. 1874	16	4	Dr. S. Spooner.	Met. Obs. Vol 1; S. O.
169	..	..	..	..	..	Dec. 1874;	Dec. 1874	0	1	J. D. Harcourt & Son.	S. O.
170	..	..	..	..	..	July, 1871;	Sept. 1871	0	3	H. E. McNutt.	"
171	6.80	..	..	..	..	Mar. 1865;	May, 1865	0	3	J. P. Morse.	"
172	10.38	11.22	9.33	7.87	38.80	June, 1872;	Dec. 1874	2	7	D. Trowbridge.	"
173	9.70	12.37	8.43	7.97	38.47	June, 1857;	May, 1863	4	11	J. C. House.	Met. Obs. Vol. 1; S. O.
174	6.81	6.95	9.52	3.91	27.19	Jan. 1856;	Dec. 1856	1	0	Dr. P. O. Williams.	Met. Obs. Vol. 1.
175	8.67	10.34	9.18	6.48	34.67	Apr. 1836;	Dec. 1854	17	4	Assistant Surgeon.	Ar. Met. Reg. 1855.
176	..	..	..	..	..	Jan. 1861;	Feb. 1861	0	2	W. Flint, J. Curtis.	S. O.
177	..	..	..	..	..	May, 1857;	Apr. 1858	0	6	H. M. Sheerar.	Met. Obs. Vol. 1.
178	..	..	..	..	..	Mar. 1856;	Nov. 1856	0	2	L. Woodward.	" "
179	9.17	16.90	9.05	8.02	43.14	Oct. 1871;	Sept. 1874	2	0	J. M. Young.	S. O.
180	12.51	13.14	11.27	9.90	46.82	Jan. 1840;	Dec. 1874	29	9	Assistant Surgeon.	Ar. Met. Regs., 1855 & 1860; MS. from S. G. O.
181	8.17	12.73	9.31	7.55	37.76	Jan. 1870;	Dec. 1874	5	0	"	MS. from S. G. O.
182	..	..	..	3.59	..	Nov. 1859;	Feb. 1861	0	7	E. S. Holmes.	Met. Obs. Vol. 1; S. O.
183	10.15	13.40	10.83	17.37	51.75	Nov. 1872;	Dec. 1874	1	11	O. R. Willis.	S. O.

[a] Also called Oneida. Amount appears overmeasured.

[b] Series supposed incomplete in the measure of water falling as snow.

NORTH CAROLINA.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Asheville	35° 33′	82° 30′	2250	2.42	3.41	3.27	3.16	3.90	4.20	5.06	4.64	2.06	1.70	2.67	3.22
2. Attaway Hill	35 25	80 00	850	4.19	4.97	5.21	4.60	5.44	4.42	3.88	5.08	4.99	3.78	2.94	3.68
3. Bakersville	36 02	82 02	..	..	..	..	..	..	..	..	5.70	2.50	..	..	..
4. Beaufort Hospital	34 43	76 39	20	..	4.50	11.50	3.87	3.85	2.77	1.75	3.60	2.13	4.60	4.00	3.79
5. Cape Hatteras	35 14	75 30	2	3.57	5.18	7.09	5.58	2.83	4.45	5.15	3.29	6.45	5.42	4.66	3.86
6. Cape Lookout	34 36	76 36	..	..	..	..	..	5.28	2.01	..	..	..	..	..	..
7. Chapel Hill [a]	35 58	78 54	..	3.66	3.24	3.54	3.39	3.57	2.34	3.99	3.96	5.21	2.32	3.15	4.34
8. Charlotte [b]	35 16	80 50	769	3.36	10.28	4.09	1.94	4.88	3.89	2.28	8.40	4.10	2.22	4.23	2.83
9. Davidson College	35 30	80 44	850	4.40	4.28	2.57	3.41	3.04	3.04	2.65	2.68	9.80	3.38	2.18	4.14
10. Edenton	36 03	76 36	..	4.95	4.89	4.70	2.60	7.10	3.30	5.50	..	..	..	..	..
11. Fayetteville	35 00	78 45	..	1.57	4.18	5.75	2.95	4.00	2.00	1.60	7.40	1.83	4.90	0.90	1.90
12. Forrest Hill [c]	35 20	83 10	2217	..	11.22	..	2.70	2.10	..	..	2.54	2.60	1.97	1.64	1.70
13. Fort Johnston	33 55	78 01	20	2.62	1.75	3.49	0.59	2.75	2.45	5.18	7.90	9.86	2.42	4.04	2.95
14. Fort Macon	34 42	76 40	20	0.71	1.96	0.89	2.53	2.07	0.71	7.13	0.49	..	..	..	..
15. Franklin	35 12	83 30	2000	8.10	13.80	5.40	1.60	4.95	6.42	3.40	..	..	3.10	2.90	3.30
16. Gaston [d]	36 28	77 38	..	3.00	2.69	3.18	4.19	4.75	2.65	4.45	4.78	3.42	2.54	3.10	4.65
17. Goldsboro	35 25	77 51	102	2.95	3.74	4.05	4.53	5.51	5.63	6.49	7.18	3.94	4.13	2.88	3.44
18. Greensboro	36 05	79 45	..	0.98	1.28	2.05	1.42	3.65	1.43	1.47	2.21	1.96	1.70	0.80	1.53
19. Jackson [e]	36 20	77 25	..	2.53	2.23	3.43	2.84	2.04	1.71	2.76	..	..	..	2.41	2.15
20. Johnston	..	..	..	4.22	4.45	4.65	2.21	6.15	3.28	5.88	7.04	7.69	3.32	2.43	3.48
21. Kenansville [f]	34 58	77 50	60	6.51	4.65	2.66	7.83	5.06	7.38	9.53	2.72	1.41	11.22	2.05	6.53
22. Kitty Hawk	36 00	75 33	22	1.43	3.19	6.03	5.22	3.07	4.67	9.98	12.08	5.56	7.55	8.61	3.46
23. Lenoir	36 00	81 28	..	4.47	6.48	2.97	4.32	7.20	4.03	5.27	4.89	3.75	2.26	3.57	2.77
24. Marlboro	35 36	77 30	..	3.83	5.79	2.86	5.21	2.78	3.95	5.31	3.96	..	..	..	..
25. Mount Airy	36 30	80 32	..	2.10	3.10	3.55	1.70	0.80	4.70	3.10	7.30	..	..	..	..
26. Mount Olive	35 14	77 55	100	..	..	..	..	..	..	10.45	7.25	5.10	2.51	..	..
27. Mount Pleasant	35 26	80 18	100	..	..	..	2.08	2.26	5.09	7.88	4.40	5.95	3.12	1.20	2.68
28. Murphy	35 18	84 00	..	6.55	10.90	7.27	7.50	3.03	6.17	6.48	8.17	3.67	1.50	4.83	6.93
29. Murfreesboro	36 26	77 01	..	2.88	3.40	2.80	4.00	3.68	2.84	4.26	3.10	2.80	2.05	2.79	3.05
30. New Garden	36 00	79 55	860	4.27	6.35	2.36	4.85	5.50	4.55	3.53	6.46	4.45	2.33	3.04	2.73
31. Oxford	36 22	78 29	..	3.60	4.71	3.77	3.26	5.70	3.31	4.52	4.64	4.00	2.97	3.01	2.51
32. Raleigh [g]	35 48	78 38	317	2.46	5.11	5.70	3.55	4.92	3.99	4.45	5.42	3.11	3.57	3.36	2.39
33. Smithville	33 58	78 02	..	0.44	3.07	5.66	2.70	3.95	3.38	..	..	..	..	2.74	2.41
34. Statesville, near	35 49	80 46	..	4.39	5.30	5.12	4.11	4.71	4.33	4.44	4.39	4.86	3.54	2.83	3.84
35. Tarboro	35 55	77 30	..	2.95	4.65	3.87	2.60	6.60	4.90	4.50	5.27	3.30	8.55	3.60	3.00
36. Trinity College	35 45	79 40	400	3.69	13.00	2.70	1.98	6.99	..	..	..	..	..	..	..
37. Warrenton	36 24	78 02	..	2.45	4.15	3.45	2.25	4.30	2.51	5.38	3.82	2.66	2.33	1.70	2.60
38. Weldon	36 24	77 30	..	3.97	5.39	3.00	2.82	5.46	2.82	5.25	6.68	4.20	4.22	2.85	2.41
39. Wilmington	34 14	77 56	26	3.81	4.16	4.16	2.44	5.07	6.80	3.58	6.16	7.53	2.84	2.33	3.72
40. Wilson	35 45	77 47	105	..	2.37	1.11	6.35	1.85	4.90	6.64	3.26	4.94	2.95	2.45	2.25

OHIO.

1. Amesville, near	39 26	81 56	..	..	4.00	..	..	..	..	..	..	..	..	..	..
2. Austinburg	41 48	80 54	816	2.32	2.75	3.88	3.53	2.71	1.87	4.76	3.30	4.42	2.64	3.85	3.82
3. Avon	41 27	82 04	840	2.27	3.99	3.98	4.28	3.23	4.23	2.10	1.74	4.09	2.06	5.35	4.23
4. Bellefontaine	40 23	83 42	1040	2.15	2.62	2.04	4.97	3.29	4.29	3.64	4.16	1.80	2.70	3.10	3.36
5. Berea [h]	41 25	81 52	741	2.78	0.60	2.88	2.10	1.71	..	..	..	3.55	2.92	3.35	0.70
6. Berlin Heights, near	41 19	82 30	..	3.68	2.37	1.98	3.76	2.02	3.31	5.76	1.86	2.78	2.19	2.53	2.64

[a] University of North Carolina. [b] U. S. Branch Mint. [c] Near Webster.
[d] Also known as Green Plains. [e] Also called Thornbury. [f] Webster Institute.

NORTH CAROLINA.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
1	10.33	13.90	6.43	9.05	39.71	July, 1857;	Dec. 1874	6	8	W. W. McDowell, E. J. Aston, Dr. J. F. E. Hardy.	Met. Obs. Vol. 1; S. O.
2	15.25	13.38	11.71	12.84	53.18	Apr. 1861;	Dec. 1874	8	7	F. J. Kron.	S. O.
3	..	..	..	..	..	Aug. 1871;	Sept. 1871	0	2	J. H. Greene.	.....
4	19.22	8.12	10.73	..	..	Dec. 1864;	Dec. 1872	1	0	J. Rumley, Asst. Surg.	S. O.; MS. from S. G. O.
5	15.50	12.89	16.53	12.61	57.53	Sept. 1874;	June, 1876	1	10	G. Onslow.	Sig. Ser. Reps.
6	..	..	..	..	..	May, 1876;	June, 1876	0	2	.....	" "
7	10.50	10.29	10.68	11.24	42.71	Apr. 1856;	Apr. 1861	3	11	Dr. J. Phillips.	Met. Obs. Vol. 1; S. O.
8	10.91	14.57	10.55	16.47	52.50	Mar. 1872;	Dec. 1873	1	10	G. B. Hanna.	S. O.
9	9.02	8.38	15.36	12.82	45.58	Jan. 1858;	Dec. 1859	1	9	Prof. W. C. Kerr.	Met. Obs. Vol. 1.
10	14.40	..	..	..	..	Jan. 1872;	July, 1873	1	1	R. N. Hines.	S. O.
11	12.70	11.00	7.63	7.65	38.98	Feb. 1871;	Mar. 1872	1	2	G. W. Lawrence.	"
12	..	..	6.21	..	..	Apr. 1872;	Dec. 1874	0	11	D. D. Davis, H. Long.	"
13	6.83	15.53	16.32	7.32	46.00	Jan. 1844;	July, 1845	1	7	Assistant Surgeon.	Ar. Met. Reg. 1855.
14	5.49	8.33	..	..	..	Jan. 1849;	Aug. 1849	0	8	"	" " "
15	11.95	..	..	25.20	..	Apr. 1872;	Jan. 1874	1	2	A. Siler.	S. O.
16	12.12	11.88	9.06	10.34	43.40	Aug. 1856;	Mar. 1861	4	8	Dr. G. F. Moore.	Met. Obs. Vol. 1; S. O.
17	14.09	19.30	10.95	10.13	54.47	Mar. 1860;	Dec. 1874	6	11	Prof. E. W. Adams.	S. O.
18	7.12	5.11	4.46	3.79	20.48	Aug. 1871;	Dec. 1874	3	1	S. A. Howard.	.....
19	8.31	..	..	6.91	..	Jan. 1854;	Apr. 1855	1	1	F. Fitzgerald, Prof. D. Morrelle.	Met. Obs. Vol. 1.
20	13.01	16.20	13.44	12.15	54.80	Jan. 1871;	Dec. 1874	3	11	Assistant Surgeon.	MS. from S. G. O.
21	15.55	19.63	14.68	17.69	67.55	Mar. 1868;	May, 1869	1	3	Prof. N. B. Webster.	S. O.
22	14.32	26.73	21.72	8.08	70.85	Jan. 1875;	June, 1876	1	6	D. D. Stansell, E. E. Clements.	Sig. Serv. Reps.
23	14.49	14.19	9.58	13.72	51.98	Aug. 1871;	Dec. 1874	3	3	Dr. R. L. Beall.	.....
24	10.85	13.22	..	..	..	Jan. 1858;	Aug. 1858	0	8	R. H. Drysdale.	Met. Obs. Vol. 1.
25	6.05	15.10	..	..	..	Jan. 1872;	Aug. 1872	0	8	R. S. Gilmer.	.....
26	..	..	..	..	..	July, 1869;	Oct. 1869	0	4	E. D. Pearsall.	S. O.
27	..	17.37	10.27	..	..	Apr. 1874;	Dec. 1874	0	9	H. T. J. Ludwick.	"
28	17.80	20.82	10.00	24.38	73.00	Mar. 1872;	Dec. 1874	2	10	Wm. Beal.	.....
29	10.48	10.20	7.64	9.33	37.65	Oct. 1856;	Oct. 1861	5	1	A. McDowell.	Met. Obs. Vol. 1; S. O.
30	12.71	14.54	9.82	13.35	50.42	Dec. 1872;	Dec. 1874	2	0	A. E. Kitchen.	S. O.
31	12.73	12.47	9.98	10.82	46.00	Jan. 1867;	Oct. 1874	7	5	Dr. W. R. Hicks.	"
32	14.17	13.86	10.04	9.96	48.03	Aug. 1866;	Dec. 1874	6	1	F. P. Brewer and Wife, W. H. Murdock.	"
33	12.31	..	..	6.12	..	Nov. 1875;	June, 1876	0	8	B. C. Anderson.	Sig. Ser. Reps.
34	13.94	13.16	11.23	13.53	51.86	June, 1866;	Dec. 1874	6	11	T. A. Allison.	S. O.
35	13.07	14.67	15.45	10.60	53.79	Aug. 1871;	Jan. 1873	1	6	T. Norfleet.	"
36	11.67	..	..	..	..	Jan. 1861;	May, 1869	0	5	B. Craven, E. D. Pearsall.	"
37	10.00	11.71	6.69	9.20	37.60	Apr. 1857;	Dec. 1870	1	7	H. A. Foote, Dr. W. N. Johnston.	Met. Obs. Vol. 1.; S. O.
38	11.28	14.75	11.27	11.77	49.07	Feb. 1872;	Dec. 1874	2	10	T. A. Clark.	.....
39	11.67	16.54	12.70	11.69	52.60	Feb. 1872;	June, 1876	4	2	D. Morrelle, S. B. Lum, R. Seyboth.	Sig. Ser. Reps.; S. O.
40	9.31	14.80	10.34	..	..	Feb. 1866;	Dec. 1866	0	11	E. W. Adams.	S. O.

OHIO.

1	..	..	..	..	..	Feb. 1869;	Feb. 1869	0	1	E. H. Brawley.	S. O.
2	10.12	9.93	10.91	8.89	39.85	Nov. 1862;	Jan. 1866	3	0	J. G. Dole, C. S. S. Griffing, D. S. Alvord & E. D. Winchester.	"
3	11.49	8.07	11.50	10.49	41.55	Oct. 1858;	Dec. 1859	1	3	L. F. Ward.	Met. Obs. Vol. 1.
4	10.30	12.09	7.60	8.13	38.12	Jan. 1856;	Dec. 1874	7	1	J. Shaw, W. Barringer.	Met. Obs. Vol. 1.; S. O.
5	6.69	..	9.82	4.08	..	Mar. 1855;	Nov. 1872	1	1	J. M. Pittenger.	" " "
6	7.76	10.93	7.50	8.69	34.88	Jan. 1873;	Dec. 1874	2	0	J. S. Patterson.	S. O.

[c] Observations for 15 months at Anandale, 2½ miles west of Raleigh.

[h] Baldwin University.

OHIO.—CONTINUED.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
7. Bethel	39° 00′	84° 00′	555	3.23	2.85	3.72	3.82	3.65	3.22	4.82	3.50	3.85	2.30	2.77	4.00
8. Bowling Green	41 24	83 38	700	3.29	2.97	4.27	3.69	4.66	4.54	4.92	3.25	3.12	3.03	3.51	3.80
9. Brecksville	41 22	81 40	800	..	..	..	..	..	..	..	..	..	1.81	5.10	2.60
10. Bucksville	41 15	81 30	800	..	2.66	..	..	..	..	..	..	..	..	..	..
11. Camp Dennison	39 57	83 00	..	1.61	2.10	4.14	3.08	6.02	..	..	..	..	..	..	1.60
12. Carthagena	40 28	84 33	..	3.89	3.00	4.09	5.54	3.80	3.64	7.35	3.81	2.08	3.31	3.58	3.45
13. Chester Hill	39 30	81 45	..	1.20	3.60	2.70	3.20	3.95	1.60	8.70	3.95	1.60	..	..	..
14. Cheviot	39 07	84 34	..	..	2.79	0.76	1.24	3.06	2.07	3.94	1.69	3.22	..	..	..
15. Chillicothe	39 18	82 52	..	..	4.00	2.70	4.37	3.00	1.20	5.20	2.70	2.60	0.80	3.70	3.50
16. Cincinnati	39 06	84 30	580	3.08	3.06	3.62	3.46	4.09	4.35	4.41	3.91	3.10	2.92	3.27	3.69
17. Cincinnati	39 06	84 30	..	..	..	..	..	..	..	..	..	..	..	..	..
18. Cleveland	41 30	81 42	..	2.69	2.98	2.15	1.53	2.78	3.00	3.77	1.95	3.28	1.79	2.64	3.77
19. Cleveland	41 30	81 42	643	2.50	2.09	2.91	3.02	3.32	4.04	3.52	3.29	3.82	2.95	3.31	2.93
20. Clifton	39 44	83 57	..	..	..	..	..	..	..	2.90	..	..	..	..	..
21. College Hill[a]	39 19	84 35	800	3.93	3.09	4.76	4.18	4.54	4.41	4.34	3.57	3.13	2.36	3.70	4.23
22. Columbus	39 57	82 59	870	2.60	..	..	2.70	1.50	..	3.33	2.97	3.05	2.58	3.68	2.07
23. Collingwood	41 45	83 34	..	..	..	..	..	5.20	5.27	2.75	2.45	2.21	1.97	3.63	1.30
24. Coshocton	40 18	81 53	765	5.62	2.88	..	..	..	..	..	..	..	3.45	4.01	0.84
25. Cumminsville	39 06	84 27	940	0.70	1.80	1.27	6.00	2.83	2.30	5.01	6.67	1.60	1.15	4.55	4.65
26. Cuyahoga Falls	41 10	81 33	..	..	2.00	..	..	..	..	..	..	..	..	3.07	0.95
27. Dayton[b]	39 44	84 08	860	2.07	1.93	1.95	1.89	3.70	3.58	3.20	2.83	1.62	1.97	3.75	..
28. East Cleveland	41 31	81 40	653	2.87	1.71	2.02	2.27	1.27	2.97	4.25	1.93	2.33	1.85	3.74	3.49
29. East Fairfield[c]	40 47	80 45	1152	2.82	1.92	2.97	3.42	2.43	3.35	2.82	3.82	4.09	2.50	2.81	3.11
30. Eaton	39 44	84 35	1200	3.55	..	2.18	3.82	10.39	3.49	6.91	..	10.09	1.45	2.15	3.19
31. Edgerton	41 29	84 45	831	..	..	4.60	..	..	..	3.11	..	1.82	..	..	..
32. Edinburg	41 09	81 10	520	2.33	2.00	1.98	4.44	6.01	5.24	5.20	3.95	1.02	3.78	8.37	4.44
33. Elmwood	40 05	82 00	900	..	..	..	..	3.30	3.27	3.09	3.91	1.29	1.96	1.79	2.48
34. Elyria	41 23	82 07	..	..	..	..	..	..	..	..	..	..	..	..	1.25
35. Farmer	41 25	84 40	..	1.10	..	..	..	..	..	..	4.30	0.40	0.80	3.05	2.60
36. Franklin	39 30	84 00	..	1.66	..	..	..	..	..	..	..	..	..	..	..
37. Freedom	41 16	81 12	1100	2.56	4.37	2.27	4.52	6.53	5.98	4.84	3.36	4.02	2.93	6.51	1.46
38. Gallipolis	38 50	82 05	520	2.66	2.61	2.71	3.69	3.97	3.53	4.01	3.28	3.36	2.02	2.47	3.15
39. Gambier[d]	40 24	82 23	1000	4.03	2.90	3.70	1.33	1.62	3.01	6.75	..	2.74	2.59	1.48	2.25
40. Germantown	39 36	84 20	720	2.21	3.45	2.85	3.01	1.97	2.90	3.99	2.65	2.58	2.15	3.82	3.16
41. Gilmore	40 18	81 20	1180	2.70	3.20	4.00	1.50	6.10	5.40	4.90	1.95	..	2.90	..	7.10
42. Granville	40 03	82 30	995	2.47	3.65	3.35	3.64	3.53	5.59	4.82	6.52	2.70	3.03	4.11	5.21
43. Groveport	40 00	83 00	475	3.90	2.70	3.60	..	..	..	5.25	2.60	1.60	3.40	..	..
44. Hartford[e]	40 13	82 38	..	3.38	2.98	1.98	4.16	3.11	3.29	2.84	0.98	1.14	2.68	3.31	2.36
45. Hillsboro	39 10	83 27	1150	2.80	2.87	2.95	3.50	3.78	3.37	4.37	3.70	3.11	2.34	3.12	3.64
46. Hiram	41 20	81 10	1290	2.51	2.21	1.77	3.21	3.82	4.29	3.15	2.66	2.57	2.56	3.03	4.28
47. Hudson[f]	41 16	81 27	1137	2.37	2.42	3.81	2.94	2.90	3.70	3.17	3.55	2.73	2.94	2.87	2.59
48. Iberia	40 44	82 47	1160	..	..	..	..	..	..	..	..	..	3.37	2.48	..
49. Jackson, Jackson Co.	39 02	82 32	700	..	..	..	2.63	5.04	4.10	4.31	6.51	5.89	1.03	2.95	..
50. Jackson, Monroe Co.	39 40	80 56	540	1.73	4.45	2.12	5.15	4.67	4.55	2.20	6.17	2.70	2.70	2.61	5.86

[a] Farmer's College. [b] Cooper's Seminary. [c] Also known as Elk Run and N. E. ¼ of range 2, section 11.
[d] Kenyon College. [e] Halcyon Academy. [f] Western Reserve College.

OHIO.—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
7	11.19	11.54	8.92	10.08	41.73	Jan. 1860;	Dec. 1874	13	5	G. W. Crane.	S. O.
8	12.62	12.71	9.66	10.06	45.05	May, 1858;	May, 1874	12	2	J. Clark and Son, Dr. W. R. Peck.	Met. Obs. Vol 1; S. Coll.; S. O.
9	..	..	..	..	..	Oct. 1859;	Dec. 1859	0	3	S. L. Hillier.	Met. Obs. Vol. 1.
10	..	..	..	..	..	Feb. 1861;	Feb. 1861	0	1	S. L. Hillier.	S. O.
11	13.24	..	..	5.31	..	Dec. 1864;	May, 1865	0	6	Assistant Surgeon.	MS. from S. G. O.
12	13.43	14.80	8.97	10.34	47.54	Sept. 1870;	Dec. 1874	4	4	Prof. R. Mueller.	S. O.
13	9.85	14.25	..	..	..	Jan. 1873;	Sept. 1873	0	9	J. D. Wright.	"
14	5.06	7.70	..	..	..	Feb. 1856;	Sept. 1856	0	8	E. Hannaford.	Met. Obs. Vol. 1.
15	10.07	9.10	7.10	..	..	Feb. 1874;	Dec. 1874	0	11	J. H. Poe.	S. O.
16	11.17	12.67	9.29	9.83	42.96	Jan. 1835;	June, 1877	41	11	See note *	S. Coll.; Met. Obs. Vol. 1; S. O.; Sig. Serv. Reps.; Host. Rep.
17	..	..	..	..	48.63	Jan. 1840;	Dec. 1855	16	0	J. Lea.	Host. Rep.
18	6.46	8.72	7.71	9.44	32.33	Oct. 1850;	June, 1853	1	6	E. Wade.	S. Coll.
19	9.25	10.85	10.08	7.52	37.70	May, 1855;	June, 1877	22	1	G.A. Hyde, B. A. Stanard, Gen. W. F. Reynolds.	Surv. N. & N. W. Lakes; S. Coll.; S. O.
20	..	..	..	..	..	July, 1870;	July, 1870	0	1	. . . . .	S. O.
21	13.48	12.32	9.19	11.25	46.24	Jan. 1854;	Dec. 1874	16	1	G.S.Ormsby,—Wilson, —Tuckerman, R. S. Bosworth, J.W. Hammitt and others.	Met. Obs. Vol. 1; S. O.
22	..	..	9.31	..	..	Apr. 1843;	Sept. 1845	1	2	T. Kennedy, J. Greiner.	S. Coll.
23	..	10.47	7.81	..	..	June, 1856;	June, 1858	1	3	H. & S. E. Bennett.	Met. Obs. Vol. 1.
24	..	..	..	9.34	..	Oct. 1861;	Feb. 1862	0	5	T. H. Johnson.	S. O.
25	10.10	13.98	7.30	7.15	38.53	June, 1871;	Sept. 1872	1	3	J. H. Shields.	"
26	..	..	..	..	..	Nov. 1864;	Feb. 1865	0	3	D. M. Rankin.	"
27	7.54	9.61	7.34	..	..	Jan. 1845;	Mar. 1873	2	0	M. G. Williams, C. Reeve, Dr. J.C. Fisher, and L. Groneweg.	Met. Obs. Vol. 1; S. Coll.
28	5.56	9.15	7.92	8.07	30.70	Jan. 1862;	Dec. 1862	1	0	M. A. Pillsbury.	S. O.
29	8.82	9.99	9.40	7.85	36.06	Aug. 1859;	May, 1867	7	8	S. B. McMillan.	Met. Obs. Vol. 1; S. O.
30	16.30	..	13.69	..	..	Jan. 1864;	July, 1865	0	10	T. J. Larsh.	S. O.
31	..	..	..	..	..	July, 1869;	July, 1871	0	4	A. B. Knight.	"
32	12.43	14.39	13.17	8.77	48.76	Apr. 1857;	Dec. 1858	1	8	S. Sanford.	Met. Obs. Vol. 1.
33	..	10.27	5.04	..	..	June, 1870;	Dec. 1871	1	3	C. A. Stillwell.	S. O.
34	..	..	..	..	..	Dec. 1874;	Dec. 1874	0	1	H. M. Redington.	"
35	..	..	4.25	..	..	Aug. 1871;	Jan. 1872	0	6	Dr. A. C. Irvin.	"
36	..	..	..	..	..	Jan. 1857;	Jan. 1857	0	1	W. L. Schenck.	Met. Obs. Vol. 1.
37	13.32	14.18	13.46	8.39	49.35	May, 1859;	May, 1862	1	11	H. M. Davidson.	Met. Obs. Vol. 1; S. O.
38	10.37	10.82	7.85	8.42	37.46	Apr. 1854;	Mar. 1873	9	7	Dr. G. W. Levesay, A. P. Rodgers.	" " "
39	6.65	..	6.81	9.18	..	June, 1869;	May, 1871	1	6	C.D. Leggett, F. Compton.	S. O.
40	7.83	9.54	8.55	8.82	34.74	Dec. 1850;	Dec. 1856	6	0	L. Groneweg, J. S. Binkard.	Met. Obs. Vol. 1; Blodgett's Clim.
41	11.60	12.25	..	13.00	..	Jan. 1869;	Aug. 1870	1	3	S. M. Moore.	S. O.
42	10.52	16.93	9.84	11.33	48.62	Jan. 1850;	Feb. 1857	7	2	Prof. S. N. Sanford.	Met. Obs. Vol. 1; Blodgett's Clim.
43	..	..	..	..	..	July, 1872;	Mar. 1873	0	7	A. Baries.	S. O.
44	9.25	7.11	7.13	8.72	32.21	Mar. 1860;	Mar. 1863	3	0	M. Sperry.	"
45	10.23	11.44	8.57	9.31	39.55	Apr. 1855;	Dec. 1874	16	5	J. McD. Matthews, Dr. Jones.	Met. Obs. Vol 1; S. O.; S. Coll.
46	8.80	10.10	8.16	9.00	36.06	Sept. 1855;	Oct. 1860	3	8	S. L. Hillier, S. M. Luther.	Met. Obs. Vol 1; S. O.
47	9.65	10.42	8.54	7.38	35.99	Sept. 1838;	Dec. 1874	14	1	E.W. Child, H. J. Clark, E. W. Stuart, E. Loomis, C. J. Smith, W. Pettingill, J. C. Elliott, C. A. Young & others.	Met. Obs. Vol. 1; Sil. Jour.; S. O.
48	..	..	..	..	..	Oct. 1859;	Nov. 1859	0	2	S. T. Boyd.	Met. Obs. Vol. 1.
49	..	14.92	9.87	..	..	Apr. 1855;	May, 1858	0	10	M. Gilmer, S. B. Wood.	" "
50	11.94	12.92	8.01	12.04	44.91	Jan. 1858;	Dec. 1859	2	0	E. D. Johnston.	" "

* Consolidated series from observations at Mount Auburn Institute, Woodward High School, S. E. corner of John and Laurel Streets, and several other localities, observations made by Prof. Ray, M. G. Williams, — Hurtt, G. W. Harper, J. H. & R. C. Phillips, C. Woodward, J. Lea, Prof. S. A. Norton, J. O. Manson, S. S. Bassler, and others.

OHIO—CONTINUED.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
51. Jacksonburg	39° 30′	84° 20′	1152	3.39	3.50	3.55	2.97	3.17	4.13	4.01	3.91	2.65	2.20	2.66	3.23
52. Jefferson	41 44	80 52	..	..	..	2.54	5.60	3.06	4.23	2.80	3.47	1.14	4.21	5.04	5.18
53. Keene	40 23	81 53	1000	3.19	2.91	3.31	3.66	3.20	2.84	3.04	4.05	2.01	2.51	2.38	3.19
54. Kelley's Island	41 36	82 43	587	1.82	1.74	2.62	2.90	3.12	3.51	3.33	2.69	3.24	2.28	2.59	2.20
55. Kenton	40 40	83 33	1562	4.24	3.16	5.79	4.24	6.37	5.67	5.67	6.03	3.29	2.90	3.69	4.84
56. Kingston	39 26	82 49	692	2.86	2.19	3.60	2.08	4.25	2.76	2.77	2.52	5.16	1.82	2.37	3.10
57. La Fayette	40 50	84 10	..	4.60	5.60	..	..	..	..	..	..	..	..	..	..
58. Lancaster	39 42	82 31	926	2.43	..	..	3.87	11.18	7.27	5.77	4.82	0.71	2.37	2.71	6.85
59. Lebanon	39 26	84 09	717	4.15	2.62	5.48	1.90	4.23	4.42	4.25	3.94	3.29	4.45	2.76	4.61
60. Little Mountain	41 38	81 16	1150	4.72	2.86	4.06	3.96	3.90	4.68	6.79	3.74	4.74	4.35	3.50	4.83
61. Madison[a]	41 48	81 06	620	2.87	2.78	2.94	4.63	4.47	4.76	4.13	4.30	4.10	4.92	6.20	3.22
62. Margaretta	41 27	82 46	850	2.71	2.14	3.17	5.29	4.11	6.04	5.17	3.96	2.67	2.63	2.66	1.80
63. Marietta	39 28	81 26	580	2.88	3.05	3.16	3.49	4.09	4.34	4.42	3.93	3.13	3.24	3.18	3.59
64. Marion	40 37	83 07	1077	2.78	2.36	3.59	2.62	3.28	4.12	4.43	3.11	3.56	2.08	2.64	3.01
65. Martin's Ferry	40 10	80 45	..	..	1.79	3.06	1.10	..	..	..	..	..	..	..	..
66. Medina	41 11	81 52	1206	1.05	2.11	1.60	4.40	5.13	5.11	6.97	2.46	1.27	3.39	4.33	5.36
67. Montville	41 38	81 08	1255	2.99	2.15	2.42	3.15	2.77	2.76	2.67	2.63	2.02	1.71	3.24	2.63
68. Mount Vernon	41 25	82 31	..	1.44	2.45	3.22	2.73	3.15	..	..	..	..	..	..	1.35
69. Newark	40 04	82 22	825	2.00	3.40	2.76	2.53	2.19	2.30	2.83	2.77	1.85	1.81	3.08	3.14
70. New Athens[b]	40 16	81 04	..	..	..	..	..	..	5.51	0.93	..	..	5.73	..	2.25
71. New Birmingham[c]	40 10	81 37	..	2.61	2.16	2.81	2.47	2.33	3.28	3.97	2.82	4.15	2.07	2.22	2.52
72. New Concord	40 03	81 44	..	5.06	3.81	2.87	4.38	4.53	10.45	4.48	4.34	1.73	2.98	2.49	4.66
73. New Holland	39 30	83 09	..	..	..	8.76	7.21	..	..	..	..	..	..	..	..
74. New Lisbon[d]	40 50	80 50	961	2.46	2.25	3.30	2.76	2.99	4.13	3.32	3.62	3.51	2.17	2.44	3.18
75. New Westfield	41 24	83 46	692	..	4.68	..	4.55	6.78	6.40	1.49	2.98	3.91	4.10	3.03	5.93
76. North Bass Island	41 42	82 46	587	2.69	1.86	2.81	2.18	2.30	2.89	3.67	1.59	1.87	1.62	2.72	1.91
77. North Bend	39 08	84 42	800	3.54	2.77	3.39	4.24	3.76	2.01	4.94	2.08	3.64	2.51	4.22	2.92
78. North Fairfield	41 10	82 36	660	1.97	1.93	2.80	2.42	4.33	4.00	3.52	4.20	2.04	1.67	2.41	1.80
79. Northwood[e]	40 30	83 45	1170	1.84	1.83	3.72	4.74	4.42	4.73	2.67	2.58	1.78	2.96	4.12	3.72
80. Norton	41 04	81 37	1200	..	..	1.02	3.54	2.52	2.29	1.79	..	..	..	..	..
81. Norwalk	41 16	82 36	..	2.53	1.71	2.50	2.45	2.99	3.23	3.96	3.02	2.55	2.34	2.21	2.03
82. Oberlin	41 20	82 12	800	1.54	1.61	2.18	2.92	2.50	4.29	3.95	3.38	2.83	2.96	2.73	1.88
83. Oxford	39 30	84 44	950	3.16	2.61	4.27	3.51	3.84	3.83	4.90	3.56	4.26	2.26	2.44	3.44
84. Pennsville[f]	39 35	81 50	555	1.90	3.21	1.53	3.15	3.11	2.62	5.15	2.75	0.88	1.30	1.70	2.35
85. Perrysburg	41 35	83 36	..	2.00	1.18	1.75	4.91	2.98	5.56	7.78	2.44	4.73	2.25	4.84	3.38
86. Pine Valley Mills	40 20	80 38	1000	..	..	7.93	0.66	..	..	..	..	..	..	..	..
87. Portsmouth	38 42	82 53	468	2.89	2.97	3.10	3.10	3.92	3.89	3.49	3.32	2.33	2.70	2.99	3.61
88. Ripley, Brown Co.	38 44	83 39	574	3.35	3.33	4.10	4.03	6.91	4.06	4.77	3.48	3.90	2.84	3.26	4.40
89. Ripley, Huron Co.	41 05	82 36	965	1.77	1.54	2.71	1.33	4.02	4.89	4.08	3.41	1.55	2.03	1.81	2.33
90. Rockport	41 30	81 50	665	2.90	2.00	..	..	..	..	..	..	..	..	..	..
91. Ruggles	41 04	82 25	1100	4.02	3.30	2.80	3.15	3.03	2.67	3.58	3.28	2.25	1.93	2.17	2.80
92. Saint Clairsville	40 08	80 55	600	2.63	5.75	3.17	4.13	4.87	5.58	2.15	3.81	4.41	3.47	3.06	7.13
93. Salem	40 56	80 54	950	2.58	1.34	2.16	1.92	1.88	4.54	4.63	2.60	2.04	3.44	1.42	2.76
94. Sandusky	41 32	82 42	..	1.85	1.99	2.36	3.11	3.13	3.29	3.52	3.15	4.15	2.82	2.66	2.33
95. Savannah	41 02	82 24	1098	2.24	2.78	2.89	3.58	4.16	5.09	4.00	3.35	2.76	2.50	3.71	3.72
96. Saybrook	41 52	80 52	650	1.60	2.23	0.90	..	5.00	7.04	2.50	5.85	4.32	2.37	3.64	3.77
97. Scioto	38 40	82 49	468	..	..	..	..	1.98	..	..	..	..	..	..	..
98. Seville	41 00	81 47	1075	3.20	2.13	2.67	2.06	3.15	0.78	1.72	3.87	3.40	3.46	2.05	2.04
99. Sidney	40 18	84 09	..	0.83	..	0.31	..	8.90	1.44	..	1.99	2.72	4.66	3.31	3.41
100. Smithville	40 52	81 50	934	..	..	..	1.30	5.09	4.79	..	..	..	..	..	..

[a] Also known as Unionville and Arcola. [b] Franklin College. [c] Also called Milnersville.

OHIO—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
51	9.69	12.05	7.51	10.12	39.37	June, 1868;	Dec. 1874	6	7	Dr. J. B. Owsley.	S. O.
52	11.20	10.50	10.39	..	..	Mar. 1856;	Mar. 1857	0	11	J. D. Herrick.	Met. Obs. Vol 1.
53	10.17	9.93	6.90	9.29	36.29	June, 1849;	Jan. 1854	3	1	Dr. E. C. Bidwell, E. Spooner.	Met. Obs. Vol. 1; S. Coll.
54	8.64	9.53	8.11	5.76	32.04	July, 1859;	Apr. 1871	11	9	G. C. Huntington.	S. Coll.; S. O.
55	16.40	17.37	9.88	12.24	55.89	Apr. 1862;	Dec. 1874	8	6	Dr. C. H. Smith.	S. O.
56	9.93	8.05	9.35	8.15	35.48	Nov. 1863;	May, 1867	3	6	Prof. J. Haywood.	"
57	..	..	..	..	..	Jan. 1867;	Feb. 1867	0	2	S. Knoble.	"
58	..	17.86	5.79	..	..	Apr. 1858;	Jan. 1859	0	10	H. W. Jaeger.	Met. Obs. Vol. 1.
59	11.61	12.61	10.50	11.38	46.10	July, 1843;	Mar. 1850	3	5	J. C. Hatfield.	S. Coll.
60	11.92	15.21	12.59	12.41	52.13	Jan. 1867;	Dec. 1874	7	5	E. J. Ferriss.	S. O.
61	12.04	13.19	15.22	8.87	49.32	Jan. 1855;	Feb. 1863	7	6	A. C. King, L. S. Atkins.	Met. Obs. Vol. 1; S. O.
62	12.57	15.17	7.96	6.65	42.35	Jan. 1868;	Nov. 1873	5	11	T. Neill.	S. O.
63	10.74	12.69	9.55	9.52	42.50	Nov. 1817;	Dec. 1867	47	11	J. Wood, J. W. Andrews, D. P. Adams, Dr. P. O. & S. P. Hildreth.	Met. Obs. Vol. 1; S. O.; Smith. Con. Vol. xvi.; S. Coll.
64	9.49	11.66	8.28	8.15	37.58	May, 1865;	Dec. 1874	9	6	Dr. H. A. True.	S. O.
65	..	..	..	..	..	Feb. 1867;	Apr. 1869	0	4	M. B. Shreve.	"
66	11.13	14.54	8.99	8.52	43.18	Mar. 1857;	Sept. 1858	1	7	L. F. Ward.	Met. Obs. Vol. 1.
67	8.34	8.06	6.97	7.77	31.14	Oct. 1858;	Feb. 1863	3	5	W. P. Clark.	Met. Obs. Vol. 1; S. O.
68	9.10	..	..	5.24	..	Jan. 1854;	Apr. 1855	0	9	F. A. Benton.	Met. Obs. Vol. 1.
69	7.48	7.90	6.74	8.54	30.66	Jan. 1855;	Aug. 1863	2	0	L. M. Dayton, I. Dille.	Met. Obs. Vol. 1; S. O.
70	..	..	..	..	..	July, 1843;	June, 1844	0	4	J. C. Mason.	S. Coll.
71	7.61	10.07	8.44	7.29	33.41	June, 1862;	May, 1874	10	7	D. Thompson.	S. O.
72	11.78	19.27	7.20	13.53	51.78	May, 1849;	Apr. 1850	1	0	S. G. Irvine.	S. Coll.
73	..	..	..	..	..	Mar. 1869;	Apr. 1869	0	2	J. R. Wilkinson.	S. O.
74	9.05	11.07	8.12	7.89	36.13	Jan. 1855;	July, 1871	11	3	J. F. Benner.	Met. Obs. Vol. 1; S. O.
75	..	10.87	11.04	..	..	Apr. 1862;	Feb. 1863	0	10	A. E. Jerome.	S. O.
76	7.29	8.15	6.21	6.46	28.11	June, 1869;	Dec. 1874	5	2	Dr. G. R. Morton.	"
77	11.39	9.03	10.37	9.23	40.02	Nov. 1859;	Jan. 1869	3	8	A. A. & R. B. Warder.	Met. Obs. Vol 1; S. O.
78	9.55	11.72	6.12	5.70	33.09	Jan. 1867;	Mar. 1873	6	2	O. Burras.	S. O.
79	12.88	9.98	8.86	7.39	39.11	Feb. 1854;	Mar. 1861	2	4	R. Shields, J. C. Smith.	Met. Obs. Vol. 1; S. O.
80	7.08	..	..	..	..	Mar. 1861;	July, 1861	0	5	A. S. Steever.	S. O.
81	7.94	10.21	7.10	6.27	31.52	Oct. 1854;	Dec. 1868	7	6	G. A. Hyde, G. A. Newton.	Met. Obs. Vol. 1; S. O.
82	7.60	11.62	8.52	5.03	32.77	Mar. 1849;	May, 1874	9	9	L. Herrick, Prof. J. H. Fairchild & others.	Met. Obs. Vol. 1; S. Coll.; S. O.
83	11.62	12.29	8.96	9.21	42.08	Jan. 1864;	Dec. 1873	9	2	Prof. O. M. Stoddard, R. W. McFarland.	S. O.
84	7.79	10.52	3.88	7.46	29.65	June, 1870;	Sept. 1872	1	11	T. J. Bingman.	"
85	9.64	15.78	11.82	6.56	43.80	Apr. 1854;	Sept. 1856	1	11	F. & D. K. Hollenbeck.	Met. Obs. Vol. 1.
86	..	..	..	..	..	Mar. 1866;	Apr. 1866	0	2	D. M. Tweedy.	S. O.
87	10.12	10.70	8.02	9.47	38.31	Jan. 1830;	Aug. 1865	26	1	J. H. Poe, Dr. D. B. Cotton, Dr. Hempstead, L. Englebrecht.	Met. Obs. Vol. 1.; S. Coll.; S. O.
88	15.04	12.31	10.00	11.08	48.43	Oct. 1857;	Dec. 1866	4	6	J. Ammen.	Met. Obs. Vol. 1; S. O.
89	8.06	12.38	5.39	5.64	31.47	Jan. 1867;	Mar. 1873	3	7	Dr. M. M. Marsh.	S. O.
90	..	..	..	..	..	Jan. 1860;	Feb. 1860	0	2	E. Colburn.	"
91	8.98	9.53	6.35	10.12	34.98	Aug. 1872;	Dec. 1874	2	5	P. Bowman.	"
92	12.17	11.54	10.94	15.51	50.16	Mar. 1850;	Oct. 1851	1	8	— Harris.	Pat. Of. Rep.
93	5.96	11.77	6.90	6.68	31.31	Jan. 1870;	Dec. 1873	4	0	J. E. Pollock.	S. O.
94	8.60	9.96	9.63	6.17	34.36	Jan. 1859;	Dec. 1874	10	0	T. Neill.	S. Coll.; S. O.
95	10.63	12.44	8.97	8.74	40.78	Mar. 1854;	Dec. 1873	10	7	Dr. J. Ingraham, W. S. Shaw.	Met. Obs. Vol. 1; S. O.
96	..	15.39	10.33	7.60	..	May, 1862;	Jan. 1866	1	7	J. B. Frazer, L. S. Atkins.	S. O.
97	..	..	..	..	..	May, 1856;	May, 1856	0	1	J. H. Poe.	Met. Obs. Vol 1.
98	7.88	6.37	8.91	7.37	30.53	Jan. 1861;	Dec. 1862	1	1	L. F. Ward.	S. O.
99	..	..	10.69	..	..	Sept. 1856;	Dec. 1857	0	10	J. Shaw.	Met. Obs. Vol. 1.
100	..	..	..	..	..	Apr. 1869;	June, 1869	0	3	W. Hoover.	S. O.

[d] Greenwood Hall. [e] Also called Belle Center and Geneva Hall. [f] Also called Quaker Ridge.

OHIO.—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
101. Springfield	39 54	83 46	..	3.84	..	..	1.70	0.45	2.20	3.10	..	0.50	..	..	..
102. Steubenville	40 25	80 41	670	3.00	2.73	3.31	3.40	3.88	3.99	3.95	3.94	3.50	3.08	3.10	3.27
103. Tiffin	41 08	83 08	765	..	..	2.05	3.33	1.72	3.93	5.60	1.80	2.55	2.07	1.58	1.25
104. Troy	40 03	84 11	1103	2.99	3.46	6.66	9.14	5.74	5.09	2.82	4.30	2.22	2.84	4.12	3.18
105. Toledo	41 40	83 33	604	2.28	1.92	3.62	3.09	3.45	4.17	3.32	3.07	3.69	2.30	2.73	2.54
106. Urbana [a]	40 06	83 43	1015	2.69	2.33	3.41	3.28	3.77	4.07	3.71	3.25	3.27	2.22	3.05	3.26
107. Welchfield	41 23	81 12	1205	3.73	3.49	4.03	4.47	4.61	4.54	4.86	4.39	3.91	4.05	5.23	4.63
108. Wellington	41 13	82 12	875	..	2.43	..	..	1.00	..	1.00	..	..	..	..	..
109. West Bedford	40 18	82 01	876	1.36	2.01	1.10	..	..	..	..	..	1.76	1.99	2.63	2.57
110. West Elkton	39 45	84 30	950	1.05	1.80	1.20	5.10	..	..	..	..	..	..	..	..
111. Westerville	40 04	82 46	..	2.56	2.13	3.03	3.35	3.16	3.80	3.94	3.61	3.47	1.88	3.14	2.98
112. Williamsport, near	39 37	83 06	..	5.92	2.52	4.32	3.55	1.83	..	..	..	..	4.10	4.11	7.08
113. Wooster	40 51	81 59	872	2.30	2.10	4.55	1.80	5.97	5.10	4.60	1.10	4.49	1.16	2.66	0.70
114. Yankeetown	40 00	84 32	700	..	..	..	..	..	5.25	..	1.75	..	..	..	..
115. Zanesville	39 58	81 59	700	2.71	2.64	2.08	1.91	5.06	5.71	4.43	3.41	3.43	3.80	3.61	2.16

OREGON.

1. Albany, near	44 35	122 50	600	11.55	7.65	7.33	3.45	3.89	..	0.19	0.75	2.10	2.80	4.88	8.22
2. Astoria	46 11	123 48	52	13.49	8.95	10.07	5.35	3.48	3.00	1.24	1.48	3.22	4.53	10.44	12.36
3. Auburn	44 35	118 06	3300	..	..	..	..	..	2.37	1.00	1.71	..	..	..	..
4. Blockhouse	44 25	123 30	..	12.70	12.30	16.06	4.82	5.39	2.24	0.30	0.00	10.12	6.95	14.08	11.33
5. Camp Harney	43 00	119 00	..	1.76	0.88	0.91	0.59	0.79	0.64	0.36	0.09	0.26	0.18	1.15	1.15
6. Camp Logan	44 16	119 14	5600	..	..	..	4.75	5.50	6.20	0.00	0.12	0.30	0.70	6.70	..
7. Camp Lyon	42 43	116 52	5500	1.81	0.92	1.58	1.19	1.81	1.58	0.15	0.00	0.19	0.49	1.35	3.94
8. Camp Three Forks	42 15	116 54	..	1.80	0.90	2.67	0.73	1.69	0.90	0.52	0.13	0.18	0.12	1.78	1.46
9. Camp Warner	42 28	119 42	..	1.61	1.97	1.21	1.21	1.89	0.63	0.28	0.19	0.60	0.23	1.70	2.89
10. Camp Watson	44 22	119 48	..	1.72	0.86	1.78	1.39	1.21	1.95	0.11	0.00	0.62	0.28	0.78	3.11
11. Corvallis	44 32	123 04	..	0.30	..	..	..	..	..	..	..	..	..	..	..
12. Eola	44 57	122 54	500	6.26	6.78	5.59	3.08	2.11	1.14	0.33	0.07	1.02	1.17	4.80	5.37
13. Fort Dalles [b]	45 33	120 50	350	4.36	2.39	2.23	0.74	0.94	0.53	0.36	0.27	1.46	0.97	3.35	4.36
14. Fort Hoskins	45 06	123 26	..	12.73	10.02	9.07	2.86	2.76	1.92	0.37	0.36	3.18	3.36	8.34	11.73
15. Fort Klamath	42 40	121 50	4200	3.95	2.94	4.04	0.59	1.01	0.33	0.30	0.67	1.17	0.87	4.66	3.03
16. Fort Lane	42 20	122 46	2000	2.82	0.92	1.85	1.75	1.62	0.72	0.00	..	..	0.32	3.37	6.55
17. Fort Orford	42 44	124 29	50	9.08	5.79	6.17	7.53	4.56	1.33	0.56	1.22	2.34	7.31	10.27	14.43
18. Fort Stevens	46 12	123 57	..	11.48	10.66	9.32	5.41	2.94	3.83	2.03	2.02	2.39	4.68	11.14	12.67
19. Fort Umpqua	43 42	124 10	8	10.28	9.91	9.73	4.01	3.09	2.18	0.30	0.38	2.27	3.66	9.71	11.89
20. Fort Yamhill	45 21	123 15	..	9.51	7.31	7.66	3.03	2.41	1.61	0.36	0.42	2.69	2.96	7.55	10.08
21. Hood River	45 42	121 28	500	..	..	..	..	..	..	..	..	1.75	1.00	..	..
22. Mount Hood	45 40	121 30	400	16.21	5.22	10.40	2.82	1.03	2.73	0.40	0.45	..	2.65	4.74	6.85
23. Oregon City	45 20	122 18	200	7.93	5.17	7.15	1.92	3.37	1.41	0.15	0.94	2.24	3.46	5.12	8.75
24. Portland	45 30	122 36	45	6.67	5.45	8.23	3.08	2.44	1.60	0.34	0.56	0.88	2.42	8.01	7.52
25. Willamette [a]	45 22	122 23	120	8.39	..	..	..	2.54	..	..	..	..	1.76	..	..

[a] University.

[b] Or Dalles of the Columbia.

OHIO.—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
101	..	..	..	..	..	Jan. 1869;	Sept. 1870	0	6	Drs. C. H. Smith, G. P. Hachenberg.	S. O.
102	10.59	11.88	9.68	9.00	41.15	Dec. 1830;	Sept. 1871	39	10	R. Marsh, J. B. Doyle.	Am. Alm.; S. Coll.; S. O.
103	7.10	11.33	6.20	..	..	Apr. 1873;	Dec. 1874	1	5	E. Horning.	S. O.
104	21.54	12.21	9.18	9.63	52.56	Jan. 1859;	Oct. 1863	3	4	C. L. McClung.	Met. Obs. Vol. 1; S. O.
105	10.16	10.56	8.72	6.74	36.18	Jan. 1861;	June, 1877	14	3	Dr. J. B. Trembley, J. E. Cook, O. S. M. Cone.	S. O.; Sig. Ser. Reps.
106	10.46	11.03	8.54	8.28	38.31	Jan. 1854;	Dec. 1874	19	3	M. G. Williams.	Met. Obs. Vol 1.; S. O.
107	13.11	13.79	13.19	11.85	51.94	Mar. 1857;	Mar. 1866	9	0	B. F. Abell.	" " "
108	..	..	..	..	..	Feb. 1863;	July, 1863	0	3	L. F. Ward.	S. O.
109	..	..	6.38	5.94	..	Sept. 1856;	Mar. 1857	0	7	H. D. McCarty.	Met. Obs. Vol. 1.
110	..	..	..	..	..	Jan. 1872;	Apr. 1872	0	4	J. Stubbs.	S. O.
111	9.54	11.35	8.49	7.67	37.05	Jan. 1858;	Dec. 1874	15	7	Prof. J. Haywood.	Met. Obs. Vol. 1; S. O.
112	9.70	..	..	15.52	..	Oct. 1867;	Mar. 1872	1	7	J. R. Williams.	S. O.
113	12.32	10.80	8.31	5.10	36.53	Sept. 1868;	Nov. 1869	1	3	M. Winger.	"
114	..	..	..	..	..	June, 1854;	Aug. 1854	0	2	A. Jacque.	Met. Obs. Vol. 1.
115	9.05	13.55	10.84	7.51	40.95	May, 1854;	Feb. 1857	2	0	Dr. J. G. F. Holston.	" "

OREGON.

1	14.67	..	9.78	27.42	..	Jan. 1866;	Jan. 1868	1	6	S. M. W. Hindman.	S. O.
2	18.90	5.72	18.19	34.80	77.61	Aug. 1850;	Dec. 1874	22	4	Asst. Surg., L. Wilson.	Ar. Met. Reg. 1855; U. S. Coast Survey.
3	..	5.08	..	..	..	June, 1864;	Aug. 1865	0	4	S. M. W. Hindman.	S. O.
4	26.27	2.54	31.15	36.33	96.29	Mar. 1858;	Dec. 1859	1	8	Assistant Surgeon.	Ar. Met. Reg. 1860.
5	2.29	1.09	1.59	3.79	8.76	Jan. 1868;	Dec. 1874	6	0	"	MS. from S. G. O.
6	..	6.32	7.70	..	..	Nov. 1867;	Oct. 1868	0	8	"	" "
7	4.58	1.73	2.03	6.67	15.01	Oct. 1867;	Sept. 1868	1	0	"	" "
8	5.09	1.55	2.08	4.16	12.88	Jan. 1868;	Dec. 1869	2	0	"	" "
9	4.31	1.10	2.53	6.47	14.41	Aug. 1868;	July, 1874	5	3	"	" "
10	4.38	2.06	1.68	5.69	13.81	June, 1867;	Mar. 1869	1	7	"	" "
11	..	..	..	..	..	Jan. 1867;	Jan. 1867	0	1	. . . . .	S. O.
12	10.78	1.54	6.99	18.41	37.72	Jan. 1870;	Dec. 1874	4	8	T. Pearce.	"
13	3.91	1.16	5.78	11.11	21.96	July, 1850;	Mar. 1866	12	8	Assistant Surgeon.	Ar. Met. Regs., 1855 & 1860; MS. from S. G. O.
14	14.69	2.65	14.88	34.48	66.70	Dec. 1856;	Sept. 1874	6	9	"	Ar. Met. Reg. 1860; MS. from S. G. O.
15	5.64	1.30	6.70	9.92	23.56	Dec. 1864;	Dec. 1874	2	7	"	MS. from S. G. O.
16	5.22	..	..	10.29	..	Jan. 1855;	July, 1856	1	4	"	Ar. Met. Reg. 1860.
17	18.26	3 11	19.92	29.30	70.59	June, 1852;	July, 1856	2	10	"	Ar. Met. Regs. 1855 and 1860.
18	17.67	7.88	18.21	34.81	78.57	Nov. 1865;	Dec. 1874	6	5	"	MS. from S. G. O.
19	16.83	2.86	15.64	32.08	67.41	Aug. 1856;	May, 1862	5	10	"	Ar. Met. Reg. 1860.
20	13.10	2.39	13.20	26.90	55.59	Nov. 1856;	Apr. 1866	9	3	"	" "
21	..	..	..	..	..	Sept. 1872;	Oct. 1872	0	2	Chas. C. Coe.	S. O.
22	14.25	3.58	..	28.28	..	Oct. 1872;	Aug. 1873	0	11	Thos. M. Whitcomb.	"
23	12.44	2.50	10.82	21.85	47.61	Jan. 1851;	Mar. 1859	3	0	G. H. Atkinson.	S. Coll.; Met. Obs. Vol. 1.
24	13.75	2.50	11.31	19.64	47.20	Apr. 1858;	June, 1876	7	0	G. H. Stebbins, H. Fenton, J. S. Reed, J. W. Gilliland, J. E. Evans.	Met. Obs. Vol. 1; S. O.; Sig. Ser. Reps.
25	..	..	..	..	..	May, 1861;	Jan. 1864	0	3	T. H. Crawford, P. L. Willis.	S. O.

PENNSYLVANIA.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Allegheny Arsenal . . .	40° 29′	79° 59′	704	2.11	2.21	2.74	3.14	3.74	3.92	3.19	3.44	3.04	2.90	2.75	3.20
2. Allegheny City	40 28	80 03	. .	1.88	1.48	1.85	2.57	4.03	3.10	5.50	3.73	2.20	4.75	1.30	1.95
3. Altoona	40 32	78 24	1208	. .	. .	1.60	. .	. .	. .	. .	. .	. .	3.59	3.63	9.72
4. Ashland	40 48	76 20	1005	. .	7.10	4.80	5.20	1.50	. .	. .	. .	. .	. .	. .	. .
5. Avondell	40 27	77 22	515	4.19	2.82	3.60	3.53	5.84	3.55	3.66	5.79	3.54	2.90	4.10	2.70
6. Beaver	40 43	80 20	. .	4.60	3.00	3.37	2.73	3.57	4.70	1.13	2.86	10.80	1.80	2.44	2.97
7. Bedford	40 01	78 30	. .	2.46	1.61	1.65	3.43	3.47	2.90	2.33	2.17	2.78	1.88	3.76	1.73
8. Bellefonte	40 55	77 49	. .	. .	1.91	2.87	2.26	5.92	4.93	4.68	4.15	3.36	2.06	2.68	4.23
9. Berwick	41 05	76 15	583	2.07	1.66	2.36	4.37	4.44	1.50	3.49	4.55	4.66	2.84	2.34	2.36
10. Blooming Grove	41 23	75 09	. .	2.06	3.27	3.37	3.56	4.91	4.74	4.28	5.33	3.01	4.03	3.67	2.54
11. Brookville	41 12	79 08	. .	. .	. .	. .	. .	. .	. .	3.15	0.70	2.90	2.30	. .	. .
12. Brownsville	40 02	79 52	. .	5.80	0.90	0.33	1.90	1.23	1.92	. .	. .	2.04	0.00	4.50	2.31
13. Bustleton	40 05	75 01	. .	1.08	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
14. Butler	40 54	79 50	850	3.43	1.95	3.12	2.93	3.29	2.83	2.12	4.53	2.61	2.69	3.14	3.42
15. Byberry [a]	40 06	74 58	70	4.43	3.84	4.64	6.15	6.01	5.21	5.88	2.61	4.04	4.46	5.63	3.61
16. Camp Cadwallader . . .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	4.88
17. Canonsburg [b]	40 17	80 11	850	2.98	2.15	2.90	2.78	3.48	3.47	3.89	2.98	3.67	2.63	2.38	2.64
18. Carlisle [c]	40 12	77 11	500	2.57	2.62	3.07	3.45	4.35	4.33	4.40	4.09	3.42	2.93	2.67	3.63
19. Carpenters	41 37	76 51	. .	. .	. .	. .	. .	. .	. .	. .	3.36	1.52	. .	. .	. .
20. Catawissa	40 58	76 30	. .	3.64	1.80	. .	. .	. .	. .	5.47	5.65	4.73	4.37	2.90	4.00
21. Ceres	42 00	78 25	1440	2.95	3.45	2.35	3.50	5.40	5.55	4.87	3.13	5.33	8.20	5.33	4.72
22. Chambersburg	39 56	77 40	618	3.29	2.80	2.15	4.72	5.27	1.82	3.28	4.24	4.39	4.02	3.86	1.64
23. Chromedale [d]	39 55	75 25	196	2.79	3.15	2.49	3.96	4.80	3.93	3.96	4.97	3.08	3.27	3.39	4.37
24. Danville	40 58	76 39	. .	. .	1.75	. .	. .	. .	. .	. .	. .	. .	1.34	. .	. .
25. Darby	39 55	75 17	120	2.49	2.84	3.92	3.89	3.97	2.60	4.00	5.84	2.62	3.15	2.80	4.58
26. Dunbar	. .	. .	. .	2.30	2.20	4.31	6.32	2.10	2.30	6.70	2.25	3.80	3.25	. .	4.80
27. Dyberry	41 38	75 18	. .	2.63	2.01	3.35	3.10	2.55	2.45	4.35	3.55	2.60	3.98	2.46	2.33
28. Easton	40 43	75 16	320	2.97	2.58	3.27	3.48	5.57	3.91	3.96	3.98	3.74	3.09	4.66	4.35
29. Ebensburg	40 31	78 45	. .	. .	1.21	. .	3.46	5.12	3.57	3.04	2.60	2.99	3.26	3.37	2.15
30. Egypt	40 44	75 28	450	3.25	3.05	1.15	2.69	3.43	2.27	4.15	5.37	3.08	4.26	3.02	3.21
31. Ephrata	40 11	76 11	. .	2.97	3.55	3.81	4.42	4.48	4.85	3.38	6.29	3.87	3.46	2.97	2.81
32. Erie	42 07	80 10	640	3.16	2.53	3.28	2.18	2.68	4.63	3.91	3.25	4.63	4.60	3.73	2.64
33. Factoryville	. .	. .	. .	. .	. .	. .	5.09	1.57	4.13	. .	. .	. .	. .	. .	. .
34. Fayette Tannery [e]	40 02	79 32	. .	2.10	0.45	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
35. Fleming	40 55	77 53	780	2.69	2.59	3.60	4.29	3.92	3.97	3.45	3.86	4.16	3.92	3.03	3.10
36. Fort Mifflin	39 52	75 13	20	2.43	2.74	4.63	3.44	4.90	2.87	4.77	4.98	3.19	3.72	3.51	4.23
37. Fountain Dale	39 44	77 18	. .	3.28	4.11	5.07	3.58	4.65	3.90	3.12	3.76	4.23	3.58	2.56	3.41
38. Franklin	41 24	79 50	980	3.90	2.75	3.93	2.87	3.34	4.40	6.46	4.13	3.43	3.30	3.29	3.77
39. Germantown	40 01	75 10	100	2.23	2.84	2.67	2.57	3.23	2.95	4.10	3.89	3.05	3.51	2.93	3.24
40. Gettysburg	39 49	77 15	624	3.14	2.60	3.00	3.55	3.85	3.46	3.40	3.40	2.98	3.03	3.05	3.43
41. Greensburg	40 18	79 38	1092	1.16	1.78	2.45	2.63	2.34	4.82	5.31	4.99	2.72	4.25	4.07	2.29
42. Greencastle	39 47	77 44	650	. .	. .	. .	. .	. .	. .	3.20	6.10	6.00	. .	. .	. .
43. Greenville	40 24	80 30	985	2.20	2.22	3.16	2.80	2.57	4.56	7.78	4.92	1.93	3.13	3.78	3.70
44. Harrisburg	40 16	76 53	320	3.25	2.75	3.33	3.73	4.40	4.87	3.88	4.08	3.84	3.27	2.62	3.57
45. Haverford	40 00	75 21	400	3.73	3.10	3.29	5.58	3.73	4.48	3.27	4.11	4.98	3.82	4.20	4.12

[a] Amount appears overmeasured.
[b] Washington College and Jefferson College.
[c] Dickinson College and Barracks.
[d] Also called Lima.

PENNSYLVANIA.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	EXTENT mos.	OBSERVERS.	REFERENCES.
1	9.62	10.55	8.69	7.52	36.38	Aug. 1836;	Apr. 1867	24	4	Assistant Surgeon.	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
2	8.45	12.33	8.25	5.31	34.34	Dec. 1871;	Aug. 1873	1	8	Dr. B. Feicht.	S. O.
3	..	..	..	..	..	Oct. 1859;	Mar. 1863	0	4	W. R. Boyers, T. H. Savery.	Met. Obs. Vol. 1; S. O.
4	11.50	..	..	..	..	Feb. 1870;	May, 1870	0	4	W. E. Honeyman.	S. O.
5	12.97	13.00	10.54	9.71	46.22	June, 1867;	Apr. 1869	1	11	W. E. Baker.	"
6	9.67	8.69	15.04	10.57	43.97	Apr. 1840;	Dec. 1870	3	4	R. T. Taylor.	Jour. Frank. Inst.; S. O.
7	8.55	7.40	8.42	5.80	30.17	Jan. 1853;	Dec. 1861	7	5	S. Brown, H. Hickerman.	Met. Obs. Vol. 1; S. Coll.; S. O.
8	11.05	13.76	8.10	..	..	Feb. 1839;	Dec. 1841	2	1	— Harris.	Jour. Frank. Inst.
9	11.17	9.54	9.84	6.09	36.64	June, 1859;	Jan. 1865	2	11	J. Eggert.	Met. Obs. Vol. 1; S. O.
10	11.84	14.35	10.71	7.87	44.77	May, 1865;	Dec. 1874	9	6	J. Grathwohl.	S. O.
11	..	..	..	..	..	July, 1854;	Oct. 1854	0	4	D. S. Deering.	Met. Obs. Vol. 1.
12	3.46	..	6.54	9.01	..	Jan. 1870;	Dec. 1874	1	0	Dr. J. A. Hubbs.	S. O.
13	..	..	..	..	..	Jan. 1854;	Jan. 1854	0	1	I. C. Martindale.	Met. Obs. Vol. 1.
14	9.34	9.48	8.44	8.80	36.06	Nov. 1839;	—— 1851	5	1	— Mechlin.	Jour. Frank. Inst.; S. Coll.
15	16.80	13.70	14.13	11.88	56.51	Jan. 1854;	Dec. 1863	4	5	J. Comly, J. W. Saurman, I. C. Martindale.	Met. Obs. Vol. 1; S. O.
16	..	..	..	..	..	Dec. 1865;	Dec. 1865	0	1	Assistant Surgeon.	MS. from S. G. O.
17	9.16	10.34	8.68	7.77	35.95	Jan. 1839;	Dec. 1874	18	1	— Campbell, Dr. J. W. Smith, S. R. Williams.	Met. Obs. Vol. 1; Jour. Frank. Inst.; S. Coll.; S. O.
18	10.87	12.82	9.02	8.82	41.53	Jan. 1839;	Dec. 1874	22	0	Asst. Surg., — Allen, Prof. W. C. Wilson, Dr. W. H. Cook.	Ar. Met. Regs. 1855 and 1860; S. O.; Met. Obs. Vol. 1; Jour. Frank. Inst.; MS. from S. G. O.
19	..	..	..	..	..	Aug. 1862;	Sept. 1862	0	2	E. L. McNett.	S. O.
20	..	..	12.00	9.44	..	Jan. 1872;	Dec. 1873	0	8	A. W. Curtis.	"
21	11.25	13.55	18.86	11.12	54.78	Mar. 1849;	Mar. 1854	3	9	Dr. R. P. Stevens.	S. Coll.; Met. Obs. Vol. 1.
22	12.14	9.34	12.27	7.73	41.48	Feb. 1860;	Apr. 1862	1	11	W. Heyser.	Jour. Frank. Inst.; S. O.
23	11.25	12.86	9.74	10.31	44.16	Jan. 1849;	Jan. 1859	9	7	J. Edwards, J. H. Smedley.	Met. Obs. Vol. 1; S. Coll.
24	..	..	..	..	..	Feb. 1839;	Oct. 1839	0	2	— Frick.	Jour. Frank. Inst.
25	11.78	12.44	8.57	9.91	42.70	Jan. 1849;	Dec. 1852	4	0	J. Jackson.	S. Coll.
26	12.73	11.25	..	9.30	..	Jan. 1874;	Dec. 1874	0	11	J. Taylor.	S. O.
27	9.00	10.35	9.04	6.97	35.36	Jan. 1867;	Dec. 1874	6	4	T. Day.	"
28	12.32	11.85	11.49	9.90	45.56	Apr. 1846;	Dec. 1859	5	1	S. J. Coffin, — Green, G. S. Houghton.	Jour. Frank. Inst.; S. Coll.; Met. Obs. Vol. 1.
29	..	9.21	9.62	..	..	Feb. 1840;	Dec. 1841	1	5	— Lewis.	Jour. Frank. Inst.
30	7.27	11.79	10.36	9.51	38.93	Jan. 1872;	Dec. 1874	2	6	E. Kohler.	S. O.
31	12.71	14.52	10.30	9.33	46.86	Jan. 1866;	Dec. 1874	7	8	W. H. Spera.	"
32	8.14	11.79	12.96	8.33	41.22	Dec. 1839;	June, 1877	5	2	B. Grant, Park & Reid, E. F. McComas.	Jour. Frank. Inst.; Sig. Ser. Reps.
33	..	..	..	..	..	Apr. 1874;	June, 1874	0	3	G. C. Green.	S. O.
34	..	..	..	..	..	Jan. 1867;	Feb. 1867	0	2	J. Taylor.	"
35	11.81	11.28	11.11	8.38	42.58	Jan. 1859;	June, 1867	8	6	J. F. & M. S. Brugger.	Jour. Frank. Inst.; Met. Obs. Vol. 1; S. O.
36	12.97	12.62	10.42	9.40	45.41	Jan. 1843;	Oct. 1853	6	9	Assistant Surgeon.	Ar. Met. Reg. 1855.
37	13.30	10.78	10.37	10.80	45.25	May, 1867;	Sept. 1872	4	7	S. C. Walker.	S. O.
38	10.14	14.99	10.02	10.42	45.57	Feb. 1840;	Dec. 1874	7	10	— Connelly.	Jour. Frank. Inst.
39	8.47	10.94	9.49	8.31	37.21	June, 1819;	Apr. 1874	11	8	— Haines, C. J. Wister. J. Mechan, E. Turner.	Darby's U. S. Gaz.; S. Coll.; S. O.
40	10.40	10.26	9.06	9.17	38.89	Jan. 1839;	Feb. 1865	25	2	D. Eyster, Profs. M. & H. E. Jacobs.	Jour. Frank. Inst.; S. Coll.; Met. Obs. Vol. 1; S. O.
41	7.42	15.12	11.04	5.23	38.81	June, 1871;	Nov. 1874	3	0	J. M. Z. Stump, G. B. Slattery, W. D. Weaver.	S. O.
42	..	..	..	..	..	July, 1870;	Sept. 1870	0	3	S. W. Rhode.	"
43	8.53	17.26	8.84	8.12	42.75	Mar. 1871;	Nov. 1873	2	8	D. B. Packard.	"
44	11.46	12.83	9.73	9.57	43.59	Aug. 1840;	Sept. 1871	18	5	Dr. J. Heisley, W. Hickock.	Jour. Frank. Inst.; S. Coll.; Met. Obs. Vol. 1; S. O.
45	12.60	11.86	13.00	10.95	48.41	Jan. 1839;	June, 1863	8	2	Dr. P. Swift.	Jour. Frank. Inst.; Met. Obs. Vol. 1; S. O.

• Two miles east of Connellsville.

PENNSYLVANIA—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
46. Hazleton	40° 58′	76° 00′	1850	1.15	1.40	1.00	2.20	..	..	..	..	..	..	..	0.70
47. Hollidaysburg	40 28	78 23	1200	2.97	4.46	0.99	4.05	3.59	1.05	1.19	5.04	1.78	3.02	3.28	1.93
48. Huntingdon	40 31	78 01	734	1.67	1.37	1.57	4.13	5.44	3.86	2.91	2.89	2.78	2.02	3.28	3.15
49. Indiana	40 40	79 08	1321	2.22	1.85	2.35	3.98	3.18	3.46	2.97	5.30	4.00	0.90	2.02	3.08
50. Johnstown	40 20	78 53	1200	3.24	3.85	2.77	4.76	7.00	5.62	4.82	4.30	5.12	3.00	2.76	2.88
51. Lancaster	40 03	76 21	350	3.43	2.40	2.61	4.22	3.11	3.75	2.83	3.85	3.08	2.75	2.68	3.45
52. Latrobe	40 20	79 21	569	..	..	..	..	3.43	..	..	..	..	..	..	..
53. Lewisburg [a]	40 58	76 55	..	2.36	2.29	2.85	3.45	4.21	4.19	3.84	4.83	3.24	3.01	2.71	2.99
54. Linden	41 14	77 11	..	..	2.91	4.42	4.43	..	..	..	..	..	..	2.89	..
55. Mac Kean	41 55	78 26	1500	3.07	1.57	5.07	2.74	1.90	3.96	2.33	3.75	2.92	3.58	2.33	2.30
56. Manchester	40 32	80 03	750	2.90	3.00	1.00	1.50	4.19	3.26	3.13	1.27	4.88	3.95	2.44	5.18
57. Meadville	41 39	80 09	1088	1.93	2.34	3.00	3.17	3.82	6.05	3.80	3.82	2.23	4.38	2.20	3.74
58. Mifflintown	40 32	77 28	..	3.62	..	2.60	3.82	3.11	3.05	2.73	2.74	1.62	2.31	2.17	5.38
59. Milford	41 18	74 50	..	..	..	..	..	..	..	3.66	..	..	..	..	..
60. Moreland	40 00	75 11	250	2.44	2.95	3.51	3.19	5.25	5.84	4.62	6.44	4.37	4.80	3.79	2.28
61. Mount Joy	40 06	76 31	..	2.89	2.05	3.05	3.64	4.67	3.84	3.25	3.84	3.66	2.84	2.85	2.76
62. Mount Rock	40 10	77 21	..	1.29	1.51	1.74	3.13	..	..	..	6.98	2.22	2.39	4.13	1.02
63. Morrisville [b]	40 13	74 52	30	3.38	2.84	3.32	3.78	4.05	4.08	3.77	4.30	3.42	3.69	4.18	3.20
64. Moss Grove	41 40	79 51	1400	2.14	3.02	2.57	4.44	2.91	4.23	1.94	3.05	2.75	2.69	3.16	4.10
65. Murrysville	40 26	79 41	1000	2.03	2.83	2.83	3.73	6.65	4.65	3.31	3.60	2.14	2.50	3.63	4.36
66. Nazareth	40 43	75 21	530	5.85	1.58	3.30	3.52	5.07	2.08	5.28	6.35	5.32	2.37	3.98	0.66
67. New Castle	41 02	80 21	..	3.10	1.91	2.35	1.92	2.72	3.78	5.64	2.66	2.12	2.70	2.21	2.46
68. Newtown	40 15	74 57	..	3.14	2.89	3.67	5.20	4.05	4.18	5.10	6.87	2.96	3.33	3.72	5.32
69. Norristown	40 08	75 19	153	3.82	3.17	2.61	5.10	4.50	4.41	3.67	4.18	4.34	2.96	3.71	3.97
70. North Abington	41 31	75 47	1183	3.36	2.73	3.55	3.34	3.52	4.16	5.72	3.87	2.74	3.91	2.95	2.36
71. North Shippen	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.10
72. Northumberland	40 55	76 49	..	2.64	1.97	3.80	4.10	3.47	4.08	3.94	4.13	2.33	2.09	2.58	4.34
73. Oxford	39 47	75 59	575	..	..	..	..	7.40	5.66	5.57	1.90	2.25	..	..	..
74. Pennsville, near [c]	41 00	78 38	1400	3.58	3.13	4.08	3.68	3.89	3.91	5.00	4.13	3.40	3.21	3.03	4.03
75. Philadelphia	39 56	75 10	36	3.13	2.89	3.43	3.59	3.88	3.95	3.98	4.55	3.67	3.34	3.48	3.40
76. Phœnixville	40 07	75 32	120	4.75	5.50	4.25	..	4.30	6.00	..	..	..	..	..	..
77. Pittsburg [d]	40 27	79 59	840	2.53	2.40	2.66	3.24	2.96	3.15	4.07	3.50	2.67	2.82	2.72	2.68
78. Plainfield	40 10	77 10	..	3.31	4.08	3.71	5.58	3.92	3.42	4.60	5.39	3.35	4.89	2.42	2.93
79. Plymouth Meeting	40 06	75 16	..	3.13	2.45	4.33	2.37	4.04	5.28	4.02	3.42	2.36	5.69	3.20	2.29
80. Pocopson	39 54	75 40	218	3.25	3.40	3.36	3.98	4.75	4.72	3.53	4.75	4.25	3.51	3.49	3.49
81. Port Carbon	40 43	76 06	..	..	1.04	3.38	4.30	3.07	4.69	3.66	5.54	2.13	3.56	2.79	3.61
82. Pottsville	40 41	76 12	..	4.38	2.88	..	2.84	3.93	6.12	7.72	3.49	5.41	2.42	2.20	5.79
83. Punxsutawny	40 59	79 00	..	..	..	..	..	..	..	..	..	..	1.44	..	..
84. Randolph	41 38	80 00	1720	3.12	2.45	2.85	3.05	3.35	6.58	3.50	..	4.02	4.50	4.55	..
85. Reading	40 20	75 55	269	3.05	3.36	3.15	4.25	3.92	3.31	4.73	4.22	3.53	3.81	3.03	2.93
86. Ringtown	40 52	76 17	..	..	..	..	..	8.10	13.70	..	..	..	..	..	..
87. Rose Cottage	41 07	79 09	..	3.00	2.80	3.08	1.07	..	..	8.93	5.90	5.25	0.90	..	3.24
88. Salem [e]	41 25	75 25	1600	2.71	2.51	3.94	2.61	3.04	4.24	4.69	3.42	2.77	4.54	2.00	2.76
89. Sewickleyville	40 34	80 10	656	4.90	4.63	1.51	4.61	2.85	4.03	5.94	3.46	5.27	2.92	4.31	0.95

[a] University.
[b] Observations from 1852 to end of series by E. Hance, at Fallsington.
[c] Grampian Hills.
[d] Observations at Oakland Station, Marine Hospital, and Troy Hill, near Pittsburg.
[e] Also called Hamilton.

PENNSYLVANIA—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
46	..	..	..	3.25	..	Jan. 1872;	Dec. 1874	0	7	J. Haworth.	S. O.
47	8.63	7.28	8.08	9.36	33.35	Jan. 1853;	Dec. 1853	1	0	J. R. Lowrie.	S. Coll.
48	11.14	9.66	8.08	6.19	35.07	Apr. 1840;	Feb. 1860	3	5	J. Miller, Dr. W. Brewster.	Jour. Frank. Inst.
49	9.51	11.73	6.92	7.15	35.31	Aug. 1839;	Jan. 1860	1	11	W. D. Hildebrand, — White.	" "
50	14.53	14.74	10.88	9.97	50.12	Feb. 1868;	Mar. 1873	3	8	D. Peelor.	S. O.
51	9.94	10.43	8.51	9.28	38.16	Jan. 1839;	Dec. 1843	5	0	S. Scott.	Jour. Frank. Inst.
52	..	..	..	..	..	May, 1861;	May, 1861	0	1	W. R. Boyers.	S. O.
53	10.51	12.86	8.96	7.64	39.97	Feb. 1856;	Nov. 1873	12	11	Prof. C. S. Ames.	Met. Obs. Vol. 1; S. O.
54	..	..	..	..	..	Nov. 1858;	Apr. 1859	0	4	J. Barrett.	Met. Obs. Vol. 1.
55	9.71	10.04	8.83	6.94	35.52	1840–1841		1	6	. . . . .	Jour. Frank. Inst.
56	6.69	7.66	11.27	11.08	36.70	1849–1850		1	0	C. Marks.	S. Coll.
57	9.99	13.67	8.81	8.01	40.48	Jan. 1839;	Sept. 1858	3	11	Dick & Limber, T. H. Thickstun.	Met. Obs. Vol. 1; Jour. Frank. Inst.
58	9.53	8.52	6.10	..	..	July, 1839;	May, 1843	1	7	J. A. Rinkead.	Jour. Frank. Inst.; S. Coll.
59	..	..	..	..	..	July, 1840;	July, 1840	0	1	. . . . .	Jour. Frank. Inst.
60	11.95	16.90	12.86	7.67	49.48	June, 1864;	Nov. 1873	9	5	A. Spencer.	S. O.
61	11.36	10.93	9.35	7.70	39.34	Aug. 1857;	Dec. 1873	10	7	Dr. J. R. Hoffer.	Met. Obs. Vol. 1; S. O.
62	..	..	8.74	3.82	..	Aug. 1871;	Apr. 1872	0	9	J. Lefever.	S. O.
63	11.15	12.15	11.29	9.42	44.01	Oct. 1790;	Dec. 1874	53	5	C. Pierce, E. Hance.	Met. Obs. Vol. 1; S. O.
64	9.92	9.22	8.60	9.26	37.00	Jan. 1852;	Feb. 1857	5	4	F. Schreiner.	S. Coll.; Met. Obs. Vol. 1.
65	13.21	11.56	8.27	9.22	42.26	Apr. 1857;	Mar. 1868	2	5	F. L. Stewart.	Met. Obs. Vol. 1; S. O.
66	11.89	13.71	11.67	8.09	45.36	Feb. 1856;	May, 1862	2	4	H. A. Brickenstein, J. C. Harvey, O. T. Huebener.	" " "
67	6.99	12.08	7.03	7.47	33.57	Jan. 1870;	Dec. 1874	5	0	E. M. McConnell.	S. O.
68	12.92	16.15	10.01	11.35	50.43	Mar. 1839;	June, 1843	4	2	L. H. Parsons.	Am. Alm.; Jour. Frank. Inst.
69	12.21	12.26	11.01	10.96	46.44	Feb. 1839;	July, 1863	8	11	L. E. Corson, J. G. Ralston.	Jour. Frank. Inst.; S. Coll; Met. Obs. Vol. 1; S. O.
70	10.41	13.75	9.60	8.45	42.21	Apr. 1868;	Dec. 1874	6	9	R. Sisson.	S. O.
71	..	..	..	..	..	Dec. 1874;	Dec. 1874	0	1	C. M. Behrens.	"
72	11.37	12.15	7.00	8.95	39.47	Jan. 1839;	Dec. 1841	2	11	— Heuston.	Jour. Frank. Inst.
73	..	13.13	..	..	..	May, 1865;	Sept. 1865	0	5	Dr. H. Duffield.	"
74	11.65	13.04	9.64	10.74	45.07	July, 1864;	Dec. 1874	10	3	N. Moor, E. Fenton.	"
75	10.90	12.48	10.49	9.42	43.29	Jan. 1825;	June, 1877	52	6	See note *	Jour. Frank. Inst.; S. Coll.; Ex. Doc. Senate, 1847; Blodgett's Clim.; S. O.; Sig. Ser. Reps.
76	..	..	..	..	..	Jan. 1869;	June, 1869	0	5	Dr. J. Z. Coffman.	S. O.
77	8.86	10.72	8.21	7.61	35.40	Sept. 1840;	June, 1877	16	5	G. H. Rohe, L. A. Welsh, G. Albree, — Bakewell, A. Scriba, Dr. R. Müeller, W. W. Wilson, Dr. H. Smyser, W. Martin & others.	Jour. Frank. Inst.; S. O.; Sig. Ser. Reps.; Met. Obs. Vol. 1.
78	13.21	13.41	10.66	10.32	47.60	May, 1872;	Dec. 1874	2	8	J. Lefever.	S. O.
79	10.74	12.72	11.25	7.87	42.58	Feb. 1868;	May, 1872	3	7	M. H. Corson.	"
80	12.09	13.00	11.25	10.14	46.48	Jan. 1854;	Dec. 1873	19	8	F. Darlington.	Met. Obs. Vol. 1; S. O.
81	10.75	13.89	8.48	..	..	Aug. 1840;	Dec. 1841	1	3	P. C. of Lyceum.	Jour. Frank. Inst.
82	..	17.33	10.03	13.05	..	1839–1855		1	8	Dr. A. Heyer, & Porter.	Jour. Frank. Inst.; Met. Obs. Vol. 1.
83	..	..	..	..	..	Oct. 1841;	Oct. 1841	0	1	. . . . .	Jour. Frank. Inst.
84	9.25	..	13.07	..	..	June, 1854;	Feb. 1856	1	2	O. T. Hobbs.	Met. Obs. Vol. 1.
85	11.32	12.26	10.37	9.34	43.29	Apr. 1839;	Dec. 1874	7	1	— Egleman, C. Hahn, J. H. Raser, Dr. J. B. Peale.	Jour. Frank. Inst.; Met. Obs. Vol. 1; S. O.
86	..	..	..	..	..	May, 1872;	June, 1872	0	2	N. S. Haines.	S. O.
87	..	..	..	9.04	..	Jan. 1839;	Mar. 1840	0	11	— Gaskill.	Jour. Frank. Inst.
88	9.59	12.35	9.31	7.98	39.23	Apr. 1869;	July, 1874	3	10	J. D. Stocker.	S. O.
89	8.97	13.43	12.50	10.48	45.38	Jan. 1861;	Jan. 1862	1	1	J. A. Travelli, G. H. Tracy.	"

* Consolidated series, from observations at Pennsylvania Hospital, Navy Yard, U. S. Naval Hospital, Girard College, No. 2014 Vine Street, Signal Service Office, Frankford Arsenal, and 2025 Wood Street. Observers: Dr. Swift, H. Eachers, Dr. Conrad, Prof. J. A. Kirkpatrick, J. M. Greene, J. M. Foltz, W. Johnson, D. Harlan, Dr. A. D. Bache, S. Maulsby, W. T. Boyd, R. Seyboth, C. M. Hobbs, F. M. M. Beall, —Mordecai.

PENNSYLVANIA—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
90. Shamokin	40° 48′	76° 35′	700	2.87	1.66	2.64	4.21	5.48	5.40	3.94	4.65	2.93	3.08	3.21	2.85
91. Silver Lake	41 55	76 01	..	1.20	1.44	1.87	2.81	2.24	3.03	2.27	2.71	2.81	1.80	1.16	2.61
92. Silver Spring	40 05	76 40	..	1.28	..	..	..	..	..	..	..	..	..	..	..
93. Smithport	41 54	78 33	..	3.06	1.99	4.20	2.10	2.73	4.71	4.01	2.99	2.89	2.00	2.34	4.80
94. Somerset	40 02	79 05	2195	2.45	2.34	2.00	4.26	4.76	4.10	2.99	3.42	2.98	2.93	3.49	3.00
95. Spring Mills	40 08	75 10	..	..	..	..	..	..	..	..	..	..	..	..	..
96. Stevensville	41 45	76 35	300	1.53	1.96	..	..	1.58	4.34	3.00	3.02	4.33	2.20	3.58	2.61
97. Stroudsburg	40 58	75 16	..	3.59	..	..	5.81	3.41	4.08	4.23	4.25	4.04	1.00	4.00	4.51
98. Saint Vincent's College	40 14	79 29	922	5.96	3.78	3.57	5.41	3.43	4.24	3.48	5.74	8.96	2.88	6.26	1.52
99. Sugar Grove	42 00	79 24	1450	2.90	2.86	2.23	4.15	4.33	..	..	4.40	3.20	3.19	4.64	1.95
100. Susquehanna Depot	41 56	75 40	800	..	..	..	..	..	1.38	6.41	..	..	..	..	..
101. Tamaqua	40 49	76 00	700	..	..	..	..	4.30	8.30	3.20	..	2.30	1.90	..	..
102. Tarentum	40 37	79 46	950	3.40	3.10	2.45	2.45	1.70	2.70	6.60	3.83	2.67	3.63	2.05	5.35
103. Tioga	41 54	77 11	1000	2.20	2.15	3.51	3.87	4.64	3.60	4.78	4.40	4.72	3.03	2.65	1.84
104. Towanda[a]	41 47	76 30	840	1.15	1.00	..	..	..	..	..	10.00	..	..	..	..
105. Uniondale	40 02	79 40	891	2.88	4.20	4.08	3.31	3.62	3.85	6.02	3.13	2.23	3.95	2.30	3.95
106. Union Canal	40 20	76 30	480	..	..	..	..	..	..	..	..	..	..	..	..
107. Uniontown	39 54	79 42	..	5.83	1.31	3.63	3.56	..	4.26	..	..	..	3.10	4.70	5.37
108. Warren	41 57	79 14	..	..	..	..	2.03	1.37	4.81	3.85	..	..	..	5.08	..
109. Warrior's Mark	40 41	78 09	..	..	..	1.44	5.84	3.62	5.24	3.94	..	..	..	..	..
110. West Chester	39 58	75 35	478	3.34	3.49	4.09	4.01	4.60	4.28	4.22	4.63	4.40	4.13	3.85	3.60
111. Western State Express Farm	40 40	79 10	1300	..	..	..	2.50	3.80	3.40	9.80	2.11	2.57	6.60	..	..
112. West Greenfield	41 05	79 54	..	..	..	..	..	2.98	..	..	..	..	..	..	..
113. Westtown	39 57	75 34	550	3.45	2.12	6.50	4.13	9.05	5.20	2.22	5.30	1.41	3.38	3.50	4.75
114. White Hall	40 40	75 32	250	1.79	1.37	1.45	1.72	..	..	..	..	..	..	..	1.76
115. Wilkesbarre	41 14	75 56	..	..	2.19	..	..	3.13	..	..	..	..	..	..	1.99
116. Williamsport	41 15	77 04	533	2.57	2.08	3.32	4.21	2.11	2.83	4.02	5.30	2.83	3.86	2.31	2.33
117. Worthington	40 52	79 37	1050	5.50	3.06	2.96	4.19	3.64	4.04	3.97	3.31	5.42	3.52	4.67	5.16
118. York	39 58	76 40	..	..	..	..	..	..	3.16	2.36	3.24	..	1.85	2.38	..
119. York Sulphur Springs	40 00	77 11	..	2.73	4.00	3.09	3.29	3.17	3.26	3.21	7.02	2.89	3.95	2.86	1.87
120. Youngsville	41 50	79 20	1185	..	2.50	..	..	..	..	..	..	..	..	..	..

RHODE ISLAND.

1. Dutch Island	41 30	71 24	..	..	..	..	..	3.29	3.73	2.58	7.98	2.40	2.03	2.36	3.37
2. Fort Adams	41 29	71 20	40	3.69	3.33	3.74	4.39	4.36	3.31	3.35	4.68	2.92	4.26	4.17	3.89
3. Newport	41 30	71 19	25	3.93	4.46	5.16	3.80	4.44	3.16	3.03	4.51	2.71	4.00	3.71	3.88
4. North Scituate	41 50	71 34	300	..	..	..	7.61	4.45	2.01	..	..	..	..	..	..
5. Providence	41 50	71 24	155	3.55	3.18	3.85	3.78	3.72	3.39	3.14	4.27	3.14	3.51	4.05	3.77

SOUTH CAROLINA.

1. Abbeville, near[b]	34 12	82 17	500	8.22	4.04	5.87	4.20	3.46	2.64	5.26	4.21	1.24	3.37	2.04	4.80
2. Aiken	33 32	81 33	565	3.75	4.18	3.59	3.25	3.94	4.79	4.96	6.76	3.61	1.83	2.64	3.95
3. All Saints[c]	33 40	79 17	20	3.51	3.43	3.41	2.72	2.15	3.83	6.87	4.18	4.76	2.56	2.76	3.02

[a] Susquehanna College Institute.

[b] Combined with observations at Barratsville.

PENNSYLVANIA—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	mos.	Observers.	References.
90	12.33	13.99	9.22	7.38	42.92	Jan. 1856;	Jan. 1863	7	1	P. Friel.	Jour. Frank. Inst.; Met. Obs. Vol. 1.; S. O.
91	6.92	8.01	5.77	5.25	25.95	Mar. 1839;	Dec. 1841	2	6	— Rase.	Jour. Frank. Inst.
92	..	..	..	..	..	Jan. 1867;	Jan. 1867	0	1	H. G. Bruckert.	S. O.
93	9.03	11.71	7.23	9.85	37.82	Feb. 1839;	Aug. 1841	2	4	Atkins & Chadwick.	Jour. Frank. Inst.
94	11.02	10.51	9.40	7.79	38.72	Feb. 1840;	Dec. 1861	8	0	G. Mowry, Dr. F. Chorpenning.	Met. Obs. Vol. 1; S. O.; Jour. Frank. Inst.
95	..	..	..	..	34.38	Jan. 1810;	Dec. 1823	14	0	.....	Am. Alm.; Darby's Gaz.
96	..	10.36	10.11	6.10	..	May, 1866;	Feb. 1867	0	10	J. R. Dutton.	S. O.
97	..	12.56	9.04	..	..	Apr. 1839;	Dec. 1841	1	4	— Stokes.	Jour. Frank. Inst.
98	12.41	13.46	18.10	11.26	55.23	Jan. 1861;	June, 1862	1	6	Prof. R. Müller.	S. O.
99	10.71	..	11.03	7.71	..	Aug. 1853;	May, 1854	0	10	W. O. Blodget.	Met. Obs. Vol. 1; S. O.
100	..	..	..	..	..	June, 1863;	July, 1863	0	2	H. H. Atwater.	S. O.
101	..	..	..	..	..	May, 1870;	Oct. 1870	0	5	J. Haworth.	"
102	6.60	13.13	8.35	11.85	39.93	May, 1872;	Dec. 1874	2	8	J. Cummings.	"
103	12.02	12.78	10.40	6.19	41.39	Jan. 1864;	Dec. 1874	10	5	E. T. Bentley.	"
104	..	..	..	..	..	Jan. 1861;	Aug. 1861	0	3	J. H. Kingsbury, S. J. Coffin.	"
105	11.01	13.00	8.48	11.03	43.52	June, 1872;	Dec. 1873	1	7	J. Taylor.	"
106	..	..	..	..	38.40	Jan. 1835;	Jan. 1848	14	0	— Lehman.	Robert's Engineer.
107	..	..	..	12.51	..	Dec. 1839;	June, 1841	0	10	— Weethee.	Jour. Frank. Inst.
108	..	..	..	..	..	May, 1840;	Apr. 1841	0	5	Brown & King.	" "
109	10.90	..	..	..	..	Mar. 1854;	July, 1854	0	5	J. W. Lowrie.	Met. Obs. Vol. 1.
110	12.70	13.13	12.38	10.43	48.64	Jan. 1817;	Dec. 1874	26	2	Dr. G. Martin, J. C. Green, F. Darlington, E. W. Beans.	Blodgett's Clim.; Jour. Frank. Inst.; S. Coll.; S. O.
111	..	15.31	..	..	..	Apr. 1872;	Oct. 1872	0	7	A. J. Hamilton.	S. O.
112	..	..	..	..	..	May, 1840;	May, 1840	0	1	— Campbell.	Jour. Frank. Inst.
113	19.68	12.72	8.29	10.32	51.01	July, 1857;	Mar. 1859	1	8	S. Alsop.	Met. Obs. Vol. 1.
114	..	..	..	4.92	..	Feb. 1860;	Dec. 1868	1	1	E. Kohler.	S. O.
115	..	..	..	..	..	Dec. 1839;	May, 1841	0	3	Dennis & Maxwell.	Jour. Frank. Inst.
116	9.64	12.15	9.00	6.98	37.77	Feb. 1870;	Dec. 1874	2	0	H.C.Moyer, J. Emery.	S. O.
117	10.79	11.32	13.61	13.72	49.44	July, 1859;	July, 1862	2	11	S. Scott, J. Eggert.	Met. Obs. Vol 1; S. O.
118	..	8.76	..	..	..	June, 1839;	Nov. 1839	0	5	— Mason.	Jour. Frank. Inst.
119	9.55	13.49	9.70	8.60	41.34	Jan. 1871;	Dec. 1874	3	9	Dr. J. H. Marsden.	S. O.
120	..	..	..	..	..	Feb. 1854;	Feb. 1854	0	1	Dr. A. C. Blodget.	Met. Obs. Vol. 1.

RHODE ISLAND.

1	..	14.29	6.79	..	..	May, 1874;	Dec. 1874	0	8	J. A. Judson.	S. O.
2	12.49	11.34	11.35	10.91	46.09	Oct. 1841;	Dec. 1874	20	5	Assistant Surgeon.	MS. from S. G. O; Ar. Met. Regs. 1855 and 1860.
3	13.40	10.70	10.42	12.27	46.79	Sept. 1865;	June, 1876	9	11	W. H. Crandall, F. E. Thompson.	Sig. Serv. Rep.; S. O.
4	..	..	..	..	..	Apr. 1854;	June, 1854	0	3	H. C. Sheldon.	Met. Obs. Vol. 1.
5	11.35	10.80	10.70	10.50	43.35	Dec. 1831;	Dec. 1876	45	1	Prof. A. Caswell, H. C. Sheldon.	Sm. Con. to Know. Vol. xii; S. Coll.

SOUTH CAROLINA.

1	13.53	12.11	6.65	17.06	49.35	July, 1838;	Mar. 1851	2	10	T. Parker, Dr. J. P. Barratt.	Am. Alm.; S. Coll.
2	10.78	16.51	8.08	11.88	47.25	May, 1854;	Dec. 1874	12	11	H. W. Ravenel, J. H. Cornish, Dr. W. H. Geddings, W.F. Percival, Assist. Surg.	Met. Obs. Vol 1; S. O.; MS. from S. G. O.
3	8.28	14.88	10.08	9.96	43.20	Jan. 1851;	Apr. 1861	9	4	A. Glennie.	Met. Obs. Vol 1; S. Coll.; S. O.

* Also known as Waccamaw.

SOUTH CAROLINA.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
4. Beaufort	32° 26′	80° 41′	15	3.00	1.68	4.85	1.49	3.56	6.10	4.62	. .	. .	. .	3.24	1.58
5. Bluffton	32 14	80 51	. .	3.70	2.20	5.30	2.30	2.70	9.30	2.00	6.10	5.20	8.40	4.20	5.20
6. Camden	34 15	80 31	240	3.63	3.07	4.82	2.94	4.34	4.38	6.74	7.05	3.68	2.37	3.05	4.42
7. Charleston [a]	32 47	79 56	25	2.49	2.84	3.33	1.89	3.63	4.43	6.02	7.04	5.24	2.84	2.12	2.95
8. Columbia	34 02	80 57	315	4.13	4.77	5.23	3.77	4.55	4.30	5.13	6.81	4.16	1.38	2.95	3.65
9. Edisto Island	32 34	80 18	23	1.24	1.52	5.22	0.32	1.86	2.82	. .	6.13	0.42	2.34	1.15	1.66
10. Evergreen	34 22	82 46	. .	5.66	7.36	7.53	2.97	4.90	6.69	1.65	3.37	2.14	6.10	4.23	5.04
11. Fort Moultrie	32 45	79 51	25	2.59	2.51	4.18	1.75	3.82	4.34	6.40	7.63	4.90	2.14	2.11	3.14
12. Fulton	33 40	80 31	150	3.96	4.17	3.50	4.34	6.17	4.61	7.37	6.51	5.33	2.61	1.91	3.83
13. Gowdysville, near	34 55	81 30	600	3.83	6.87	4.65	3.46	4.34	3.89	3.81	3.44	2.42	2.91	4.15	4.05
14. Hacienda Saluda	35 07	82 15	1500	3.88	8.68	5.12	6.07	4.07	2.60	7.38	7.50	4.59	2.70	3.57	3.85
15. Hilton Head	32 14	80 43	15	2.81	2.10	4.41	1.68	1.63	6.59	5.68	3.86	4.22	2.70	2.47	3.05
16. Kirkwood	34 17	80 33	250	3.54	2.52	6.04	4.91	2.60	3.18	4.67	11.45	3.28	1.31	5.09	3.76
17. Mount Pleasant	32 47	79 55	20	. .	0.92	2.28	. .	. .	. .	. .	. .	. .	. .	. .	. .
18. Pomaria	34 16	81 16	520	5.45	5.69	5.60	3.66	4.02	3.71	3.70	4.10	4.49	1.94	3.16	3.67
19. Robertsville	32 36	81 12	50	0.60	1.18	7.38	0.50	2.99	5.43	3.63	5.80	4.63	1.57	0.40	3.03
20. Spartanburg	34 57	81 50	. .	. .	. .	. .	. .	. .	3.50	4.48	5.38	7.08	0.15	0.00	0.25
21. St. Johns	33 10	79 50	50	3.10	2.56	3.02	2.12	3.70	3.96	6.95	6.47	4.38	2.23	2.31	2.67

TENNESSEE.

1. Austin	36 12	86 20	2000	5.02	4.76	4.41	6.23	3.47	4.95	4.26	4.25	4.49	2.77	4.18	5.37
2. Bethel Springs	35 12	88 38	620	5.30	7.78	7.40	8.10	3.40	4.53	5.03	1.20	2.60	2.20	3.50	4.60
3. Castalian Springs	36 25	86 20	500	3.89	7.81	4.04	2.22	3.88	3.78	5.93	5.99	4.26	3.53	3.80	3.83
4. Clearmont	35 44	86 02	1000	2.79	4.92	4.06	5.19	3.22	4.75	3.56	3.22	2.20	2.80	2.39	3.34
5. Elizabethton	36 18	82 12	1500	2.99	3.15	3.34	4.27	5.43	10.18	2.73	3.95	1.98	2.88	2.10	4.14
6. Friendship	35 50	89 25	. .	. .	. .	1.94	4.85	4.70	6.50	8.11	. .	. .	. .	. .	. .
7. Glenwood Cottage [b]	36 28	87 20	481	3.94	4.29	4.90	5.04	3.71	3.99	3.68	3.05	2.75	2.72	3.93	4.43
8. Greenville [c]	36 05	82 50	. .	1.48	2.20	3.10	2.34	2.18	2.60	1.59	1.00	0.70	1.95	1.65	2.41
9. Hollow Rock	36 02	88 20	. .	. .	. .	. .	. .	. .	. .	0.10	4.90	2.15	. .	. .	. .
10. Humboldt	35 51	88 56	. .	6.59	5.68	5.58	5.28	4.61	4.40	2.71	3.11	1.90	4.03	4.49	4.71
11. Jackson	35 38	88 50	. .	. .	. .	6.42	12.86	5.05	10.61	12.37	3.31	4.37	6.00	6.25	. .
12. Knoxville [d]	35 56	83 56	1000	4.44	5.48	5.19	5.58	3.75	5.28	4.24	4.63	2.89	2.61	3.40	4.09
13. La Grange	35 08	89 15	480	3.30	5.15	8.23	7.67	2.30	3.53	4.60	2.80	2.50	2.42	3.12	3.27
14. Lebanon [e]	36 15	86 15	480	3.43	6.03	2.98	4.52	3.86	2.85	2.17	4.44	1.81	1.03	3.73	6.61
15. Lookout Mt.	35 00	85 27	2200	2.86	3.70	3.96	5.56	. .	. .	. .	6.77	2.88	6.12	. .	2.00
16. McMinnville	35 42	85 52	1000	3.31	5.61	5.43	7.93	3.88	6.37	3.37	5.79	3.46	2.65	4.86	4.53

[a] Observations for 1738 to 1748 from "Description of South Carolina," London, 1761; observations for 1749 to 1752 from Philosophical Transactions, 1753, and observations 1753 to 1759 from Chalmer's South Carolina. All reductions were made by the Smithsonian Institution. The observations between 1738 and 1748 are by Dr. Lining. For the years 1856, 1857, 1858 the mean values from Dr. J. Johnson's and Dr. J. Dawson's records were used in the above series.

SOUTH CAROLINA.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
4	9.90	..	..	6.26	..	Jan. 1864;	Mar. 1865	1	0	Dr. M. M. Marsh.	S. O.
5	10.30	17.40	17.80	11.10	56.60	Jan. 1870;	Dec. 1870	1	0	J. St. J. Guerard.	"
6	12.10	18.17	9.10	11.12	50.49	May, 1849;	Apr. 1869	8	6	T. Carpenter, C. Mc Rae, Dr. J. A. Young.	Met. Obs. Vol 1; S. Coll; S. O.
7	8.85	17.49	10.20	8.28	44.82	Jan. 1738;	June, 1876	45	5	Dr. J. Johnson, J. L. Dawson, Dr. Lining, J. Ryan, Dr. G. S. Pelger, M. L. Hearne, T. S. Collins, W. Mc Gauran.	Charlestown City Register; Blodgett's Clim.; Met. Obs. Vol. 1; Am. Alm.; S. O.; Phil. Trans., 1753; Sig. Ser. Reps.; Chalmer's S. C. and Descrip. of S. C., 1761.
8	13.55	16.24	8.49	12.55	50.83	Jan. 1850;	Dec. 1874	5	3	F. H. Harleston, Asst. Surg., C. C. Tew, J. B. White, Dr. E. H. Barton.	Met. Obs. Vol. 1; S. Coll.; MS. from S. G. O.
9	7.40	..	3.91	4.42	..	Feb. 1856;	Jan. 1857	0	11	Dr. E. N. and E. A. Fuller.	Met. Obs. Vol. 1.
10	15.40	11.71	12.47	18.06	57.64	Sept. 1868;	Apr. 1870	1	7	E. S. Earle.	S. O.
11	9.75	18.37	9.15	8.24	45.51	Nov. 1842;	Dec. 1859	17	1	Assistant Surgeon.	Ar. Met. Regs. 1855 and 1860.
12	14.01	18.49	9.85	11.96	54.31	Jan. 1818;	Dec. 1824	7	0	J. Dyson.	S. Coll.
13	12.45	11.14	9.48	14.75	47.82	Mar. 1869;	Dec. 1873	4	3	C. Petty.	S. O.
14	15.26	17.48	10.86	16.41	60.01	Sept. 1871;	Dec. 1874	3	0	L. Gibbon.	"
15	7.72	16.13	9.39	7.96	41.20	Apr. 1864;	Dec. 1867	3	4	J. W. Abert, C. R. Suter, Assistant Surgeon.	S. O. & MS. from S. G. O.
16	13.55	19.30	9.68	9.82	52.35	Jan. 1850;	Dec. 1852	3	0	McRae.	S. Coll.
17	..	..	..	..	..	Feb. 1857;	Mar. 1857	0	2	Dr. E. N. Fuller.	Met. Obs. Vol. 1.
18	13.28	11.51	9.59	14.81	49.19	Feb. 1872;	Dec. 1874	2	11	T. B. Busby, J. W. Folk.	S. O.
19	10.87	14.86	6.60	4.81	37.14	Jan. 1843;	Dec. 1843	1	0	— Smith.	Agrl. Register.
20	..	13.36	7.23	..	..	June, 1874;	Dec. 1874	0	7	T. H. Bomar.	S. O.
21	8.84	17.38	8.92	8.33	43.47	Jan. 1846;	Mar. 1861	13	2	H. W. & F. P. Revenel.	S. Coll.; (Agr. Soc.) Met. Obs. Vol. 1; S. O.

TENNESSEE.

1	14.11	13.46	11.44	15.15	54.16	Jan. 1861;	Dec. 1874	6	4	Dr. S. K. Jennings, P. B. Calhoun.	S. O.
2	18.90	10.76	8.30	17.68	55.64	Mar. 1872;	Dec. 1874	2	9	Dr. S. K. Jennings, A. M. Stovall.	"
3	10.14	15.70	11.59	15.53	52.96	Mar. 1872;	Dec. 1874	2	9	Dr. T. J. Kennedy.	"
4	12.47	11.53	7.39	11.05	42.44	Oct. 1870;	Feb. 1873	2	5	T. P. Wright.	"
5	13.04	16.86	6.96	10.28	47.14	Jan. 1869;	May, 1873	4	4	C. H. Lewis.	"
6	11.49	..	..	..	..	Mar. 1855;	July, 1855	0	5	Dr. R. T. Carver.	Met. Obs. Vol. 1.
7	13.65	10.72	9.40	12.66	46.43	Jan. 1854;	Dec. 1874	20	11	W. M. Stewart.	Met. Obs. Vol. 1; S. O.
8	7.62	5.19	4.30	6.09	23.20	Jan. 1867;	May, 1873	2	9	S. S. & W. S. Doak.	S. O.
9	..	..	..	..	..	July, 1874;	Sept. 1874	0	3	H. T. McCutchen.	"
10	15.47	10.22	10.42	16.98	53.09	May, 1870;	Dec. 1874	4	8	Assistant Surgeon.	MS. from S. G. O.
11	24.33	26.29	16.62	..	..	Mar. 1872;	Nov. 1872	0	9	E. W. Amsden.	S. O.
12	14.52	14.15	8.90	14.01	51.58	Jan. 1854;	June, 1876	7	7	Profs. G. Cooke, T. L. Griswold, & Payne, Serg. J. K. Payne.	Met. Obs. Vol. 1; S. O.; Sig. Ser. Reps.
13	18.20	10.93	8.04	11.72	48.89	July, 1870;	Dec. 1874	4	5	Dr. W. E. Franklin.	S. O.
14	11.36	9.46	6.57	16.07	43.46	Nov. 1850;	Mar. 1855	2	6	Profs. A. P. Stewart, B. C. Jillson.	S. Coll.; Met. Obs. Vol. 1.
15	..	..	..	8.56	..	Aug. 1871;	Apr. 1872	0	8	C. F. P. Bancroft.	S. O.
16	17.24	15.53	10.97	13.45	57.19	Aug. 1872;	Dec. 1874	2	5	B. L. Lewis.	"

[b] Near Clarksville.
[c] Tusculum College.
[d] East Tennessee University.
[e] Cumberland University.

TENNESSEE.—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
17. Memphis	35° 08′	90° 04′	262	4.24	4.38	4.87	5.17	3.69	3.47	2.54	3.13	2.83	2.50	3.64	4.11
18. Nashville	36 09	86 47	533	5.12	4.68	5.24	5.05	4.04	4.57	4.35	3.81	4.06	3.29	4.15	3.42
19. Paradise Ridge	36 20	86 45	500	0.45	. .	. .	4.55	7.29	8.20	2.55	1.83	4.20	5.00	0.60	. .
20. Pomona	36 00	85 00	2200	0.37	0.20	. .	. .	. .	. .	. .	. .	. .	. .	. .	0.82
21. Rotherwood	36 30	82 48	2000	3.32	5.65	4.12	3.30	4.00	6.00	4.20	3.70	1.40	2.10	2.90	4.32
22. Smithville, near	35 56	85 48	1400	4.88	6.63	5.78	7.26	3.90	5.00	4.76	5.13	2.81	3.20	3.03	4.35
23. Spring Garden	35 06	85 00	1000	4.66	9.00	6.60	10.08	5.38	5.20	1.77	6.66	4.20	4.40	5.50	6.35
24. Trenton	35 57	89 02	. .	3.68	3.47	5.06	6.81	3.65	4.30	4.08	3.90	2.09	2.82	2.81	3.22
25. University Place[a]	35 12	86 00	2000	6.83	7.05	3.74	1.53	3.86	3.61	2.30	4.14	4.14	2.26	7.80	3.82
26. Walnut Grove	36 00	82 53	1350	2.33	. .	. .	. .	. .	. .	. .	. .	. .	. .	5.84	3.46
27. Winchester	35 12	86 15	. .	1.19	0.73	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .

TEXAS.

1. Aransas Canal[b]	27 47	97 08	15	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1.79	. .
2. Austin	30 17	97 44	650	1.96	2.18	2.82	2.28	3.51	2.75	2.24	2.95	4.73	3.22	2.79	2.09
3. Belmont Farm[c]	33 08	96 31	722	2.16	3.34	3.96	5.31	8.57	6.24	1.80	0.58	5.53	1.43	2.75	3.46
4. Blue Branch[d]	30 27	97 26	600	4.40	2.30	3.41	4.34	5.25	4.40	3.70	1.27	2.26	4.52	2.30	2.99
5. Bluff Settlement	30 00	97 00	180	2.58	1.53	3.18	3.61	4.83	4.92	3.96	2.01	5.41	5.57	5.17	3.05
6. Bonham	33 40	96 13	435	. .	. .	. .	. .	. .	. .	. .	. .	. .	1.92	0.68	2.09
7. Buffalo Springs	33 30	98 14	1800	. .	0.30	. .	. .	. .	. .	. .	. .	. .	. .	0.70	0.40
8. Burkeville	31 00	93 38	. .	. .	1.45	4.35	5.95	. .	. .	. .	. .	. .	. .	. .	. .
9. Camp Colorado	31 55	99 17	. .	0.92	0.75	0.63	2.42	1.14	1.22	1.03	5.44	4.27	1.74	2.46	2.08
10. Camp Concordia	31 46	106 21	3600	0.90	1.20	0.07	0.10	. .	0.00	1.90	1.16	1.63	. .	0.65	0.50
11. Camp Cooper	31 01	99 00	. .	. .	3.01	0.06	0.42	2.46	2.75	6.25	9.35	1.64	3.38	. .	3.85
12. Camp Hudson	29 42	101 10	. .	0.76	0.13	0.11	1.42	1.60	2.13	0.08	3.33	0.99	0.97	0.19	0.42
13. Camp Verde	30 00	99 10	1400	1.19	1.41	2.47	1.34	2.30	2.37	2.31	5.13	4.47	1.89	1.94	2.45
14. Cedar Grove[e]	29 08	95 42	60	2.96	2.46	2.25	3.68	4.72	4.47	4.31	7.83	2.50	2.85	4.58	5.60
15. Chapel Hill	30 10	96 20	542	. .	. .	. .	0.90	5.15	4.05	2.90	5.35	. .	. .	. .	. .
16. Clarksville[f]	33 35	95 02	600	4.76	7.95	5.66	10.06	12.82	7.35	7.57	2.11	6.15	4.05	5.11	6.57
17. Clear Lake	29 32	95 06	25	. .	. .	2.30	0.62	2.30	8.72	. .	2.88	4.60	14.88	4.64	2.60
18. Columbus	29 42	96 28	250	. .	. .	. .	. .	2.20	1.40	4.80	. .	16.20	. .	. .	. .
19. Content, near	29 40	96 42	350	. .	1.63	2.90	1.40	7.25	11.35	9.40	2.60	. .	. .	. .	. .
20. Corpus Christi	27 47	97 27	20	1.98	2.76	0.62	4.01	4.68	5.63	4.89	3.35	6.34	1.70	0.90	0.91
21. Corsicana	32 05	96 24	428	2.72	1.30	2.97	3.11	3.29	1.94	3.05	6.84	1.61	0.15	3.45	7.90
22. Cross Roads	30 33	97 46	672	. .	5.11	0.89	1.59	0.20	. .	. .	. .	1.52	1.20	2.15	3.40
23. Dallas, near[g]	32 55	96 38	468	. .	. .	. .	. .	. .	. .	. .	1.00	. .	. .	. .	. .
24. Deloraine[h]	33 07	96 00	550	2.85	1.75	2.60	4.45	5.60	4.50	1.65	0.17	1.32	2.85	1.53	0.80
25. Farm	30 10	96 34	431[i]	2.75	0.01	1.20	6.78	7.85	3.50	5.45	0.07	4.91	5.50	1.60	4.55
26. Fort Belknap	33 08	98 46	1600	0.47	2.29	1.32	0.88	4.21	3.98	2.49	2.97	2.77	2.92	2.65	1.10
27. Fort Bliss El Paso	31 47	106 30	3830	0.21	0.65	0.23	0.07	0.13	0.58	1.05	1.86	2.09	0.67	0.62	0.37
28. Fort Brown[j]	25 50	97 37	50	1.28	1.30	1.10	0.59	1.49	2.78	2.02	2.84	7.03	4.09	1.90	1.46

[a] Cumberland Mountain. [b] On dredge-boat A. Hawley, Nueces county. [c] Near Melissa.
[d] Also called Mine Creek and Sand Fly. [e] Plantation.

TENNESSEE.—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
17	13.73	9.14	8.97	12.73	44.57	Aug. 1849;	June, 1876	15	5	E. Goldsmith, S. W. Rhode, H. M. Ludwig, — Pearson, Drs. W. J. Tuck & R.W. Mitchell, R. S. Marr, Dr. D. F. Wright, R. Harris.	Met. Rep. Memphis, 1857; Blodgett's Clim.; U. S. Nav. Obs., 1847; Met. Obs. Vol. 1; S. O.; Sig. Ser. Reps.
18	14.33	12.73	11.50	13.22	51.78	June, 1839;	June, 1876	11	0	Prof. J. Hamilton, A. C. Ford.	Am. Alm.; S. Coll.; Sig. Ser. Reps.
19	..	12.58	9.80	..	..	Jan. 1873;	Nov. 1873	0	9	C. A. Stillwell.	S. O.
20	..	..	..	1.39	..	Jan. 1860;	Dec. 1860	0	3	J. W. Dodge and Son.	"
21	11.42	13.90	6.40	13.29	45.01	Jan. 1872;	Apr. 1873	1	4	C. Waterbury.	"
22	16.94	14.89	9.04	15.86	56.73	June, 1872;	Sept. 1874	2	3	P. C. Bluhm.	"
23	22.06	13.63	14.10	20.01	69.80	Feb. 1873;	Dec. 1874	1	10	H. Foster.	"
24	15.52	12.28	7.72	10.37	45.89	Feb. 1869;	Jan. 1873	3	9	W. T. Gregsby.	"
25	9.13	10.05	14.20	17.70	51.08	Jan. 1860;	Mar. 1861	1	3	C. R. Barney.	"
26	..	..	..	..	..	Nov. 1856;	Jan. 1857	0	3	J. B. Bean.	Met. Obs. Vol. 1.
27	..	..	..	..	..	Jan. 1860;	Feb. 1860	0	2	S. W. Houghton.	S. O.

TEXAS.

1	..	..	..	..	..	Nov. 1860;	Nov. 1860	0	1	F. Kaler.	S. O.
2	8.61	7.84	10.74	6.23	33.52	Mar. 1856;	Dec. 1874	18	8	Dr. S. K. Jennings, S. Palm, Asst. Surg., J. Van Nostrand.	Met. Obs. Vol. 1; S. O.; MS. from S. G. O.
3	17.84	8.62	9.71	8.96	45.13	May, 1872;	Dec. 1874	2	8	P. M. Scott.	S. O.
4	13.00	9.37	9.08	9.69	41.14	Jan. 1869;	Oct. 1873	4	3	F. S. Wade, W. H. Goode.	"
5	11.62	10.89	16.15	7.16	45.82	June, 1870;	Dec. 1874	4	5	J. Fietsam.	"
6	..	..	..	..	..	Oct. 1859;	Dec. 1859	0	3	Prof. S. Sias.	Met. Obs. Vol. 1.
7	..	..	..	..	..	Nov. 1867;	Feb. 1868	0	3	Assistant Surgeon.	MS. from S. G. O.
8	..	..	..	..	..	Feb. 1861;	Apr. 1861	0	3	Dr. N. P. West.	S. O.
9	4.19	7.69	8.47	3.75	24.10	Jan. 1857;	Dec. 1860	3	11	Assistant Surgeon.	Met. Obs. Vol. 1; Ar. Met. Reg. 1860.
10	..	3.06	..	2.60	..	Apr. 1868;	Mar. 1869	0	10	"	MS. from S. G. O.
11	2.94	18.35	..	..	..	Feb. 1857;	Oct. 1859	1	3	"	Ar. Met. Reg. 1860.
12	3.13	5.54	2.15	1.31	12.13	May, 1858;	Dec. 1860	2	7	"	Ar. Met. Reg. 1860; MS. from S. G. O.
13	6.11	9.81	8.30	5.05	29.27	Jan. 1857;	Feb. 1869	5	9	"	Ar. Met. Reg. 1860; MS. from S. G. O.
14	10.65	16.61	9.93	11.02	48.21	Mar. 1867;	May, 1869	2	1	J. B. Bostwick.	S. O.
15	..	12.30	..	..	..	Apr. 1866;	Aug. 1866	0	5	Dr. W. H. Gantt.	"
16	28.54	17.03	15.31	19.28	80.16	Sept. 1871;	Dec. 1874	3	3	Allen Martin, J. Anderson.	"
17	5.22	..	24.12	..	..	Mar. 1871;	Dec. 1871	0	9	Geo. N. Leoni.	"
18	..	..	..	..	..	May, 1874;	Sept. 1874	0	4	F. Simpson.	"
19	11.55	23.35	..	..	..	Feb. 1873;	Aug. 1873	0	7	F. Simpson.	"
20	9.31	13.87	8.94	5.65	37.77	Jan. 1846;	Mar. 1856	3	0	Assistant Surgeon.	Ar. Met. Regs. 1855 and 1860.
21	9.37	11.83	5.21	11.92	38.33	Oct. 1874;	June, 1876	1	9	W. D. McChesney, J. W. Smith.	Sig. Ser. Reps.
22	2.68	..	4.87	..	..	Nov. 1859;	Nov. 1860	0	9	F. S. Wade.	Met. Obs. Vol. 1; S. O.
23	..	..	..	..	..	Aug. 1869;	Aug. 1869	0	1	J. T. Coit.	S. O.
24	12.65	6.32	5.70	5.40	30.07	Aug. 1871;	Dec. 1873	2	4	S. Davis.	"
25	15.83	9.02	12.01	7.31	44.17	Apr. 1869;	May, 1870	1	1	B. Combs.	"
26	6.41	9.44	8.34	3.86	28.05	Oct. 1852;	Dec. 1858	5	10	Assistant Surgeon.	Ar. Met. Regs. 1855 and 1860.
27	0.43	3.49	3.38	1.23	8.53	Aug. 1850;	Dec. 1874	14	3	"	MS. from S. G. O.; Ar. Met. Regs. 1855 and 1860.
28	3.18	7.64	13.02	4.04	27.88	Jan. 1850;	Dec. 1874	15	0	"	MS. from S. G. O.; Ar. Met. Regs. 1855 and 1860.

[f] Observations in part at Repose, near Clarksville.
[g] 13 miles N. E. of Dallas.
[h] 4 miles from Greenville.
[i] Above Buffalo Bayou.
[j] Near Matamoras.

TEXAS—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
29. Fort Chadbourne	31° 58′	100° 15′	2120	0.94	1.37	0.85	1.53	3.39	2.55	1.71	2.27	3.33	2.03	1.70	1.21
30. Fort Clark	29 17	100 25	1000	0.50	1.18	0.96	1.16	2.02	3.47	1.38	2.72	3.79	1.79	0.97	2.67
31. Fort Concho	31 32	100 26	..	0.20	0.29	1.37	0.20	4.82	4.73	0.90	1.56	2.29	0.60	1.61	1.78
32. Fort Croghan	30 40	98 25	1000	1.44	4.61	4.72	3.88	3.01	3.33	3.39	1.08	2.24	2.11	3.89	2.86
33. Fort Davis	30 40	104 07	4700	0.65	0.61	0.37	0.72	0.75	1.82	3.29	3.65	3.26	1.04	0.42	0.54
34. Fort Duncan	28 39	100 30	1460	0.29	1.20	1.45	0.54	1.57	4.41	2.30	1.89	3.97	1.17	1.40	1.14
35. Fort Ewell	28 10	99 00	200	0.76	4.73	0.71	1.12	5.11	7.85	2.90	2.43	4.96	2.36	0.49	1.16
36. Fort Graham	32 00	97 21	900	1.42	5.24	4.55	4.53	2.90	2.71	2.15	2.06	0.80	4.24	4.73	5.25
37. Fort Griffin	32 54	99 14	..	1.02	0.98	0.76	1.05	3.14	2.62	2.52	1.11	2.94	1.93	1.27	2.17
38. Fort Inge	29 10	99 50	845	0.70	1.96	1.50	1.52	2.36	4.51	2.66	2.50	2.44	2.77	1.67	0.87
39. Fort Lancaster	30 46	101 48	2350	1.30	0.41	0.35	2.51	1.98	3.59	1.96	3.46	4.88	2.91	0.93	1.97
40. Fort Lincoln	29 22	99 35	900	0.13	4.00	3.50	1.86	2.89	2.07	0.99	0.39	1.54	1.36	2.01	0.98
41. Fort Martin Scott	30 10	99 05	1300	0.80	2.98	5.82	6.48	2.31	5.18	1.25	0.78	1.31	1.07	2.68	1.87
42. Fort Mason	30 40	99 15	1200	0.74	1.46	1.07	2.32	2.97	2.37	3.89	4.18	4.67	2.39	1.16	1.76
43. Fort Merrill	28 10	98 00	150	0.23	2.09	0.09	1.62	3.43	4.10	5.71	4.12	4.25	1.18	1.42	1.29
44. Fort McIntosh [a]	27 35	99 48	806	0.42	0.96	0.57	0.73	1.92	3.17	1.75	1.64	2.97	1.65	0.76	0.97
45. Fort McKavett	30 48	100 06	2060	0.97	1.52	1.58	0.95	2.68	2.60	2.31	1.80	4.28	2.20	1.33	1.73
46. Fort Quitman	30 45	105 00	3710	0.15	0.52	0.01	0.14	0.15	1.57	1.68	2.49	2.37	0.50	0.47	0.39
47. Fort Richardson	33 15	98 10	..	0.88	1.18	0.94	3.22	3.19	3.73	1.76	2.82	3.37	0.72	1.90	2.32
48. Fort Stockton [b]	30 20	102 52	4950	0.23	0.03	0.21	0.34	0.69	2.01	1.42	2.23	1.67	0.82	0.82	1.03
49. Fort Terrett	30 20	100 11	1320	0.80	1.54	1.15	0.97	3.97	5.13	3.36	1.72	2.91	4.21	0.64	0.77
50. Fort Worth	32 46	97 20	1100	1.56	4.54	3.61	4.30	6.59	3.73	2.38	2.69	2.06	3.29	4.14	1.97
51. Galveston	29 18	94 47	30	3.43	2.76	4.02	4.24	4.89	3.92	4.95	6.03	9.90	2.19	4.74	6.00
52. Gilmer, near [c]	32 40	94 59	950	3.38	3.79	3.34	4.73	5.29	3.73	3.67	2.53	3.31	4.00	4.46	3.76
53. Goliad	28 35	97 30	50	3.03	0.53	1.41	0.00	6.55	1.97	1.41	0.43	1.33	4.02	1.42	2.82
54. Gonzales	29 32	97 32	150	5.60	5.30	3.00	8.60	2.00	2.70	3.90	1.00	0.30	3.40	1.50	4.70
55. Helena	28 58	97 56	600	0.10	..	0.05	..	..	..	..	..	..	..	..	..
56. Huntsville	30 41	95 40	..	2.20	0.54	2.35	0.82	1.22	4.18	2.40	0.72	4.43	1.67	0.53	2.87
57. Indianola	28 32	96 31	9	1.37	2.04	3.38	0.97	2.23	3.02	3.86	2.76	10.91	1.65	2.51	5.48
58. Jefferson	32 44	94 20	65	1.50	3.30	..	0.00	..	..	9.43	0.82	1.00	2.16	3.97	3.09
59. Larissa	32 01	95 19	755	7.75	..	..	..	..	1.75	..	0.10	1.31	..	6.13	6.43
60. Lavaca	28 37	96 37	17	3.63	2.00	2.10	1.83	1.32	3.95	8.60	3.50	8.80	5.90	0.40	2.00
61. Lockhart	29 55	97 44	..	..	..	3.00	..	..	2.20	8.25	3.30	..	..	..	..
62. Lone Point	30 16	96 30	400	...	..	..	..	..	2.69	8.31	11.62	..	..	..	..
63. Mesquite	..	..	383	7.30	6.00	9.50	2.12	4.00	3.13	1.66	2.50	5.67	0.00	..	7.25
64. New Braunfels [d]	29 42	98 15	720	1.52	2.03	1.00	1.93	4.67	2.62	2.23	2.05	3.94	3.12	1.77	0.70
65. New Ulm	29 56	96 26	300	4.11	4.55	6.64	6.15	5.41	7.58	10.42	1.69	8.31	3.38	8.33	6.16
66. Oakland	29 35	97 00	..	2.39	1.77	1.68	4.43	3.20	3.16	1.24	2.93	0.88	4.67	1.40	1.00
67. Palestine	31 45	95 40	480	1.70	0.52	0.50	7.25	3.80	..	..	..	..	4.00	1.61	6.70
68. Pin Oak	30 00	97 09	..	5.00	5.50	10.00	7.50	6.25	1.00	0.50	0.00	1.25	4.50	3.00	2.25
69. Phantom Hill [e]	32 20	99 45	2300	0.26	0.80	0.54	0.45	2.85	2.90	1.15	0.03	2.55	3.41	1.34	0.94
70. Ringgold Barracks	26 23	99 00	521	0.93	0.74	0.81	1.08	1.82	2.92	1.66	2.42	3.42	1.97	0.92	0.91
71. Round Top, near [f]	30 03	96 44	..	4.35	2.36	1.82	2.35	0.74	1.51	0.53	2.91	4.11	3.04	2.73	1.20
72. San Antonio	29 25	98 25	600	1.28	2.78	2.33	1.78	2.66	4.01	1.75	3.15	4.00	2.22	3.08	2.26
73. Sisterdale	29 59	98 43	1000	1.02	0.45	1.14	0.16	1.72	4.37	1.19	1.68	7.10	1.46	0.10	3.11

[a] Laredo.
[b] Also known as Camp Stockton.
[c] 3 miles west of Gilmer.
[d] Formerly known as New Wied.

TEXAS—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
29	5.77	6.53	7.06	3.52	22.88	May, 1852;	Dec. 1860	8	7	Assistant Surgeon.	MS. from S. G. O.; Ar. Met. Regs. 1855 and 1860.
30	4.14	7.57	6.55	4.35	22.61	Aug. 1852;	July, 1873	12	5	"	MS. from S. G. O.; Ar. Met. Regs. 1855 and 1860.
31	6.39	7.19	4.50	2.27	20.35	Aug. 1872;	Dec. 1874	2	5	"	MS. from S. G. O.
32	11.61	7.80	8.24	8.91	36.56	June, 1849;	Aug. 1853	4	3	"	Ar. Met. Reg. 1855.
33	1.84	8.76	4.72	1.80	17.12	Jan. 1855;	Oct. 1874	8	11	"	Ar. Met. Reg., 1860; MS. from S. G. O.
34	3.56	8.60	6.54	2.63	21.33	Oct. 1849;	Dec. 1874	11	7	"	Ar. Met. Regs. 1855 & 1860; MS. from S. G. O.
35	6.94	13.18	7.81	6.65	34.58	Oct. 1852;	Sept. 1854	2	0	"	Ar. Met. Reg. 1855.
36	11.98	6.92	9.77	11.91	40.58	Mar. 1850;	Aug. 1853	3	6	"	" "
37	4.95	6.25	6.14	4.17	21.51	Aug. 1869;	Dec. 1874	5	3	"	MS. from S. G. O.
38	5.38	9.67	6.88	3.53	25.46	Nov. 1849;	Dec. 1860	7	4	"	Ar. Met. Reg. 1860; M. S. from S. G. O.
39	4.84	9.01	8.72	3.68	26.25	July, 1856;	Dec. 1860	4	6	"	Ar. Met. Reg. 1860; M. S. from S. G. O.
40	8.25	3.45	4.91	5.11	21.72	Apr. 1850;	July, 1852	1	10	"	Ar. Met. Reg. 1855.
41	14.61	7.21	5.06	5.65	32.53	Jan. 1850;	Mar. 1852	2	3	"	" " "
42	6.36	10.44	8.22	3.96	28.98	Apr. 1852;	Dec. 1860	5	1	"	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
43	5.14	13.93	6.85	3.61	29.53	Apr. 1851;	Nov. 1855	3	3	"	Ar. Met. Regs. 1855 and 1860.
44	3.22	6.56	5.38	2.35	17.51	July, 1849;	Dec. 1874	14	7	"	Ar. Met. Regs. 1855 and 1860; M. S. from S. G. O.
45	5.21	6.71	7.81	4.22	23.95	Apr. 1852;	Dec. 1874	9	7	"	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
46	0.30	5.74	3.34	1.06	10.44	Jan. 1859;	Dec. 1873	3	4	"	Ar. Met. Reg. 1860; MS. from S. G. O.
47	7.35	8.31	5.99	4.38	26.03	Apr. 1868;	Dec. 1874	4	8	"	MS. from S. G. O.
48	1.24	5.66	3.31	1.29	11.50	Oct. 1859;	Dec. 1874	5	8	"	Ar. Met. Reg. 1860; MS. from S. G. O.
49	6.09	10.21	7.76	3.11	27.17	Apr. 1852;	Dec. 1853	1	9	"	Ar. Met. Reg. 1855.
50	14.50	8.80	9.49	8.07	40.86	Dec. 1849;	Aug. 1853	3	9	"	" " "
51	13.15	14.90	16.83	12.19	57.07	Jan. 1868;	June, 1876	6	1	D. A. Beazley, Assist. Surg., E. O. C. McInerney, R. Reeder, C. A. Smith.	S. O.; MS. from S. G. O.; Sig. Ser. Reps.
52	13.36	9.93	11.77	10.93	45.99	Mar. 1860;	Dec. 1874	7	9	J. M. Glasco.	S. O.
53	7.96	3.81	6.77	6.38	24.92	Jan. 1858;	Oct. 1868	1	1	J. C. Brightman.	Met. Obs. Vol. 1; S. O.
54	13.60	7.60	5.20	15.60	42.00	Jan. 1850;	Dec. 1850	1	0	— Bennett.	S. Coll.
55	..	..	..	..	..	Jan. 1857;	Mar. 1857	0	2	J. C. Brightman.	Met. Obs. Vol. 1.
56	4.39	7.30	6.63	5.61	23.93	Jan. 1859;	Dec. 1859	1	0	T. Gibbs.	" "
57	6.58	9.64	15.07	8.89	40.18	Oct. 1872;	June, 1876	3	9	F. Mansfield, C. A. Smith, I. R. Birt.	Sig. Ser. Reps.
58	..	..	7.13	7.89	..	July, 1869;	Apr. 1870	0	9	Assistant Surgeon.	MS. from S. G. O.
59	..	..	..	..	..	Aug. 1858;	Dec. 1859	0	6	F. L. Yoakum.	Met. Obs. Vol. 1.
60	5.25	16.05	15.10	7.63	44.03	Jan. 1869;	Aug. 1870	1	8	L. D. Heaton.	S. O.
61	..	13.75	..	..	..	July, 1869;	July, 1870	0	5	I. Woodruff.	"
62	..	22.62	..	..	..	June, 1867;	Aug. 1867	0	3	M. Rutherford.	"
63	15.62	7.29	..	20.55	..	Jan. 1874;	Dec. 1874	0	11	S. D. Lawrence.	"
64	7.60	6.90	8.83	4.25	27.58	Jan. 1854;	Dec. 1859	5	1	Prof. J. C. Ervendberg.	Met. Obs. Vol. 1.
65	18.20	19.69	20.02	14.82	72.73	Sept. 1872;	Dec. 1874	2	3	C. Runge.	S. O.
66	9.31	7.33	6.95	5.16	28.75	Apr. 1870;	Oct. 1872	2	4	F. Simpson.	"
67	11.55	..	..	8.92	..	Oct. 1869;	Dec. 1870	0	10	N. S. Brooks.	"
68	23.75	1.50	8.75	12.75	46.75	Jan. 1856;	Dec. 1856	1	0	Dr. W. H. Gantt.	Met. Obs. Vol. 1.
69	3.84	4.08	7.30	2.00	17.22	Sept. 1852;	Feb. 1854	1	6	Assistant Surgeon.	Ar. Met. Reg. 1855.
70	3.71	7.00	6.31	2.58	19.60	Sept. 1849;	Dec. 1874	14	2	"	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
71	4.91	4.95	9.88	7.91	27.65	Jan. 1859;	Apr. 1861	2	4	B. Schumann.	Met. Obs. Vol. 1; S. O.
72	6.77	8.91	9.30	6.32	31.30	Sept. 1849;	July, 1873	10	2	Assistant Surgeon.	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
73	3.02	7.24	8.66	4.58	23.50	Jan. 1859;	Dec. 1859	1	0	E. Knapp.	Met. Obs. Vol. 1.

* Clear Fork of Brazos; also known as Plantation Hill.

† Farm 2 miles S. E. of Round Top.

TEXAS—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
74. Union Hill	30° 14′	96° 31′	542	5.87	2.40	2.63	0.97	0.03	3.10	1.72	2.73	2.65	4.78	1.67	2.56
75. Victoria	28 50	96 58	94	..	..	..	..	2.10	2.40	0.50	1.10	..	..	..	..
76. Waco	31 35	97 08	396	2.90	2.60	6.97	5.67	3.70	1.95	1.85	4.23	3.01	4.80	2.07	3.63
77. Washington	30 19	96 15	360	4.14	0.76	1.40	0.40	1.26	5.20	1.51	2.36	4.67	3.08	0.82	4.63
78. Webberville [a]	30 14	97 34	394	3.00	0.50	2.62	0.50	..	..	..	..	10.75	..	0.00	..
79. Yorktown	29 03	97 25	..	2.26	0.73	2.13	3.28	2.68	2.04	4.26	2.72	3.86	5.60	2.42	0.78

UTAH.

1. Camp Douglas	40 46	111 50	4903	2.24	1.38	2.22	1.96	3.02	0.62	0.86	0.70	0.77	1.22	1.25	2.58
2. Camp Floyd	40 16	112 08	4867	0.27	0.63	0.50	0.60	0.65	0.20	1.40	0.34	0.69	0.66	1.23	0.16
3. Corinne	41 30	112 15	4294	1.33	1.33	0.81	0.85	3.46	0.12	0.14	1.75	0.43	1.12	0.34	2.87
4. Harrisburg	37 10	112 57	2375	0.10	2.94	1.17	0.93	2.20	0.10	2.67	0.65	0.30	0.10	1.92	0.06
5. Kanab	37 02	112 32	4909	..	1.80	..	..	1.80	2.10	2.11	1.30	..	1.00	1.20	3.60
6. Saint George [b]	37 07	113 35	2800	1.43	0.78	0.65	0.26	3.70	0.03	0.62	0.66	0.56	1.08	0.50	1.12
7. Salt Lake City	40 46	111 54	4354	2.10	2.57	2.35	1.31	2.59	1.81	2.04	2.43	1.13	1.90	1.68	2.90
8. Wanship [c]	40 40	111 20	6200	1.09	1.43	1.88	..	..	2.10	..	..	..	0.28	..	1.86

VERMONT.

1. Barnet	44 18	72 05	952	1.85	3.85	3.20	2.06	4.70	4.75	4.50	3.50	..	..	2.75	1.00
2. Brandon	43 49	73 03	460	2.64	2.58	2.62	2.53	3.32	2.79	4.54	4.66	3.18	3.18	3.00	2.18
3. Brookfield	44 02	72 36	1000	..	2.17	3.97	2.86	5.78	..	..	..	..	..	..	..
4. Burlington	44 28	73 12	346	1.83	1.76	2.00	2.12	3.26	3.35	4.48	3.18	3.56	3.68	2.54	2.00
5. Calais	44 22	72 25	..	..	4.10	1.70	1.06	..	..	..	..	..	..	..	..
6. Castleton	43 38	73 09	490	1.87	1.63	2.00	2.47	2.43	2.51	4.95	4.69	2.64	5.67	1.99	2.84
7. Craftsbury	44 40	72 23	1100	2.63	2.77	2.84	2.79	3.16	3.31	4.33	4.79	3.79	3.87	3.38	3.01
8. East Montpelier [d]	44 17	72 33	540	..	..	..	..	..	..	..	..	..	..	..	..
9. Fayetteville [e]	42 57	72 36	350	4.94	3.67	4.00	4.54	4.70	4.66	5.06	4.81	5.37	4.16	5.67	3.60
10. Ferrisburg [f]	44 11	73 14	..	2.57	2.92	3.20	4.24	2.56	3.86	5.72	4.24	3.25	9.65	1.91	3.64
11. Grafton	43 12	72 34	..	..	..	..	3.50	2.00	..	..	..	..	..	..	..
12. Hartford	43 44	72 20	381	..	..	..	..	..	..	..	..	2.90	..	..	..
13. Lunenburg	44 28	71 44	1124	3.19	2.76	3.12	2.74	4.42	3.64	4.14	4.44	3.93	3.79	3.45	3.35
14. Middlebury	44 02	73 10	398	2.19	2.81	2.46	2.86	3.66	2.95	3.22	3.39	4.41	3.90	2.96	2.40
15. Mount Anthony	42 50	73 15	2600	..	..	..	..	..	..	..	..	1.50	..	..	..
16. Newport	43 57	72 18	750	4.90	6.70	1.50	1.20	1.70	4.30	..	4.15	2.66	5.50	4.81	4.00
17. Norwich	43 45	72 21	720	2.22	0.93	2.78	2.39	2.73	3.80	5.80	4.12	3.25	3.50	2.65	2.28
18. Randolph	43 55	72 36	700	2.78	2.91	2.75	2.28	3.37	3.41	3.35	3.90	3.40	4.58	3.31	2.47
19. Rutland [g]	43 37	72 57	500	3.50	2.78	3.10	3.01	4.72	3.91	2.31	2.38	3.01	3.63	4.10	3.49
20. St. Johnsbury	44 27	72 02	540	2.33	1.97	1.92	2.48	1.67	4.92	3.39	2.70	3.66	3.63	3.15	3.68
21. Shelburne	44 23	73 11	150	1.90	4.40	1.30	4.46	3.87	4.58	5.34	6.42	2.67	3.90	2.95	2.62
22. South Troy	44 55	72 25	600	2.21	1.98	3.42	3.79	2.34	2.68	6.37	8.27	2.64	3.90	2.65	3.71
23. Springfield	43 18	72 25	300	4.54	2.37	3.40	3.59	3.53	4.03	5.15	4.13	2.70	3.94	3.02	2.75
24. Strafford	43 52	72 25	50	4.15	1.90	5.05	6.40	2.50	2.82	6.19	2.75	3.65	3.65	1.45	3.68
25. West Charlotte	44 20	73 15	90	2.62	2.76	3.02	3.19	3.53	4.29	5.49	4.54	3.64	5.10	3.67	1.95
26. Woodstock	43 36	72 31	650	3.11	2.77	2.62	2.94	3.54	3.18	4.44	3.29	3.40	5.36	2.76	2.69

[a] Parson's Seminary.

[b] Observations in part at Tonaquint and Heberville, the former about two miles and the latter about six miles to the south. The series do not overlap.

[c] Observations for some months at Coalville, 20 miles to the northward.

TEXAS—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
74	3.63	7.55	9.10	10.83	31.11	Mar. 1858;	Mar. 1861	2	4	Dr. W. H. Gantt.	Met. Obs. Vol 1.; S. O.
75	..	4.00	...	..	..	May, 1871;	Aug. 1871	0	4	L. D. Heaton.	S. O.
76	16.34	8.03	9.88	9.13	43.38	Mar. 1867;	Apr. 1869	2	0	Dr. E. Merrill.	"
77	3.06	9.07	8.57	9.53	30.23	Feb. 1857;	Dec. 1859	1	11	B. H. Rucker.	Met. Obs. Vol. 1.
78	..	..	..	..	..	Apr. 1859;	Mar. 1861	0	6	Prof. C. W. Yellowby.	Met. Obs. Vol. 1; S. O.
79	8.09	9.02	11.88	3.77	32.76	Jan. 1869;	Sept. 1872	3	5	Dr. A. C. White.	S. O.

UTAH.

1	7.20	2.18	3.24	6.20	18.82	Mar. 1864;	Dec. 1874	10	3	Assistant Surgeon, A. C. Ford.	MS. from S. G. O.; S. O.
2	1.75	1.94	2.58	1.06	7.33	July, 1858;	Dec. 1860	2	6	Assistant Surgeon.	MS. from S. G. O., Ar. Met. Reg.
3	5.12	2.01	1.89	5.53	14.55	Oct. 1872;	Feb. 1874	1	5	. . . . .	MS. from Sig. Serv. Off.
4	4.30	3.42	2.32	3.10	13.14	Feb. 1869;	Feb. 1872	2	2	J. Lewis.	S. O.
5	..	5.51	..	..	..	May, 1872;	Dec. 1874	0	10	J. Lewis.	"
6	4.61	1.31	2.14	3.33	11.39	Jan. 1861;	Aug. 1869	2	11	H. Pearce and G. A. Burgon.	"
7	6.25	6.28	4.71	7.57	24.81	Feb. 1857;	Dec. 1874	9	2	H. E. & W. W. Phelps, E. L. T. Harrison.	MS. from Sig. Serv Off; Met. Obs. Vol. 1; S. O.
8	..	..	..	4.38	..	Dec. 1867;	Dec. 1874	1	5	T. Bullock.	S. O.

VERMONT.

1	9.96	12.75	..	6.70	..	Apr. 1866;	Mar. 1869	1	2	Dr. B. F. Eaton and C. S. Paine.	S. O.
2	8.47	11.99	9.36	7.40	37.22	Mar. 1856;	June, 1869	10	5	D. and H. Buckland.	Met. Obs. Vol. 1; S. O.
3	12.61	..	..	..	..	Feb. 1863;	May, 1863	0	4	T. F. Pollard.	S. O.
4	7.38	11.01	9.78	5.59	34.16	Jan. 1828;	Dec. 1874	29	4	B. Thompson, McK. Petty.	Met. Obs. Vol. 1; Sig. Serv. Reps.; Hist. Vermont.
5	..	..	..	..	..	Apr. 1862;	Mar. 1864	0	3	J. K. Toby.	S. O.
6	6.90	12.15	10.30	6.34	35.69	Oct. 1869;	July, 1874	4	10	R. G. Williams.	"
7	8.79	12.43	11.04	8.41	40.67	Jan. 1856;	Oct. 1874	18	3	J. A. Paddock, E. P. Wild.	Met. Obs. Vol. 1; S. O.
8	..	..	..	10.73	..	Jan. 1846;	Dec. 1851	6	0	B. J. Wheeler.	Pat. Off. Rep.
9	13.24	14.53	15.20	12.21	55.18	May, 1826;	Sept. 1833	7	5	Gen. M. Field.	MS.; Sill.'s Journ.
10	10.00	13.82	14.81	9.13	47.76	May, 1869;	Mar. 1872	2	10	M. E. and D. C. Barto.	S. O.
11	..	..	..	..	..	Apr. 1843;	May, 1843	0	2	. . . . .	S. Coll.
12	..	..	..	..	..	Sept. 1869;	Sept. 1869	0	1	Dr. B. F. Eaton.	S. O.
13	10.28	12.22	11.17	9.30	42.97	Sept. 1859;	Dec. 1874	12	8	Dr. H. A. Cutting, E. S. Cassino.	Met. Obs. Vol. 1.; S. O.
14	8.98	9.56	11.27	7.40	37.21	Mar. 1864;	June, 1870	6	4	H. A. Sheldon.	S. O.
15	..	..	..	..	..	Sept. 1871;	Sept. 1871	0	1	G. W. Robinson.	"
16	4.40	..	12.97	15.60	..	Dec. 1869;	Nov. 1870	0	11	J. M. Currier.	"
17	7.90	13.72	9.40	5.43	36.45	Nov. 1856;	Dec. 1874	3	10	A. Jackman, Sam'l B. Phelps.	Met. Obs. Vol. 1.
18	8.40	10.66	11.29	8.16	38.51	Nov. 1865;	Nov. 1873	8	0	C. S. Paine & E. Bethel.	S. O.
19	10.83	8.60	10.74	9.77	39.94	Jan. 1789;	Oct. 1874	1	3	—. Williams, W. H. Sheldon.	Hist. Vermont; S. O.
20	6.07	11.01	10.44	7.98	35.50	Jan. 1854;	Jan. 1861	2	9	J. K. Colby, J. P. & F. Fairbanks.	Met. Obs. Vol. 1; S. O.
21	9.63	16.34	9.52	8.92	44.41	Mar. 1856;	Dec. 1857	1	9	G. Bliss.	Met. Obs. Vol. 1.
22	9.55	17.32	9.19	7.90	43.96	Jan. 1871;	Dec. 1872	1	11	J. C. Kennedy.	S. O.
23	10.52	13.31	9.66	9.66	43.15	Dec. 1860;	Nov. 1863	2	4	J. W. Chickering.	"
24	13.95	11.76	8.75	9.73	44.19	Mar. 1873;	Dec. 1874	1	10	H. F. J. Scribner.	"
25	9.74	14.32	12.41	7.33	43.80	May, 1868;	Dec. 1874	6	7	M. E. Wing.	"
26	9.10	10.91	11.52	8.57	40.10	Jan. 1857;	Dec. 1874	7	11	C. Marsh, H. Dobin, L. A. Miller.	Met. Obs. Vol 1.

[4] Snow reduced to water. [e] Results appear too high. [f] Also called Panton.

[g] Observations for 1789 complete; observations in 1874, 2.65, 3.55 and 1.60 for Aug., Sept., and Oct., respectively.

VIRGINIA.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Alexandria	38° 48′	77° 02′	56	2.86	2.50	1.38	3.23	3.90	3.36	3.40	4.14	2.69	2.67	1.97	2.80
2. Alleghany County [a]	37 45	80 02	2000	1.82	2.82	3.05	2.86	3.74	2.30	4.46	3.22	1.86	2.23	3.19	3.82
3. Anthony Creek [a]	37 50	79 55	..	2.31	3.03	3.37	2.53	4.44	2.26	4.05	3.36	1.62	2.50	3.06	4.43
4. Ashland [b]	37 45	77 30	221	5.35	..	..	..	..	..	..	..	..	..	..	..
5. Berryville	39 08	77 58	575	1.81	1.77	1.54	4.53	5.45	4.75	5.20	2.61	1.48	2.20	2.21	3.93
6. Blacksburg [c]	37 11	80 21	..	..	..	..	..	..	1.66	0.58	..	..	..	..	..
7. Cape Charles Lt. House	37 07	75 54	160	12.23	21.90	7.27	1.70	5.40	13.54	4.20	5.10	3.98	2.62	2.78	2.92
8. Cape Henry	36 56	76 00	15	4.22	5.23	6.91	5.14	4.27	3.92	4.76	6.65	3.21	1.85	4.73	3.89
9. Capeville	37 20	75 55	15	2.40	6.15	4.00	3.45	4.35	0.95	2.43	2.40	3.30	6.80	3.77	3.90
10. Cedar Hill [d]	38 04	78 26	500	2.43	2.84	2.72	3.78	5.13	2.33	3.40	4.28	2.40	3.07	2.40	1.40
11. Charlottesville	38 01	78 26	150	1.84	4.00	3.63	2.38	3.06	2.38	3.10	7.00	1.14	3.54	3.13	3.31
12. Cottage Home	37 10	76 50	..	6.88	7.00	10.05	5.91	7.85	6.06	2.55	2.52	1.68	2.75	2.54	3.83
13. Crichton's Store	36 40	77 46	500	3.63	2.72	2.57	2.73	3.01	4.11	3.24	4.39	2.17	1.91	2.13	3.76
14. Fortress Monroe	37 00	76 19	8	3.12	3.02	3.66	2.95	4.09	4.23	5.15	5.16	4.09	3.20	3.41	4.05
15. Fruit Farm	39 00	77 50	..	..	0.80	..	..	..	..	..	..	..	..	..	..
16. Genito Mills	36 30	77 30	200	4.08	4.79	6.03	4.65	4.37	3.45	3.14	5.03	1.57	3.03	2.55	5.16
17. Hampton	37 02	76 21	5	2.74	4.14	3.84	3.13	4.11	3.93	3.88	4.20	2.41	4.19	2.52	3.20
18. Hewlett's Station	37 52	77 45	..	..	..	..	..	5.60	5.50	2.75	6.57	4.80	..	..	..
19. Hillsville	36 48	80 42	2700	..	..	..	..	..	..	..	..	..	4.42	1.82	..
20. King George's C. H.	38 16	77 10	50	0.43	3.80	3.73	3.73	1.36	3.15	2.87	2.05	1.25	1.27	2.25	1.03
21. Lewinsville	38 56	77 12	180	3.46	2.45	4.07	4.75	2.53	4.10	1.85	1.44	4.50	2.33	2.07	3.52
22. Lexington [e]	37 44	79 24	1000	3.87	2.89	3.54	3.49	5.30	2.96	3.22	2.69	10.30	3.37	1.58	3.75
23. Linwood, Markham Sta.	38 50	77 50	..	0.70	2.38	6.17	8.30	4.70	10.74	3.60	2.91	3.30	..	..	..
24. Locust Grove	38 18	77 50	..	..	..	3.00	1.00	6.00	1.30	..	5.10	..	5.10	2.60	2.20
25. Lynchburg	37 22	79 07	575	2.40	4.16	4.61	3.61	3.51	4.31	3.32	4.15	4.03	2.13	2.99	1.91
26. Marion	36 48	81 26	2129	3.75	3.10	4.15	7.10	3.13	5.70	4.10	6.50	3.90	1.75	3.22	2.90
27. Meadow Dale	38 23	79 35	..	1.89	2.40	3.01	5.90	2.80	5.17	3.78	2.20	1.40	4.72	4.50	4.20
28. Mechanicsville	38 50	78 00	..	2.41	2.19	3.56	2.74	4.37	3.99	2.04	3.44	4.14	2.90	2.63	2.51
29. Montcalm	38 05	78 21	450	..	..	..	..	..	..	4.37	..	1.50	1.62	2.88	1.50
30. Montross	38 07	76 46	200	..	..	..	5.23	3.78	6.00	3.34	5.76	4.06	0.50	..	..
31. Mossy Creek	38 25	79 02	..	..	..	..	6.00	..	..	..	..	..	..	..	..
32. Mount Bethel	36 48	80 40	..	..	..	..	..	..	..	..	4.60	2.50	..	3.50	..
33. Mount Solon	38 17	79 02	..	2.04	2.33	1.82	3.02	3.54	3.43	2.72	3.61	2.54	3.05	2.12	2.48
34. Mount View	38 00	78 30	521	4.75	3.55	4.50	6.15	4.07	..	1.80	6.00	8.00	4.00	2.10	4.30
35. Mulberry Hill	36 50	76 50	100	2.92	3.99	2.97	2.63	6.78	4.37	2.08	..	3.68	4.97	1.47	4.53
36. Naval Hospital [f]	36 50	76 18	25	3.88	5.97	7.67	5.40	5.60	6.89	6.52	8.13	4.38	4.64	5.26	4.06
37. Norfolk	36 51	76 17	13	3.51	4.59	4.62	3.18	3.92	3.39	5.42	7.62	4.32	4.19	3.57	4.68
38. Peach Lawn [g]	38 19	77 27	350	3.97	3.19	3.04	2.15	5.72	6.91	2.01	4.04	5.23	2.37	4.54	4.19
39. Petersburg	37 14	77 24	..	0.89	1.35	2.60	6.10	..	..	..	..	..	..	..	..
40. Piedmont	38 40	78 00	900	2.15	2.22	4.27	3.48	4.40	5.15	2.13	2.75	10.40	2.55	2.30	3.20
41. Portsmouth	36 50	76 18	25	4.24	4.28	3.11	4.72	4.97	4.72	4.89	5.78	4.96	2.76	3.01	4.76
42. Powell's Farm	37 32	77 38	200	3.40	4.15	3.70	7.65	2.45	2.55	4.40	6.90	1.70	6.10	4.10	0.55
43. Powhatan Hill	38 13	77 12	200	1.96	2.05	2.06	2.50	3.53	3.29	3.69	4.29	2.47	2.57	2.23	2.13
44. Prospect Hill Farm	37 25	75 52	40	2.96	4.21	4.04	3.05	4.33	3.14	3.77	1.93	3.01	4.11	3.06	3.54
45. Richmond [h]	37 32	77 26	172	3.22	4.77	3.36	3.86	3.23	2.21	5.04	6.77	2.20	2.95	2.86	4.21
46. Rose Hill	38 00	76 57	250	2.13	4.32	1.68	3.62	4.05	4.55	5.03	3.70	2.90	1.88	1.68	2.92
47. Rougemont	38 05	78 21	450	4.35	2.69	2.96	4.79	5.28	5.37	4.14	4.28	5.49	3.03	2.84	5.26
48. Ruthven	37 21	77 33	..	2.45	2.34	3.06	4.07	5.13	2.13	4.33	4.76	4.93	2.40	2.71	3.04
49. Smithfield	36 57	76 38	100	4.30	2.70	3.67	3.16	4.07	4.20	5.32	4.68	4.23	3.84	3.02	3.96
50. Snowville	37 00	80 00	1800	6.72	5.93	6.18	7.09	8.03	4.60	4.73	2.33	5.25	8.23	3.17	5.53
51. Staunton	38 09	79 04	1340	2.44	3.01	3.91	2.22	4.98	4.06	3.01	1.75	5.25	2.59	1.65	2.88
52. The Shades	39 00	78 00	..	..	..	..	..	..	..	..	6.70	12.08	..	..	..

[a] Registers ordered by the Board of Public Works of Virginia. The result was sent in MS. by Dr. W. N. Patton, of Lewisberg, for the first two stations; that at Anthony's Creek is from the report of the James River and Kanawha Canal Co. for 1852. Five gauges were placed by this authority, but those here given embrace all the results yet published.

VIRGINIA.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
1	8.51	10.90	7.33	8.16	34.90	Jan. 1853;	June, 1858	5	6	B. Hallowell, F. Miller.	Blodgett's Clim.; Met. Obs. Vol. 1.
2	9.65	9.98	7.28	8.46	35.37	Sept. 1847;	Feb. 1852	4	6	— Dickson.	S. Coll.
3	10.34	9.67	7.18	9.77	36.96	Sept. 1847;	Aug. 1851	4	0	. . . . .	Pub. Reps. of Va.
4	..	..	..	..	..	Jan. 1869;	Jan. 1869	0	1	Prof. R. M. Smith.	S. O.
5	11.52	12.56	5.89	7.51	37.48	July, 1856;	Dec. 1858	2	6	E. and Dr. R. Konnslar.	S. Coll.
6	..	..	..	..	..	June, 1873;	July, 1873	0	2	J. W. C. Davis.	S. O.
7	14.37	22.84	9.38	37.05	83.64	Mar. 1867;	Feb. 1868	1	0	J. G. Potts.	"
8	16.32	15.33	9.79	13.34	54.78	Jan. 1874;	June, 1876	2	6	W. Stein.	Sig. Ser. Reps.
9	11.80	5.78	13.87	12.45	43.90	July, 1872;	Nov. 1874	2	3	E. C. Townsend.	S. O.
10	11.63	10.01	7.87	6.67	36.18	Aug. 1871;	Dec. 1874	3	5	Capt. D. B. Horne.	"
11	9.07	12.48	7.81	9.15	38.51	Jan. 1849;	Dec. 1852	3	0	C. J. Merriwether.	S. Coll.
12	23.81	11.13	6.97	17.71	59.62	Dec. 1867;	Dec. 1871	1	6	B. W. Jones.	S. O.
13	8.31	11.74	6.21	10.11	36.37	Jan. 1854;	Mar. 1861	7	0	R. F. Astrop.	Met. Obs. Vol. 1; S. O.
14	10.70	14.53	10.70	10.19	46.13	July, 1836;	Dec. 1874	26	9	Assistant Surgeon.	Ar. Met. Regs. 1855 and 1860.
15	..	..	..	..	..	Feb. 1860;	Feb. 1860	0	1	J. Pickett.	S. O.
16	15.05	11.62	7.15	14.03	47.85	May, 1849;	Aug. 1853	4	4	R. F. Astrop.	S. Coll.
17	11.08	12.01	9.12	10.08	42.29	Jan. 1869;	Dec. 1874	5	11	J. M. Shuman.	S. O.
18	14.82	..	..	..	..	May, 1867;	Sept. 1867	0	5	J. F. Adams.	"
19	..	..	..	..	..	Oct. 1873;	Nov. 1873	0	2	D. B. Brown.	"
20	8.82	8.07	4.77	5.26	26.92	Jan. 1851;	Dec. 1851	1	0	. . . . .	Am. Alm.
21	11.35	7.39	8.90	9.43	37.07	June, 1858;	Oct. 1859	1	5	C. B. McKee.	Met. Obs. Vol. 1.
22	12.33	8.87	15.25	10.51	46.96	Jan. 1861;	July, 1871	2	10	W. H. Ruffner, W. K. Park. Prof. J. L. Campbell.	S. Coll.; S. O.
23	19.17	17.25	..	..	..	Feb. 1871;	Sept. 1872	1	2	D. Payne.	S. O.
24	10.00	..	..	..	..	Mar. 1873;	Dec. 1873	0	8	J. C. Croft.	"
25	11.73	11.78	9.15	8.47	41.13	Feb. 1854;	June, 1876	6	10	A. Nettleton, C. J. Merriwether, H. W. Jones.	Met. Obs. Vol. 1; S. O.; Sig. Ser. Reps.
26	14.38	16.30	8.87	9.75	49.30	May, 1873;	Dec. 1874	1	7	J. S. Slater.	S. O.
27	11.71	11.15	10.62	8.49	41.97	Jan. 1858;	Feb. 1859	1	2	J. Slaven.	Met. Obs. Vol. 1.
28	10.67	9.47	9.67	7.11	36.92	Nov. 1869;	Dec. 1873	4	2	W. A. Martin.	S. O.
29	..	..	6.00	..	..	July, 1854;	Dec. 1854	0	5	C. J. Merriwether.	Met. Obs. Vol. I.
30	..	15.10	..	..	..	Apr. 1859;	Oct. 1859	0	7	E. E. Spence.	" "
31	..	..	..	..	..	Apr. 1858;	Apr. 1858	0	1	J. Hotchkiss.	" "
32	..	..	..	..	..	Aug. 1873;	Nov. 1873	0	3	J. B. Seinbach.	S. O.
33	8.38	9.76	7.71	6.85	32.70	Oct. 1867;	Dec. 1874	4	10	J. F. B. and Dr. J. T. Clarke.	"
34	14.72	..	14.10	12.60	..	Jan. 1860;	Apr. 1861	1	2	J. R. Abell.	"
35	12.38	..	10.12	11.44	..	Jan. 1869;	Jan. 1871	1	7	R. Brinford.	"
36	18.67	21.54	14.28	13.91	68.40	Jan. 1861;	Sept. 1872	7	9	I. J. Abernethy, S. Berrington.	"
37	11.72	16.43	12.08	12.78	53.01	Oct. 1872;	June, 1876	3	9	E. W. McGann.	Sig. Ser. Reps.
38	10.91	12.96	11.14	11.35	47.36	Mar. 1858;	Mar. 1861	2	8	A. Van Doren.	Met. Obs. Vol. 1.; S. O.
39	..	..	..	..	..	Jan. 1874;	Apr. 1874.	0	4	B. W. Jones.	S. O.
40	12.15	10.03	15.25	7.57	45.00	Nov. 1869;	Feb. 1872	2	2	F. Williams.	"
41	12.80	15.39	10.73	13.28	52.20	May, 1852;	Dec. 1859	5	0	Prof. N. B. Webster.	S. Coll.; Met. Obs. Vol. 1.
42	13.80	13.85	11.90	8.10	47.65	Aug. 1873;	July, 1874	1	0	C. A. Harrington.	S. O.
43	8.09	11.27	7.27	6.14	32.77	Jan. 1850;	Dec. 1874	20	8	E. T. Tayloe, E. Thornton.	Am. Alm.; S. O.
44	11.42	8.84	10.18	10.71	41.15	Jan. 1869;	Dec. 1874	6	0	C. R. Moore.	S. O.
45	10.45	14.02	8.01	12.20	44.68	Nov. 1850;	May, 1873	5	11	G. C. Vincent, D. Turner, C. J. Merriwether.	Printed Slip; S. O.; Met. Obs. Vol. 1.
46	9.35	13.28	6.46	9.37	38.46	Apr. 1857;	Dec. 1859	2	5	G. W. Upshaw.	Met. Obs. Vol. 1.
47	13.03	13.79	11.36	12.30	50.48	May, 1857;	Apr. 1861	3	9	G. C. Dickinson.	Met. Obs. Vol. 1; S. O.
48	12.26	11.22	10.04	7.83	41.35	Aug. 1856;	May, 1859	2	4	J. C. Ruffin.	Met. Obs. Vol. 1.
49	10.90	14.20	11.09	10.96	47.15	July, 1854;	Mar. 1861	6	8	Dr. J. R. Purdie.	Met. Obs. Vol. 1; S. O.
50	21.30	11.66	16.65	18.18	67.79	Sept. 1867;	Dec. 1874	4	8	Dr. J. W. Stalnaker, E. P. Drake, E. P. D. Stenker.	S. O.
51	11.11	8.82	9.49	8.33	37.75	Sept. 1868;	Apr. 1872	2	10	J. C. Covell.	"
52	..	..	..	..	..	Sept. 1870;	Aug. 1871	0	2	L. E. Payne.	"

[b] Randolph, Macon College. [c] Agricultural and Mechanical College. [d] Combined with Alto Vista.
[e] Virginia Military Institution and Tribrook Farm, about 3 miles from Lexington. [f] Near Portsmouth.
[g] Also known as Hartwood and Falmouth. [h] Observations in part at Westwood, near Richmond.

VIRGINIA—CONTINUED.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
53. Vienna, near[a]	38° 55′	77° 15′	400	2.23	2.25	2.10	3.50	4.05	3.42	5.12	1.33	3.64	4.75	2.17	3.44
54. Waterford	39 12	77 35	..	..	0.72	2.70	..	..	1.40	..	7.70	2.40	2.90	3.00	..
55. Williamsburg	37 15	76 40	100	3.19	2.05	3.95	3.68	2.87	3.75	4.50	9.15	4.76	3.63	2.62	2.88
56. Winchester	39 10	78 09	..	2.47	2.05	2.08	4.74	5.22	3.78	4.29	4.37	4.21	2.76	2.94	3.81
57. Woodlawn[b]	38 40	77 10	150	4.00	2.96	4.35	3.67	2.99	2.52	3.19	5.07	3.59	3.25	3.27	2.18
58. Wytheville	36 55	81 03	2287	2.94	3.55	3.50	3.38	3.50	3.86	4.29	3.82	3.28	2.80	2.38	2.74

WASHINGTON TERRITORY.

1. Camp Simiahmoo	49 01	122 47	11	5.61	2.68	4.10	2.13	1.84	1.42	0.68	0.80	3.91	7.88	2.57	0.00
2. Cape Disappointment	46 17	124 03	30	10.02	8.03	8.11	4.95	1.91	3.05	2.64	0.28	2.56	5.92	11.98	11.79
3. Cathlamet	46 15	123 12	40	15.05	6.75	12.10	3.80	2.60	2.73	0.60	1.60	1.43	2.85	9.75	8.97
4. Fort Bellingham	48 45	122 30	88	3.04	2.59	3.52	2.10	1.58	1.19	0.43	1.20	2.23	2.21	3.36	6.21
5. Fort Cascades	45 39	121 50	50	8.56	8.74	7.47	5.83	4.51	1.79	0.47	0.94	5.65	5.15	9.48	6.05
6. Fort Canby	46 16	124 03	..	..	..	..	..	..	..	2.60	2.50	2.75	1.00	11.29	6.08
7. Fort Colville	48 42	118 02	1963	1.71	1.45	1.03	1.00	1.60	1.32	1.07	0.65	0.35	0.51	1.70	1.67
8. Fort Simcoe	46 30	120 40	..	2.30	2.87	1.22	0.33	0.29	0.26	0.07	0.52	0.44	0.57	0.79	0.95
9. Fort Steilacoom	47 11	122 34	300	6.09	4.41	4.93	2.46	1.59	1.42	0.49	0.90	2.18	2.85	5.09	6.51
10. Fort Vancouver[c]	45 40	122 30	50	5.96	3.58	3.87	2.47	2.36	1.94	1.32	0.52	1.65	2.38	5.14	7.18
11. Fort Walla Walla	46 03	118 20	900	2.51	2.38	1.49	0.96	2.24	1.14	0.62	0.31	1.60	0.98	2.40	2.73
12. Neah Bay	48 22	124 37	40	18.17	10.10	15.97	7.47	4.69	6.90	2.22	2.50	8.93	8.37	19.43	18.60
13. Port Townsend[d]	48 07	122 45	16	2.07	1.32	2.12	0.85	1.25	1.79	0.17	0.35	0.80	1.23	2.04	2.06
14. San Juan Island[e]	48 28	123 01	150	3.31	2.80	2.18	1.74	1.09	3.58	0.47	0.55	1.68	2.23	3.98	4.73
15. Tatoosh Light House	48 23	124 44	90	15.44	9.78	11.51	4.20	5.99	3.38	0.92	2.69	4.74	3.97	17.86	14.77
16. Union Ridge	45 47	122 43	..	6.05	11.38	5.95	3.50	1.60	1.82	..	..	..	..	..	..
17. Walla Walla	46 05	118 54	930	4.41	..	..	..	..	..	..	..	..	..	..	5.68

WEST VIRGINIA.

1. Ashland	38 34	82 10	600	2.04	2.63	2.77	3.76	3.47	3.74	4.61	2.56	2.71	1.95	2.81	3.05
2. Crack whip[f]	39 02	78 33	1720	2.47	2.26	2.16	4.83	3.50	4.91	3.63	2.83	1.41	2.18	1.18	3.61
3. Cross Creek[g]	40 16	80 33	..	2.11	2.36	2.51	5.53	2.74	3.64	3.50	5.61	2.47	2.49	2.64	3.34
4. Grafton	39 21	79 56	..	2.20	5.81	11.25	3.12	4.87	..	5.60	5.10	0.45	4.30	1.50	3.50
5. Huttonsville	38 40	79 55	1000	..	..	4.20	5.05	..	..	..	..	..	..	..	..
6. Kanawha	38 53	81 25	..	1.98	3.46	1.87	4.05	3.30	3.70	1.47	2.60	1.35	2.83	2.46	4.52
7. Lewisburg	37 49	80 28	2000	2.88	2.76	2.56	2.66	2.17	2.52	3.37	3.32	3.58	2.02	4.00	3.91
8. Morgantown	39 40	79 55	956	3.47	3.49	4.53	3.74	2.52	4.24	7.05	3.83	3.90	3.23	3.63	3.87
9. New Creek Depot	39 25	79 00	..	..	3.30	..	..	..	..	..	..	..	..	..	..
10. Peach Grove Lodge	39 15	81 00	1100	3.48	2.25	1.70	2.74	5.52	2.36	2.22	3.02	1.71	..	..	..
11. Point Pleasant	38 51	82 09	480	2.87	..	1.91	8.17	3.70	5.89	..	..	..	..	..	..
12. Poplar Grove[h]	38 20	81 30	720	4.75	5.86	3.64	5.69	3.59	5.67	4.49	6.02	2.87	4.51	4.65	7.03

[a] Observations at four stations in the vicinity of Vienna. [b] Near Mount Vernon. [c] Also called Columbia Barracks.
[d] Observations for 1 year 2 months from January, 1859, to May, 1861, at Fort Townsend; elevation 135 feet.

VIRGINIA—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	mos.	Observers.	References.
53	9.65	9.87	10.56	7.92	38.00	Aug. 1869;	Apr. 1872	2	7	G. A. Bonman, J. B. Bowman, H. C. Williams, L. Thrift, R. Robey.	S. O.
54	..	..	8.30	..	..	June, 1871;	Mar. 1872	0	7	Mrs. Chamberlin.	"
55	10.50	17.40	11.01	8.12	47.03	1772–	1777	5	0	— Madison.	Jefferson's Notes on Va.
56	12.04	12.44	9.91	8.33	42.72	Mar. 1856;	Apr. 1861	4	11	J. W. Marvin.	Met. Obs. Vol. 1; S. O.
57	11.01	10.78	10.11	9.14	41.04	Dec. 1870;	Dec. 1874	4	0	C. Gillingham.	S. O.
58	10.38	11.97	8.46	9.23	40.04	May, 1860;	June, 1876	9	3	W. D. Roedel, J. A. Brown, F. L. Gosewisch, J. Craig, H. Shriver.	Sig. Ser. Reps.; S. O.

WASHINGTON TERRITORY.

1	8.07	2.90	14.36	8.29	33.62	Mar. 1859;	June, 1860	1	4	Assistant Surgeon.	Ar. Met. Reg. 1860; MS. from S. G. O.
2	14.97	5.97	20.46	29.84	71.24	Aug. 1864;	June, 1874	5	9	"	MS. from S. G. O.
3	18.50	4.93	14.03	30.77	68.23	Dec. 1871;	Dec. 1874	2	5	Chas. McCall.	S. O.
4	7.20	2.82	7.80	11.84	29.66	June, 1857;	July, 1859	2	2	Assistant Surgeon.	Ar. Met. Reg. 1860.
5	17.81	3.20	20.28	23.35	64.64	May, 1858;	May, 1861	3	1	"	Ar. Met. Reg. 1860; MS. from S. G. O.
6	..	..	15.04	..	..	July, 1874;	Dec. 1874	0	6	"	MS. from S. G. O.
7	3.63	3.04	2.56	4.83	14.06	Jan. 1861;	Dec. 1874	11	0	"	" "
8	1.84	0.85	1.80	6.12	10.61	Apr. 1857;	Apr. 1859	2	0	"	Ar. Met. Reg. 1860.
9	8.98	2.81	10.12	17.01	38.92	Nov. 1849;	Mar. 1868	12	9	"	MS. from S. G. O.; Ar. Met. Regs. 1855 and 1860.
10	8.70	3.78	9.17	16.72	38.37	Dec. 1849;	July, 1868	16	11	"	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
11	4.69	2.07	4.98	7.62	19.36	Jan. 1857;	May, 1867	8	8	"	Ar. Met. Reg. 1860; MS. from S. G. O.
12	28.13	11.62	36.73	46.87	123.35	May, 1863;	Sept. 1866	3	4	J. G. Swan.	S. O.
13	5.45	4.22	2.31	4.07	16.05	Jan. 1859;	Mar. 1877	5	6	Asst. Surg., S. S. Buckley, L. Wilson, L. Nessel.	Ar. Met. Reg. 1860; MS. from S. G. O.; U. S. Coast Survey; S. O.
14	5.01	4.60	7.89	10.84	28.34	Jan. 1864;	Dec. 1874	9	4	Assistant Surgeon.	MS. from S. G. O.
15	21.70	6.99	26.57	39.99	95.25	Apr. 1869;	Jan. 1872	2	8	A. Sampson.	S. O.
16	11.05	..	..	..	..	Jan. 1872;	June, 1872	0	6	T. W. Whitcomb.	"
17	..	..	..	..	..	Dec. 1869;	Jan. 1870	0	2	A. H. Simmons.	"

WEST VIRGINIA.

1	10.00	10.91	7.47	7.72	36.10	Jan. 1852;	May, 1872	9	7	C. L. Roffe, S. Couch, Prof. G. R. Rossiter.	Met. Obs. Vol. 1.; S. Coll.; S. O.
2	10.49	11.37	4.77	8.34	34.97	Jan. 1856;	May, 1861	1	11	D. H. Ellis.	Met. Obs. Vol. 1; S. O.
3	10.78	12.75	7.60	7.81	38.94	Sept. 1858;	June, 1860	1	9	B. D. Sanders.	" " "
4	19.24	..	6.25	11.51	..	Jan. 1867;	Feb. 1868	1	1	Dr. W. H. Sharp.	S. O.
5	..	..	..	..	..	Mar. 1869;	Apr. 1869	0	2	J. I. Hill.	"
6	9.22	7.77	6.64	9.96	33.59	Jan. 1856;	July, 1859	3	0	D. L. Ruffner, W. C. Reynolds.	Met. Obs. Vol. 1.
7	7.39	9.21	9.60	9.55	35.75	Sept. 1852;	Mar. 1861	6	0	Dr. T. Patton, J. W. Stelnaker.	Rep. of Com. of Agr.; MS.
8	10.79	15.12	10.76	10.83	47.50	May, 1872;	June, 1876	4	2	Prof. S. G. Stephens, L. Dunn.	Sig. Ser. Reps.; S. O.
9	..	..	..	..	..	Feb. 1854;	Feb. 1854	0	1	M. McDonald.	Met. Obs. Vol. 1.
10	9.96	7.60	..	..	..	Jan. 1856;	Sept. 1856	0	9	W. C. Quincy.	" "
11	13.78	..	..	..	..	Jan. 1859;	June, 1859	0	5	W. R. Boyers.	" "
12	12.92	16.18	12.03	17.64	58.77	Apr. 1857;	Jan. 1861	3	3	J. E. Kendall.	" "

[a] Also known as Camp Picket and Camp Steel.

[b] Observations for 2 months at Holliday's Cove, a few miles to the northwest.

[f] Also called Trout Run Valley.

[h] Also known as Kanawha Salines.

WEST VIRGINIA.—Continued.

Mean Amount of Precipitation in Rain and Melted

Station.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
13. Salem	39 20	80 01	1100	1.50	1.62	1.52	..	..	..	3.72	4.30	1.60	3.60	3.56	7.86
14. Sheetz Mills	39 25	78 40	..	2.20	1.69	2.11	3.56	4.27	2.41	3.46	3.57	2.51	2.55	1.87	2.46
15. Weston	39 00	80 22	1500	..	..	..	..	..	..	3.34	2.60	1.60	5.00	..	..
16. Wheeling	40 05	80 43	600	2.36	1.33	1.01	7.19	..	..	..	..	..	..	1.71	2.13
17. White Sulphur Springs	37 48	80 15	2000	2.40	3.22	3.73	2.93	3.41	3.16	4.68	2.79	1.56	2.16	3.58	3.92
18. Wirt Court House	39 05	81 26	..	2.84	1.14	1.42	3.92	6.43	3.79	4.87	3.14	0.76	4.00	3.11	7.64

WISCONSIN.

1. Appleton [a]	44 18	88 31	800	0.98	1.09	1.87	2.85	2.93	4.04	3.75	2.45	2.84	2.49	1.59	1.63
2. Ashland [b]	46 36	91 00	610	2.44	1.47	2.48	3.82	5.34	4.99	3.27	5.44	5.74	3.85	2.84	1.36
3. Baraboo	43 29	89 54	920	3.89	3.52	5.21	3.66	5.48	5.65	2.45	3.85	1.54	4.38	3.61	3.99
4. Bayfield	46 50	90 57	..	1.70	1.47	4.22	..	..	3.44	6.75	4.50	4.58	2.06	1.94	2.70
5. Beloit	42 30	89 11	750	2.19	1.25	2.08	2.91	3.64	3.87	4.10	3.64	3.56	2.10	2.56	1.79
6. Bloomfield	42 35	88 32	600	2.36	0.72	2.20	2.21	3.82	3.78	3.46	3.32	3.00	2.05	2.42	2.04
7. Ceresco	43 50	88 57	917	..	..	..	2.70	4.95	..	8.62	3.47	2.52	2.79	6.50	..
8. Dartford	43 45	89 16	850	..	..	3.30	..	..	..	..	..	..	..	..	..
9. Delafield [c]	43 04	88 34	780	2.03	1.83	2.37	3.32	5.42	2.91	4.65	1.41	4.79	2.84	1.86	1.45
10. Delavan	42 39	88 42	935	1.26	1.90	2.18	2.20	2.32	2.93	2.74	4.98	3.76	1.76	1.00	1.48
11. Edgerton	42 38	89 00	1700	2.60	2.51	4.37	3.56	3.70	7.05	3.93	4.23	3.57	2.20	2.21	1.64
12. Elkhorn	42 40	88 40	450	2.55	1.12	1.87	2.24	3.55	4.30	2.26	1.90	1.60	1.69	1.71	3.02
13. Embarrass	44 25	89 00	..	2.04	1.73	2.66	2.03	3.45	4.00	4.39	4.10	3.41	2.22	2.58	1.96
14. Fort Crawford	43 03	91 14	695	1.19	1.24	1.92	2.99	2.72	3.74	3.48	4.65	4.06	2.04	1.80	1.57
15. Fort Howard	44 33	88 09	620	1.19	0.87	1.70	3.33	3.98	4.93	5.48	4.01	3.11	2.36	2.38	1.30
16. Fort Winnebago	43 33	89 35	870	0.91	0.83	1.07	2.26	2.25	4.24	4.21	3.01	3.62	2.00	2.01	1.09
17. Galesville [d]	44 07	91 29	775	1.60	..	..	..	..	..	..	..	..	..	..	..
18. Green Bay	44 29	88 00	732	0.93	1.36	1.80	3.25	1.13	3.45	3.70	2.20	5.91	3.11	3.41	2.17
19. Greenfield	44 00	90 45	900	2.45	4.57	3.25	..	5.87	..	6.32	11.45	2.20	0.70	0.75	0.80
20. Holland	43 36	87 58	670	3.18	1.10	1.30	1.47	4.11	4.27	2.51	1.98	2.85	1.15	1.65	2.65
21. Janesville	42 41	89 00	780	1.74	2.34	1.09	1.78	4.42	4.47	3.81	2.60	2.98	2.54	1.90	1.88
22. Kenosha	42 35	87 56	600	2.29	1.44	2.54	3.49	4.48	3.20	3.26	2.06	5.47	1.80	2.29	1.15
23. La Crosse	43 58	91 23	666	1.46	1.26	2.26	2.18	3.38	5.92	2.10	4.20	4.57	1.86	1.73	1.26
24. Le Roy	43 34	88 45	1000	3.53	0.77	1.36	1.98	3.35	3.98	1.89	1.62	4.03	1.53	2.38	2.39
25. Lowell	43 20	88 54	..	0.30	3.60	0.75	2.85	2.70	2.90	3.10	5.65	1.80	3.65	2.05	0.90
26. Madison [e]	43 05	89 24	1068	2.24	1.16	2.90	2.51	3.57	3.51	2.91	2.89	2.98	2.11	1.97	1.34
27. Manitowoc	44 07	87 46	658	2.01	1.48	2.22	2.20	2.41	3.88	3.49	3.36	2.74	2.16	2.16	1.65
28. Menasha	44 13	88 34	..	3.35	0.84	2.87	..	..	..	..	..	..	5.12	2.56	..
29. Milton	42 49	89 05	876	4.20	0.75	2.30	2.10	5.50	5.25	3.10	4.80	2.40	2.65	1.62	1.22
30. Milwaukee	43 04	88 00	604	1.91	1.36	2.36	2.82	3.49	3.79	3.40	2.88	3.13	2.18	2.36	1.86
31. Mosinee [f]	44 48	89 46	750	2.15	1.56	5.45	6.14	9.77	7.05	10.43	11.22	5.95	3.39	2.34	2.30
32. New Holstein	43 58	88 12	..	0.50	..	..	..	..	..	..	..	..	..	2.30	..
33. New Lisbon	43 52	90 17	..	1.70	1.00	0.90	0.78	4.00	5.20	2.05	0.30	2.41	2.50	..	1.43
34. New London	44 21	89 00	..	1.95	1.68	1.53	4.20	4.42	4.19	3.50	3.38	4.38	1.69	1.99	1.85
35. Norway	42 50	88 10	753	0.83	3.55	0.63	4.75	5.25	7.75	3.10	2.35	4.60	1.46	6.70	6.57
36. Parfreyville [g]	44 15	89 05	910	..	..	..	7.93	..	..	..	..	..	..	..	..
37. Platteville	42 45	90 37	800	1.47	2.39	2.16	3.26	4.46	5.59	5.81	2.23	3.50	2.38	3.44	2.62
38. Plymouth	43 45	88 06	870	2.22	1.88	2.75	2.85	3.00	5.50	3.28	4.18	5.20	2.78	2.66	1.68
39. Rocky Run	43 26	89 19	..	2.56	1.51	2.30	2.64	3.86	3.95	4.05	3.74	2.78	2.23	1.69	1.72

[a] Lawrence University. [b] Formerly called Bay City and Odanah. [c] Also called Summit.

WEST VIRGINIA.—Continued.

Snow for each Month, Season, and the Year.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs.	Extent mos.	Observers.	References.
13	..	..	8.76	10.98	..	July, 1857;	Mar. 1858	0	9	J. C. Wells.	Met. Obs. Vol. 1.
14	9.94	9.44	6.93	6.35	32.66	Jan. 1856;	Dec. 1865	9	11	. . . . .	Rep. of Com. of Agr. by H. Clark.
15	..	..	..	..	..	July, 1873;	Oct. 1873	0	4	E. Ralston.	S. O.
16	..	..	..	5.82	..	Nov. 1859;	Apr. 1860	0	6	G. P. Lockwood.	Met. Obs. Vol. 1; S. O.
17	10.07	10.63	7.30	9.54	37.54	Sept. 1847;	Feb. 1853	5	6	Watts & Estill.	S. Coll.
18	11.77	11.80	7.87	11.62	43.06	Jan. 1857;	Dec. 1858	1	10	Dr. J. W. Hoff.	Met. Obs. Vol. 1; S. O.

WISCONSIN.

1	7.65	10.24	6.92	3.70	28.51	Jan. 1856;	Apr. 1871	6	0	J. C. Foye, Prof. R. Z. Mason.	Met. Obs. Vol. 1; S. O.
2	11.64	13.70	12.43	5.27	43.04	July, 1856;	Nov. 1874	4	10	Dr. E. Ellis.	" " "
3	14.35	11.95	9.53	11.40	47.23	Jan. 1852;	Jan. 1872	5	11	M. C. Waite, B. F. Mills.	S. Coll.; S. O.
4	..	14.69	8.58	5.87	..	Sept. 1858;	Feb. 1873	1	4	A. Tate, J. H. Nourse.	Met. Obs. Vol. 1.
5	8.63	11.61	8.22	5.23	33.69	Jan. 1850;	Dec. 1874	22	1	A. A. Blaisdell, S. P. Lathrop, W. Porter, H. S. Kelsey, H. D. Porter and others.	Met. Obs. Vol. 1; S. Coll.; S. O.
6	8.23	10.56	7.47	5.12	31.38	Feb. 1868;	Dec. 1874	6	4	W. H. Whiting.	S. O.
7	..	..	11.8[i]	..	..	July, 1854;	May, 1855	0	7	M. E. Baker.	Met. Obs. Vol. 1.
8	..	..	..	..	..	Mar. 1861;	Mar. 1861	0	1	J. H. Bowers.	S. O.
9	11.11	8.97	9.49	5.31	34.88	Jan. 1861;	June, 1863	2	0	A. W. Clarke.	"
10	6.70	10.65	6.52	4.64	28.51	Sept. 1864;	Dec. 1867	3	4	L. Eddy.	"
11	11.63	15.21	7.98	6.75	41.57	July, 1867;	Nov. 1873	5	8	H. J. Shintz.	"
12	7.66	8.46	5.00	6.69	27.81	Jan. 1873;	Aug. 1874	1	8	E. N. Lee, G. W. Hodges.	"
13	8.14	12.49	8.21	5.73	34.57	Jan. 1864;	Dec. 1874	10	8	J. E. & E. E. Breed.	"
14	7.63	11.87	7.90	4.00	31.40	May, 1836;	Aug. 1845	9	3	Assistant Surgeon.	Ar. Met. Reg. 1855.
15	9.01	14.42	7.85	3.36	34.64	Jan. 1836;	May, 1852	7	6	"	" "
16	5.58	11.46	7.63	2.83	27.50	Aug. 1836;	Aug. 1845	9	0	"	" "
17	..	..	..	..	..	Jan. 1868;	Jan. 1868	0	1	W. Gale.	S. O.
18	6.18	9.35	12.43	4.46	32.42	June, 1858;	Sept. 1865	2	10	D. Underwood, F. Deckner.	Met. Obs. Vol 1; S. O.
19	..	..	3.65	7.82	..	May, 1870;	Mar. 1871	0	10	G. Pegler.	S. O.
20	6.88	8.76	5.65	6.93	28.22	Aug. 1869;	Dec. 1873	2	0	J. De Lyser.	"
21	7.29	10.88	7.42	5.96	31.55	Jan. 1854;	Dec. 1858	4	11	J. F. Willard.	Met. Obs. Vol. 1.
22	10.51	8.52	9.56	4.88	33.47	Mar. 1858;	June, 1863	4	0	J. Gridley.	Met. Obs. Vol. 1; S. O.
23	7.82	12.22	8.16	3.98	32.18	Nov. 1872;	June, 1877	4	8	W. E. Smith, J. G. Lynch.	Sig. Ser. Reps.
24	6.69	7.49	7.94	6.69	28.81	May, 1872;	Dec. 1874	2	7	E. H. Benton.	S. O.
25	6.30	11.65	7.50	4.80	30.25	Jan. 1857;	Dec. 1857	1	0	N. C. Daniels.	Am. Alm.
26	8.98	9.31	7.06	4.74	30.09	May, 1855;	Dec. 1874	9	6	W. W. Daniels, W. Fellows, J. W. Sterling.	Met. Obs. Vol. 1; S. O.
27	6.83	10.73	7.06	5.14	29.76	Feb. 1858;	Dec. 1874	12	0	J. and C. Lüps.	" " "
28	..	..	..	..	..	Oct. 1857;	Mar. 1858	0	5	D. Underwood.	Met. Obs. Vol. 1.
29	9.90	13.15	6.67	6.17	35.89	Dec. 1872;	Nov. 1873	1	0	E. Davis.	S. O.
30	8.67	10.07	7.67	5.13	31.54	Jan. 1841;	June, 1877	33	1	I. A. Lapham, C. Winkler, W. F. Raynolds, H. M. Ludwig, S. W. Rhode, Dr. E. S. Marsh.	Bulletin of the Washington Agl. & Mechl. Association; Surv. N. & N. W. Lakes; S. Coll.; S. O.; Sig. Ser. Reps.
31	21.36	28.70	11.68	6.01	67.75	Jan. 1870;	Oct. 1872	2	9	J. Donoghue, F. Maguire.	S. O.
32	..	..	..	..	..	Nov. 1864;	Jan. 1865	0	2	F. Hachez.	"
33	5.68	7.55	..	4.13	..	Mar. 1871;	Oct. 1873	1	4	J. L. Dungan.	"
34	10.15	11.07	8.06	5.48	34.76	Jan. 1857;	Aug. 1858	1	7	J. E. Breed.	Met. Obs. Vol. 1.
35	10.63	13.20	12.76	10.95	47.54	Mar. 1856;	Mar. 1857	1	1	J. E. Himoe.	" "
36	..	..	..	..	..	Apr. 1865;	Apr. 1865	0	1	J. C. Hicks.	S. O.
37	9.88	13.63	9.32	6.48	39.31	Aug. 1851;	Nov. 1859	6	10	Dr. J. L. Pickard.	Met. Obs. Vol. 1; S. Coll.
38	8.60	12.96	10.64	5.78	37.98	Jan. 1865;	Feb. 1870	4	10	G. Moeller.	S. O.
39	8.80	11.74	6.70	5.79	33.03	Nov. 1859;	Dec. 1874	14	6	W. W. Curtis.	Met. Obs. Vol. 1; S. O.

[a] University. [b] University of Wisconsin. [f] Amount appears excessive. [s] Also called Rural.

WISCONSIN—CONTINUED.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
40. Springdale	43° 31′	89° 16′	..	1.40	3.37	..	..	..	..	..	..	..	..	..	..
41. Saint Croix Falls	45 27	92 47	660	..	..	..	..	..	..	..	..	..	..	..	0.75
42. Sturgeon Bay	44 52	87 30	35	1.89	1.04	1.87	1.61	2.39	3.31	3.85	2.50	3.31	2.85	2.11	2.08
43. Superior City	46 44	92 13	680	0.95	1.44	1.45	2.08	2.66	2.40	3.23	3.47	3.51	2.66	1.31	0.76
44. Utica	..	..	..	..	..	..	..	..	..	..	..	..	..	2.96	1.05
45. Walworth	42 30	88 40	800	..	..	..	5.85	5.05	3.35	3.75	3.20	2.20	2.90	1.92	..
46. Wausau	44 58	89 43	..	..	0.81	..	6.90	..	..	3.60	..	..	..	..	..
47. Waukesha	43 00	88 20	812	..	..	0.40	2.53	2.39	..	0.93	1.86	2.19	1.83	2.90	..
48. Waupaca	44 21	89 10	900	1.50	1.38	0.97	1.83	2.70	4.70	7.10	2.70	..	..	2.00	1.05
49. Wautoma	44 05	89 25	1200	0.26	1.90	..	0.82	1.44	2.20	2.15	1.90	1.10	0.63	0.25	1.00
50. Weyauwega	44 20	89 02	870	3.72	0.65	2.85	2.94	0.95	6.30	6.20	5.35	8.63	5.50	0.10	0.94
51. Wien	45 00	90 30	1000	0.80	0.40	1.90	1.85	2.30	4.20	..	2.40	4.80	2.75	5.20	1.21

WYOMING.

1. Camp Brown	42 58	108 55	5498	2.34	0.34	2.12	2.92	1.20	0.62	0.19	0.78	0.57	1.58	0.25	1.47
2. Camp Scott	41 18	110 32	..	0.32	0.26	0.25	0.52	1.31	1.30	..	..	..	..	..	..
3. Camp Stambaugh	42 30	108 49	7767	..	..	..	..	..	..	0.29	0.08	1.00	1.49	0.78	0.21
4. Cheyenne	41 08	104 49	6041	0.15	0.06	0.47	0.56	1.90	0.88	2.48	1.54	0.88	0.87	0.27	0.08
5. Deer Creek Agency	42 49	106 00	5000	..	..	..	..	..	..	..	..	..	..	1.33	0.66
6. Fort Bridger	41 20	110 23	6656	0.67	0.45	1.12	0.92	0.95	0.60	0.62	0.83	0.54	0.44	0.70	0.59
7. Fort D. A. Russell	41 12	104 50	6455	0.44	0.47	1.00	1.89	1.87	1.94	1.86	0.76	0.82	1.76	0.69	0.59
8. Fort Fetterman	42 50	105 29	4973	0.32	1.18	0.48	1.24	2.76	1.30	1.66	1.16	0.95	1.05	0.99	2.01
9. Fort F. Steele	41 47	106 57	6840	1.52	2.06	0.85	3.02	0.70	1.19	0.94	1.35	0.65	1.48	0.92	0.70
10. Fort Laramie	42 12	104 31	4472	0.65	0.74	0.73	1.52	3.10	1.60	1.58	1.22	1.05	1.04	0.64	0.58
11. Fort P. Kearney	44 30	106 50	6000	0.13	0.05	3.76	2.11	8.05	9.98	1.25	0.30	1.30	1.80	0.42	0.33
12. Fort Sanders	41 17	105 35	7168	0.42	0.55	0.51	1.57	1.47	1.23	1.61	1.31	1.00	0.69	0.64	0.46
13. Gilbert's Trading Post	42 28	108 40	7400	2.00	..	..	..	..	..	..	..	..	..	..	..
14. Laramie City	41 19	105 36	7123	..	..	..	3.25	3.50	..	..	..	..	2.50	1.20	..
15. Sweetwater Bridge	42 30	107 25	7000	..	..	..	2.00	7.40	..	..	..	..	..	..	..

WISCONSIN—CONTINUED.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
40	..	..	..	..	..	Jan. 1860;	Feb. 1860	0	2	S. Armstrong.	S. O.
41	..	..	..	..	..	Dec. 1857;	Dec. 1857	0	1	M. T. W. Chandler.	Met. Obs. Vol. 1.
42	5.87	9.66	8.27	5.01	28.81	Feb. 1870;	June, 1874	4	1	R. M. Wright, C. C. Pinney.	S. O.
43	6.19	9.10	7.48	3.15	25.92	July, 1856;	Dec. 1866	7	9	G. R. Stuntz, E. H. Bly, L. Washington, W. Mann.	Surv. N. & N. W. Lakes.; Met. Obs. Vol. 1; S. O.
44	..	..	..	..	..	Nov. 1874;	Dec. 1874	0	2	C. H. Brown.	S. O.
45	..	10.30	7.02	..	..	Apr. 1873;	Nov. 1873	0	8	N. J. Read.	"
46	..	..	..	..	..	Feb. 1859;	July, 1859	0	3	Dr. W. A. Gordon.	Met. Obs. Vol. 1.
47	5.32	..	6.92	..	..	Mar. 1856;	Nov. 1856	0	8	S. A. Bean.	" "
48	5.50	14.50	..	3.93	..	Jan. 1867;	Apr. 1874	1	9	H. C. Mead.	S. O.
49	..	6.25	1.98	3.16	..	Jan. 1871;	Dec. 1874	1	5	J. Spaulding.	"
50	6.74	17.85	14.23	5.31	44.13	Mar. 1861;	Dec. 1873	1	6	H. H. Nicholson, M. Parker.	"
51	6.05	..	12.75	2.41	..	Dec. 1873;	Dec. 1874	1	0	J. Duerstein.	"

WYOMING.

1	6.24	1.59	2.40	4.15	14.38	Oct. 1872;	Dec. 1874	1	9	Assistant Surgeon.	MS. from S. G. O.
2	2.08	..	..	..	..	Jan. 1858;	June, 1858	0	6	"	Ar. Met. Reg. 1860.
3	..	..	3.27	..	..	July, 1874;	Dec. 1874	0	6	"	MS. from S. G. O.
4	2.93	4.90	2.02	0.29	10.14	Oct. 1872;	June, 1876	3	9	S. C. Dobbins.	Sig. Ser. Rep.
5	..	..	..	..	..	Nov. 1859;	Dec. 1859	0	2	Major T. S. Twiss.	Met. Obs. Vol 1.
6	2.99	2.05	1.68	1.71	8.43	July, 1858;	Dec. 1874	12	10	Assistant Surgeon.	MS. from S. G. O; Ar. Met. Reg. 1860.
7	4.76	4.56	3.27	1.50	14.09	Dec. 1869;	Dec. 1874	5	1	"	MS. from S. G. O.
8	4.48	4.12	2.99	3.51	15.10	Nov. 1868;	Dec. 1874	5	7	"	" "
9	4.57	3.48	3.05	4.28	15.38	Jan. 1869;	Dec. 1874	5	5	"	" "
10	5.35	4.40	2.73	1.97	14.45	Sept. 1849;	Dec. 1874	17	8	"	Ar. Met. Regs. 1855 and 1860; MS. from S. G. O.
11	13.92	11.53	3.52	0.51	29.48	Mar. 1867;	July, 1868	1	5	"	MS. from S. G. O.
12	3.55	4.15	2.33	1.43	11.46	July, 1867;	Dec. 1874	6	10	"	" "
13	..	..	..	..	..	Jan. 1859;	Jan. 1859	0	1	C. H. Miller.	Met. Obs. Vol 1.
14	..	..	..	..	..	Apr. 1871;	Nov. 1871	0	4	D. J. Pierce.	S. O.
15	..	..	..	..	..	Apr. 1864;	May, 1864	0	2	A. F. Ziegler.	"

MEXICO.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Chihuahua	28° 38′	106° 30′	4640	0.09	1.50	0.26	0.00	0.23	1.39	8.52	6.03	5.23	1.05	1.14	0.00
2. Cordova	18 45	96 51	860	2.26	2.26	4.09	3.48	5.53	22.19	16.37	15.94	19.72	12.00	4.54	3.64
3. Frontera[a]	18 32	92 40	12	5.30	0.84	0.87	2.46	2.19	8.22	6.84	3.55	6.11	22.40	8.85	4.88
4. Matamoras	25 49	97 38	55	1.57	2.32	2.46	2.26	2.22	3.63	2.37	1.65	7.05	4.47	4.50	2.24
5. Mexico	19 27	99 05	7665	0.00	. .	0.20	0.55	1.35	7.66	1.24	0.41	3.92	1.36	1.27	. .
6. Minatitlan[b]	17 59	94 30	60	. .	. .	0.10	0.15	1.82	. .	. .	. .	. .	. .	. .	. .
7. Mirador	19 15	96 40	3600	1.55	1.24	2.46	2.66	6.05	15.72	13.72	12.39	14.27	8.20	3.42	2.18
8. San Juan Bautista[c]	17 47	92 46	40	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3.16	0.93
9. Vera Cruz	19 12	96 09	26	4.47	0.90	0.10	0.50	15.86	21.20	59.70	35.90	24.33	12.51	3.37	0.56

COSTA RICA.

1. Heredia	10 00	84 00	3837	0.07	0.01	2.41	2.56	4.78	6.95	2.43	3.41	6.04	15.30	3.04	0.64
2. Port of Limon	10 00	83 03	. .	23.33	6.83	3.67	3.33	4.00	4.42	5.00	9.38	. .	1.73	12.71	4.83
3. San José	9 54	84 06	3772	1.11	0.20	7.23	1.46	4.18	10.34	9.65	8.32	10.24	14.00	3.91	2.93

GUATEMALA.

1. Guatemala[d]	14 40	90 30	. .	0.37	0.04	1.38	2.08	6.39	12.09	9.64	8.14	8.40	5.42	0.55	0.18

HONDURAS.

1. Belize	17 29	88 13	. .	6.12	3.15	1.68	1.81	0.78	6.87	8.04	7.32	7.09	13.69	7.93	7.86

BAHAMA ISLANDS.

1. Grand Turk	21 29	71 05	15	. .	. .	. .	. .	2.93	1.75	0.44	. .	. .	. .	. .	. .
2. Nassau[e]	25 05	77 21	80	1.97	1.27	0.54	1.70	7.00	6.33	4.17	6.65	7.74	5.90	1.38	2.10

BERMUDA ISLANDS.

1. H. M. Naval Yard[f]	32 23	64 38	. .	4.91	4.82	3.80	4.19	4.57	2.41	3.75	4.29	5.03	7.74	5.40	4.64
2. Royal Naval Hospital	32 23	64 40	. .	7.23	3.78	3.74	3.46	3.11	4.07	2.67	6.25	5.54	4.24	1.45	3.51
3. Saint George Met. Obs'y	32 23	64 43	123	4.61	4.34	3.29	2.99	3.41	4.43	4.77	3.89	4.50	10.25	5.16	4.00
4. Shelby Bay	32 28	64 32	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	6.04

CARIBBEAN ISLANDS.

1. Barbadoes	13 04	59 37	. .	3.17	2.03	1.57	1.55	1.29	2.88	3.90	5.97	6.01	7.00	6.05	4.21
2. Philipsburg[g]	18 05	63 03	. .	4.79	3.29	3.50	3.69	6.01	7.70	4.64	8.97	9.63	16.31	9.12	8.67
3. Port of Spain[h]	10 39	61 38	16	2.14	4.29	. .	. .	. .	. .	. .	. .	. .	5.28	12.92	6.18
4. Saint Thomas	18 21	64 56	. .	3.10	1.55	2.17	2.40	0.87	0.83	2.25	4.71	8.20	3.06	4.44	1.60
5. Sombrero Island	18 37	63 27	45	0.58	0.65	0.77	0.43	1.74	2.18	1.97	1.63	2.40	2.60	1.44	0.46

[a] Observations in part at Frontera and partly at Baar Tabasco. [b] Chinameca. [c] Central District, Tabasco.
[d] Colegio-Seminario a cargo de los P. P. de la Comp. de Jesus. [e] New Providence Island.

MEXICO.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	EXTENT yrs.	mos.	OBSERVERS.	REFERENCES.
1	0.49	15.94	7.42	1.59	25.44	Jan. 1843;	Dec. 1845	3	0	— Potts.	S. Coll.
2	13.10	54.50	36.26	8.16	112.02	Jan. 1859;	Dec. 1864	5	0	J. A. Hieto.	Met. Obs. Vol. 1; S. O.
3	5.52	18.61	37.36	11.02	72.51	Mar. 1863;	July, 1865	1	9	C. Laszlo.	S. O.
4	6.94	7.65	16.02	6.13	36.74	May, 1843;	Apr. 1851	5	8	Dr. J. L. Berlandier.	S. Coll.
5	2.10	9.31	6.55	..	..	Jan. 1856;	Nov. 1856	0	10	L. C. Ervendberg.	Met. Obs. Vol. 1.
6	2.07	..	..	..	..	Mar. 1859;	May, 1859	0	3	C. Laszlo.	" "
7	11.17	41.83	25.89	4.97	83.86	Sept. 1857;	Dec. 1871	12	4	C. Sartorius.	Met. Obs. Vol. 1; S. Coll.; S. O.
8	..	..	..	..	..	Nov. 1862;	Dec. 1862	0	2	C. Laszlo.	. . . . .
9	16.46	116.80	40.21	5.93	179.40	Jan. 1830;	Mar. 1858	2	0	Dr. H. Berendt.	Mayer's Hist. of Mexico; Met. Obs. Vol. 1; Blodgett's Clim.

COSTA RICA.

1	9.75	12.79	24.38	0.72	47.64	Jan. 1868;	Dec. 1868	1	0	— Rohrmoser.	S. Coll.
2	11.00	18.80	..	34.99	..	Oct. 1865;	Aug. 1866	0	11	F. Valentine.	"
3	12.87	28.31	28.15	4.24	73.57	Jan. 1862;	June, 1868	2	9	J. Yuledon, C. N. Riotte, Dr. A. von Frantzius.	S. Coll.; S. O.

GUATEMALA.

1	9.85	29.87	14.37	0.59	54.68	Jan. 1857;	Dec. 1859	3	0	Fathers of College.	Rep. of College Obs.

HONDURAS.

1	4.27	22.23	28.71	17.13	72.34	Aug. 1862;	Apr. 1868	5	9	S. Cockburn.	S. Coll.

BAHAMA ISLANDS.

1	..	..	..	..	..	May, 1861;	July, 1861	0	3	A. G. Carothers.	S. O.
2	9.24	17.15	15.02	5.34	46.75	Jan. 1840;	Aug. 1845	3	3	J. C. Lees.	S. Coll.

BERMUDA ISLANDS.

1	12.56	10.45	18.17	14.37	55.55	Jan. 1852;	Dec. 1859	7	8	Capt. Supt.	Bermuda Royal Gaz., Hamilton.
2	10.31	12.99	11.23	14.52	49.05	Jan. 1852;	Dec. 1852	1	0	Dr. S. D. Wells, R. N.	S. Coll.
3	9.69	13.09	19.91	12.95	55.64	Jan. 1836;	Dec. 1859	6	5	Capt. Page, R. E.	Records, Met. Obs'y; S. Coll.
4	..	..	..	..	..	Dec. 1857;	Dec. 1857	0	1	J. B. Arnold.	Met. Obs. Vol. 1.

CARIBBEAN ISLANDS.

1	4.41	12.75	19.06	9.41	45.63	Jan. 1847;	Dec. 1871	6	8	. . . . .	Barbadoes Official Gazette.
2	13.20	21.31	35.06	16.75	86.32	Jan. 1862;	Dec. 1864	2	10	A. A. Julien, L. C. L. Huntington.	S. Coll.; S. O.
3	..	..	..	12.61	..	Oct. 1856;	Feb. 1857	0	5	Geological Surveyor.	Met. Obs. Vol. 1.
4	5.44	7.79	15.70	6.25	35.18	Jan. 1842;	Dec. 1844	3	0	— Knox.	Reg. Rep.
5	2.94	5.78	6.44	1.69	16.85	Feb. 1863;	Oct. 1865	1	8	A. A. Julien, M. Brayton.	S. O.

[f] Ireland Island. [g] Saint Martin's Island. [h] Trinidad Island.

CUBA.

MEAN AMOUNT OF PRECIPITATION IN RAIN AND MELTED

STATION.	Lat.	Long.	Height.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
1. Havana[a]	23° 09′	82° 23′	63	3.26	1.65	1.54	3.17	4.08	5.67	4.87	4.82	5.97	6.79	2.22	2.21
2. Matanzas	23 02	81 40	50	3.18	0.77	0.63	1.92	2.32	5.35	9.57	11.50	7.80	7.47	3.38	1.40
3. San Fernando	22 22	80 09	554	2.74	0.59	2.49	2.09	20.28	14.56	..	..	..	..	..	..
JAMAICA.															
1. Up Park Camp	17 59	76 56	225	1.74	0.01	0.12	..	..	..	..	..	..	2.71	2.81	10.00
SAN DOMINGO.															
1. Port au Prince	18 32	72 21	171	1.28	2.35	3.55	9.52	12.42	4.50	4.10	5.51	6.10	6.42	3.93	1.49
PORTO RICO.															
1. Ponce	17 56	66 35	23	..	11.00	..	..	..	..	..	..	..	..	..	..
BRITISH GUIANA.															
1. Demerara	6 45	58 02	36	..	..	..	..	..	..	3.79	..	..	..	..	..
2. Georgetown	6 49	58 12	..	15.88	5.54	4.68	6.58	9.24	10.05	..	..	..	..	..	..
DUTCH GUIANA.															
1. Catharina Sophia[b]	5 48	56 47	..	9.89	3.07	7.50	7.32	9.33	10.75	8.30	4.84	2.42	2.84	5.00	7.89
2. Parimaribo	5 44	55 13	..	3.83	4.69	4.30	6.41	8.02	12.61	7.49	8.10	3.05	2.07	5.55	9.12
3. Rustenburg Plantation[c]	6 00	55 00	..	12.63	11.70	5.19	5.15	14.02	13.01	10.13	5.08	3.36	2.48	4.44	10.18
NEW GRANADA.															
1. Aspinwall	9 23	79 53	7	1.99	1.57	0.75	2.08	11.77	13.35	13.11	14.52	13.76	13.57	23.94	11.19
VENEZUELA.															
1. Caracas	10 31	66 55	2923	0.17	0.00	0.72	3.57	0.51	3.90	4.74	4.66	8.65	5.96	4.04	0.09
PARAGUAY.															
1. Asuncion	—25 16	57 45	..	7.37	5.91	5.62	5.79	1.17	1.55	0.76	1.59	..	..	..	3.76
PERU.															
1. Yquitos	—3 44	73 08	320	10.23	9.86	12.23	6.51	9.99	7.45	6.57	4.62	8.70	7.25	8.42	11.45

[a] Observations for the greater part of the series at the College of Belen.

[b] Colony of Surinam.

CUBA.

SNOW FOR EACH MONTH, SEASON, AND THE YEAR.

	Spring.	Summer.	Autumn.	Winter.	Year.	Series begins.	Series ends.	Extent yrs. mos.	Observers.	References.
1	8.79	15.36	14.98	7.12	46.25	Jan. 1811;	Dec. 1874	20 4	. . . . .	Sagra's Hist. Cuba; Records of Obs'y; Blodgett's Clim.; MS. from Sig. Ser. Off.
2	4.87	26.42	18.65	5.35	55.29	Jan. 1835;	Dec. 1835	1 0	A. Mallory.	Sill. Jour. 1837, Vol. 31.
3	24.86	..	..	..	..	Jan. 1840;	June, 1840	0 6	. . . . .	Am. Alm.

JAMAICA.

1	..	..	..	11.75	..	Oct. 1855;	Mar. 1856	0 6	Director Met. Obs'y.	S. Coll.

SAN DOMINGO.

1	25.49	14.11	16.45	5.12	61.17	Aug. 1863;	Dec. 1867	4 5	Dr. A. Ackermann.	Peterman's Geog. Mith. X, 1868.

PORTO RICO.

1	..	..	..	..	..	Feb. 1844;	Feb. 1844	0 1	W. A. Mitchell.	S. Coll.

BRITISH GUIANA.

1	..	..	..	..	..	July, 1843;	July, 1843	0 1	D. Blair.	S. Coll.
2	20.50	..	..	..	..	Jan. 1854;	June, 1854	0 6	J. Dawes.	S. Coll.

DUTCH GUIANA.

1	24.15	23.89	10.26	20.85	79.15	Feb. 1856;	Dec. 1860	4 10	C. J. Hering.	Met. Obs. Vol. 1.
2	18.73	28.20	10.67	17.64	75.24	Jan. 1873;	Dec. 1874	1 10	" "	S. O.
3	24.36	28.22	10.28	34.51	97.37	May, 1861;	Dec. 1865	3 8	" "	"

NEW GRANADA.

1	14.60	40.98	51.27	14.75	121.60	Oct. 1862;	Dec. 1868	5 10	Dr. J. P. Kluge, Dr. W. T. White.	S. O.

VENEZUELA.

1	4.80	13.30	18.65	0.26	37.01	Jan. 1860;	Dec. 1860	1 0	Dr. Ibarra.	An. Rep. Sm. Inst. 1867.

PARAGUAY.

1	12.58	3.90	..	17.04	..	Dec. 1853;	Aug. 1854	0 9	K. E. Hopkins.	Met. Obs. Vol. 1; S. Coll.

PERU.

1	28.73	18.64	24.37	31.54	103.28	June, 1871;	Apr. 1873	1 7	F. S. Galt.	S. Coll.

[a] Also known as Vossenburg Plantation.

TABLES

OF

AQUEOUS PRECIPITATION

FOR

SERIES OF YEARS.

(B.)

EXPLANATION OF TABLE (B).

An asterisk affixed to any number indicates that it is derived from *less* than twelve months of observations : in no case however are annual amounts given for which more than *three* months had to be found by interpolation, which was effected either by using the observed amount at the nearest station during the time required, or by using the means from adjacent years for the same month or months. The first mode of interpolation is quite reliable, and was always preferred to the second. Blanks for any one year indicate either no observations or an insufficiency (that is, less than nine months) of record during the year. The annual means at the bottom of each column are taken from the preceding table (A), whenever the series was not continuous.

NORTHWEST TERRITORIES.

Year.	Fort Peel's River.	Moose Factory.	York Factory.
1861	...	19.03	...
1862	...	...	...
1863	...	...	...
1864	52.68*	...	...
1865	64.03	...	...
1875	...	...	21.03
1876	...	...	14.54
Mean	53.88	19.06	18.79

NEWFOUNDLAND.

Year.	Bay Saint George.	Channel.	Fogo.	Harbor Grace.	Saint John's.
1857	...	...	...	...	62.09*
1858	...	...	...	...	41.90*
1859	...	...	...	...	66.99
1861	...	...	...	...	55.05
1872	...	...	...	60.32	65.97
1873	...	...	...	45.33	48.22
1874	47.75	46.61*	46.12*	50.44	64.13
1875	41.73*	35.73	...	38.21	45.29
1876	26.73	41.69*	54.20	...	56.89
Mean . . .	39.04	42.72	49.78	47.30	56.40

NOVA SCOTIA.

Year.	Albion Mines.	Beaver Bank.	Caledonia Coal Mine.	Cow Bay.	Digby.	Glacé Bay.	Guysborough.	Halifax.	Pictou.	Port Hastings.	Seaforth.	Sydney.	Truro.	Windsor.	Wolfville.	Yarmouth.
1849	33.56*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1850	46.14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1851	43.95	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1852	49.32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1853	47.32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1856	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31.44*	...
1857	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41.89*	...
1858	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1859	...	...	...	...	...	...	...	...	...	...	...	...	...	...	77.31*	...
1861	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1862	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1863	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1864	...	...	...	...	...	...	...	...	...	...	...	...	...	...	42.25*	...
1865	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39.02*	...
1866	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37.87*	...
1867	...	...	58.09	...	...	...	...	...	...	...	...	...	...	...	...	...
1868	...	...	59.75	...	...	...	...	49.98	...	...	...	...	...	...	...	...
1869	...	...	60.49	...	...	...	...	54.48	...	...	...	...	...	...	38.92*	...
1870	...	...	...	...	...	61.30	...	55.66	40.88*	...	...	58.90	...	37.46	53.06*	...
1871	...	...	...	...	...	52.75	...	50.99	39.27	...	...	54.14	...	38.95	35.40*	40.72
1872	...	46.76	...	...	47.00*	73.49	64.46	53.74	51.80	...	49.39	61.39	57.81	40.43*	40.45*	...
1873	...	40.98	...	45.94*	...	54.07*	63.58	54.41	...	...	46.39	55.12*	46.37	...	39.12*	...
1874	...	41.31*	...	39.51*	...	40.97	59.75	54.15	...	45.89	...	51.26	43.69	...	32.60*	...
1875	...	37.41*	...	...	...	39.36*	...	51.27	...	...	...	43.30	43.93	...	35.93*	...
1876	...	...	...	39.47	...	...	...	56.99	...	41.37	...	53.91	40.40*	...	...	...
Mean .	43.63	41.03	59.44	41.63	...	53.66	60.01	53.25	44.73	43.63	46.31	54.01	46.44	35.10	40.04	40.30

NEW BRUNSWICK.

Year.	Bass River.	Bathurst.	Chatham.	Dalhousie.	Dorchester.	Fredericton.	Grindstone Island Light House.	Petersville.	Point Lepreaux Light House.	Saint Andrew's.	Saint John.	Thurston.[a]
1841	...	...	...	...	...	...	...	...	...	...	...	26.40
1842	...	...	...	...	...	...	...	...	...	...	...	23.40
1843	...	...	...	...	...	...	...	...	...	...	...	29.20
1844	...	...	...	...	...	...	...	...	...	...	...	26.30
1845	...	...	...	...	...	...	...	...	...	...	...	24.40
1846	...	...	...	...	...	...	...	...	...	...	...	32.50
1847	...	...	...	...	...	...	...	...	...	...	...	23.20
1848	...	...	...	...	...	...	...	...	...	...	...	32.20
1849	...	...	...	...	...	...	...	...	...	...	...	26.30
1850	...	...	...	...	...	...	...	...	...	...	...	20.80
1851	...	...	...	...	...	...	...	...	...	...	...	25.30
1852	...	...	...	...	...	...	...	...	...	...	...	38.80
1860	...	...	...	...	...	...	...	...	...	...	...	...
1861	...	...	...	...	...	...	...	...	...	...	...	...
1862	...	...	...	...	...	...	...	...	...	...	...	...
1863	...	...	...	...	...	...	...	...	...	...	50.89	...
1864	...	...	...	...	...	...	...	...	...	...	49.69	...
1865	...	...	...	...	...	...	...	...	...	...	50.22	...
1866	...	...	...	...	...	...	...	...	...	...	52.59	...
1867	...	...	...	...	...	...	...	...	...	...	55.51	...
1868	...	...	...	...	...	...	...	...	...	...	49.63	...
1869	...	...	...	...	...	...	...	...	...	...	52.02	...
1870	38.40*	...	...	...	...	...	...	...	...	...	64.18	...
1871	36.12	...	...	...	...	...	...	40.26	...	...	47.14	...
1872	49.16	...	...	...	59.12	54.23	...	...	...	...	61.10	...
1873	40.20*	30.25	...	...	47.77	40.13	...	...	...	...	46.70	...
1874	34.66	29.67	41.45	29.39*	40.96	42.85	33.94	...	41.28	...	45.83	...
1875	40.07	36.53	47.51	43.42	46.37	45.37	...	...	40.14	37.53	63.29	...
1876	...	37.15	45.67	44.44	44.12	47.56	...	...	...	40.02	48.25	...
Mean . .	39.13	34.53	44.87	36.25	47.35	46.07	33.94	42.80	40.71	38.77	52.95	27.41

[a] Probably no account of snow.

QUEBEC.

Year.	Anticosti Island.	Cape Rozier.	Cranbourne.	Danville.	Father Point.	Huntingdon.	Levis.	Montreal.	Quebec.	Richmond.	Saint Martin's.	Stanbridge.	Windsor.
1806	...	...	...	...	...	...	...	...	...	...	...	...	29.18
1831	...	...	...	...	...	...	...	39.55	...	...	...	...	...
1832	...	...	...	...	...	...	...	30.88	...	...	...	...	...
1833	...	...	...	...	...	...	...	40.26	...	...	...	...	...
1834	...	...	...	...	...	...	...	24.10	...	...	...	...	...
1835	...	...	...	...	...	...	...	38.05	...	...	...	...	...
1836	...	...	...	...	...	...	...	27.84	...	...	...	...	...
1837	...	...	...	...	...	...	...	23.37	...	...	...	...	...
1838	...	...	...	...	...	...	...	23.59	...	...	...	...	...
1839	...	...	...	...	...	...	...	20.67	...	...	...	...	...
1840	...	...	...	...	...	...	...	32.49	...	...	...	...	...
1851	...	...	...	...	...	...	...	...	...	...	50.47*	...	...
1852	...	...	...	...	...	...	...	...	...	...	53.02	...	...
1853	...	...	...	...	...	...	...	...	...	...	55.71	...	...
1854	...	...	...	...	...	...	...	...	...	...	49.99	...	...
1855	...	...	...	...	...	...	...	...	...	...	51.66	...	...
1856	...	...	...	...	...	...	...	35.59	...	...	45.48	...	...
1857	...	...	...	...	...	...	...	44.63*	...	...	54.98*	...	...
1858	...	...	...	...	...	...	...	38.47	...	...	55.56*	...	...
1859	...	...	...	...	...	...	...	49.11*	...	...	60.23	...	...
1861	...	...	...	...	...	...	...	53.52	...	...	53.56	...	...
1862	...	...	...	...	...	...	...	38.83	...	...	...	...	...
1870	...	...	...	...	...	28.67	...	33.13	30.06	...	...	...	...
1871	...	...	...	...	...	31.18	...	33.97	36.55	...	...	36.50	...
1872	56.64*	31.38	...	41.87	...	36.69	33.84	41.40	32.34	41.71	...	38.90*	...
1873	38.21	...	...	28.62	...	33.77	44.93*	...	48.55	...	...	28.30	...
1874	27.99*	41.45	...	42.41	16.63*	38.23	...	39.03	38.26	...	...	...	...
1875	...	49.57*	...	63.43	10.96	38.24	...	38.46	45.97	...	...	...	...
1876	...	...	41.78	39.44	...	33.30	...	41.45	41.01	...	...	...	...
Mean .	40.96	37.74	47.29	42.88	17.57	34.32	39.07	39.54	38.61	40.23	53.19	34.37	29.18

ONTARIO.

Year.	Ailsa Craig.	Barrie.	Belleville.	Brampton.	Brantford.	Brockville.	Collingwood.	Cornwall.	Dundas.	Fitzroy Harbor.	Georgina.	Glencoe.	Goderich.
1870	...	36.79	42.47	...	...	...	44.89	...	33.46*	...	36.98	...	46.77
1871	24.10	26.00	33.58	22.12	...	...	27.32*	17.18*	29.04	25.83	25.91	24.71	27.95
1872	...	28.22	32.21	19.69	...	34.79	33.16*	30.22	26.50*	28.51	24.91	21.57*	27.28
1873	...	26.46	35.62	30.70	...	34.70	...	31.76	29.24*	29.64	28.24	...	31.44
1874	...	21.22	30.71	21.10	...	29.39	...	32.27	...	21.42	23.24	...	26.03
1875	...	24.24	34.07*	34.87	...	34.05	...	28.72	...	24.00	26.37	...	30.86
1876	...	32.37	34.76	29.45	31.59	37.94	...	30.49	...	21.55	28.37	...	30.24
Mean .	30.14	27.71	35.65	26.31	31.59	34.35	35.05	28.80	29.50	25.07	27.62	24.65	31.49

ONTARIO—CONTINUED.

Year.	Goderich Light House.	Granton.	Gravenhurst.	Hamilton.	Ingersoll.	Kincardine.	Kingston.	Little Current.	London.	Lucan.	Markham.	Michipicoten.	Mount Forest.
1856	...	...	...	...	...	...	21.65	...	...	...	...	...	...
1857	...	...	...	...	...	...	31.34	...	...	...	...	...	...
1858	...	...	...	...	...	...	28.77	...	...	...	...	...	...
1859	...	...	...	...	...	...	24.43	...	...	...	...	...	...
1860	...	...	...	...	...	...	...	...	...	...	...	...	...
1861	...	...	...	...	...	...	33.09	...	...	...	...	...	...
1864	...	...	...	...	...	...	...	...	...	...	...	24.06	...
1865	...	...	...	...	...	...	...	...	...	...	...	31.01*	...
1870	...	...	...	48.77	...	...	...	...	...	...	42.56*	...	...
1871	...	...	30.79	31.54	...	32.71	...	...	...	26.49*	26.12	...	...
1872	...	...	35.24	26.70	33.66*	38.78	...	29.43*	26.99*	30.58	26.23	...	...
1873	...	41.28	40.13	42.58	33.35	44.97	...	32.40	31.20*	...	...	...	77.54
1874	...	26.19	34.34	27.37	26.11	32.67	28.94	26.85	...	...	...	...	20.08
1875	37.24	30.53	40.19	33.64	35.96	...	29.66	41.12	...	...	...	...	...
1876	38.11	42.54	36.66	36.76	37.37	41.31	32.30	34.26	...	...	...	...	...
Mean .	37.67	35.14	36.47	35.92	32.49	39.14	28.74	32.96	28.07	28.48	31.72	27.81	55.31

ONTARIO—Continued.

Year.	New Market.	North Gwillimbury.	Norwood.	Orillia.	Ottawa.	Parkhill.	Parry Sound.	Pembroke.	Peterborough.	Plattsville.	Point Clark.	Port Dalhousie.	Port Dover.	Port Stanley.
1870	...	31.49	...	...	...	...	...	28.39	35.23	...	...	...	...	...
1871	...	25.53	...	...	...	27.27	...	28.97	29.51	...	...	...	...	...
1872	...	27.01	...	33.68*	34.22*	29.09	...	31.71*	28.37*	22.46	40.20	...	...	...
1873	...	31.83	...	28.90	33.12	...	...	...	26.92	...	45.56	...	...	...
1874	...	25.58	...	31.17*	29.57	...	...	...	24.61	...	40.20	...	22.46	31.83
1875	23.06*	28.57	...	35.28*	26.28	...	40.07	40.11	27.44	...	36.17	26.97	30.10	29.36
1876	21.27	22.68	22.72*	28.95	31.98	...	40.44	34.11	26.99*	...	29.33	26.46	37.95	38.09
Mean .	24.60	27.58	23.20	30.33	30.95	29.03	39.44	32.63	28.86	19.00	38.76	25.09	30.17	33.09

ONTARIO—Continued.

Year.	Presqu' Isle.	Saugeen.	Seaforth.	Seely.	Simcoe.	Stayner.	Stratford.	Thornhill.	Toronto.	Welland.	Weston.	Widder.	Windsor.	Woodstock.
1840	...	...	...	...	...	...	...	...	30.22	...	...	...	...	...
1841	...	...	...	...	...	...	...	...	37.30	...	...	...	...	...
1842	...	...	...	...	...	...	...	...	43.44	...	...	...	...	...
1843	...	...	...	...	...	...	...	...	50.21	...	...	...	...	...
1844	...	...	...	...	...	...	...	...	33.38*	...	...	...	...	...
1845	...	...	...	...	...	...	...	...	27.93	...	...	...	...	...
1846	...	...	...	...	...	...	...	...	38.60	...	...	...	...	...
1847	...	...	...	...	...	...	...	...	36.97	...	...	...	...	...
1848	...	...	...	...	...	...	...	...	26.83	...	...	...	...	...
1849	...	...	...	...	...	...	...	...	36.55	...	...	...	...	...
1850	...	...	...	...	...	...	...	...	35.48	...	...	...	...	...
1851	...	...	...	...	...	...	...	...	30.75	...	...	...	...	...
1852	...	...	...	...	...	...	...	...	40.93	...	...	...	...	...
1853	...	...	...	...	...	...	...	...	29.88	...	...	...	...	...
1854	...	...	...	...	...	...	...	...	32.74	...	...	...	...	...
1855	...	...	...	...	...	...	...	...	41.53	...	...	...	...	...
1856	...	...	...	...	...	...	...	...	28.05	...	...	...	...	...
1857	...	...	...	...	...	...	...	...	40.58	...	...	...	...	...
1858	...	...	...	...	...	...	...	...	32.59	...	...	...	...	...
1859	...	...	...	...	...	...	...	...	39.76	...	...	...	...	...
1860	...	...	...	...	...	...	...	...	28.00	...	...	...	...	...
1861	...	...	...	...	...	...	...	...	34.46	...	...	...	...	...
1862	...	...	...	...	...	...	...	...	34.05	...	...	...	...	...
1863	...	...	...	...	...	...	...	...	32.77	...	...	...	...	...
1864	...	...	...	...	...	...	...	...	36.94	...	...	...	...	...
1865	...	...	...	...	...	...	...	...	32.93	...	...	...	...	...
1866	...	...	...	...	...	...	...	...	39.42	...	...	...	...	...
1867	...	...	...	...	...	...	...	...	30.11	...	...	...	...	...
1868	...	...	...	...	...	...	...	...	34.28	...	...	...	...	...
1869	...	...	...	...	...	...	...	...	39.64	...	...	...	...	...
1870	...	...	...	...	44.39	44.06*	48.42	...	46.18	...	38.54	47.69*	38.36	43.77*
1871	...	...	21.82*	...	34.18	31.98	32.40	28.94	32.73	...	...	30.12	24.01	26.66
1872	...	...	...	...	32.14	...	32.14	...	25.35	...	...	...	28.87	27.76
1873	...	...	...	...	37.88	...	39.01	...	31.61	30.32	...	...	33.79	38.80
1874	...	27.25	...	...	22.68	28.35	33.33	...	24.34	25.87	...	...	25.53	29.07
1875	...	33.24	...	43.31	34.00	33.65	37.90	...	29.73	20.65*	...	...	30.15	34.08
1876	32.80	35.67	...	42.04	36.88	34.58	42.15	...	32.41	16.58	...	...	29.05	39.03
Mean .	34.18	32.05	27.29	42.68	35.47	34.57	38.14	28.09	34.34	23.74	36.24	37.32	29.99	34.17

MANITOBA.			PRINCE EDWARD ISLAND.			BRITISH COLUMBIA.		
Year.	Fort Garry.	Winnipeg.	Year.	Charlottetown.	Georgetown.	Year.	Esquimault.	Spence's Bridge.
1872	...	30.35	1872	49.80*	...	1873	...	6.11*
1873	...	21.67	1873	42.55	...	1874	17.80	9.99
1874	18.61	21.39	1874	40.39	42.77	1875	35.87	11.84
1875	18.69	13.99	1875	44.12	42.75	1876	23.51	6.81
1876	30.69	22.08	1876	35.04	40.99*			
Mean . . .	22.64	21.30	Mean . . .	42.38	42.71	Mean . .	23.69	8.88

ALABAMA.

Year.	Auburn.	Carlowville.	Coatopa.	Elyton, near	Florence.	Fort Mitchell.	Greene Springs.	Greensboro'.	Havana, near
1837	...	...	...	...	...	47.33*	...	...	...
1849	...	...	...	...	62.36	...	...	...	...
1855	37.85*	...	...	...	...	...	39.27*	37.60	...
1856	44.14*	...	...	...	...	...	53.98*	53.44	...
1857	...	47.44	...	...	...	...	50.19	49.94	...
1858	...	46.84*	...	...	...	...	50.59	44.69	...
1859	...	59.17*	...	...	...	...	57.56*	56.42	...
1860	...	...	...	...	...	...	...	54.81	...
1861	...	...	...	...	...	...	...	50.59	...
1862	...	...	...	...	...	...	...	45.45	...
1863	...	...	...	...	...	...	...	54.62	...
1864	...	...	...	...	...	...	...	53.62	...
1865	...	...	...	...	...	...	...	56.59*	...
1866	...	...	...	...	...	...	...	55.58*	...
1867	...	48.15*	...	...	...	...	40.48	48.30*	...
1868	...	64.86	...	...	...	...	58.37	...	61.66
1869	...	69.24	...	...	...	...	50.04*	...	52.19*
1870	...	62.88	48.90*	46.99	...	...	45.51	...	...
1871	...	72.65	56.40*	...	...	...	67.43	...	...
1872	...	78.72	...	...	...	...	53.29	...	...
1873	...	61.50	...	...	...	...	47.43	...	...
1874	...	65.37	...	...	...	...	53.51	...	...
1875	...	...	...	...	...	...	...	...	...
Mean . . .	43.28	62.99	52.65	46.32	62.36	45.20	51.17	51.22	56.92

ALABAMA—CONTINUED.

Year.	Huntsville.	Mobile.	Monroeville.	Montgomery.	Year.	Moulton.	Mt. Vernon Arsenal.	Opelika, near	Selma.	Troy.	Union Springs.
1831	43.46	...	...	...	1843	...	76.38	...	...	...	...
1832	46.33	...	...	...							
1833	67.67	...	...	...	1845	...	68.52	...	...	...	...
1834	63.14	...	...	...	1846	...	65.36	...	...	...	...
1835	60.29	...	...	...	1847	...	71.43	...	...	...	...
1836	54.75	...	...	...	1848	...	49.55	...	...	...	...
1837	47.08	...	...	...	1849	...	79.23	...	...	...	...
1838	48.32	...	...	...	1850	...	49.55	...	...	...	...
1839	29.08	...	...	...	1851	...	48.77	...	...	...	...
					1852	...	51.49	...	...	...	...
1841	...	73.90	...	...	1853	...	106.57	...	...	...	...
1842	...	54.94	...	...	1854	...	62.31	...	...	...	...
					1855	...	59.76	...	...	...	...
1854	...	...	49.19*	...	1856	...	58.15	...	...	...	...
					1857	...	49.82	...	...	...	...
1867	...	...	...	...	1858	...	64.35	...	56.21*	...	...
1868	...	...	...	...	1859	...	64.94	...	61.77*	...	...
1869	...	...	...	...							
1870	...	...	...	...	1867	44.01	...	...	...	...	...
1871	...	...	...	...	1868	44.23	...	51.91*	...	...	46.51
1872	...	...	...	...	1869	46.30	...	...	...	...	41.79
1873	54.56*	68.61	...	63.12	1870	...	...	...	...	...	34.27
1874	...	56.58	...	51.93	1871	44.78*	...	...	59.70	...	54.71
1875	...	62.73	...	58.16	1872	44.24	...	...	...	55.03*	36.38
1876	...	58.60	...	59.74	1873	42.65	...	...	...	60.55*	37.56
					1874	36.57	85.59	...	...	67.57*	53.71
Mean . . .	55.35	62.65	60.89	56.90	Mean .	43.87	63.27	...	57.77	61.05	50.11

ALASKA.

Year.	Fort Kadiak.	Fort Tongass.	Fort Wrangel.	St. Paul's Island.	Sitka.
1848	...	...	...	...	90.95
1849	...	...	...	...	74.87*
1850	...	...	...	...	95.81
1851	...	...	...	...	72.44
1852	...	...	...	...	78.17*
1853	...	...	...	...	90.94
1854	...	...	...	...	87.18
1856	...	...	...	...	87.51
1857	...	...	...	...	89.66
1858	...	...	...	...	81.09
1859	...	...	...	...	81.77
1861	...	...	...	...	58.68
1862	...	...	...	...	85.93
1863	...	...	...	...	74.33
1868	...	...	...	...	66.08
1869	78.18*	121.54	61.28*	...	94.21
1870	...	134.09*	58.04*	...	81.40
1871	...	...	...	...	70.12
1872	...	...	...	...	58.21
1873	...	...	...	...	69.04
1874	...	...	...	...	70.13
1875	...	...	...	47.08	...
Mean	72.92	118.32	58.29	39.27	81.59

ARIZONA.

Year.	Camp Bowie.	Camp Colorado.	Camp Crittenden.	Camp Date Creek.	Camp Goodwin.	Camp Grant.	Camp Hualpai.	Camp Lowell Tucson.	Camp McDowell.	Camp Mohave.	Camp Reno.	Camp Verde.	Camp Wallen.	Camp Whipple.	Camp Willow Grove.	Fort Buchanan.	Fort Defiance.
1853	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13.87
1854	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	22.44
1855	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17.07*
1856	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	11.63
1857	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13.06
1858	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16.08	11.97
1859	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	25.82	11.44*
1860	...	...	...	...	...	...	...	...	...	2.23	...	...	...	...	...	...	11.84*
1867	...	...	...	...	27.93	...	...	...	14.97	...	...	...	17.76	18.52*	...	...	...
1868	18.09	...	...	27.84	16.00	...	...	11.54	14.78*	2.95*	...	...	24.53*	26.38*	10.40*	...	...
1869	13.24	2.61*	19.08	20.50	26.34	9.28*	...	14.69	7.69	2.49	16.25*	15.40	17.37*	...	...	...	...
1870	14.21*	1.31*	16.17	13.60	...	8.95	...	6.21	5.45	3.68	...	6.61	...	18.41	...	...	...
1871	...	...	15.53*	8.21*	...	17.64*	15.93*	9.55*	4.94	4.86	...	4.80	...	13.62	...	...	...
1872	13.78*	...	...	...	...	14.68	...	...	20.01	2.30	...	13.13	...	16.66	...	...	...
1873	9.63	...	...	...	...	17.99	...	...	8.13	9.30	...	8.43	...	13.53*	...	...	...
1874	18.73	...	...	...	...	17.81	...	...	16.84	11.60	...	17.30	...	26.82*	...	...	...
Mean	15.26	1.85	17.89	17.01	26.58	15.08	16.59	10.41	11.45	4.65	...	10.85	18.90	19.28	9.00	23.11	14.21

ARKANSAS.

Year.	Clarksville.	Forest City.	Fort Smith.	Helena, near	Little Rock Arsenal.	Mineral Springs.	Mount Ida.	Union County.	Washington.
1838	...	...	27.30	...	...	...	...	...	...
1839	...	...	42.59	...	...	...	...	...	...
1840	...	...	46.23	...	...	...	...	...	67.5
1841	...	...	53.60*	...	...	...	...	...	54.5
1842	...	...	38.79	...	...	...	...	...	41.6
1843	...	...	37.97	...	...	...	...	...	63.4
1844	...	...	32.93	...	...	...	...	...	45.5
1845	...	...	33.36	...	...	...	...	...	46.7
1846	...	...	45.73	...	...	...	...	...	41.4
1847	...	...	49.04	...	...	...	...	...	58.3
1848	...	...	44.36	...	...	...	...	...	60.0
1849	...	...	57.54	...	...	...	...	...	70.4
1850	...	...	...	...	...	...	...	81.08	65.7
1851	...	...	...	...	...	...	...	...	41.5
1852	...	...	59.85	...	...	...	...	...	69.5
1853	...	...	24.34	...	...	...	...	...	55.2
1854	...	...	37.98	...	...	...	...	...	59.2
1855	...	...	33.91	...	...	...	...	...	47.6
1856	...	...	29.48	...	...	...	...	...	46.2
1857	...	...	38.83	...	...	...	...	...	57.1
1858	...	...	...	...	...	...	...	...	56.7
1859	...	...	...	...	...	...	...	...	46.1
1860	...	...	28.66*	...	...	...	...	...	62.3*
1866	...	...	...	77.57	...	...	...	...	...
1867	...	...	...	...	46.00*	...	...	...	...
1871	48.14*	...	...	...	...	51.21	...	...	...
1872	...	47.02*	...	...	...	42.57*	53.33*	...	...
1873	...	49.10*	...	...	...	46.92*	61.60	...	...
Mean	...	48.06	40.51	70.07	...	47.88	53.06	81.08	54.25

CALIFORNIA.

Year.	Alcatraz Island.	Angel Island.	Benicia Barracks.	Cahto.	Camp Cady.	Camp Far West.	Camp Gaston.	Camp Independence.	Camp Lincoln.	Camp Wright.	Drum Barracks.	Fort Bidwell.	Fort Crook.	Fort Humboldt.	Fort Jones.	Fort Miller.
1850	...	...	12.29	...	...	20.38	...	...	...	...	...	...	...	...	...	...
1851	...	...	15.30	...	...	19.47	...	...	...	...	...	...	...	...	...	...
1852	...	...	17.57	...	...	...	...	...	...	...	...	...	...	...	...	49.35
1853	...	...	11.80	...	...	...	...	...	...	...	...	...	...	...	17.72*	18.40
1854	...	...	12.37	...	...	...	...	...	...	...	...	...	...	29.01	12.94	9.71*
1855	...	...	17.54	...	...	...	...	...	...	...	...	...	...	38.97	22.85*	13.16
1856	...	...	12.10	...	...	...	...	...	...	...	...	...	...	27.24	19.44	12.67
1857	...	...	12.15	...	...	...	...	...	...	...	...	...	...	32.21	26.33*	12.27
1858	...	...	12.39	...	...	...	...	...	...	...	...	...	22.38	41.68	...	...
1859	...	...	13.67	...	...	...	...	...	...	...	...	...	20.39	42.75	...	...
1860	...	...	14.49	...	...	...	...	...	...	...	...	...	25.89	40.91	...	...
1861	...	...	...	...	...	...	...	...	...	...	...	...	21.33*	34.54*	...	...
1862	...	...	20.04*	...	...	...	39.34	...	...	...	...	...	26.71	...	...	...
1863	...	...	...	...	...	...	63.44	...	...	...	...	...	...	37.49	...	...
1864	...	...	...	...	...	...	65.17*	...	...	...	...	...	...	31.03*	...	...
1865	...	...	...	...	...	...	66.32*	...	...	33.28	4.42	...	26.52*	31.50	...	...
1867	15.62*	...	...	...	...	...	...	21.65*	82.58*	63.80*	...	41.80	22.42*	...	...	...
1868	20.79	32.19*	...	...	...	...	49.43*	9.22*	69.74	38.87	11.77*	17.30*	...	...	...	...
1869	14.79	20.69	...	...	4.13*	...	48.01	1.12	...	42.26	8.35*	12.26*	...	...	...	...
1870	9.35	9.41	...	63.80*	1.89*	...	42.93	4.33*	...	20.92	2.62*	39.19	...	...	...	...
1871	19.70	...	18.98*	...	...	...	46.01	6.93	...	38.87	...	13.67	...	...	...	...
1872	22.68	...	14.39*	...	...	...	41.78	2.89	...	50.46	...	14.63	...	...	...	...
1873	17.57*	13.86	16.22*	...	...	...	34.76	3.95	...	35.82	...	13.23	...	...	...	...
1874	15.39*	12.94	13.90	...	...	...	56.21	5.16	...	51.08	...	10.05*	...	...	...	...
Mean.	17.26	18.58	14.90	...	3.09	20.60	57.39	6.60	73.41	43.97	8.74	20.23	23.18	35.91	21.70	19.00

CALIFORNIA—Continued.

Year.	Fort Point.	Fort Reading.	Fort Tejon.	Fort Ter-Waw.	Fort Yuma.	Meadow Valley.	Monterey.	Point San José.	Ranchos del Chino and de Jurupa.	Sacramento.	San Diego.	San Francisco.	Santa Barbara.	Stockton.	Yerba Buena Island.	
1850	...	...	...	...	...	...	10.19	...	...	16.71	7.84	...	...	...	...	
1851	...	...	...	...	...	...	...	...	...	15.10	7.49	15.12	...	...	...	
1852	...	...	...	...	...	...	...	...	...	27.00	11.87	25.64	...	...	...	
1853	...	25.23	...	...	1.78	...	...	...	8.20	20.00	7.88	19.43	...	...	...	
1854	...	15.91	...	...	4.50	...	...	...	...	20.35	11.63	20.40	...	20.33*	...	
1855	...	37.36*	14.15*	...	1.80*	...	...	...	...	18.56	11.15	22.82	...	...	...	
1856	...	...	34.22	...	1.53	...	...	...	...	14.26	9.77	13.89	...	12.59	...	
1857	...	...	9.83	...	0.64*	...	...	...	...	16.91	6.15	14.50	...	11.56	...	
1858	...	...	24.13	...	2.09	...	...	...	...	16.79	7.55	16.86	...	...	...	
1859	...	...	18.19*	63.95*	4.84	...	...	...	...	16.89	6.10	20.87	...	...	...	
1860	17.47	...	...	75.31	...	...	17.31*	...	...	19.71	9.11	20.19	...	...	...	
1861	13.93	...	...	...	...	...	...	...	...	20.92	7.92	22.53	...	...	...	
1862	23.86	...	...	...	...	...	...	...	...	27.44	11.59	36.02	...	...	...	
1863	11.22	...	...	...	...	...	...	...	...	10.60	3.02	15.07	...	...	...	
1864	14.04*	...	...	...	...	54.28*	17.08	...	...	19.27	7.61	19.63	...	...	...	
1865	7.77	...	...	...	...	52.41*	8.16	...	...	11.15	7.52	11.73	...	...	...	
1866	27.70	...	...	...	...	96.81*	21.56	...	...	26.52	12.31	34.03	...	...	...	
1867	21.72	...	...	...	2.94	...	...	...	...	...	15.59*	31.19	...	...	...	
1868	27.10	...	...	...	8.50*	...	21.77*	...	...	...	11.16	30.63	...	...	...	
1869	18.02	...	...	...	2.94	...	16.85*	...	...	...	10.96	20.46	...	...	9.98*	
1870	12.59	...	...	...	3.10	...	13.27*	...	...	...	4.37	12.21	...	...	7.26	
1871	16.06	...	...	...	0.65	...	...	20.98	...	...	5.10	20.70	...	...	...	
1872	17.10	...	...	...	2.73	...	...	17.11	...	...	6.25*	33.15	...	...	...	
1873	17.76	...	...	...	3.14	...	...	12.58	...	...	...	21.24	11.37	...	...	
1874	14.13	...	...	...	7.55	...	...	12.47	...	...	11.09*	19.23	12.12	...	...	
Mean.	17.36	29.14	20.88	69.95	3.86	57.04	15.71	15.22	13.58	19.24	9.31	21.49	11.75	14.60	8.21	

CONNECTICUT.

Year.	Brookfield.	Canton.	Colebrook.	Columbia.	Fort Trumbull.	Hartford.	Middletown.
1843	...	...	...	...	52.78	...	...
1844	...	...	...	...	40.29	...	...
1845	...	...	...	...	42.81	...	...
1846	...	...	...	...	...	...	...
1847	...	...	...	...	...	45.60	...
1848	...	...	...	...	...	39.94	...
1849	...	...	...	...	...	39.84	...
1850	...	...	...	...	...	57.14	...
1851	...	...	...	...	...	41.99	...
1852	...	...	...	...	...	39.95	...
1859	...	...	...	...	...	...	53.33
1860	...	...	...	...	...	...	...
1861	...	...	...	...	...	...	47.19
1862	...	51.04	...	...	...	...	48.33
1863	...	...	...	...	...	...	52.79*
1864	...	...	...	...	...	...	37.08
1865	...	...	...	...	38.36*	...	42.51
1866	...	...	...	...	45.56	...	46.27
1867	...	...	...	...	51.30	...	49.54
1868	...	...	...	...	51.22	...	51.95
1869	64.40*	...	61.05*	...	53.97	...	58.68
1870	51.45	...	45.43*	53.47	41.25	...	39.74
1871	...	...	...	50.29	44.87	...	51.64
1872	...	...	44.24*	52.27	49.13	...	43.91
1873	...	...	45.16	42.25	46.44	...	45.89
1874	...	...	45.09	49.99*	48.44	...	44.66
Mean . .	54.50	54.87	48.16	47.92	46.18	43.79	46.75

Year.	New Haven.
1804	43.30
1805	41.07*
1806	38.61
1807	45.32
1808	49.40
1809	44.55
1810	39.40
1811	47.66
1812	44.17
1813	53.40
1814	56.06
1815	50.64
1816	38.00
1817	43.38
1818	38.02
1819	33.89
1820	46.19
1821	44.64
1827	51.38
1828	51.22*
1865	41.89
1866	46.98
1867	45.44
1873	59.16
1874	55.82
1875	43.52
1876	53.98
Mean . .	45.44

Year.	New London.	North Greenwich.	Plymouth.
1854	...	...	...
1855	...	...	...
1856	41.67	...	...
1857	47.23*	...	...
1858	...	...	...
1859	...	...	...
1860	...	...	...
1861	...	...	...
1862	...	...	...
1863	...	...	57.19
1864	...	...	...
1865	...	...	...
1866	...	...	...
1867	...	...	...
1868	...	...	...
1869	...	...	...
1870	...	...	...
1871	...	41.27*	...
1872	...	41.17	...
1873	41.61	38.33*	...
1874	60.38	...	...
1875	44.79	...	...
1876	43.20	...	...
Mean .	47.90	40.06	48.59

CONNECTICUT—CONTINUED.

Year.	Pomfret.	Saybrook.	Southington.	Wallingford.	Waterbury.
1854	57.14	...	...	...	...
1855	42.68	45.19*	...	...	...
1856	47.69	48.95*	...	55.33*	...
1857	51.68*	49.97	...	57.38*	...
1858	41.83	43.06*	...	41.64	...
1859	53.73	58.16	...	57.11	...
1860	47.36	40.83*	...	41.99	...
1861	44.85	...	...	48.68	...
1862	40.96	...	...	...	...
1863	56.74	...	...	...	...
1864	37.40	...	...	...	...
1865	45.10	...	...	...	...
1866	45.82	...	...	...	...
1867	46.65	...	...	...	48.50*
1868	46.40*	...	...	...	57.13*
1871	...	...	50.77	...	...
1872	...	...	41.73	...	...
1873	...	...	51.74	...	...
1874	...	...	46.80*	...	...
Mean	47.12	48.84	45.03	50.55	51.10

COLORADO.

Year.	Colorado Springs.	Denver.	Fort Collins.	Fort Garland.	Fort Lyon.	Fort Massachusetts.	Fort Reynolds.	Fort Sedgwick.	Pike's Peak.	South Pueblo.
1853	...	...	...	...	...	16.23*	...	...	...	...
1854	...	...	...	...	...	...	...	...	...	...
1855	...	...	...	...	...	18.81*	...	...	...	...
1856	...	...	...	...	...	13.87	...	...	...	...
1857	...	...	...	...	...	14.66	...	...	...	...
1858	...	...	...	...	...	...	...	...	...	...
1859	...	...	...	11.35	...	...	...	...	...	...
1860	...	...	...	6.62	...	...	...	...	...	...
1861	...	...	...	5.44	...	...	...	...	...	...
1862	...	...	...	6.33	...	...	...	...	...	...
1863	...	...	...	3.00*	...	...	...	...	...	...
1867	...	...	...	2.74*	12.09	...	...	...	...	...
1868	...	...	...	20.53*	11.16	...	...	...	...	...
1869	...	...	...	13.42	10.18*	...	13.42*	...	...	...
1870	...	13.29	...	37.87	16.20	...	11.12	14.39	...	...
1871	...	12.35	...	25.00	7.67	...	15.23*	...	...	...
1872	20.10	18.38	...	42.34	16.97	...	...	...	...	...
1873	16.04*	11.44	12.58*	7.75	11.58	...	...	...	...	8.23*
1874	16.53	12.46	13.08*	11.10	14.58*	...	...	...	26.86	6.23*
1875	17.37	20.27	...	...	...	...	...	...	24.74	...
1876	...	20.12	...	...	...	...	...	...	23.87	...
Mean. . .	17.59	13.77	12.75	14.86	12.56	17.23	13.26	15.44	27.00	7.53

DAKOTA.

Year.	Bismarck.	Fort Abercrombie.	Fort Abraham Lincoln.	Fort Buford.	Fort Pierre.	Fort Ransom.	Fort Randall.	Fort Rice.	Fort Seward.	Fort Stevenson.	Fort Sully.	Fort Totten.	Fort Wadsworth.	Pembina.	Yankton.
1856	...	...	...	...	12.56	...	...	...	...	...	...	...	...	...	...
1857	...	...	...	...	...	...	16.16	...	...	...	...	...	...	...	...
1858	...	...	...	...	...	...	21.30	...	...	...	...	...	...	...	...
1859	...	...	...	...	...	...	15.70	...	...	...	...	...	...	...	...
1860	...	...	...	...	...	...	18.83	...	...	...	...	...	...	...	...
1861	...	23.39	...	...	...	...	20.28	...	...	...	...	...	...	...	...
1862	...	11.38	...	...	...	...	19.00	...	...	...	...	...	...	...	...
1863	...	13.40	...	...	...	...	8.83*	...	...	...	...	...	...	...	...
1864	...	16.85	...	...	...	...	...	...	...	...	...	...	...	...	...
1865	...	18.92*	...	...	...	...	...	...	...	...	...	...	...	...	...
1866	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1867	...	20.05*	...	7.03*	...	...	15.02*	...	...	...	...	...	...	...	...
1868	...	19.47	...	12.20*	...	...	14.63	...	...	11.33*	...	...	...	...	...
1869	...	23.22*	...	9.75*	...	15.77	16.05*	8.03*	...	...	16.15	...	14.66*	...	...
1870	...	20.47	...	9.84	...	17.04	7.12	11.39*	...	18.37*	17.48	15.20	17.86	...	...
1871	...	15.21	...	8.19	...	12.88*	13.65*	9.82	...	13.99	15.74	17.03	10.80	...	...
1872	...	27.83	...	17.80	...	...	11.11	13.76	...	12.49	18.09	19.00	23.36	17.34	...
1873	...	16.04*	...	23.02	...	...	18.30	12.55	15.86	9.85	13.10	17.30	27.12	13.94	24.00*
1874	...	20.07*	5.56	7.62	...	...	17.90	11.74	15.15	7.37	15.95	16.71	32.44	12.24	23.83
1875	27.43	...	...	...	...	...	...	...	...	...	13.99	...	...	14.61*	37.15
1876	31.00	...	...	...	...	...	...	...	...	...	20.37*	...	...	25.75	28.84
Mean. . .	25.60	18.85	6.02	11.84	13.54	15.30	15.52	11.39	15.50	11.84	16.54	16.78	24.15	15.50	26.58

DELAWARE.						DIST. OF COLUMBIA.		
Year.	Dover.	Fort Delaware.	Georgetown.	Milford.	Wilmington.	Year.	Georgetown.	Washington.
1855	...	39.56	...	...	...	1824	...	29.00
1856	...	31.46	...	...	...	1825	...	24.45
1857	...	25.96	...	...	...	1826	...	18.79
1858	...	17.14	37.22	...	...	1827	...	26.39*
1859	...	...	54.42	...	...	1828	...	23.55
1860	...	...	...	...	...	1829	...	43.09
1861	...	...	...	...	...			
1862	...	...	...	...	...	1836	...	47.27
1863	...	...	...	...	...	1837	...	31.80
1864	...	...	...	...	58.90	1838	...	35.10
1865	...	58.00*	...	...	64.63*	1839	...	37.65
1866	...	...	...	...	...	1840	...	35.73*
1867	...	39.83*	...	...	...	1841	...	45.11
1868	...	...	...	...	...			
1869	...	39.59	...	...	...	1846	...	41.61
1870	...	39.54*	...	41.65	...	1847	...	35.82
1871	45.50*	...	...	48.17*	...	1848	...	23.24
1872	41.44	...	...	52.59	...			
1873	57.89	...	...	50.05	...	1852	...	40.50
1874	52.49*	...	...	50.70*	...	1853	...	33.43
						1854	...	31.57
						1855	...	29.74
						1856	...	33.64
						1857	...	41.43
						1858	...	39.58
						1859	...	42.32
						1860	...	37.63
						1861	42.48*	43.64
						1862	36.39*	39.06
						1863	...	45.13
						1864	...	36.28
						1865	...	48.76
						1866	...	49.38
						1867	...	57.82
						1868	...	46.99
						1869	...	43.91
						1870	...	36.89
						1871	...	38.78
						1872	...	31.73
						1873	...	46.19
						1874	...	35.50
						1875	...	41.34
						1876	...	45.61
Mean. . .	47.05	40.08	46.13	46.71	63.59	Mean . . .	39.38	38.05

FLORIDA.

Year.	Cedar Keys.	Datona.	Fairview.	Fort Barrancas.	Fort Brooke.	Fort Dallas.	Fort Deynaud.	Fort George.	Fort Jefferson.	Fort Meade.	Fort Myers.	Fort Pierce.	Fort Shannon.	Gainesville.	Indian Key.	Jacksonville.
1836	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35.15	...
1837	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41.77	...
1840	...	...	...	...	89.86	...	...	...	...	...	...	...	...	...	...	...
1841	54.20	...	...	...	48.89	...	...	...	...	...	...	...	54.13	...	...	...
1842	44.20	...	...	...	45.96	...	...	...	...	...	...	...	45.67	...	...	...
1843	...	...	...	64.16	56.28	...	...	...	...	...	...	...	43.27	...	...	...
1844	...	...	...	59.58	51.67	...	...	...	...	...	...	...	...	...	...	...
1845	...	...	...	41.23*	53.06	...	...	...	...	...	...	...	...	...	...	...
1846	...	...	...	74.91*	54.20	...	...	...	...	...	...	...	...	...	...	...
1847	...	...	...	...	46.20	...	...	...	...	...	...	...	...	...	...	...
1848	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1849	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1850	...	...	...	...	46.36*	...	...	...	...	...	...	...	...	...	...	...
1851	...	...	...	44.07*	...	...	...	...	...	...	61.55	...	...	...	...	...
1852	55.57	...	...	...	69.26	...	...	...	...	46.34	74.27	47.19*	...	...	...	...
1853	52.89*	...	...	53.50*	44.77	...	...	...	...	18.27	82.64	96.39	...	...	...	...
1854	39.62	...	...	50.92	77.44	...	...	...	...	55.31*	44.75	46.79	...	...	...	56.30
1855	34.52	...	...	77.68	37.90*	68.32	56.42*	...	...	...	54.66	48.96*	...	...	...	...
1856	34.41	...	...	53.56	53.73*	52.80	...	...	...	...	49.03	58.03	...	...	...	52.31
1857	...	...	...	...	35.93*	59.47	...	...	...	...	40.20	54.43	...	37.24	...	49.04*
1858	50.80*	...	...	...	...	...	...	...	...	...	...	...	...	58.43	...	46.94*
1859	60.34*	...	...	70.09	...	...	...	...	...	...	...	...	...	45.70	...	46.88
1860	...	...	...	...	...	...	...	...	...	...	...	...	...	38.60*	...	...
1865	...	...	...	...	...	...	...	...	39.70*	...	...	...	...	...	...	...
1866	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1867	...	...	...	...	...	...	...	...	88.10	...	...	...	...	...	...	68.31*
1868	...	...	...	...	...	...	...	...	27.72*	...	...	...	...	...	...	49.52
1869	...	...	55.74*	...	...	...	...	...	...	...	...	...	...	...	...	54.18
1870	...	...	54.96*	...	...	...	...	...	29.62	...	...	...	...	...	...	52.29
1871	...	...	73.67	...	...	...	...	...	25.44	...	...	...	...	...	...	65.60
1872	...	43.29	...	...	...	...	...	...	28.72	...	...	...	...	...	...	...
1873	...	54.22	...	55.95	...	...	...	49.60	28.20*	...	...	...	...	...	...	...
1874	...	43.72	...	57.34	...	...	...	40.97*	...	...	...	...	...	...	...	...
1875	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	57.60
1876	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	55.28
Mean.	45.78	46.43	61.21	60.23	53.37	59.06	55.30	42.64	38.25	39.90	56.56	58.02	47.68	44.92	38.46	53.01

FLORIDA—Continued.

Year.	Key West.	Knox Hill.	Lake City.	Manatee.	Micanopy.	Mosquito Inlet, near	Newport.	Punta Rassa.
1833	27.56	...	...	...	...	...	...	...
1834	36.11	...	...	...	...	...	...	...
1835	30.09	...	...	...	...	...	...	...
1836	24.41	...	...	...	...	...	...	...
1837	38.95	...	...	...	...	...	...	...
1838	20.49	...	...	...	...	...	...	...
1844	38.40	...	...	...	...	...	...	...
1851	53.69	...	...	...	...	...	...	...
1852	46.41	...	...	...	...	...	...	...
1853	45.83	...	...	...	...	...	...	...
1854	44.65	39.92	...	...	...	...	...	...
1855	44.64	53.19*	...	...	...	...	...	...
1856	40.28	...	...	...	...	...	...	...
1857	38.87	...	...	...	...	...	...	...
1858	35.75	...	79.69	...	...	...	...	...
1859	31.56	...	75.55	...	45.46	...	...	...
1860	...	...	...	...	27.25	...	...	...
1861	25.91	...	...	...	51.04	...	...	...
1862	33.62	...	...	...	...	...	...	...
1863	32.25*	...	...	...	...	...	...	...
1864	...	...	...	...	...	...	...	...
1865	41.41	...	...	...	...	...	...	...
1869	...	...	...	49.67	...	...	...	...
1870	71.26	...	...	...	...	...	...	...
1871	47.69*	...	...	...	...	47.01*	...	...
1872	46.51*	...	...	...	...	...	81.96*	...
1873	33.33	...	53.17	...	...	...	72.04	59.20
1874	47.13	...	43.00*	...	...	...	47.93*	38.16
1875	36.35	...	...	...	...	...	...	40.71
1876	37.35	...	...	...	...	...	...	44.34
Mean . .	39.01	44.18	66.90	48.49	46.94	53.84	64.24	43.85

Year.	Saint Augustine.	Saint Mark's.	Tampa.	Warrington.	Wellborn.
1844	29.01	...	...	...	...
1845	29.87*	...	...	...	...
1846		...	...	...	...
1847	...	...	...	...	...
1848	...	...	...	...	...
1849	...	...	...	...	...
1850	...	...	...	...	...
1851	33.30*	...	...	...	...
1852	...	...	...	...	...
1853	...	...	...	...	...
1854	...	...	...	43.00	...
1855	...	...	...	49.96	...
1856	...	...	...	79.83*	...
1857	40.85	...	...	65.41*	...
1858	49.83*	...	...	...	...
1859	47.53	...	...	...	...
1871	...	...	...	...	62.38*
1872	...	...	47.50	...	48.29
1873	...	...	56.83*	...	...
1874	...	...	...	...	36.86*
1875	...	66.84	...	...	...
1876	...	67.57	...	...	...
Mean .	41.00	61.28	53.16	61.14	48.72

GEORGIA.

Year.	Athens.	Atlanta.	Augusta.	Berne.	Cabaniss.	Culloden.	Forsyth.	Gainesville.	La Fayette.	Macon.	Penfield.	Perry.	Quitman, near
1845	...	...	19.13	...	...	...	...	...	...	...	...	...	...
1851	...	...	...	...	...	...	...	...	...	...	...	32.99*	...
1852	...	...	...	...	...	...	...	...	...	...	...	57.70	...
1853	...	...	...	...	...	57.57	...	...	...	...	...	...	...
1858	48.50*	...	...	...	...	...	...	...	...	...	...	...	...
1859	55.16*	64.54	48.11*	...	...	...	...	...	...	...	...	...	...
1866	...	51.68*	...	...	...	...	...	...	...	...	...	...	...
1868	...	49.69*	...	...	...	...	...	...	...	...	...	...	...
1869	...	56.41*	42.88	...	...	...	...	...	...	...	35.82	...	...
1870	...	49.72*	44.26	33.70*	...	...	...	...	...	...	35.67	...	...
1871	...	51.17	63.57	55.36*	...	...	...	...	...	...	...	...	66.97*
1872	...	42.83	52.87	33.55	...	...	...	...	52.92	42.15*	...	...	61.65
1873	52.11*	53.90	49.90	64.50*	40.95*	...	...	...	...	...	...	...	58.40
1874	...	59.59	62.05	...	50.50	...	52.12*	60.35*	...	...	...	...	44.20*
Mean. . .	43.19	52.80	46.78	48.77	44.77	64.24	...	77.85	54.61	50.48	35.75	44.12	57.74

Year.	GEORGIA—Continued.						IDAHO.		
	Savannah.	Sparta.	Saint Mary's.	Thomaston.	Tybee Island.	Whitemarsh Island.	Fort Boisé.	Fort Hall.	Fort Lapwai.
1837	37.68	...	...	...	...	...	...	...	...
1838	38.50	...	...	...	...	...	...	...	...
1839	25.98*	...	...	...	...	...	...	...	...
1840	47.08	...	...	...	...	...	...	...	...
1841	69.83	...	...	...	...	...	...	...	...
1842	63.67	...	...	...	...	...	...	...	...
1843	43.59	...	...	...	...	...	...	...	...
1844	53.09	...	...	...	...	...	...	...	...
1845	37.83	...	...	...	...	...	...	...	...
1846	57.05	...	...	...	...	...	...	...	...
1847	69.93	...	...	...	...	...	...	...	...
1848	56.92	...	...	...	...	...	...	...	...
1849	50.41	...	...	...	...	...	...	...	...
1850	59.63	...	...	...	...	37.84	...	...	...
1851	43.72	...	...	...	...	29.78	...	...	...
1852	54.85	49.03*	...	...	...	49.91	...	...	...
1853	46.89	48.75	...	...	...	45.56	...	...	...
1854	43.14	44.35	...	...	...	41.18	...	...	...
1855	38.59	51.52	...	...	...	37.36	...	...	...
1856	45.38	51.87	...	...	...	38.74	...	...	...
1857	33.50	39.56	...	36.83	...	30.83*	...	...	...
1858	53.20	63.08	...	...	...	52.35	...	...	...
1859	54.19*	61.31*	...	43.81	...	45.65	...	...	...
1860	...	60.16*	...	...	...	32.95*	...	...	...
1864	...	...	...	...	...	...	...	...	14.05
1865	...	...	...	...	...	...	11.53	...	11.57*
1868	...	...	...	...	...	...	6.44	...	11.97*
1869	42.82	...	...	...	...	...	15.73	...	11.54
1870	44.49*	...	...	...	...	...	15.93	...	13.71
1871	33.97	...	64.63	...	...	...	25.80	...	21.12
1872	48.87	...	39.13	...	...	...	17.93	...	16.11
1873	41.96	...	50.93	...	...	...	17.74	9.67*	10.33
1874	51.99	...	51.81*	...	...	...	14.97	...	13.64
1875	49.00	...	...	...	34.42	...	...	...	...
1876	64.85	...	...	...	73.76	...	...	...	...
Mean. . .	48.67	53.88	51.46	40.48	44.60	40.31	15.48	9.28	14.89

ILLINOIS.

Year.	Andalusia.	Athens.	Year.	Augusta.	Aurora.	Batavia.	Belvidere.	Brighton.	Cairo.	Champaign.	Charleston.	Chicago.	Decatur.
1843	...	40.93	1856	42.01*	...	...	...	...	...	...	...	...	...
1844	...	48.17	1857	28.75	...	...	...	17.73	...	...	...	...	...
1845	...	43.04	1858	51.05	47.50	52.72	...	31.27	...	...	...	...	...
1846	...	44.90	1859	44.88	30.47	31.03	...	...	...	...	...	...	...
1847	...	32.61	1860	...	42.86*	...	...	...	...	...	...	...	...
1848	...	44.22	1861	32.47	...	...	...	...	...	...	...	...	...
1849	...	38.49	1862	43.93*	...	...	...	...	...	...	...	...	...
1850	...	40.69	1863	30.62*	...	...	...	...	...	...	...	...	...
1851	...	46.91	1864	35.80	...	...	...	...	...	...	...	...	...
1852	...	38.26	1865	42.00	...	...	...	...	...	...	...	...	...
1853	...	34.83	1866	39.34	30.24	...	...	...	...	...	...	...	...
1854	...	31.13	1867	27.65	31.26	...	...	...	...	...	...	22.41	...
1855	...	43.52	1868	45.17	37.96*	...	...	...	...	...	...	36.48	...
1856	...	25.12	1869	47.30	...	...	42.78	...	...	...	...	31.57	...
1857	...	32.49*	1870	33.73	34.36	...	27.81	...	...	...	33.36*	22.92	25.90
1858	...	47.27	1871	40.81	31.44*	...	...	...	...	...	...	...	22.30
			1872	30.32	...	...	...	...	...	...	...	31.22*	...
1860	28.30*	...	1873	43.63	35.26*	...	...	...	50.86	31.57*	...	34.76	...
			1874	33.28*	...	...	...	...	47.58	25.13*	...	29.32	...
1872	35.05*	...	1875	...	...	...	...	...	52.93	...	...	38.08	...
			1876	...	...	...	...	...	55.60	...	...	36.51	...
Mean. . .	30.74	39.62	Mean . .	38.73	34.13	36.68	34.44	29.93	51.60	26.60	33.11	33.00	25.79

ILLINOIS—CONTINUED.

Year.	Dubois, near	Elgin.	Elmira.	Elmore.	Evanston.	Galesburg.	Geneseo.	Golconda.	Havana.	Hennepin.	Highland.	Jacksonville.	Jerseyville.
1858	...	45.35*	...	...	...	...	...	...	...	...	...	...	...
1859	...	28.79	...	...	...	...	...	...	...	...	...	...	...
1860	...	...	...	...	...	...	...	...	...	...	...	...	...
1861	...	40.44*	...	...	...	35.38*	...	...	...	...	34.64*	35.46*	...
1862	...	...	...	...	...	42.75	...	...	...	...	59.50	...	...
1863	...	...	...	...	...	27.61*	...	...	...	...	36.06*	...	...
1864	33.40	...	...	...	...	32.73	...	...	...	...	...	...	...
1865	51.80	...	38.03	34.46*	30.29*	36.29	...	...	...	...	...	...	...
1866	45.40	...	34.42	32.44*	...	31.97	...	36.03*	...	...	...	...	...
1867	40.15	...	24.27	...	...	23.23	...	32.90	...	...	...	...	...
1868	50.78	...	34.83	...	...	37.86*	...	30.44	...	...	...	...	...
1869	40.98	...	44.74*	33.66*	42.03	39.88	...	30.66	...	...	...	...	...
1870	31.60	...	...	...	29.52	22.91	...	37.49*	...	...	...	...	...
1871	26.04	...	...	...	30.02	34.33	...	...	36.04*	29.38	...	...	...
1872	28.73	...	...	...	26.11*	...	...	...	33.30	34.65*	...	...	49.55
1873	52.86	...	26.07*	...		...	26.73*	...	45.49	28.67	...	...	...
1874	45.55*	...	26.95	...	...	...	28.80	...	30.42	26.88	...	...	...
Mean. . .	40.68	37.71	32.85	36.21	30.13	33.73	27.76	33.50	36.05	29.89	42.45	35.35	57.23

ILLINOIS—CONTINUED.

Year.	Lebanon.	Loami.	Louisville.	Manchester.	Marengo.	Mattoon.	Mount Sterling.	Oquawka.	Orchard Farm.	Ottawa.	Pana.	Pekin.	Peoria.	Quincy.	Riley.	Rockford.
1850	...	...	...	...	53.05	...	...	...	...	...	...	...	...	...	...	...
1851	...	...	...	...	56.90	...	...	...	...	...	...	...	...	...	...	...
1852	...	...	...	...	42.02	...	...	...	...	...	...	...	...	...	...	...
1853	...	...	...	...	45.37	...	...	...	...	...	...	...	...	...	...	...
1854	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1855	...	...	...	48.03	...	...	...	...	...	...	...	50.21	...	...	...	...
1856	...	...	...	31.02	42.21	...	...	...	...	32.43*	...	27.89	27.91	...	...	...
1857	...	...	...	33.76	37.66	...	...	...	...	35.34*	...	32.60	30.45	...	...	...
1858	...	...	...	49.41	46.85	...	...	...	...	46.87	...	60.70	53.36	...	47.49*	...
1859	...	...	...	42.37	29.57	...	...	...	...	27.89	...	30.30	29.38	...	25.54	...
1860	...	...	...	...	29.85	...	...	...	36.40	29.33*	...	...	...	...	32.58*	...
1861	34.83	...	...	30.03	33.16	...	...	...	37.25*	38.89	...	...	33.36	...	37.51	...
1862	...	...	...	39.83	39.55	...	...	...	51.73	55.71	...	...	46.94	...	37.87	...
1863	...	...	...	34.35*	25.57	...	...	...	36.33*	32.44*	...	...	34.36*	...	40.46*	...
1864	...	...	...	27.40	23.91	...	...	...	...	29.53	...	38.80*	30.87	...	46.90	...
1865	...	...	...	...	30.72	...	...	...	...	37.17*	...	48.50*	37.02	...	49.90	...
1866	...	34.33	...	43.70	38.80	...	...	...	...	32.76	...	...	36.43	...	44.72	...
1867	...	29.27*	...	29.03	...	...	...	...	...	28.88*	...	...	24.57	...	...	...
1868	...	...	...	38.01	46.48	...	...	...	...	36.11*	...	...	34.49*	...	...	...
1869	...	39.38*	58.17*	40.73	...	...	...	...	...	41.02*	...	...	41.99	...	...	...
1870	...	...	39.90	31.02	...	30.79	33.49	...	...	29.20*	26.25	...	23.60	...	28.92	...
1871	...	...	36.57	25.96	...	...	34.02	38.18	...	...	...	...	32.15	46.83	28.12	...
1872	...	...	33.75	38.13	...	...	34.85*	30.76	...	...	...	...	38.63	...	33.34	...
1873	...	...	49.40	43.17	...	...	36.59*	...	...	...	...	...	38.58	...	27.97	26.38
1874	...	...	55.00	35.27*	...	43.26*	...	...	...	...	...	...	25.04	...	24.35	23.60
Mean .	37.93	35.34	45.46	36.67	38.72	57.03	31.22	35.50	39.72	36.11	27.31	42.05	34.37	44.76	35.69	24.60

ILLINOIS—CONTINUED.

Year.	Rock Island Arsenal.	Sandwich.	Tiskilwa.	Upper Alton.	Warrensburg.	Warsaw, near.	Waterloo.	Waverly.	Waynesville.	West Salem.	West Urbana.	Wheaton.	Winnebago.	Wyanet, near	York Neck.
1854	...	...	...	16.60*	...	...	...	...	...	...	...	...	...	...	...
1855	...	...	...	32.39	...	...	...	...	...	...	...	...	...	...	...
1856	...	...	...	27.18*	...	...	...	...	...	31.97*	...	...	...	...	...
1857	...	...	...	...	...	24.79	...	...	...	41.49*	31.71*	...	42.25*	...	...
1858	...	...	...	...	...	...	...	...	42.00*	51.00	46.11*	51.38	45.16	...	...
1859	...	38.96*	...	38.65*	...	...	...	...	...	41.02	34.06	30.78	26.51	...	...
1860	...	56.27	...	...	...	...	...	...	...	...	...	...	33.78*	...	...
1861	...	68.70	...	...	...	...	...	...	...	...	...	...	44.51	...	...
1862	...	70.39	...	...	...	...	...	...	...	...	...	...	45.20*	...	...
1863	...	50.51*	...	...	...	...	...	38.17*	...	...	...	...	33.24*	...	...
1864	...	38.37	...	...	...	...	...	28.85	...	...	...	...	28.90	...	44.42
1865	...	34.34	...	...	...	...	...	38.71*	...	...	...	...	44.82	50.00	44.42
1866	...	36.12	...	...	...	...	...	...	...	...	...	...	38.91	34.32	...
1867	29.23	41.15*	...	...	...	...	...	...	...	...	...	...	26.74	27.67	...
1868	34.29	25.95	...	...	...	...	...	...	...	...	...	...	35.31	31.72*	...
1869	43.81	44.32	...	...	...	53.87	...	...	...	...	...	...	37.21	51.31	...
1870	24.36*	...	...	...	...	31.06	...	...	...	...	...	...	27.17	33.45*	...
1871	32.73	...	...	...	...	41.09	32.07*	...	...	...	...	...	...	39.68*	...
1872	26.65	39.58	...	...	28.13	38.68*	...	...	...	...	...	...	...	46.05	...
1873	17.95*	54.65	...	...	31.40	40.86*	...	...	...	...	...	...	...	39.95	...
1874	25.36	...	29.15*	...	...	...	...	...	...	...	...	...	...	35.02	...
Mean..	29.16	46.60	...	28.53	29.77	40.63	31.12	36.61	42.47	42.23	36.61	40.43	35.96	38.79	44.40

INDIANA.

Year.	Annapolis.	Aurora.	Beech Grove.	Bloomington.	Cadiz, near	Cannelton.	Columbia City.	Fort Wayne.	Independence.	Indianapolis.	Laconia.	La Porte, near	Livonia.	Logansport.	Madison.
1849	...	...	...	...	...	...	...	...	...	...	...	46.44*	...	...	...
1856	...	...	...	...	...	...	...	...	...	...	...	...	...	24.58	...
1857	...	...	...	...	...	30.60*	...	...	...	...	...	...	...	39.87	...
1858	...	...	...	...	...	44.24*	...	...	...	...	...	...	...	50.07*	46.54
1859	...	...	...	...	...	36.39	...	...	...	...	...	...	...	41.89*	...
1860	...	...	...	...	40.01*	...	...	...	...	...	...	...	...	...	...
1861	...	...	...	...	41.40	34.61	...	...	...	39.56	...	...	...	...	...
1862	...	...	...	...	...	...	...	...	54.61	56.48	...	...	...	...	...
1863	...	...	...	...	...	...	...	...	31.57	40.11	...	...	...	...	...
1864	...	...	...	...	...	...	...	...	...	33.78	...	...	...	...	...
1865	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1866	...	40.84	...	...	...	...	46.19	...	...	...	...	...	...	...	...
1867	...	36.20	...	...	...	...	25.55*	...	...	...	...	...	...	...	...
1868	...	44.65	...	...	...	...	55.54*	...	...	42.46	...	...	...	...	...
1869	43.54*	36.93	...	44.94	...	...	45.69*	...	...	41.62	...	...	...	...	...
1870	35.90*	33.47	...	...	...	...	25.57*	...	...	27.81*	43.32	32.89	...	...	...
1871	...	38.53	...	29.74*	...	...	...	28.26	...	...	44.16	...	...	...	...
1872	...	44.01*	41.68	39.79*	...	...	...	31.57	...	...	37.58	...	40.15*	...	...
1873	...	34.90*	53.79*	...	...	...	...	45.00	...	52.32	44.16	...	...	...	...
1874	...	...	...	29.22*	...	...	...	27.20	...	43.60	37.45	...	...	...	...
1875	...	...	...	...	...	...	...	...	...	42.58	...	...	...	...	...
1876	...	...	...	...	...	...	...	...	...	57.56	...	...	...	...	...
Mean . .	40.62	37.95	45.30	37.87	42.25	36.86	39.60	32.90	43.09	41.35	41.49	42.96	40.15	38.14	57.86

INDIANA—Continued.

Year.	Merom.	Michigan City.	Mount Carmel.	Mount Hope.	Muncie.	New Albany.	New Castle.	New Harmony.	Rensselaer.	Richmond.	Rising Sun.	Rockville.	South Bend.	Spiceland.	Vevay.
1852	...	...	...	...	...	...	...	...	...	46.36	...	...	...	...	...
1853	...	...	...	...	...	...	...	...	...	31.97	...	...	...	...	...
1854	...	...	...	...	...	...	...	35.58	...	41.83	...	...	...	...	...
1855	...	...	...	...	...	...	...	48.11	...	56.77	...	...	...	...	...
1856	...	...	...	...	...	...	...	23.18	...	23.67	...	...	...	...	...
1857	...	31.06*	...	...	...	...	...	39.66	...	39.42	...	...	...	...	...
1858	...	44.63*	...	...	...	...	...	48.71	...	55.38	...	...	...	...	...
1859	...	...	...	...	...	...	...	44.33	...	45.49	...	...	...	...	...
1860	...	19.33*	...	...	...	...	...	...	...	38.29	...	...	...	...	...
1861	...	...	...	...	...	...	...	37.49	...	39.50	...	...	...	...	...
1862	...	...	...	...	...	...	...	46.34	...	49.81	...	...	...	...	...
1863	...	...	...	...	...	...	...	34.98*	...	36.97	...	37.18*	40.02*	...	...
1864	...	...	...	...	...	32.94	36.16	33.71	...	34.08	...	...	37.10	34.52	...
1865	...	...	...	...	...	48.72*	...	45.23	49.96*	55.54	...	...	...	47.30	53.24*
1866	...	...	...	...	...	...	...	37.32	...	56.52	...	...	...	58.00	52.55
1867	36.26*	...	...	...	41.05	...	...	34.99	...	41.86	...	...	...	30.38	48.54
1868	37.32*	...	...	...	50.59	...	...	42.80	69.15*	...	...	...	...	45.63	42.20*
1869	38.46	...	...	47.61	51.57	...	...	42.47	...	...	...	...	...	41.67*	42.98
1870	23.50*	...	27.65	30.36	...	...	...	37.75	35.65*	...	...	...	...	30.91	35.13
1871	27.32	...	30.53	31.52	...	...	...	30.85	...	...	...	...	...	27.70	36.07
1872	31.76	...	35.49*	31.26	...	...	...	30.86	...	...	49.27	...	...	24.39	41.24
1873	32.71*	...	39.06*	45.94*	...	...	...	...	...	...	46.93	...	...	45.62	36.12
1874	...	...	...	36.49	...	...	...	41.88	...	...	58.80*	...	...	39.55	43.00
Mean . .	32.82	31.70	32.58	36.59	47.82	39.83	39.22	38.73	57.91	43.75	50.94	37.81	37.49	38.53	43.27

INDIAN TERRITORY.

Year.	Camp Supply.	Fort Arbuckle.	Fort Gibson.	Fort Sill.	Fort Towson.	Fort Washita.
1837	...	...	34.66	...	43.80	...
1838	...	...	18.84	...	34.40	...
1839	...	...	33.74*	...	66.05	...
1840	...	...	55.82	...	55.70	...
1841	...	...	36.25	...	66.62*	...
1842	...	...	29.11	...	73.36	...
1843	...	...	35.61	...	55.90	...
1844	...	...	37.58	...	46.54	36.00
1845	...	...	26.27	...	38.08	34.70
1846	...	...	33.85	...	...	49.75
1847	...	...	24.10	...	...	37.45
1848	...	...	37.73	...	...	35.28
1849	...	...	52.65	...	...	64.29
1850	...	...	35.01	...	49.65	41.34
1851	...	24.24	52.26	...	48.97*	31.52
1852	...	46.02	51.65	...	...	47.07
1853	...	26.68	25.88	...	42.10	30.46
1854	...	28.22	28.82	...	...	43.28
1855	...	29.69	35.66	...	...	21.81
1856	...	41.93	39.85*	...	...	29.04
1857	...	47.49	...	...	...	33.17
1859	...	27.96	...	...	...	...
1860	...	19.73	...	...	...	...
1869	...	42.65	...	...	...	...
1870	...	33.32*	...	...	...	...
1871	...	...	...	19.73	...	...
1872	...	...	...	25.14	...	...
1873	...	...	39.18*	33.80	...	...
1874	24.50*	...	37.42	28.89	...	...
1875	...	...	44.10	...	...	...
1876	...	...	35.48	...	...	...
Mean .	21.95	33.87	36.96	28.52	51.08	38.03

IOWA.

Year.	Afton.	Algona.	Bellevue.	Boonesboro.	Border Plains.	Bowen's Prairie.	Brookside.	Clarinda.
1856	...	...	31.15*	...	...	...	...	...
1857	...	...	36.05	...	...	...	...	...
1858	...	...	51.51	...	...	...	...	...
1859	...	...	27.97	...	34.93*	...	...	...
1860	...	...	...	...	...	...	...	...
1861	...	...	...	...	...	...	...	...
1862	...	...	...	...	...	...	47.12*	...
1863	...	30.83*	...	...	...	...	49.24*	...
1864	...	24.43*	...	...	...	...	42.53	...
1865	...	...	...	...	...	...	50.88	...
1866	...	...	...	...	...	...	42.36	...
1867	...	...	...	...	...	...	...	...
1868	...	...	...	32.26*	...	...	41.30*	...
1869	...	...	...	...	...	45.74	52.98*	...
1870	...	...	...	36.43*	...	29.93	31.28	...
1871	...	...	...	...	...	26.59*	32.70	...
1872	34.18	...	...	32.23*	...	...	50.45	39.94
1873	23.34	40.01	...	27.95*	...	...	42.05*	...
1874	35.85	34.70	...	34.43*	...	...	...	...
Mean .	31.42	31.89	35.45	34.54	40.30	36.07	43.53	30.94

IOWA—CONTINUED.

Year.	Clinton.	Council Bluffs.	Cresco.	Davenport, Griswold College.	Des Moines.	Dubuque.	Durant, near.	Fairfield.	Fort Atkinson.	Fort Dodge.	Fort Madison, near.
1845	...	...	...	...	24.14*	...	...	...	34.83	...	...
1848	...	...	...	...	...	...	...	...	...	...	50.56*
1849	...	...	...	...	...	...	...	...	...	...	54.14
1850	...	...	...	...	...	...	...	...	...	...	50.36
1851	...	...	...	...	...	...	...	...	...	...	45.32
1852	...	...	...	...	...	...	...	...	...	25.85	52.22
1854	...	...	...	...	...	27.77	...	...	...	...	46.26
1855	...	...	...	...	...	29.13	...	...	...	...	48.05*
1856	...	...	...	...	21.18	...	...	...	...	...	43.86
1857	...	...	...	...	...	...	...	...	...	...	27.54
1858	...	...	...	...	...	47.19	...	65.90	...	...	51.10
1859	...	...	...	...	...	29.72*	...	42.34	...	...	37.46
1860	33.29	...	...	...	...	26.84	...	...	...	...	32.23
1861	39.98	...	...	37.99*	...	38.47	...	...	...	...	31.01
1862	46.10	...	...	42.23	...	35.00	...	...	...	...	37.56
1863	41.53*	...	...	...	...	33.92	...	...	...	...	30.07
1864	42.62*	...	...	29.93*	...	25.07	...	...	...	...	31.17
1865	64.13	...	...	30.88	...	36.21	...	...	...	...	44.56
1866	43.75*	...	...	57.18	...	36.25	...	...	...	...	41.85
1867	33.50*	...	...	56.48	...	34.87	...	...	...	31.90*	31.52
1868	52.85	...	...	65.35	...	33.34	...	...	...	30.34	44.42
1869	48.97	...	...	52.73	...	38.98	...	...	...	...	41.56
1870	28.18	...	...	27.11*	...	25.10	...	...	...	...	30.24
1871	...	29.81*	...	...	...	34.32*	26.61*	...	...	...	39.27
1872	...	33.10	29.00	...	...	...	...	...	...	...	26.40*
1873	...	28.88	24.44	28.08	...	...	...	...	...	...	28.75*
1874	...	25.43	27.60	36.79	36.83*	30.12	...	...	...	...	29.13*
1875	...	...	...	31.99	...	35.47	...	...	...	...	...
1876	...	...	...	46.82	...	50.28	...	...	...	...	...
Mean...	42.71	29.32	27.98	41.41	29.38	33.66	...	47.94	39.78	29.90	39.44

IOWA—CONTINUED.

Year.	Grant City.	Guttenberg.	Independence.	Iowa City.	Iowa Falls.	Keokuk.	Logan.	Marble Rock.	Manchester.	Monticello.
1858	...	...	...	43.24	...	...	...	...	...	...
1861	...	...	...	47.51	...	...	...	...	...	...
1862	...	...	...	45.42	...	...	...	...	...	...
1863	...	...	...	33.15*	...	...	...	...	...	...
1864	...	...	...	46.23	36.88	...	...	...	...	...
1865	...	...	...	45.19	50.02	...	...	...	...	...
1866	...	...	...	44.58	42.53	...	...	...	31.73	40.10
1867	...	...	...	44.36	54.66	...	27.81	...	...	30.85
1868	...	...	28.96*	39.57*	43.61*	...	36.31*	...	...	30.47
1869	31.57*	...	48.87	50.60	54.09	...	44.95	...	...	41.10
1870	31.78*	...	27.58	30.05	40.45*	...	28.56*	...	...	27.38
1871	33.63*	...	25.57	50.42*	37.27*	...	31.06*	...	...	31.84*
1872	...	24.74*	29.98	40.34	...	...	32.10	...	...	...
1873	...	34.70	29.15	30.74	...	41.99	44.47*	52.25*	...	...
1874	...	32.35	31.93	39.76	...	35.45	28.40	...	...	...
1875	...	...	...	...	...	48.42	...	...	...	...
1876	...	...	...	...	...	51.65	...	...	...	...
Mean	34.42	31.68	32.30	41.78	45.18	43.24	33.16	49.83	32.47	33.09

IOWA—CONTINUED.

Year.	Mount Pleasant.	Muscatine.	Pleasant Plain.	Poultney.	Quasqueton.	Rockford.	Rolfe.	Rossville.	Sac City.	Sioux City.	Vawter's Grove.	West Branch.	West Union.	Woodbine.
1846	...	34.55	...	...	...	...	...	...	...	...	...	...	...	...
1847	...	28.50	...	...	...	...	...	...	...	...	...	...	...	...
1848	...	39.62	...	...	...	...	...	...	...	...	...	...	...	...
1849	...	59.16	...	...	...	...	...	...	...	...	...	...	...	...
1850	...	49.08	...	...	...	...	...	...	...	...	...	...	...	...
1851	...	74.20	...	...	...	...	...	...	...	...	...	...	...	...
1852	...	60.42	...	...	...	...	...	...	...	...	...	...	...	...
1853	...	44.92	...	35.62*	...	...	...	...	...	...	...	...	...	...
1854	...	23.66	...	33.21	27.25*	...	...	...	...	...	...	...	...	...
1855	...	31.13	...	31.01	...	...	...	...	...	...	...	...	...	...
1856	...	41.94	43.72	...	...	...	...	...	...	...	...	...	...	...
1857	...	34.85	...	...	...	...	...	...	...	...	...	...	...	...
1858	...	58.45	59.88*	...	...	...	...	40.23*	...	35.61*	...	...	...	...
1859	...	35.96	39.95	...	...	...	...	31.29	...	...	...	...	...	...
1860	...	...	27.03	...	...	...	...	...	...	...	...	...	...	...
1861	...	42.89	40.01	...	...	...	...	...	...	25.71*	...	...	...	...
1862	...	53.16	33.49	...	...	...	...	...	...	18.58*	...	...	...	...
1863	...	...	21.55*	...	...	...	...	...	...	...	...	...	...	...
1864	29.17*	36.88*	30.07*	...	...	...	...	...	...	...	...	...	...	...
1865	...	34.21	...	...	...	...	...	...	...	...	...	...	...	...
1868	...	...	...	...	...	...	35.21*	...	...	...	44.22	...	...	...
1869	...	...	...	...	...	...	44.07	...	...	...	60.39	...	...	...
1870	...	...	...	...	...	...	...	...	...	...	44.97*	...	32.53	16.28
1871	...	...	...	...	...	...	...	...	45.15	...	40.46	...	28.93	...
1872	...	...	...	...	...	...	...	...	...	...	39.66	50.23*	34.04	...
1873	...	...	...	...	...	...	...	...	...	...	27.86	...	27.22	...
1874	...	34.78	...	...	...	42.80	...	...	...	...	...	...	...	...
Mean . .	37.47	42.02	37.06	34.37	...	40.80	39.81	37.24	52.93	25.66	41.57	51.38	30.38	16.60

KANSAS.

Year.	Atchison.	Atlanta.	Baxter Springs.	Belleville, near.	Burlingame, near.	Burlington.	Centreville.	Council Grove.	Dodge City.	Douglas.	Fort Dodge.	Fort Harker.	Fort Hays.	Fort Larned.
1858	...	...	...	...	38.50*	...	...	...	...	...	...	...	...	...
1859	...	...	...	...	31.18*	...	...	...	...	...	...	...	...	...
1860	...	...	...	...	14.23*	...	...	...	...	...	...	...	...	...
1861	...	...	...	...	...	...	...	...	...	...	...	...	...	18.01
1862	...	...	...	...	...	...	...	...	...	...	...	...	...	17.66*
1865	...	...	...	...	...	...	...	...	...	...	...	...	...	36.80
1866	...	...	...	...	...	...	...	42.75*	...	...	...	...	...	...
1867	41.00	...	...	...	...	...	...	39.60*	...	...	...	...	...	18.70*
1868	61.58	...	45.37	...	...	...	...	54.30	...	...	8.67*	...	15.97*	...
1869	44.22	...	47.01	...	...	35.92*	...	40.75	...	...	11.26*	...	21.22	...
1870	41.98*	...	38.04	...	...	...	...	35.45*	...	...	16.89*	...	17.89	23.06
1871	34.95	...	41.13	...	...	...	...	40.30	...	35.85	...	23.09	30.50	13.64
1872	44.09	...	29.80	24.87*	35.40*	...	...	33.93	...	...	...	...	18.70*	7.97
1873	36.77	...	37.07	31.35*	33.07*	...	38.27*	36.51	...	...	...	...	22.64	16.84
1874	40.25*	33.79	34.78	...	27.76	...	...	30.35	...	...	...	...	37.16	23.46
1875	...	...	...	...	...	...	...	...	10.78	...	...	...	...	...
1876	...	...	...	...	...	...	...	...	15.40	...	...	...	...	...
Mean . .	43.67	30.54	38.30	25.24	30.89	34.03	...	39.88	12.72	39.68	12.16	22.36	22.70	21.42

KANSAS—CONTINUED.

Year.	Fort Leavenworth.	Fort Scott.	Fort Riley.	Fort Wallace.	Holden, near	Holton.	Independence, near	Lawrence.	Leavenworth City.	Le Roy.	Manhattan.	Neosho Falls.	Olathe.	Paola, near	Williamsburg.	Williamstown.
1837	38.45	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1838	26.28	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1839	33.32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1840	32.14	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1841	25.90*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1842	26.29	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1843	15.94	44.53	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1844	48.12	62.60	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1845	34.56	61.59	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1846	23.75	34.04	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1847	21.03	34.64	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1848	37.99	29.25	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1849	42.85	45.43	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1850	27.07	30.03	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1851	37.81	33.01	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1852	36.53	46.52	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1853	25.20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1854	24.40	...	16.93	...	...	...	...	...	...	...	...	...	...	...	...	...
1855	27.55	...	26.25	...	...	...	...	...	...	...	...	...	...	...	...	...
1856	42.72	...	24.84	...	...	...	...	...	...	...	...	...	...	...	...	...
1857	31.71	...	17.98	...	...	...	...	...	...	...	...	...	...	...	...	...
1858	59.65	...	31.97	...	...	...	...	...	59.91	...	37.66*	...	...	...	...	...
1859	38.84	...	23.47	...	...	...	...	...	...	...	36.21	34.73*	...	...	...	...
1860	19.38	...	15.36	...	...	...	...	...	...	...	...	19.64	...	...	...	...
1861	27.27	...	31.68	...	...	...	...	38.83*	...	...	38.11*	39.57*	...	...	...	...
1862	29.50	...	20.01	...	...	...	...	...	...	...	26.91*	...	...	...	...	...
1863	30.40*	...	28.38	...	...	...	...	30.48*	...	...	32.90*	...	...	...	...	...
1864	15.93*	...	14.43*	...	...	...	...	...	...	...	20.05*	...	46.59*	...	...	...
1865	50.88*	...	21.17	...	...	...	...	...	...	...	33.04*	...	87.84*	...	...	...
1866	...	...	27.05*	...	...	...	...	...	49.41	...	...	...	58.31	...	...	...
1867	25.72*	...	30.25	...	...	...	...	...	41.65*	...	26.47	...	38.17*	...	...	...
1868	33.18	...	24.33	...	...	...	...	38.27	38.74	...	30.09	...	58.20	...	...	...
1869	35.31	...	31.83	...	...	...	...	38.52	43.47	42.76	28.27	34.75*	61.80*	...	...	...
1870	43.18	...	23.99	...	...	38.63*	...	31.33	40.94	...	22.10	...	39.90*	27.77	...	...
1871	56.75	...	32.19	...	21.05*	31.46	...	33.23	41.05	38.20	30.00	...	40.50*	37.35	...	37.91
1872	51.65	...	31.55	...	...	43.98	33.26	32.63	41.68	41.18	37.26	...	50.50*	35.77	39.50	...
1873	32.16	...	24.25	...	...	28.82*	34.06	30.93*	35.17	32.05	32.25*	...	...	...	...	...
1874	30.15	...	15.94	13.58	...	35.18*	31.84	29.09	33.65	27.55	25.90*	...	...	...	...	...
1875	...	...	...	...	...	...	...	...	31.26	...	...	...	...	...	...	...
1876	...	...	...	...	...	...	...	...	44.48	...	...	...	...	...	...	...
Mean .	33.38	42.15	24.52	10.95	23.81	37.19	32.95	33.10	42.15	35.96	29.89	31.71	53.89	37.38	36.87	40.52

KENTUCKY.

Year.	Arcadia.	Ballardsville.	Bardstown.	Blandville.	Chilesburg.	Danville.	Lexington.	Louisville.	Millersburg.	Newport Barracks.	Nicholasville.	Paris.	Prospect Hill.	Springdale.	Winchester.
1842	...	...	...	...	...	...	...	...	...	...	...	...	...	40.71	...
1843	...	...	...	...	...	...	...	...	...	...	...	...	...	48.67	...
1844	...	...	...	...	...	...	...	...	...	...	...	...	...	40.40	...
1845	...	...	...	...	...	...	...	...	...	...	...	...	...	43.28	...
1846	...	...	...	...	...	...	...	...	...	...	...	...	...	47.80	...
1847	...	...	...	...	...	...	...	...	...	...	...	...	...	50.12	...
1848	...	...	...	...	...	...	...	...	...	...	...	...	...	58.36	...
1849	...	...	...	...	...	...	...	...	...	...	...	...	...	45.27	...
1850	...	...	...	...	...	...	...	...	...	...	...	...	...	67.10	...
1851	...	...	...	...	...	...	...	...	...	...	...	...	...	42.34	...
1852	...	...	...	...	...	...	...	...	...	...	...	...	...	51.91	...
1853	...	...	...	...	...	...	...	...	...	...	...	...	...	35.56	...
1854	...	...	...	...	...	48.16*	...	...	34.66*	...	...	...	...	46.20	...
1855	...	...	...	...	...	40.18*	...	...	33.60*	50.91	...	...	...	45.71*	...
1856	...	...	...	...	...	...	...	...	...	27.72	...	28.86	...	30.91	...
1857	...	...	...	...	...	42.34*	...	...	...	46.33	...	48.76*	...	46.70	...
1858	...	...	53.12	...	42.47	...	...	44.21*	...	58.08	...	39.22	...	49.90	...
1859	...	...	51.88*	...	47.87	45.11*	...	...	...	46.58	...	46.21	...	51.14	...
1860	...	...	...	...	37.00	32.41*	...	...	...	...	...	...	...	...	...
1861	...	43.84	34.51*	...	47.75	45.73*	...	41.38*	42.12	...	46.68	...	...	49.56	...
1862	...	...	...	...	47.33	...	...	50.36	...	...	45.22	...	...	60.14	...
1863	...	...	...	...	45.88	...	...	...	...	...	...	...	...	48.34*	...
1864	...	...	...	...	41.03	...	...	...	...	...	...	...	...	45.18	...
1865	...	...	...	...	60.36	52.34	...	...	...	48.37	...	...	...	62.15	...
1866	...	...	...	...	51.18	...	...	...	...	...	...	...	...	59.80	...
1867	...	...	...	...	52.88	...	58.18	...	...	32.06	...	...	...	49.96	...
1868	...	...	...	...	51.47	...	...	...	...	47.60	...	...	...	58.42	...
1869	...	...	...	...	45.17	40.18*	...	...	...	33.26	...	...	...	48.67*	...
1870	47.52*	...	...	...	50.96	42.41*	...	...	...	28.74	...	...	...	45.92*	...
1871	43.87*	...	...	...	43.98	42.32*	...	...	...	35.78	...	...	...	42.23	...
1872	...	...	...	34.84*	39.60	...	...	...	...	28.37	...	...	...	44.77	...
1873	...	...	...	60.27	46.94	42.34*	43.66	45.80	...	31.03	...	...	...	...	31.64*
1874	...	...	...	45.91*	...	...	47.01	43.60	...	33.06	...	...	...	...	...
1875	...	...	...	...	...	...	45.43	53.21	...	...	...	...	...	...	...
1876	...	...	...	...	...	...	...	53.62	...	...	...	...	...	...	...
Mean .	...	45.25	49.97	46.85	47.09	43.65	47.02	47.81	41.13	39.39	45.35	41.53	47.21	48.54	32.37

LOUISIANA.

Year.	Baton Rouge.	Black River.	Collins.	Delphi.	Fort Jesup.	Fort Pike.	Fort Wood.	Monroe.	New Orleans.	Plaquemine.	Point Pleasant.	Rapides.	Rosedale.	Shreveport.	Saint Francisville.	West Feliciana.
1836	...	...	...	...	49.85	...	...	...	52.25	...	...	...	...	...	...	...
1837	...	...	...	...	49.54	...	...	...	...	...	...	...	...	...	...	...
1838	...	...	...	...	47.22	...	...	...	...	...	...	...	...	...	...	...
1839	...	...	...	...	45.36	...	...	...	46.42	...	...	...	...	...	...	...
1840	...	...	...	...	37.12	...	...	...	44.28	...	...	...	...	...	...	...
1841	...	...	...	...	55.95	...	...	...	49.92	...	...	...	...	...	...	...
1842	...	...	...	...	41.88	...	...	...	43.55	...	...	...	...	...	...	...
1843	61.07	...	...	...	52.99	105.96*	64.96*	...	61.96	...	...	...	...	...	...	...
1844	44.09*	...	...	...	41.42	44.26	46.84	...	48.32*	...	...	...	...	...	...	...
1845	50.60	...	...	...	34.92*	...	57.27*	...	...	...	...	...	...	...	...	...
1846	116.40	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1847	...	...	...	...	...	...	...	...	53.51	...	...	...	...	...	...	...
1848	...	...	...	...	...	...	...	...	53.40	...	...	...	...	...	...	...
1849	55.97*	...	...	...	...	...	...	...	52.52	...	...	...	...	...	...	...
1850	77.02*	...	...	...	...	...	...	...	51.13	...	...	...	...	...	...	...
1851	41.34	...	...	...	...	...	...	...	50.11	...	...	...	...	...	...	...
1852	53.46	...	...	...	...	...	...	...	43.88	...	...	...	...	...	...	...
1853	52.78*	...	...	...	...	...	...	...	61.84	...	...	...	...	...	...	...
1854	60.62	...	...	...	...	...	...	...	52.84	...	...	...	...	...	...	...
1855	49.02	...	...	...	...	...	...	...	41.92	...	...	...	...	...	...	...
1856	67.74	...	...	...	...	...	...	...	67.12	...	...	...	...	...	...	...
1857	49.99	49.70*	...	...	...	...	...	...	47.55	...	...	...	...	...	...	...
1858	63.78*	60.65*	...	...	...	...	...	...	60.70	...	...	...	...	...	...	...
1859	50.93*	...	...	...	...	...	...	...	49.40	...	...	...	...	...	...	...
1870	...	...	...	...	...	...	...	...	48.35*	...	...	...	...	...	...	...
1871	...	...	96.55	55.83*	...	...	...	...	64.49	...	...	...	...	...	...	...
1872	...	...	...	53.61*	...	...	...	...	69.73	...	57.13*	...	...	59.77*	...	...
1873	...	...	...	...	...	...	...	...	74.00	...	...	...	72.63*	52.19	...	...
1874	67.59	...	...	...	...	...	...	...	59.85*	...	42.17*	...	...	54.80	...	...
1875	...	...	...	...	...	...	...	...	85.53	...	...	...	...	50.98	...	...
1876	...	...	...	...	...	...	...	...	67.25	...	...	...	...	54.49	...	...
Mean.	60.53	53.98	88.27	56.03	45.60	65.87	63.53	54.00	55.17	67.08	...	67.40	58.13	56.82	55.27	61.34

MAINE.

Year.	Bath.	Bethel.	Biddeford.	Brunswick.	Bucksport.	Cornish.	Dexter.	Eastport.	East Wilton.	Fort Kent.	Fort Preble.	Fort Sullivan.	Fryeburg.	Gardiner.
1808	...	...	...	52.95*	...	...	...	...	...	...	...	...	...	...
1809	...	...	...	42.31	...	...	...	...	...	...	...	...	...	...
1810	...	...	...	28.09	...	...	...	...	...	...	...	...	...	...
1811	...	...	...	38.21*	...	...	...	...	...	...	...	...	...	...
1812	...	...	...	40.71	...	...	...	...	...	...	...	...	...	...
1813.	...	...	...	37.44	...	...	...	...	...	...	...	...	...	...
1814	...	...	...	48.20	...	...	...	...	...	...	...	...	...	...
1815	...	...	...	27.42*	...	...	...	...	...	...	...	...	...	...
1816	...	...	...	32.40*	...	...	...	...	...	...	...	...	...	...
1817	...	...	...	39.29*	...	...	...	...	...	...	...	...	...	...
1818	...	...	...	26.38	...	...	...	...	...	...	...	...	...	...
1832	49.04	...	...	...	...	...	...	...	...	...	...	...	...	...
1833	41.53	...	...	...	...	...	...	43.00	...	...	...	...	...	...
1834	31.99	...	...	...	...	...	...	37.20	...	...	...	...	...	...
1835	30.96	...	...	...	...	...	...	...	...	...	...	...	...	...
1836	37.55	...	...	...	...	...	...	...	...	...	...	...	...	...
1837	33.40	...	...	...	...	...	...	...	...	...	...	...	...	32.45
1838	34.91*	...	...	...	...	...	...	...	...	...	...	...	...	30.19
1839	...	...	...	54.19	...	...	...	...	...	...	...	...	...	41.05
1840	...	...	...	36.12	...	...	...	...	...	...	...	...	...	41.15
1841	...	...	...	48.18	...	...	...	...	...	...	36.99	38.11	...	38.52
1842	...	...	...	54.98	...	...	...	...	...	...	36.64	40.65	...	38.13
1843	...	...	...	66.93	...	...	...	...	...	...	41.61*	35.46	...	46.30
1844	...	...	...	50.32	...	...	...	...	...	...	32.66	37.54	...	38.32
1845	...	...	...	75.64	...	...	...	...	...	...	38.37*	...	...	39.18
1846	...	...	...	43.46	...	...	...	...	...	...	...	...	...	35.31
1847	...	...	...	61.17	...	...	...	...	...	...	...	...	...	44.90
1848	...	...	...	59.37	...	...	...	...	...	...	...	...	...	48.86
1849	...	...	45.59	39.31	...	...	...	...	...	...	...	...	...	39.56
1850	...	...	59.57	57.44	...	...	...	...	...	...	58.60	47.17	...	51.47
1851	...	...	44.82	47.37	...	...	...	...	...	...	55.10	36.56	...	50.81
1852	...	...	...	55.27	...	...	...	...	...	...	60.02	39.80	...	46.65
1853	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1854	...	...	...	46.14	...	...	...	...	...	...	...	...	...	...
1855	...	...	...	44.58	...	...	...	...	...	...	...	...	...	39.23
1856	...	...	...	32.78	...	46.29*	...	...	...	...	...	...	...	37.97
1857	...	...	...	42.88	...	58.07	...	...	...	...	...	...	...	46.20
1858	...	...	...	45.54	...	44.57	...	...	...	...	...	...	...	47.04
1859	...	...	...	48.44	...	50.69	44.46*	...	...	...	...	...	...	48.11
1860	...	...	...	...	...	50.95	30.99*	...	...	...	...	...	...	...
1861	...	44.50*	...	...	...	46.74	42.51	...	...	...	...	...	...	39.92*
1862	...	...	...	...	...	38.71	37.86	...	...	...	...	...	...	39.24
1863	...	...	...	...	...	51.38*	...	...	...	...	...	...	...	49.46*
1864	...	...	...	...	...	45.10	...	...	...	...	...	...	...	40.95
1865	...	...	...	...	...	45.23	...	...	...	...	32.11*	...	...	41.87
1866	...	...	...	...	...	45.55	...	...	...	...	...	...	...	45.66
1867	...	...	...	...	...	43.82	...	...	...	...	46.75	...	...	47.68
1868	...	...	...	...	...	45.65	...	...	...	...	47.79	...	...	43.12
1869	...	...	...	...	...	51.90	...	...	...	...	51.66*	...	...	52.31
1870	...	...	...	...	...	49.21	...	...	...	...	48.71	...	...	43.03
1871	...	...	...	...	...	48.66	...	...	...	...	40.06	33.54	...	42.02
1872	...	...	...	...	53.55*	41.94	...	...	45.59	...	38.83	58.60	...	42.64
1873	...	...	...	...	29.66*	48.21*	...	45.17*	51.65*	...	31.90*	40.66*	...	37.97
1874	...	...	...	...	...	34.66	...	42.56	...	...	31.45	...	...	42.10
1875	...	...	...	...	...	...	...	45.42	...	...	...	...	...	...
1876	...	...	...	...	...	...	...	57.99	...	...	...	...	...	...
Mean . .	37.08	...	49.75	44.67	43.26	46.67	38.72	44.18	47.55	36.45	42.93	40.33	45.11	42.46

MAINE—CONTINUED.

Year.	Hancock Barracks.	Houlton.	Lee.	Lisbon.	Mount Desert.	North Haven.	Old Town.	Oxford.	Perry.	Portland.	Saco.	Standish.	Steuben.	Surry.	West Waterville.	Williamsburg.
1837	35.68	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1838	38.37	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1839	38.77	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1840	40.59	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1841	36.97	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1842	37.60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1843	41.33	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1844	30.80	...	...	...	...	...	...	...	...	...	41.07	...	...	...	...	...
1845	...	...	...	...	...	...	...	...	...	...	57.19	...	...	...	...	...
1846	...	...	...	...	...	...	...	...	...	...	36.45	...	...	...	...	...
1847	...	...	...	...	...	...	...	...	...	...	43.81	...	...	...	...	...
1854	...	...	...	...	...	...	...	...	51.06*	...	...	...	47.14*	...	...	...
1855	...	...	...	...	...	...	...	...	51.26*	...	...	...	...	...	...	...
1856	...	...	...	...	...	...	...	...	49.29	...	...	...	62.43*	...	...	...
1857	...	...	...	...	...	...	...	...	58.95*	49.67	...	...	...	...	...	...
1858	...	...	...	...	...	...	...	...	36.13	44.45	...	...	43.18*	...	...	...
1859	...	...	...	53.32*	...	...	...	...	61.78	52.92*	...	...	63.49*	...	...	...
1860	...	...	...	42.57	...	...	...	...	...	...	...	...	...	...	...	...
1861	...	...	...	41.77	...	...	...	...	47.18	...	...	...	56.88*	...	...	...
1862	...	...	...	43.40	...	...	...	...	44.84	...	...	...	54.93*	...	...	...
1863	...	...	...	52.49*	...	...	...	...	...	...	...	...	52.33*	...	...	...
1864	...	...	...	43.96	...	...	...	...	45.89	...	...	...	49.15	...	34.60	...
1865	...	...	46.71	41.46	...	...	...	...	...	...	...	...	47.65	...	37.32	...
1866	...	...	...	49.10	...	...	...	...	...	...	...	...	55.01*	...	44.76	...
1867	...	...	...	47.57	...	...	...	...	...	...	...	43.34	62.33	...	42.87	...
1868	...	...	...	49.22	...	...	...	...	...	...	...	47.47	55.56	...	40.93	...
1869	...	49.31*	...	57.09	...	...	...	55.09*	...	...	...	...	50.98	...	57.68	57.35*
1870	...	56.51	...	42.40	...	...	41.00	37.32	...	...	...	...	...	...	39.00	50.10*
1871	...	...	...	54.16	49.90	28.45	41.53	47.14	...	...	...	48.62	...	...	42.05	...
1872	...	...	...	...	61.80*	39.96	48.51	40.78*	...	...	...	39.49*	...	...	35.13*	...
1873	...	...	...	...	51.18	30.68	40.79	41.12	...	39.99	...	40.32*	...	35.40*	40.81	...
1874	...	...	...	...	57.10	34.17	45.94	37.91	...	36.04	...	41.78	...	45.72	35.56	...
1875	...	...	...	...	...	32.73	...	...	...	36.14	...	...	...	...	...	...
1876	...	...	...	...	...	34.87	...	...	...	39.04	...	...	...	...	...	...
1877	...	...	...	...	...	28.05	...	...	...	...	...	...	...	...	...	...
Mean .	36.95	50.67	43.45	47.10	54.38	32.35	43.55	42.64	50.35	43.53	44.06	43.30	54.46	43.50	41.03	54.29

MARYLAND.

Year.	Agricultural College.	Annapolis.	Baltimore.	Bladensburg.	Chestertown.	Cumberland.	Emmittsburg.	Fallston.	Fort Foote.	Fort Severn.
1817	...	...	48.55	...	...	...	...	...	...	...
1818	...	...	32.60	...	...	...	...	...	...	...
1819	...	...	28.75	...	...	...	...	...	...	...
1820	...	...	42.50	...	...	...	...	...	...	...
1821	...	...	50.20	...	...	...	...	...	...	...
1822	...	...	29.20	...	...	...	...	...	...	...
1823	...	...	44.55	...	...	...	...	...	...	...
1824	...	...	42.28	...	...	...	...	...	...	...
1836	...	...	41.16	...	...	...	...	...	...	...
1843	...	...	...	...	...	...	...	...	...	50.84*
1844	...	...	...	...	...	...	...	...	...	40.76
1846	...	...	62.04	...	...	...	...	...	...	...
1847	...	...	45.44	...	...	...	...	...	...	...
1848	...	...	37.82	...	...	...	...	...	...	...
1849	...	...	35.22	...	...	...	...	...	...	...
1850	...	...	47.72	...	...	...	...	...	...	...
1851	...	...	41.59	...	...	...	...	...	...	...
1852	...	...	54.99	...	...	...	...	...	...	...
1853	...	...	38.67*	...	...	...	...	...	...	...
1857	...	51.64	...	37.20*	...	...	...	...	...	...
1858	...	38.59	35.76*	...	31.54*	...	...	...	...	...
1859	...	51.45	...	42.52*	...	...	...	...	...	...
1860	...	...	...	36.41*	...	...	...	...	...	...
1861	51.47*	54.06	...	34.91*	44.32	...	...	...	...	...
1862	...	52.73	...	36.78*	46.08*	...	...	...	...	...
1863	...	44.88*	...	53.50*	...	...	...	...	...	...
1864	...	42.26	...	...	...	...	...	...	...	...
1865	...	57.59	...	...	...	...	...	...	...	...
1866	...	60.53	...	...	...	...	...	...	...	...
1867	...	63.99	...	...	...	...	...	...	...	...
1868	...	52.37	...	...	...	...	46.82	...	...	...
1869	...	53.86	...	...	...	...	47.76	...	...	...
1870	...	42.59	...	...	...	...	50.99	...	...	...
1871	...	47.06	...	...	...	...	38.31	42.03	...	...
1872	...	...	...	...	...	25.50*	39.38	43.44	34.71	...
1873	...	...	49.37	...	...	32.20	53.41*	53.75	38.68	...
1874	...	...	33.66	...	...	28.50	...	40.91	29.29	...
1875	...	...	45.21	...	...	...	...	...	...	...
1876	...	...	46.29	...	...	...	...	...	...	...
Mean . .	54.86	49.70	42.87	39.27	42.90	30.33	44.44	44.50	33.44	48.61

MARYLAND—CONTINUED.

Year.	Fort McHenry.	Fort Washington.	Frederick.	Green Spring Furnace.	Leitersburg, near.	Mount Airy.	New Market.	Reisterstown.	Schellman Hills.	Saint Inigoes.	Saint Mary's.	Woodlawn.	Woodstock.
1837	45.00	...	...	...	...	...	...	...	...	...	...	...	...
1838	47.10	...	...	...	...	...	...	...	...	...	...	...	...
1839	51.70	...	...	...	...	...	...	...	...	...	...	...	...
1840	37.50	...	...	...	...	...	...	...	...	...	...	...	...
1841	43.90	...	...	...	...	...	...	...	...	...	...	...	...
1842	35.10	...	...	...	...	...	...	...	...	...	...	...	...
1843	48.79	...	...	...	...	...	...	...	...	...	...	...	...
1844	32.46	...	...	...	...	...	...	...	...	...	...	...	...
1845	28.39	...	...	...	...	...	...	...	...	...	...	...	...
1846	46.66	...	...	...	...	...	...	...	...	...	...	...	...
1847	33.01	...	...	...	...	...	...	...	...	...	...	...	...
1848	34.42	...	...	...	...	...	...	...	...	...	...	...	...
1849	30.63	...	...	...	...	...	...	...	...	...	...	...	...
1850	44.80	...	...	...	...	...	...	...	...	...	...	...	...
1851	38.10	...	...	...	...	...	...	...	...	...	...	...	...
1852	51.50	50.42	48.07	...	...	...	...	...	...	...	...	...	...
1853	36.00	42.89*	...	...	...	...	...	...	...	...	...	...	...
1854	59.20	...	32.89	...	...	...	...	...	43.67*	...	...	...	...
1855	29.31	...	34.06	...	...	...	...	...	53.80	...	...	...	...
1856	22.87	...	30.65	...	...	...	...	...	34.64*	...	...	...	...
1857	38.37	...	42.27	...	...	...	...	...	...	...	...	...	...
1858	46.06	...	47.26	...	...	...	...	...	...	...	...	...	...
1859	...	...	47.73	...	37.31	...	...	...	56.26	...	...	...	...
1860	...	...	...	...	36.86*	...	...	...	59.30	...	...	...	...
1861	...	...	33.77	...	38.77	...	...	...	46.15	...	57.42	...	...
1862	...	...	35.87	...	...	...	...	...	47.35	...	44.85	...	...
1863	...	...	...	...	...	...	...	...	63.50*	...	38.18*	...	...
1864	...	...	...	...	...	...	...	...	41.80	...	34.67*	...	...
1865	30.50*	...	...	...	...	...	...	...	47.54*	...	38.94*	52.11	...
1866	...	...	37.48*	...	...	...	...	...	...	...	...	53.09	...
1867	...	...	...	...	...	...	...	...	...	...	...	50.45	...
1868	...	...	...	...	...	...	...	...	...	...	40.27*	51.81	...
1869	25.94*	34.10*	...	...	...	...	...	...	...	...	...	48.35	...
1870	22.43	32.09*	...	...	...	...	...	...	...	...	...	47.87	...
1871	35.41	35.23*	...	...	...	...	...	...	...	...	...	41.38	36.59
1872	40.25	...	...	35.31	...	57.78	...	...	...	88.51	...	35.50	37.86
1873	41.80*	...	...	40.87*	...	70.53*	...	44.93	...	45.20*	...	54.45	51.21
1874	22.07	...	...	...	...	29.78*	40.19	32.66	...	46.65	...	42.59	32.97
Mean . .	38.42	43.58	38.86	38.14	39.26	54.86	44.04	39.45	48.53	64.28	43.53	47.75	39.54

MASSACHUSETTS.

Year.	Amherst.	Andover.	Baldwinsville.	Barnstable.	Boston.	Bradford.	Bridgewater.	Cambridge.	Chelsea.	Fitchburg.	Fort Warren.	Hinsdale.
1818	...	...	...	...	42.99	...	...	...	...	...	...	...
1819	...	...	...	...	35.48	...	...	...	...	...	...	...
1820	...	...	...	...	44.18	...	...	...	...	...	...	...
1821	...	...	...	...	36.89	...	...	...	...	...	...	...
1822	...	...	...	...	27.20	...	...	...	...	...	...	...
1823	...	...	...	...	46.43	...	...	...	...	...	...	...
1824	...	...	...	...	35.98	...	...	...	...	...	...	...
1825	...	...	...	...	32.41	...	...	...	...	...	...	...
1826	...	...	...	...	41.68	...	...	...	...	...	...	...
1827	...	...	...	...	44.39	...	...	...	...	...	...	...
1828	...	...	...	...	33.98	...	...	...	...	...	...	...
1829	...	...	...	...	48.09	...	...	...	...	...	...	...
1830	...	...	...	...	44.62	...	...	...	...	...	...	...
1831	...	...	...	...	50.87	...	...	...	...	...	...	...
1832	...	...	...	...	46.68	...	...	...	...	...	...	...
1833	...	...	...	...	39.71	...	...	...	...	...	...	...
1834	...	...	...	...	38.03	...	...	...	...	...	...	...
1835	...	...	...	...	35.48	...	...	...	...	...	...	...
1836	40.76	...	...	...	35.71	...	...	...	...	...	...	...
1837	38.70	...	...	...	29.98	...	...	...	...	...	...	...
1838	39.81	...	...	...	31.57	...	...	...	...	...	...	...
1839	42.83	...	...	...	34.82	...	...	...	...	...	...	...
1840	47.01	...	...	...	...	...	...	...	...	...	...	...
1841	41.63	...	...	...	...	...	...	40.86	...	...	...	...
1842	38.05	...	...	...	...	...	...	40.65	...	...	...	...
1843	51.58	...	...	...	...	...	...	52.52	...	...	...	...
1844	40.58	...	...	...	...	...	...	33.17	...	...	...	...
1845	39.74	...	...	...	...	...	...	50.51	...	...	...	...
1846	34.92	...	...	...	...	...	...	30.37	...	...	...	...
1847	47.81	...	...	...	...	...	...	48.21	...	...	...	...
1848	41.38	...	...	...	...	...	...	43.03	...	...	...	...
1849	38.45	...	...	...	40.30	...	...	40.97	...	...	...	...
1850	55.57	...	...	...	53.98	...	...	54.14	...	...	...	...
1851	43.50	...	...	...	44.31	...	...	42.11	...	...	...	...
1852	43.60	...	...	...	39.08	...	...	40.51	...	...	...	...
1853	50.82*	...	...	...	44.95	...	...	53.83	...	...	...	...
1854	47.35	...	...	...	42.18	...	...	45.17	...	...	...	...
1855	48.18	...	...	...	39.98	...	...	47.65	...	...	...	...
1856	40.13	...	...	...	52.16	...	...	53.81	...	...	...	...
1857	47.66	...	...	...	51.09	...	...	57.92	...	...	...	...
1858	42.59	...	...	...	45.17	...	30.27	45.46	...	...	...	...
1859	51.29	...	...	...	51.68	...	...	59.34	...	...	...	...
1860	39.64	...	...	...	51.46	...	...	45.09	...	...	...	...
1861	46.82	...	...	...	50.07	...	...	50.28	35.60	43.07	...	...
1862	49.43	...	...	...	61.06	...	...	57.21	27.00*	...	...	...
1863	54.20*	...	...	...	67.72	...	...	56.42	...	...	...	...
1864	33.87	...	39.67*	...	49.30	...	...	39.46	...	...	...	...
1865	42.86	...	38.20	...	47.83	...	...	43.59	...	...	26.47	...
1866	45.01*	...	...	...	50.70	...	...	35.49*	...	...	...	...
1867	46.11	...	...	...	47.67	...	...	41.71	...	...	35.98*	...
1868	49.56	...	...	...	45.57	...	...	...	...	...	39.84	...
1869	53.22	...	...	...	44.66	...	...	...	...	...	34.07	59.09
1870	38.59	...	...	...	41.94	...	...	...	...	...	31.72	45.87*
1871	46.28	...	...	...	35.87	...	...	...	...	...	28.96	44.73*
1872	44.19	...	...	...	51.56	...	...	...	...	...	55.63	...
1873	40.95	...	...	...	48.04	...	...	...	...	...	66.30	...
1874	36.53	28.44	...	...	43.96	...	...	...	...	...	42.76	...
1875	...	...	...	...	50.05	...	...	...	...	...	...	...
1876	...	...	...	...	48.96	...	...	...	...	...	...	...
Mean . .	43.96	28.44	40.36	...	40.61	31.33	37.44	44.71	31.30	43.07	39.58	51.78

MASSACHUSETTS—CONTINUED.

Year.	Kingston.	Lake Cochituate.	Lawrence.	Lowell.	Lunenburg.	Mendon.	Milton.	Nantucket.	New Bedford.	Newburyport.	North Adams.	North Attleboro.	Princeton.	Richmond.	Sandwich.	Somerset.
1814	...	...	...	...	...	...	...	...	38.30	...	...	...	...	...	...	...
1815	...	...	...	...	...	...	...	...	36.30	...	...	...	...	...	...	...
1816	...	...	...	...	...	...	...	...	39.23	...	...	...	...	...	...	...
1817	...	...	...	...	...	...	...	...	38.52	...	...	...	...	...	...	...
1818	...	...	...	...	...	...	...	...	36.24	...	...	...	...	...	...	...
1819	...	...	...	...	...	...	...	...	35.26	...	...	...	...	...	...	...
1820	...	...	...	...	...	...	...	...	36.73	...	...	...	...	...	...	...
1821	...	...	...	...	...	...	...	...	40.57	...	...	...	...	...	...	...
1822	...	...	...	...	...	...	...	...	37.14	...	...	...	...	...	...	...
1823	...	...	...	...	...	...	...	...	53.24	...	...	...	...	...	...	...
1824	...	...	...	...	...	...	...	...	42.08	...	...	...	...	...	...	...
1825	...	...	...	...	...	...	...	...	33.86	...	...	...	...	...	...	...
1826	...	...	...	...	...	...	...	...	48.69	...	...	...	...	...	...	...
1827	...	...	...	...	...	...	...	...	55.91	...	...	...	...	...	...	...
1828	...	...	...	...	...	...	...	...	34.70	...	...	...	...	...	...	...
1829	...	...	...	...	...	...	...	...	58.14	...	...	...	...	...	...	...
1830	...	...	...	...	...	...	...	...	57.48	...	...	...	...	...	...	...
1831	...	...	...	...	...	...	...	...	54.39	...	...	...	...	...	...	...
1832	...	...	...	...	...	...	...	...	43.83	...	...	...	...	...	...	...
1833	...	...	...	...	...	...	...	...	37.89	...	...	...	...	...	...	...
1834	...	...	...	...	...	...	...	...	40.11	...	...	...	...	...	...	...
1835	...	...	...	...	...	...	...	...	41.97	...	...	...	...	...	...	...
1836	...	...	...	...	...	...	...	...	38.07	...	...	...	...	...	...	...
1837	...	...	...	...	...	...	...	..	34.73	...	...	...	...	...	...	...
1838	...	...	...	...	...	...	...	...	34.03	...	...	...	...	...	...	...
1839	...	...	...	...	...	...	...	...	39.44	...	...	...	...	...	...	...
1840	...	...	...	...	...	...	...	...	44.08	...	...	...	...	...	...	...
1841	...	...	...	...	45.53	...	...	...	44.98	...	...	...	...	...	...	...
1842	...	...	...	...	47.44	...	...	...	34.73	...	...	...	...	...	...	...
1843	...	...	...	...	55.33	...	...	...	45.04	...	...	...	...	...	...	...
1844	...	...	...	...	47.87	...	...	...	36.21	...	...	...	...	...	...	...
1845	...	...	...	...	47.34	...	...	...	42.72	...	...	...	...	...	...	...
1846	...	...	...	...	55.70	...	...	...	30.68	...	...	...	...	...	...	...
1847	...	...	...	...	44.31	...	...	32.44*	40.81	...	...	...	...	...	...	...
1848	...	...	...	...	56.43	...	...	34.60	36.21	...	...	...	...	...	...	...
1849	...	...	...	51.09	46.19	...	...	27.08	31.87	...	...	...	...	...	...	...
1850	...	...	...	45.68	47.69	...	...	42.85	51.78	...	...	...	...	...	...	...
1851	...	...	...	41.00	49.53	...	...	41.82	49.79	...	...	...	...	...	...	...
1852	...	45.93	...	42.78	43.24	...	...	39.77	41.01	...	...	...	...	...	...	...
1853	...	55.86	...	43.92	56.83	...	...	42.00	35.07	...	...	...	...	...	...	...
1854	...	43.15	...	42.08	54.25	...	...	47.43	47.84	35.92*	...	45.68	46.26	74.37*	...	...
1855	...	34.96	...	46.65	55.55	...	...	48.93	36.44	42.22	...	44.93	46.24	...	...	...
1856	...	40.80	58.70	44.23	48.57	...	...	35.70	32.98	46.67	...	45.42	42.02*	...	...	...
1857	...	63.10	56.59	50.70	57.90	...	...	49.88	38.59	...	...	...	...	...	...	...
1858	...	48.66	41.36	36.76	59.40	42.49*	...	41.93	42.42	...	...	...	...	...	...	...
1859	...	49.02	47.50	47.96	70.25	...	...	48.35	48.91	...	...	...	...	...	...	...
1860	...	55.44	34.81	46.79	48.27	...	...	...	38.35	...	...	...	...	82.73*	...	...
1861	...	46.44	...	43.14	44.77	39.86*	...	...	44.76	...	...	...	...	75.74*	...	...
1862	...	49.69	42.70*	44.44	39.83	37.58*	...	...	41.36	...	...	...	...	72.01*	...	...
1863	...	69.30	53.92*	55.09	53.19	43.66*	...	...	44.40	...	...	...	...	...	...	...
1864	...	42.60	39.07	39.38	31.67	28.45*	...	...	39.52	...	...	...	...	...	41.67	...
1865	...	49.46	...	38.10	40.95	36.04*	...	...	44.60	...	...	...	...	64.67*	...	...
1866	...	62.32	38.01	39.77	48.43	43.15*	...	...	38.54	...	...	...	...	73.90*	...	...
1867	45.47	56.25	51.86	45.70	53.83	...	...	...	45.61	...	...	...	...	58.91*	...	...
1868	46.65	...	52.93*	...	51.61	...	43.04	...	54.96	...	...	...	...	...	...	...
1869	42.46	...	50.31	...	58.17	44.53*	40.12	...	48.04	...	...	...	...	55.72*	...	...
1870	45.98	...	48.17*	...	54.27	39.35	37.97	...	47.15*	...	...	...	...	72.87*	...	...
1871	43.75	...	42.18	...	47.61	38.29*	39.55	...	48.55	...	...	...	...	55.23*	...	...
1872	45.41	...	43.47	...	46.25	40.67*	46.25	...	46.77	...	59.08	...	...	...	...	...
1873	51.45	...	39.41	...	44.80	...	43.00*	...	49.09	...	...	...	...	...	...	47.32
1874	...	...	42.92	...	39.92	30.87*	39.45	...	53.11	...	55.27*	...	...	...	...	42.39
Mean .	46.61	50.81	45.19	44.49	49.79	39.39	41.25	41.18	42.36	39.35	57.95	44.02	44.76	72.33	47.99	45.56

MASSACHUSETTS—CONTINUED.

Year.	Southwick.	Springfield.	Thatcher's Island.	Topsfield.	Vineyard Haven.	Waltham.	Watertown Arsenal.	Westfield.	West Springfield.	Weymouth.	Williamstown.	Wood's Hole.	Worcester.
1837	...	...	...	...	...	...	32.06	...	...	...	...	...	...
1838	...	...	...	...	...	...	43.99	...	...	...	...	...	...
1839	...	...	...	...	...	...	42.89	...	...	...	...	...	...
1840	...	...	...	...	...	...	48.08	...	...	...	...	...	...
1841	...	...	...	...	...	...	44.45*	...	...	...	...	...	51.11
1842	...	...	...	...	...	...	...	...	...	...	...	...	40.78
1843	...	...	...	...	...	...	48.41	...	...	...	...	...	48.67
1844	...	...	...	...	...	...	39.50*	...	...	...	...	...	37.34
1845	...	...	...	...	...	...	...	...	...	...	...	...	42.49
1846	...	...	...	...	...	...	...	...	...	...	...	...	34.60
1847	...	...	...	...	...	...	...	...	...	...	...	...	49.00
1848	...	41.38	...	...	...	...	...	...	...	...	...	...	38.53
1849	...	34.36	...	...	...	40.74	...	...	...	...	...	...	37.39
1850	...	53.80	...	...	...	62.13	...	...	52.47*	...	...	...	55.49
1851	...	45.22	...	...	...	41.00	...	...	...	...	...	...	43.79
1852	...	40.44	...	...	...	42.24	...	...	...	...	...	...	61.83
1853	...	51.36	...	...	...	45.04	...	...	...	...	...	...	59.64
1854	50.84	50.37	...	...	...	41.29	...	...	...	...	...	...	59.25
1855	50.82*	47.21	...	...	...	40.63	...	48.39	...	...	54.51	...	58.62
1856	...	...	...	...	...	42.33	...	47.57	...	...	43.90*	...	46.94
1857	...	...	...	...	...	44.04	...	53.33	...	44.35*	...	...	53.24
1858	...	...	...	...	...	37.40	...	43.12	...	...	34.76	...	40.93
1859	...	...	...	...	...	48.49	...	54.29	...	...	43.65*	...	48.77
1860	...	...	...	41.77*	...	...	...	...	...	...	40.93	...	48.63
1861	...	...	...	33.95	...	...	...	52.52	...	...	44.50	...	42.31
1862	...	...	...	...	...	...	...	49.66	...	...	...	...	44.09
1863	...	...	...	...	...	53.66	...	59.09*	...	...	...	...	...
1864	...	32.52*	...	33.93*	...	36.56	...	34.16	...	...	31.36	...	...
1865	...	...	...	38.34	...	35.84	...	43.26	...	...	36.70*	...	38.52
1866	...	...	...	39.99	...	43.46	...	...	...	...	35.58	...	42.31
1867	...	...	...	47.97	...	41.40	...	...	...	...	33.94	...	48.94
1868	...	...	...	43.69	...	...	...	...	...	...	32.93	...	45.81
1869	...	...	...	47.82	...	...	...	...	...	...	50.09*	...	50.35
1870	...	...	...	45.91	...	...	...	...	...	...	44.84	...	42.34
1871	...	...	...	...	...	...	...	...	...	...	35.57	...	45.91
1872	...	...	...	...	...	...	...	...	...	...	...	...	...
1873	...	...	...	...	34.61	...	...	...	...	...	...	52.10	...
1874	...	...	...	...	27.60	...	...	...	...	...	...	41.23	...
1875	...	47.26	...	...	...	...	...	...	...	...	...	42.58	...
1876	...	47.15	47.52	...	...	...	...	...	...	...	...	48.26	...
Mean..	48.47	44.18	...	42.28	31.76	43.52	42.09	48.14	52.47	...	37.45	45.60	46.57

MICHIGAN.

Year.	Alpena.	Ann Arbor.	Battle Creek.	Benzonia.	Central Mine.	Coldwater.	Cooper.	Detroit.	Eagle River Mine.	Escanaba.	Flint.	Fort Brady.	Fort Gratiot.	Fort Mackinac.
1836	...	...	...	...	...	...	...	40.38*	...	...	...	...	...	...
1837	...	...	...	...	...	...	...	27.22	...	...	...	36.92	...	...
1838	...	...	...	...	...	...	...	...	...	...	...	34.37	...	...
1839	...	...	...	...	...	...	...	24.28	...	...	...	24.01	...	...
1840	...	...	...	...	...	...	...	29.63	...	...	...	33.09	42.74	...
1841	...	...	...	...	...	...	...	27.16	...	...	...	24.11*	32.95	...
1842	...	...	...	...	...	...	...	31.84	...	...	...	26.40	39.62	...
1843	...	...	...	...	...	...	...	27.60	...	...	...	27.25	29.46	...
1844	...	...	...	...	...	...	...	33.10	...	...	...	34.45	33.74	...
1845	...	...	...	...	...	...	...	21.51	...	...	...	29.66	26.72	19.82
1846	...	...	...	...	...	...	...	...	...	...	...	29.91*	...	17.61
1847	...	...	...	...	...	...	...	...	...	...	...	31.63	...	23.15
1848	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1849	...	...	...	...	...	...	...	33.49	...	...	...	...	...	20.34
1850	...	...	...	...	...	...	...	25.40	...	...	...	35.66	25.75	26.93
1851	...	...	...	...	...	...	...	...	...	...	...	45.30	31.80	11.70
1852	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1853	...	...	...	...	...	...	...	...	...	...	...	21.74	...	37.22
1854	...	28.90	25.73	...	...	...	...	46.49	...	...	24.08*	29.16	...	35.40
1855	...	46.18	42.94	...	...	...	...	71.19	...	...	40.54	22.80*	...	33.73
1856	...	...	18.75*	...	...	...	33.66	...	23.76*	...	...	24.98*	...	19.11*
1857	...	...	31.23	...	...	...	...	...	...	...	...	...	...	...
1858	...	...	35.75	...	...	...	...	39.19*	...	...	...	...	...	...
1859	...	...	31.86	...	...	...	...	27.28	...	...	...	...	...	22.55
1860	...	...	...	...	...	...	...	28.27	...	...	...	...	...	...
1861	...	...	...	...	...	...	60.94	37.59	...	...	...	...	...	...
1862	...	...	...	...	...	...	51.65*	31.43	...	...	...	...	...	...
1863	...	...	...	...	...	...	...	30.57	...	...	...	...	...	...
1864	...	...	...	...	...	...	...	25.88	...	...	...	...	...	...
1865	...	...	...	...	...	...	...	21.10	...	...	...	...	...	...
1866	...	...	...	...	...	...	...	31.72	...	...	...	...	...	...
1867	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1868	...	...	...	...	45.50	...	...	...	...	...	...	...	...	...
1869	...	...	...	...	30.19	42.71	...	...	...	...	...	...	...	...
1870	...	...	...	...	41.24	36.01	...	34.07*	...	...	...	...	...	...
1871	...	26.81	...	33.64	37.43*	...	...	33.35	...	...	...	...	...	...
1872	...	...	...	36.96	...	...	...	32.11*	...	...	...	...	...	...
1873	31.10	...	...	47.86	...	...	...	36.01	...	26.91	...	...	...	...
1874	28.17	...	...	...	...	...	...	26.69	...	31.14	...	27.91	...	...
1875	37.27	...	...	...	...	...	...	35.71	...	43.54	...	...	...	...
1876	37.62	...	...	...	...	...	...	40.40	...	42.44	...	...	...	...
Mean . .	33.89	32.60	31.88	39.48	40.14	35.45	46.87	32.84	...	36.09	32.72	30.08	32.35	23.97

MICHIGAN—CONTINUED.

Year.	Fort Wayne.	Grand Haven.	Grand Rapids.	Holland.	Lansing, near	Litchfield.	Marquette.	Monroe.	Muskegon.	New Buffalo.
1855	...	...	52.06	...	...	...	...	...	...	...
1856	...	...	35.33*	...	...	...	...	...	...	...
1857	...	...	36.58	...	...	...	...	...	...	...
1858	...	...	35.69	...	...	...	38.41	...	...	52.42
1859	...	...	41.71*	...	...	...	41.25	...	...	43.12
1860	...	26.63	...	37.07*	...	...	25.79	30.40	...	...
1861	...	25.01	...	36.18	...	...	38.98	31.78	...	...
1862	...	27.14	...	35.55*	...	...	30.24	33.46	...	...
1863	...	...	...	39.35*	...	...	35.60*	32.29	...	...
1864	...	...	...	...	27.99	...	22.32	29.07	...	...
1865	...	...	...	...	29.92	...	26.08	30.02	...	...
1866	...	...	...	47.09*	39.62	...	29.49	29.87	...	...
1867	...	...	...	36.49*	24.98	41.13	...	32.97*	...	...
1868	...	...	...	37.06	30.10*	37.59	...	35.68	...	...
1869	...	...	...	...	32.04	48.06	...	36.36	31.70*	...
1870	...	...	34.68*	...	38.04*	43.43	...	34.20*	...	...
1871	...	...	30.31	...	24.57*	35.51	...	27.22	...	...
1872	...	...	33.31	...	27.14	31.92	...	24.74	...	...
1873	...	30.41*	41.73	...	29.25*	44.17	26.39	29.09*	...	...
1874	25.56*	...	28.97	...	23.09	26.54	24.94	...	...	...
1875	...	30.59*	...	...	...	...	30.22	...	...	...
1876	...	46.29	...	...	...	...	31.44	...	...	...
Mean...	25.92	29.09	35.55	37.63	29.38	39.90	30.90	31.76	33.08	44.20

MICHIGAN—CONTINUED.

Year.	Northport.	Olivet College.	Ontonagon.	Pleasanton.	Port Huron.	Romeo.	Tawas City.	Thunder Bay Island.	Traverse City.	Ypsilanti.
1856	...	...	...	...	...	21.37	...	...	...	...
1857	...	...	...	...	...	...	...	...	...	...
1858	...	...	...	...	...	...	...	...	...	...
1859	...	...	...	...	...	...	20.62	35.14	...	35.42
1860	...	...	21.21	...	...	...	17.29	27.88	...	...
1861	...	...	34.46	...	...	...	21.42	36.10	...	40.14
1862	...	...	27.03	...	...	...	24.71	36.94	...	29.02
1863	...	...	23.94	...	...	...	30.81	31.03	...	27.50*
1864	...	...	22.08	...	...	...	19.01	31.93	...	...
1865	...	...	...	...	...	...	27.35	31.33	...	...
1866	...	...	...	...	...	...	19.56	...	...	...
1867	...	...	...	...	...	...	...	...	...	...
1868	...	...	...	...	...	...	...	...	...	...
1869	45.41	...	...	52.98	...	...	...	30.10*	...	...
1870	48.79	...	24.61*	...	...	...	...	30.79	...	...
1871	32.99	37.38*	...	...	...	...	...	24.92	...	...
1872	28.79	27.65*	32.81*	...	...	...	...	20.81	...	...
1873	39.99	43.77*	...	...	...	...	...	28.15	37.57	...
1874	36.15	24.60	...	...	...	...	...	...	38.15	...
1875	...	...	...	...	29.14	...	...	...	...	...
1876	...	...	...	...	37.16	...	...	...	...	...
Mean . .	39.93	33.75	26.18	51.01	31.04	22.69	22.61	30.67	38.23	32.80

MINNESOTA.

Year.	Afton.	Beaver Bay.	Breckinridge.	Burlington.	Duluth.	Forest City.	Fort Ridgely.	Fort Ripley.	Fort Snelling.	Koniska.
1837	...	...	...	...	...	...	...	...	24.02	...
1838	...	...	...	...	...	...	...	...	27.72	...
1839	...	...	...	...	...	...	...	...	21.19	...
1840	...	...	...	...	...	...	...	...	23.17	...
1841	...	...	...	...	...	...	...	...	21.67	...
1842	...	...	...	...	...	...	...	...	26.52*	...
1843	...	...	...	...	...	...	...	...	23.79	...
1844	...	...	...	...	...	...	...	...	30.24	...
1845	...	...	...	...	...	...	...	...	25.34	...
1846	...	...	...	...	...	...	...	...	26.10	...
1847	...	...	...	...	...	...	...	...	21.80	...
1848	...	...	...	...	...	...	...	...	23.18	...
1849	...	...	...	...	...	...	...	...	49.69	...
1850	...	...	...	...	...	...	...	35.32	25.50	...
1851	...	...	...	...	...	...	...	36.14*	23.42	...
1852	...	...	...	...	...	...	...	34.52	15.07	...
1853	...	...	...	...	...	...	...	26.12	20.47	...
1854	...	...	...	...	...	...	25.30	18.49	26.59	...
1855	...	...	...	...	...	...	34.78	23.55	24.78	...
1856	...	...	...	...	...	...	23.20	25.33	22.62	...
1857	...	...	...	...	...	...	38.38	...	32.09	...
1858	...	...	...	30.72*	...	...	22.52	19.81	...	...
1859	...	33.55	...	40.50*	...	33.76*	32.85	26.00	...	...
1860	...	...	...	49.82*	...	32.61*	16.97	30.61	...	...
1861	...	34.56	...	...	...	27.34*	23.05	32.42	...	...
1862	...	24.94*	...	...	...	...	30.05	14.39	...	...
1863	...	23.39*	...	...	...	...	18.17	17.20	...	...
1864	...	20.59*	...	...	...	...	14.46	12.06*	...	...
1865	...	25.92*	...	...	...	...	34.94*	25.11*	...	...
1866	...	27.10*	...	...	...	...	...	...	...	...
1867	...	39.19*	...	...	...	...	...	30.34	...	...
1868	...	29.96	...	...	...	...	...	32.20	28.07	...
1869	32.01	31.53	...	...	...	...	...	...	34.83	31.15*
1870	...	25.40	...	...	...	...	...	29.06*	26.07	24.75*
1871	...	24.21*	...	...	...	...	...	34.02	21.78	...
1872	...	24.78	...	...	...	...	...	34.77	17.02	...
1873	...	25.11*	27.39	...	38.73	...	...	40.78	18.71	...
1874	...	...	27.63	...	36.44	...	...	37.73*	18.56	...
1875	...	...	17.75	...	26.93	...	...	...	...	...
1876	...	...	18.13	...	32.27	...	...	...	...	...
Mean . .	33.97	27.60	23.08	40.35	33.30	...	25.47	27.68	25.31	29.26

MINNESOTA—CONTINUED.

Year.	Lac qui parle.	Lake Hook.	Litchfield.	Madelia.	Minneapolis.	New Ulm.	Princeton.	Sibley.	St. Anthony.	Saint Paul.
1854	...	...	...	...	...	...	...	...	28.58*	...
1857	...	...	...	...	...	...	33.56*	...	...	...
1858	31.93*	...	...	...	...	...	...	...	...	...
1859	25.36*	...	...	...	...	...	38.45*	...	...	29.86*
1860	...	...	...	...	...	...	...	...	...	34.63*
1861	28.56*	...	...	...	...	...	...	...	...	31.14*
1862	...	...	...	...	...	...	...	...	...	34.18
1863	...	...	...	...	...	...	...	...	...	15.71
1864	...	...	...	...	...	23.78*	...	...	...	14.86
1865	...	...	...	...	...	35.32	...	...	...	38.14
1866	...	...	...	...	27.38	22.43	...	...	...	27.13
1867	...	...	...	...	37.08*	32.15	...	27.46*	...	34.68*
1868	...	...	...	...	41.64	29.63	...	25.40	...	30.49
1869	...	...	...	31.60	39.51	23.93	...	26.08*	...	32.17
1870	...	...	...	26.16	31.09	23.88	...	19.56*	...	30.66
1871	...	...	23.28	...	32.29	18.79	...	19.40*	...	28.38
1872	...	38.68	...	...	27.41	29.96	...	21.15*	...	29.92
1873	...	...	...	...	35.87	24.95	...	...	...	34.25
1874	...	...	...	...	44.91	19.73	...	25.01*	...	37.92
1875	...	...	...	...	...	...	...	...	...	30.66
1876	...	...	...	...	...	...	...	...	...	23.67
Mean . .	29.07	39.09	27.45	28.88	35.24	25.95	...	24.74	...	30.05

MONTANA.

Year.	Camp Baker.	Camp Cook.	Deer Lodge City.	Fort Benton.	Fort Ellis.	Fort Shaw.	Fort Sheridan.	Fort C. F. Smith.	Helena City.	Missoula.	Virginia City.
1866	...	...	...	...	...	...	...	...	22.14	...	...
1867	...	...	...	...	...	...	...	13.13	...	...	...
1868	...	13.98	...	...	...	10.04	...	...	...	...	...
1869	...	8.27*	...	...	19.54	7.46	...	...	...	...	...
1870	...	...	16.50	7.27	...	8.32	...	...	...	...	...
1871	...	...	13.30*	8.56	...	5.03	...	...	...	16.34	...
1872	...	...	14.18	15.33	...	7.27	...	...	...	15.45*	...
1873	10.74	...	12.97	12.13	...	6.90	...	...	...	19.47*	...
1874	12.19	...	...	10.43	...	4.24	27.93	...	...	...	16.32
1875	...	...	...	12.75	...	...	...	...	...	...	17.47
1876	...	...	...	...	...	...	...	...	...	...	17.63
Mean . .	12.34	10.94	14.07	13.26	15.74	6.95	27.93	11.95	19.78	17.47	16.64

MISSISSIPPI.

Year.	Brookhaven, near	Church Hill.	Columbus.	Fayette.	Grenada.	Holly Springs.	Jackson.	Marion.	Natchez.	Oxford.	Paulding.	Philadelphia.	Vicksburg.
1799	...	...	...	...	...	...	...	...	43.48*	...	...	...	...
1800	...	...	...	...	...	...	...	...	31.09	...	...	...	...
1801	...	...	...	...	...	...	...	...	45.50	...	...	...	...
1802	...	...	...	...	...	...	...	...	57.92	...	...	...	...
1803	...	...	...	...	...	...	...	...	37.56	...	...	...	...
1840	...	...	...	...	...	...	...	...	48.48	...	...	...	46.35
1841	...	...	...	...	...	...	...	...	59.78	...	...	...	48.47
1842	...	...	...	...	...	...	...	...	43.52	...	...	...	46.87
1843	...	...	...	...	...	...	...	...	78.73	...	...	...	60.28
1844	...	...	...	...	...	...	...	...	45.91	...	...	...	37.21
1845	...	...	...	...	...	...	...	...	53.00	...	...	...	49.86
1846	...	...	...	...	...	...	...	...	61.79	...	...	...	52.69
1847	...	...	...	...	...	...	...	...	75.32	...	...	...	59.77
1848	...	...	...	...	...	...	...	...	...	...	...	...	51.30
1849	...	...	...	...	...	...	...	...	...	...	...	...	43.88
1850	...	57.40	...	...	...	...	...	...	...	...	...	...	50.11
1851	...	44.16	...	...	...	...	...	...	...	...	...	...	43.40
1852	...	37.00	...	...	...	...	...	...	...	...	...	...	43.32
1853	...	52.72	...	...	...	...	...	...	...	...	...	...	51.58
1854	...	49.87	...	...	...	...	...	...	...	...	...	...	...
1855	...	...	...	...	...	...	...	...	...	41.46	...	...	...
1856	...	...	55.08	...	...	...	...	...	...	...	...	...	...
1857	...	...	53.97	...	...	...	...	...	...	...	...	...	...
1858	...	...	57.16	...	...	...	...	...	...	...	38.95*	...	...
1859	...	...	60.12	...	...	...	...	...	47.89	...	...	...	...
1860	...	...	48.28	...	...	...	...	...	...	...	...	...	...
1861	...	...	59.14	...	...	...	...	...	51.55	...	...	...	...
1862	...	...	45.29	...	...	...	...	...	41.78*	...	...	...	...
1863	...	...	68.35	...	...	...	...	...	...	...	...	...	...
1864	...	...	48.54	...	...	...	...	...	...	...	...	...	...
1865	...	...	54.65	...	...	...	...	...	61.43	...	...	...	...
1866	...	...	61.02	...	...	...	...	...	71.45	...	...	...	...
1867	...	...	52.04	...	...	...	...	...	56.11	...	...	...	48.87
1868	...	...	55.10	...	...	...	...	...	62.82	...	...	...	50.65
1869	80.33	...	58.01	...	59.66	...	...	61.00	68.41	...	...	...	59.19
1870	60.84	...	49.83	...	49.50	...	...	...	...	...	...	39.75*	...
1871	68.60	...	...	...	62.04*	66.50*	...	...	...	...	...	...	...
1872	57.90	...	...	...	40.01	...	...	63.80	...	...	...	...	...
1873	58.88	...	...	56.25*	57.13*	...	...	...	...	...	...	...	41.22
1874	62.85	...	...	61.90	63.28	...	58.86	...	...	...	...	...	66.56*
1875	...	...	...	...	...	...	...	...	...	...	...	...	70.05
1876	...	...	...	...	...	...	...	...	...	...	...	...	51.79
Mean . .	64.89	45.97	55.46	58.55	55.26	51.93	61.28	62.21	54.39	43.63	51.26	...	51.25

MISSOURI.

Year.	Allenton, near	Athens.	Bolivar.	Cape Girardeau.	Cave Spring.	Corning.	Easton.	East Prairie.	Edina.	Hannibal.	Harrisonville.	Hematite.	Hermitage.	High Hill.	Jefferson Barracks.
1841	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36.27
1842	...	...	...	...	...	...	...	...	...	...	...	...	...	...	29.18
1843	...	...	...	...	...	...	...	...	...	...	...	...	...	...	32.58
1844	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37.27
1845	...	...	...	...	...	...	...	...	...	...	...	...	...	...	32.91
1846	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36.01
1847	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1848	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35.10
1849	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38.58
1850	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39.61
1851	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36.13
1852	...	...	...	...	...	...	...	...	...	...	...	...	...	...	55.13
1853	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36.08
1854	...	...	...	...	...	...	...	...	...	27.68	...	...	...	...	43.27
1855	...	...	...	...	...	...	...	...	...	...	...	...	...	...	46.58*
1856	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1857	...	...	...	44.35*	...	...	...	...	...	...	...	...	...	...	41.01
1858	...	...	...	...	...	...	...	...	...	...	...	...	...	...	49.96
1859	...	...	...	...	...	...	...	...	...	...	...	...	...	...	51.58
1860	...	...	...	...	...	...	...	...	20.88	...	...	...	...	...	40.08
1861	...	...	...	...	...	...	...	...	28.08	...	...	...	...	...	51.86
1862	...	...	...	...	...	...	...	...	34.45	...	...	...	...	...	...
1863	...	...	...	...	...	...	...	...	24.72	...	...	...	...	...	...
1864	...	...	...	...	...	...	...	...	26.42	...	33.97*	...	...	...	...
1865	...	37.15*	...	...	...	...	41.56*	...	40.46	...	58.50	...	...	...	...
1866	42.44*	...	...	...	...	...	...	...	40.94	...	58.37	...	...	...	...
1867	34.88	...	...	...	...	...	...	...	...	...	44.92*	...	...	...	...
1868	46.97	...	...	...	...	...	...	40.25	...	...	44.70*	51.08*	35.11*	...	...
1869	43.80	...	39.13	...	...	...	...	35.30	...	...	36.07	45.50	37.98	...	...
1870	37.69	...	...	...	...	...	...	32.87	...	...	...	32.50	...	...	...
1871	...	...	...	...	37.36*	18.44	...	...	...	...	...	28.82	...	...	...
1872	...	...	...	...	...	23.86*	...	...	...	...	...	...	...	...	...
1873	...	...	...	...	...	16.70*	...	...	...	...	...	...	...	34.10*	...
1874	...	...	...	...	36.30*	20.99	...	...	...	...	...	...	...	...	...
Mean.	41.14	33.33	37.21	...	36.26	21.93	...	36.15	30.48	26.13	43.63	39.13	34.26	...	40.88

MISSOURI—CONTINUED.

Year.	Kansas City.	Mount Vernon.	Nevada.	Oregon.	Paris, near.	Richland, near.	Rolla, near.	Saint Louis.	Saint Joseph.	Stoutland.		Union.	Wet Glaze.	Wyaconda Prairie.
1837	...	...	...	...	...	...	...	26.94	...	...	...	...	...	...
1838	...	...	...	...	...	...	...	26.22	...	...	...	...	...	...
1839	...	...	...	...	...	...	...	44.42	...	...	...	...	...	...
1840	...	...	...	...	...	...	...	40.21	...	...	...	...	...	...
1841	...	...	...	...	...	...	...	41.18	...	...	...	...	...	...
1842	...	...	...	...	...	...	...	32.29	...	...	...	...	...	...
1843	...	...	...	...	...	...	...	32.92	...	...	...	...	...	...
1844	...	...	...	...	...	...	...	48.46	...	...	...	...	...	...
1845	...	...	...	...	...	...	...	38.74	...	...	...	...	...	...
1846	...	...	...	...	...	...	...	50.82	...	...	...	...	...	...
1847	...	...	...	...	...	...	...	58.89	...	...	...	...	...	...
1848	...	...	...	...	...	...	...	64.11	...	...	...	...	...	...
1849	...	...	...	...	...	...	...	58.62	...	...	...	...	...	...
1850	...	...	...	...	...	...	...	42.82	...	...	...	...	...	...
1851	...	...	...	...	...	...	...	38.64	...	...	...	...	...	...
1852	...	...	...	...	...	...	...	43.58	...	...	...	...	...	...
1853	...	...	...	...	...	...	...	29.81	...	...	...	...	...	...
1854	...	...	...	...	...	...	...	35.90	...	...	...	...	...	...
1855	...	...	...	...	...	...	...	51.98	...	...	...	...	...	...
1856	...	...	...	36.60	...	...	...	37.55	...	...	...	...	...	...
1857	...	...	...	33.40	...	...	...	39.03	...	...	...	...	...	...
1858	...	...	...	43.15	...	...	...	68.83	...	...	...	...	...	...
1859	...	...	...	49.25	...	...	...	61.40	...	...	...	...	...	...
1860	...	...	...	23.12	...	...	...	27.70	...	...	...	...	...	...
1861	...	...	...	41.00	24.05*	...	...	34.66	...	...	...	...	...	...
1862	...	...	...	34.30	...	...	...	40.28	...	...	...	...	...	52.12*
1863	...	...	...	37.47	...	...	...	34.07	...	...	...	...	...	31.13*
1864	...	...	...	30.22	...	...	...	32.15	...	...	...	...	...	42.84
1865	...	...	...	43.45	...	...	...	43.05	...	...	...	...	...	46.68*
1866	...	...	...	42.63	...	...	44.65*	40.62	...	...	...	38.15*	...	...
1867	...	...	...	44.63	...	...	33.80*	32.95	...	...	...	...	...	...
1868	...	...	...	33.60	...	...	41.19	37.11	...	...	...	...	...	40.99
1869	...	...	...	41.18	...	...	44.12	35.88	48.44*	...	...	...	...	...
1870	29.52*	...	...	29.63	...	...	33.44	27.33	...	...	...	...	...	...
1871	35.55	...	...	28.54	...	...	33.35	23.57	...	...	...	...	...	...
1872	...	44.57*	36.72*	35.75	...	...	32.10	28.43	...	...	...	...	42.08*	...
1873	32.50	38.22	53.25*	27.41	...	41.15	39.71	41.58	...	34.11*	...	...	36.05	...
1874	...	...	...	32.33	...	...	34.95	37.76	...	37.02*	...	...	34.34*	...
1875	...	...	...	32.30	...	...	...	42.99	...	...	...	...	...	...
1876	...	...	...	41.42	...	...	...	48.66	...	...	...	...	...	...
Mean . .	32.25	40.82	44.57	36.71	22.45	36.28	37.50	40.69	36.05	35.15	...	36.38	37.69	43.00

NEBRASKA.

Year.	Bellevue.	De Soto.	Emerson.	Fort Kearney.	Fort McPherson.	Glendale.	Nebraska City.	Norfolk.	North Platte.	Omaha.	Omaha Agency.	Plattsmouth.	Santee Agency.	Sidney Barracks.
1849	...	...	...	45.76*	...	...	...	...	...	...	...	...	...	...
1850	...	...	...	25.07	...	...	...	...	...	...	...	...	...	...
1851	...	...	...	26.44	...	...	...	...	...	...	...	...	...	...
1852	...	...	...	20.65	...	...	...	...	...	...	...	...	...	...
1853	...	...	...	29.90	...	...	...	...	...	...	...	...	...	...
1854	...	...	...	26.65	...	...	...	...	...	...	...	...	...	...
1855	...	...	...	25.05*	...	...	...	...	...	...	...	...	...	...
1856	...	...	...	29.10	...	...	...	...	...	...	...	...	...	...
1857	...	...	...	28.62	...	...	...	...	...	...	...	...	...	...
1858	48.89*	...	...	26.14	...	...	...	...	...	48.38*	...	...	...	...
1859	18.44*	...	...	16.10	...	...	...	...	...	21.49	...	...	...	...
1860	19.23	...	...	16.85	...	...	...	...	...	...	...	...	...	...
1861	23.92	...	...	19.34	...	...	...	...	...	...	...	...	...	...
1862	26.56	...	...	22.10*	...	...	...	...	...	...	...	...	...	...
1864	19.89*	...	...	...	...	...	...	...	...	...	...	...	...	...
1865	26.56*	...	...	...	...	...	...	...	...	...	...	...	...	...
1866	24.14	...	...	...	...	...	...	...	...	...	...	...	...	...
1867	...	...	...	...	...	29.51	...	...	...	...	...	...	...	...
1868	32.51*	31.11	...	...	29.01*	38.85	...	...	...	...	18.79*	...	...	...
1869	41.16*	47.49	...	...	10.08	43.75*	...	...	...	65.15*	30.97*	...	...	...
1870	26.62	30.89*	...	...	18.62	...	27.34	...	...	19.22	24.54*	...	...	...
1871	33.75	37.08	...	...	20.04	...	...	...	...	22.75	21.46*	...	...	...
1872	30.07*	34.35	30.51	...	16.07	...	...	...	...	36.19	28.63*	...	17.81*	...
1873	22.50	20.11*	23.97*	...	18.86	...	...	...	...	24.15	28.10*	...	26.07*	12.38
1874	29.70	25.75*	29.95*	...	17.16	...	...	19.75*	...	25.75	...	47.25*	20.30	14.77
1875	...	...	...	...	...	...	...	...	15.35	42.89	...	...	...	...
1876	...	...	...	...	...	...	...	...	11.84	32.51	...	...	...	...
Mean . .	29.06	32.06	29.38	25.22	18.46	37.63	32.02	...	13.29	32.84	25.58	...	20.69	13.25

NEVADA.

Year.	Camp Halleck.	Camp McDermit.	Camp McGarry.	Camp Winfield Scott.	Fort Churchhill.	Fort Ruby.
1862	...	...	...	...	6.77	...
1864	...	...	...	...	...	15.73*
1866	...	...	20.50*	...	...	...
1867	...	...	17.87*	15.72*	...	...
1868	16.91	...	...	18.84*	...	...
1869	10.27*	8.34*	...	14.40*	...	...
1870	5.43*	7.45*	...	...	...	...
1871	10.35*	10.01	...	...	...	...
1872	...	4.61	...	...	...	...
1873	...	10.27*	...	...	...	...
1874	12.14*	...	...	...	...	...
Mean.	10.98	8.53	22.46	17.33	7.43	15.61

s

NEW HAMPSHIRE.

Year.	Claremont.	Concord.	Contocook-ville.	Dunbarton.	Fort Constitution.	Hanover.	Laconia.	Lake Village.	Littleton.	Londonderry.	Loudon Ridge.
1835	...	...	...	...	...	31.65	...	...	...	...	...
1836	...	...	...	...	30.93*	37.87	...	...	...	...	...
1837	...	...	...	...	28.16	35.45	...	...	...	...	...
1838	...	...	...	...	31.84	40.62	...	...	...	...	...
1839	...	...	...	...	26.93	32.05	...	...	...	...	...
1840	...	...	...	...	29.54*	45.08	...	...	...	...	...
1841	...	...	...	...	...	38.22	...	...	...	...	...
1842	...	...	...	...	33.79	47.82	...	...	...	...	...
1843	...	...	...	...	34.15	55.98	...	...	...	...	...
1844	...	...	...	...	31.65	47.71	...	...	...	...	...
1845	...	...	...	...	...	38.33	...	...	...	...	...
1846	...	...	...	...	...	37.23	...	...	...	...	...
1847	...	...	...	...	...	45.86	...	...	...	...	...
1848	...	...	...	...	...	48.49	...	...	...	...	...
1849	...	...	...	...	...	38.20	...	...	...	...	...
1850	...	...	...	...	50.73	40.31	...	...	...	...	...
1851	...	...	...	...	45.35	41.49	...	...	...	...	...
1852	...	...	...	...	42.49	35.66	...	...	...	...	...
1853	...	...	...	...	37.32*	...	...	...	...	...	...
1854	...	...	...	...	...	34.57	...	...	...	41.45*	...
1855	...	...	...	...	...	...	...	...	...	43.85*	...
1856	...	34.13*	...	...	...		...	...	...	...	...
1857	...	...	...	...	...	...	49.08	48.17	...	...	...
1858	...	38.33*	...	...	...		42.55	41.73	...	...	...
1859	...	...	...	...	...	...	46.68	44.82	...	...	...
1861	46.73	...	...	...	...	...	...	...	...	...	...
1862	38.78	...	...	...	...	...	...	...	...	...	...
1863	44.25	...	...	...	...	...	...	...	35.08*	...	53.41*
1864	43.01	...	...	...	...	...	...	...	...	...	...
1865	45.18	...	...	...	...	...	...	...	...	...	...
1866	47.52	...	...	...	...	...	40.07	39.70	...	...	...
1867	43.18	...	...	...	...	...	...	...	...	...	...
1868	42.45*	...	...	58.53*	...	...	...	...	...	...	...
1869	...	...	...	47.24	...	...	...	...	...	...	...
1870	...	...	...	42.85	...	...	...	...	...	...	...
1871	...	...	36.50*	42.10	...	...	...	...	...	...	...
1872	...	...	46.57	59.26	...	...	...	...	...	...	...
1873	...	...	39.62	40.28*	...	...	...	...	...	...	...
1874	...	...	39.06	39.93*	...	...	...	...	...	...	...
Mean . .	43.55	40.32	40.44	47.17	35.57	40.66	44.58	43.61	31.02	45.61	...

NEW HAMPSHIRE—CONTINUED.

Year.	Manchester.	Mount Washington.	North Barnstead.	Plaistow.	Portsmouth.	Salmon Falls.	Shelburne.	Stratford.	Tamworth.	West Enfield.	Whitefield.
1854	44.99	...	...	...	...	37.83	...	...	...	...	...
1857	46.40*	...	...	...	...	...	...	...	...	46.62*	...
1858	...	...	...	...	...	...	...	43.24*	...	38.00*	...
1859	...	...	...	...	...	...	...	35.32	...	...	...
1860	...	...	...	...	...	...	...	30.90	...	...	...
1861	...	...	...	...	...	...	...	45.10	...	...	...
1862	...	...	...	...	...	...	...	39.98	...	...	...
1863	...	...	...	...	...	...	...	42.82*	...	...	...
1864	...	...	...	...	...	...	...	41.73	...	...	...
1865	...	...	36.49	...	...	...	...	38.51	...	...	...
1866	...	...	32.96*	...	...	...	...	50.45	...	...	...
1867	...	...	35.69	...	37.30*	...	...	41.00	...	...	...
1868	...	...	...	...	...	...	...	37.80	...	...	...
1869	...	...	...	...	...	...	...	47.89	...	...	...
1870	...	...	...	...	...	...	...	37.75	46.98	...	32.81
1871	...	...	...	...	...	...	...	38.00	47.30	...	34.74
1872	...	...	...	...	...	...	...	50.61	51.61	...	45.93
1873	...	78.56	...	...	...	...	42.05	38.81	...	...	...
1874	...	70.66	...	41.25*	...	...	39.15	...	...	...	34.52
1875	...	55.78	...	...	...	...	...	...	...	...	...
1876	...	77.56	...	...	...	...	...	...	...	...	...
Mean . .	44.59	67.12	34.00	39.13	36.67	41.18	38.09	40.72	50.53	47.77	36.60

NEW JERSEY.

Year.	Alloways-town.	Atco.	Atlantic City.	Barnegat.	Bloomfield.	Branchburg.	Burlington.	Cape May.	Chester.	Dover.	Greenwich.	Haddonfield.	Jersey City.	Lambertville.
1838	...	...	...	...	...	...	...	...	...	...	...	...	...	38.00
1839	...	...	...	...	...	...	...	...	...	...	...	...	...	44.01
1840	...	...	...	...	...	...	...	...	...	...	...	...	...	41.61
1841	...	...	...	...	...	...	...	...	...	...	...	...	...	57.37
1842	...	...	...	...	...	...	...	...	...	...	...	...	...	41.86
1843	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1844	...	...	...	...	...	...	...	...	...	...	...	...	...	40.33
1845	...	...	...	...	...	...	...	...	...	...	...	...	...	42.88
1846	...	...	...	...	...	...	...	...	...	...	...	...	...	45.18
1847	...	...	...	...	...	...	...	...	...	...	...	...	...	51.04
1848	...	...	...	...	...	...	...	...	...	...	...	...	...	34.18
1849	...	...	...	...	43.63*	...	...	...	...	...	...	...	...	43.74
1850	...	...	...	...	49.67	...	...	...	...	...	...	...	...	53.26
1851	...	...	...	...	35.85	...	...	...	...	...	...	...	...	32.44
1852	...	...	...	...	40.52	...	...	...	...	...	...	...	...	45.22
1853	...	...	...	...	49.83	...	...	...	...	...	...	...	...	42.94
1854	...	...	...	...	37.62	...	...	...	...	...	...	...	...	43.16
1855	...	...	...	...	32.89	...	...	...	...	...	...	...	...	45.18
1856	...	...	...	...	27.32	...	...	...	...	...	...	...	...	32.33
1857	...	...	...	...	71.03*	...	51.80	...	...	...	...	...	...	48.67
1858	...	...	...	...	35.66*	...	...	...	...	...	...	...	...	40.32
1859	...	...	...	...	...	...	...	...	...	...	...	...	...	47.64
1862	...	...	...	...	43.00	...	...	...	...	...	...	...	...	...
1864	...	...	...	...	...	...	45.26*	...	42.18	...	37.92*	48.34*	...	...
1865	...	...	...	...	...	...	47.75	...	47.01	...	43.66	55.13	...	...
1866	...	...	...	...	...	...	47.60	...	40.11	...	37.57	37.78	...	...
1867	...	...	...	...	...	...	59.73*	...	43.01*	64.67*	43.09	57.87	...	...
1868	...	...	...	...	...	...	...	...	48.78*	58.25	47.43	52.19*	...	...
1869	...	...	...	...	...	...	...	...	45.45	...	41.69	44.57*	...	...
1870	...	...	...	...	...	...	...	...	42.60	...	43.86	40.38	...	...
1871	...	...	...	...	...	...	...	...	49.87	...	40.85	...	53.94*	...
1872	41.65	41.04	...	...	...	...	...	...	39.45	...	36.88	...	44.21	...
1873	52.50*	54.28	...	...	...	56.39*	...	49.76	...	...	...	...	48.35	57.10*
1874	...	38.82	33.98	55.93	...	...	...	44.26	...	...	...	...	42.03	...
1875	...	...	39.85	46.73	...	...	...	50.89	...	...	...	...	...	...
1876	...	...	35.99	47.17	...	...	...	45.88	...	...	...	...	...	...
Mean . .	46.94	44.73	35.51	50.43	42.44	53.77	48.72	47.77	44.38	61.36	41.89	47.95	47.13	44.62

NEW JERSEY—CONTINUED.

Year.	Long Branch.	Newark.	New Brunswick.	New Germantown.	Paterson.	Peck's Beach.	Rio Grande.	Sandy Hook.	Seaville.	South Orange.	Squan Beach.	Trenton.	Vineland.
1844	...	40.20	...	...	...	...	...	...	...	...	...	...	...
1845	...	36.58	...	...	...	...	...	...	...	...	...	...	...
1846	...	51.59	...	...	...	...	...	...	...	...	...	...	...
1847	...	53.84	...	...	...	...	...	...	...	...	...	...	...
1848	...	36.77	...	...	...	...	...	...	...	...	...	...	...
1849	...	40.06	...	...	...	...	...	...	...	...	...	...	...
1850	...	51.15	...	...	...	...	...	...	...	...	...	...	...
1851	...	41.39	...	...	...	...	...	...	...	...	...	...	...
1852	...	43.55	...	...	...	...	...	...	...	...	...	...	...
1853	...	52.34	...	...	...	...	...	...	...	...	...	...	...
1854	...	43.49	...	...	...	...	...	...	...	...	...	...	...
1855	...	44.27	...	...	...	...	...	...	...	...	...	...	...
1856	...	34.54	...	...	...	...	...	...	...	...	...	...	...
1857	...	49.36	...	...	...	...	...	...	...	...	...	...	...
1858	...	40.42	...	...	...	...	...	...	...	...	...	...	...
1859	...	57.05	...	...	...	...	...	...	...	...	...	...	...
1860	...	42.96*	...	...	...	...	...	...	...	...	...	...	...
1861	...	43.46	...	...	...	...	...	...	...	...	...	...	...
1862	...	44.64	...	...	...	...	...	...	...	...	...	...	...
1863	...	48.02	...	...	...	...	...	...	...	...	...	...	...
1864	...	38.50	...	...	...	...	...	...	...	...	...	...	...
1865	...	52.33	...	...	67.83	...	...	...	...	...	...	...	...
1866	...	39.97	43.47	...	48.51	...	...	...	...	...	...	54.82	...
1867	...	54.56	45.58	...	57.90	...	...	...	69.22*	...	...	56.63*	...
1868	...	56.67	49.82	...	53.02	...	...	...	...	...	...	56.33	55.44
1869	...	47.92	...	47.47	54.06	...	52.81*	...	...	...	...	47.56	50.62
1870	...	47.88	...	40.53	48.08	...	54.56	...	...	...	...	40.37	49.33
1871	...	49.48	...	52.94	...	...	66.87	...	...	43.53*	...	49.35	52.96
1872	...	48.48	...	39.75	...	...	...	...	...	43.22	...	41.85	44.92
1873	...	50.60	...	49.40*	...	...	...	...	...	47.95	...	46.81	54.94
1874	52.91	51.22	...	40.59	...	44.64	...	51.20	...	52.92	53.64	41.94	42.37
1875	59.38	...	...	...	...	48.50	...	48.31	...	...	63.13	...	...
1876	...	...	...	...	...	...	...	57.24	...	...	...	...	...
Mean . .	59.60	46.13	49.00	45.49	54.01	45.60	65.11	52.65	...	46.64	57.61	48.33	49.69

NEW MEXICO.

Year.	Albuquerque.	Cantonment Burgwin.	Cebolleta.	Fort Bascom.	Fort Bayard.	Fort Conrad.	Fort Craig.	Fort Cummings.	Fort Fillmore.	Fort Lowell.	Fort McRae.
1850	4.91*	...	9.69	...	...	...	...	...	...	...	...
1851	...	...	15.12	...	...	...	...	...	...	...	...
1852	14.59*	...	...	...	...	8.63	...	...	12.41*	...	...
1853	7.10	...	...	...	...	7.86	...	...	9.04	...	...
1854	12.51	...	...	...	...	5.76	...	...	6.07	...	...
1855	...	7.53	...	...	...	...	7.89	...	7.51	...	...
1856	4.15	3.86	...	...	...	...	12.56	...	9.22	...	...
1857	5.20	7.98	...	...	...	...	13.43	...	10.40	...	...
1858	16.30	11.91	...	...	...	...	4.63	...	5.11	...	...
1859	5.95	12.70	...	...	...	...	24.58	...	5.52	...	...
1860	3.78	...	...	...	...	...	6.62*	...	...	...	...
1861	...	...	...	...	...	...	10.65	...	...	...	...
1862	...	...	...	...	...	...	21.44*	...	...	...	...
1864	6.18*	...	...	...	...	...	...	...	...	...	...
1865	10.21*	...	...	...	...	...	...	...	...	...	...
1867	...	...	...	...	14.21*	...	...	...	...	...	...
1868	...	...	...	..	15.40*	...	17.44	...	...	...	...
1869	...	...	...	14.52*	12.84	...	11.30	16.32*	...	...	13.45
1870	...	...	...	14.06*	10.22*	...	9.14	20.55*	...	...	11.79*
1871	...	...	...	...	6.44*	...	...	10.79	...	8.94	...
1872	...	...	...	...	13.61	...	...	13.52	...	13.58	...
1873	...	...	...	...	22.18	...	5.85	...	...	7.42	5.97*
1874	...	...	...	...	20.38	...	9.08	...	...	...	10.82
Mean . .	8.11	8.65	12.05	13.73	14.44	6.76	11.06	15.03	8.42	11.49	11.59

NEW MEXICO—Continued.

Year.	Fort Seldon.	Fort Stanton.	Fort Sumner.	Fort Thorn.	Fort Tulerosa.	Fort Union.	Fort Webster.	Fort Wingate.	Santa Fé and Fort Marcy.	Socorro.
1850	...	...	...	...	...	...	...	...	...	7.12
1852	...	...	...	...	...	26.64	29.73*	...	...	...
1853	...	...	...	...	...	13.43	8.79	...	21.77	...
1854	...	...	...	14.60	...	14.37	...	...	24.80	...
1855	...	...	...	13.44	...	18.57	...	...	24.18	...
1856	...	16.81	...	13.51	...	20.21	...	...	23.07	...
1857	...	28.70	...	20.55*	...	20.94	...	...	8.52	...
1858	...	18.76	...	10.58	...	22.79	...	...	11.35	...
1859	...	23.81	...	...	...	24.54	...	...	9.49	...
1860	...	13.65	...	...	...	14.44	...	...	8.83	...
1861	...	...	...	...	...	39.47*	...	...	15.79*	...
1862	...	...	...	...	...	21.32	...	...	...	...
1863	...	...	...	...	...	...	...	...	7.75	...
1864	...	...	...	...	...	...	...	...	20.72*	...
1865	...	...	27.25	...	...	...	...	10.16*	23.15	...
1867	10.75*	...	8.92*	...	...	...	...	22.00	...	...
1868	9.71	...	12.37	...	...	...	...	...	8.92	...
1869	12.60	23.52*	...	...	...	...	...	19.14	11.08	...
1870	12.50	17.97	...	...	...	10.38	...	16.59	13.93	...
1871	6.92	18.96*	...	...	...	13.30*	...	21.58	14.62	...
1872	6.33	18.88*	...	...	...	22.01*	...	20.76	8.24	...
1873	3.49	...	...	...	...	17.92*	...	25.06	8.95	...
1874	6.13	...	...	...	27.59*	17.68	...	7.55	19.83	...
1875	...	...	...	...	...	...	...	...	18.97	...
1876	...	...	...	...	...	...	...	...	15.07	...
Mean . .	8.49	20.	15.02	14.63	33.13	19.09	19.46	17.32	14.91	7.86

NEW YORK.

Year.	Adams.	Albany.	Angelica.	Argyle.	Bellport.	Beverly.	Boyd's Corners Reservoir.	Brookhaven.	Brooklyn.	Buffalo.	Canton.	Carlton.	Cazenovia.	Ceres.
1826	...	33.12	...	...	...	...	...	...	...	...	...	...	...	...
1827	...	49.80	...	...	...	...	...	...	...	...	...	...	...	...
1828	...	37.66	...	...	...	...	...	...	...	...	...	...	...	...
1829	...	38.07	...	...	...	...	...	...	...	...	...	...	...	...
1830	...	41.85	...	...	...	...	...	...	...	...	...	...	...	...
1831	...	39.54	...	...	...	...	...	...	...	...	...	...	...	...
1832	...	44.45	...	...	...	...	...	...	...	27.27	...	...	...	...
1833	...	41.74	...	...	...	...	...	...	...	...	...	...	...	...
1834	...	32.45	...	...	...	...	...	...	...	...	...	...	...	...
1835	...	40.44	...	...	...	...	...	...	...	...	...	...	...	...
1836	...	44.60	...	...	...	...	...	...	...	...	...	...	...	...
1837	...	41.17	...	...	...	...	...	...	...	...	...	...	...	...
1838	...	42.03	...	...	...	...	...	...	...	...	...	...	...	...
1839	...	38.11	...	...	...	...	...	...	...	...	...	...	...	...
1840	...	44.39	...	...	...	...	...	...	...	...	...	...	...	...
1841	...	37.85	...	...	...	...	...	...	...	...	...	...	...	...
1842	...	45.99	...	...	...	...	...	...	...	...	...	...	...	...
1843	...	48.35	...	...	...	...	...	...	...	44.70	...	...	...	...
1844	...	32.45	...	...	...	...	...	...	...	34.79	...	...	...	...
1845	...	40.44	...	...	...	...	...	...	...	...	...	...	...	...
1846	...	39.85	...	...	...	...	...	...	...	...	...	...	...	...
1847	...	41.38	...	...	...	...	...	...	...	...	...	...	...	...
1848	...	48.22	...	...	...	...	...	...	...	...	...	...	...	...
1849	...	36.72	...	...	...	...	...	...	...	...	...	...	...	...
1850	...	50.97	...	...	...	...	...	...	...	...	...	...	...	...
1851	...	34.66	...	...	...	...	...	...	...	...	...	...	...	...
1852	...	31.92	...	...	...	...	...	...	...	...	...	...	...	...
1857	...	...	...	...	...	...	...	...	...	...	...	...	58.05*	...
1858	...	...	...	...	41.15	42.46	...	...	...	41.93	...	...	...	...
1859	...	...	...	...	58.09	49.72	...	...	...	32.70	...	...	41.62	...
1860	...	...	...	...	27.39	49.95*	...	...	...	30.05	...	...	...	...
1861	...	...	...	...	...	51.76	...	...	35.94	38.61	...	...	43.44	...
1862	...	...	...	...	...	...	...	...	37.19	36.67	...	...	45.60*	...
1863	...	...	...	...	...	...	...	...	...	29.75	...	...	...	...
1864	...	...	...	...	...	41.16	...	51.08*	31.58	40.96	...	...	...	...
1865	...	37.29	...	...	...	47.68	...	56.23	41.73*	33.55	...	...	...	...
1866	...	35.47	...	...	...	48.49	...	56.66	46.64	39.46	...	...	...	...
1867	...	38.04	...	...	...	52.34	50.77	55.14	25.73*	31.44	...	...	...	...
1868	...	41.88	...	...	...	52.75	50.33	59.64	21.82	38.54	...	...	...	...
1869	...	44.41	...	...	...	49.16	48.36	71.38	22.58	43.68	...	...	...	...
1870	...	55.81	...	...	...	45.52	44.63	41.91	27.62	41.91	...	...	...	...
1871	...	...	26.12*	36.76*	...	43.06	48.93	46.16	45.30	34.05*	...	27.81*	...	...
1872	40.94	...	28.61	38.66	...	42.63	...	40.58	45.74	28.87	31.85	24.70	...	...
1873	46.46	...	34.81*	40.35	...	46.74	...	45.39	49.58	43.82	32.82	33.57	...	...
1874	48.48	37.93	...	36.31	...	42.80	...	41.55*	...	30.44	...	32.17	...	49.41
1875	...	38.25	...	...	...	...	...	...	...	31.44	...	...	...	...
1876	...	38.19	...	...	...	...	...	...	...	39.26	...	...	...	...
Mean .	45.30	40.56	31.85	37.82	43.44	47.67	48.35	51.29	36.53	35.49	32.63	29.55	40.48	49.41

NEW YORK—CONTINUED.

Year.	Charlotte.	Clinton.	Cooperstown.	Croton Dam.	Delhi.	Depauville, near	East Hampton.	Elmira.	Fishkill Landing.	Flatbush, Erasmus Hall.	Fordham.	Fort Ann.	Fort Columbus.	Fort Edward.
1828	...	...	...	...	...	...	30.91	...	...	...	...	...	...	...
1829	...	...	...	...	...	...	42.56	...	...	...	...	...	...	...
1830	...	...	...	...	...	...	46.65	...	...	53.47	...	...	...	...
1831	...	...	...	...	...	...	38.49	...	...	42.52	...	...	...	...
1832	...	...	...	...	...	...	41.82	...	...	42.82	...	...	...	...
1833	...	...	...	...	...	...	36.29	...	...	46.76	...	...	. .	...
1834	...	...	...	...	...	...	40.12	...	...	39.47	...	...	...	...
1835	...	...	...	...	...	...	30.55	...	...	38.10	...	...	...	...
1836	...	...	...	...	...	...	35.50	...	...	43.89	...	...	27.57	...
1837	...	...	...	...	...	...	35.23	...	...	34.66	...	...	65.51	...
1838	...	...	...	...	...	...	28.06	...	...	41.11	...	...	41.90	...
1839	...	...	...	...	...	...	46.39	...	...	42.90	...	...	42.97	...
1840	...	...	...	...	...	...	43.32	...	...	35.93	...	...	29.80	...
1841	...	...	...	...	...	...	43.62	...	...	52.12	...	...	42.08	...
1842	...	...	...	...	...	...	33.07	...	...	47.04	...	...	33.98	...
1843	...	...	...	...	...	...	29.46	...	...	50.19	...	...	41.37	...
1844	...	...	...	...	...	...	...	...	...	39.07	...	...	36.38	...
1845	...	...	...	...	....	...	...	...	...	32.14	...	...	34.08	...
1846	...	...	...	...	...	...	...	...	...	44.00	...	...	48.91	...
1847	...	...	...	...	...	...	...	...	...	45.93	...	...	64.85	...
1848	...	...	...	...	...	...	...	...	...	33.41	...	...	36.80	...
1849	...	...	...	...	...	...	...	...	...	32.47	...	...	31.74	...
1850	...	...	...	...	...	...	...	...	...	48.58	...	...	54.53	...
1851	...	...	...	...	...	...	...	23.05*	...	40.82	...	...	40.88	...
1852	...	45.11	...	...	36.36	...	...	...	...	47.46	...	...	43.84	...
1853	...	...	...	...	...	...	...	...	...	...	...	...	52.20	...
1854	...	...	...	...	...	...	...	...	...	...	...	...	45.18	...
1855	...	...	...	...	...	...	...	...	...	...	...	...	43.95	...
1856	...	31.73*	...	...	...	...	...	...	...	39.90	...	...	38.65	...
1857	...	63.04*	...	...	...	...	...	...	...	49.75	...	...	40.70	...
1858	...	41.82	...	...	...	...	...	...	30.06	43.23	...	...	37.45	61.75
1859	...	...	...	...	...	...	...	...	41.84	58.92	...	...	62.41	...
1860	25.54	...	...	42.71	...	...	...	...	...	...	41.01	...	...	...
1861	33.42	...	...	51.78	...	...	...	...	40.76	47.40	44.27	...	...	...
1862	29.44	30.67	...	37.39	...	...	...	...	47.33	...	46.15	...	...	...
1863	24.83	39.77*	...	44.84	...	...	...	...	48.78*	33.13*	46.86	...	...	...
1864	35.10	38.35	...	37.09	...	...	...	...	38.71	33.33	41.79	49.81*	...	...
1865	31.63	...	...	50.13	...	...	...	...	40.81	47.41	52.57	...	42.86	...
1866	32.23	...	...	49.78	...	47.17	...	...	37.26*	34.72*	45.94	...	...	...
1867	...	...	...	52.48	...	35.74	...	...	...	39.00*	56.29	...	49.93*	...
1868	...	...	...	81.56	...	43.06	...	...	...	38.58	64.44	...	49.19	...
1869	...	...	...	59.14	...	50.43	...	...	...	43.13	58.06	...	48.20	...
1870	...	...	32.99	59.61	...	35.63	...	...	...	33.21*	45.09	...	40.96*	...
1871	...	...	36.17	75.36	...	38.63	...	...	...	51.10*	57.90	...	51.52	...
1872	...	...	36.92	...	...	41.52	...	...	...	39.75	...	...	44.34	...
1873	...	...	42.19	...	...	49.54	...	...	...	31.41*	...	...	47.15	...
1874	...	...	36.92*	...	...	45.28	...	...	...	...	...	...	43.56	...
Mean . .	29.91	35.61	37.59	53.34	37.16	43.36	37.30	25.88	39.93	42.87	49.38	...	44.05	57.91

NEW YORK—CONTINUED.

Year.	Fort Hamilton.	Fort Niagara.	Fort Ontario.	Fort Porter.	Fort Wadsworth.	Germantown.	Geneva.	Glasco.	Gouverneur.	Hermitage.	Homer.	Houseville.	Hudson.	Ithaca.
1838	...	...	...	...	...	...	...	...	19.67	...	...	...	...	...
1839	51.11	...	...	...	...	...	...	...	23.48	...	...	...	...	...
1841	...	...	...	...	...	...	...	...	22.67	...	...	...	...	...
1842	...	50.49	...	...	...	...	...	...	19.42	...	...	...	...	...
1843	44.18	37.07	...	...	...	...	...	...	15.73	...	...	...	...	...
1844	32.64	18.86	34.58	...	...	...	...	...	25.46	...	...	...	...	...
1845	35.11	20.61	35.26*	...	...	...	...	...	33.48	...	...	...	...	...
1846	52.69	...	...	...	...	...	...	...	...	...	...	...	...	...
1847	62.69	...	...	...	...	...	...	...	25.80*	...	...	...	...	...
1848	34.13	...	...	...	...	...	...	...	25.70	...	...	...	...	...
1849	29.75	...	26.96	...	...	...	...	...	...	...	...	...	...	...
1850	45.89	41.73*	34.63	...	...	...	...	...	...	...	...	...	...	...
1851	37.87	25.91	31.95	...	...	...	...	...	...	...	...	...	...	...
1852	39.66	37.04	32.54	...	...	...	30.48*	...	...	...	45.28	...	36.15	31.87*
1853	55.24	26.47	...	...	...	...	...	...	...	...	...	...	...	...
1854	44.30	29.54*	...	...	...	...	...	...	28.98	...	...	...	...	...
1855	40.37	...	25.93	...	...	...	...	...	25.66	...	...	...	...	...
1856	36.27	...	32.14*	...	...	...	27.46*	...	...	...	...	...	...	...
1857	42.41	...	...	...	...	...	...	...	...	...	...	...	...	...
1858	36.05	...	...	...	...	...	...	...	...	...	...	41.17*	...	...
1859	43.09	...	...	...	...	...	...	...	...	...	...	...	...	...
1860	...	29.13	...	...	...	...	...	...	...	...	...	...	...	...
1861	...	33.93	...	...	...	...	...	...	50.75	52.30	...	...	...	...
1862	...	28.73	...	...	...	...	...	...	33.28	47.91	...	...	...	...
1863	...	26.72	...	...	...	...	...	...	30.83*	53.13	...	...	...	...
1864	...	30.38	...	...	...	...	32.97	...	36.62	...	...	...	...	...
1865	38.93	24.41	...	...	...	...	33.15	...	27.78	...	...	...	...	...
1866	...	31.49	...	...	...	51.85*	28.95	...	41.53	...	...	...	...	...
1867	44.41	...	...	29.40*	...	...	25.48	...	32.64*	...	...	42.74	...	...
1868	53.76	...	...	35.70*	...	...	...	...	28.78	...	...	47.05	...	...
1869	49.15	...	...	40.08	...	...	...	...	38.25	...	...	55.63	...	...
1870	...	...	35.08	33.37	...	...	...	49.06	30.87	...	...	39.57*	...	...
1871	48.45	...	30.00	24.38	...	...	...	51.90	26.82	...	...	...	...	...
1872	39.12	...	27.61	20.01	...	...	...	...	27.80	...	...	...	...	...
1873	34.27	...	31.46	37.90	...	...	...	...	37.87	...	...	...	...	...
1874	33.12	25.30	31.12*	29.71	46.82	...	...	...	32.78	...	...	...	...	...
Mean . .	42.25	30.52	30.67	32.77	40.53	51.95	30.40	46.82	29.06	51.73	46.98	45.57	35.29	34.54

NEW YORK—CONTINUED.

Year.	Jacksonville.	Jamaica.	Jamestown.	Lake.	Leyden.	Liberty.	Little Genesee.	Lockport.	Lodi.	Lowville.	Madison Barracks.	Malone.	Mexico.	Middleburg.
1828	...	48.91	...	...	...	...	...	...	...	...	...	...	...	...
1829	...	45.83	...	...	...	...	...	...	...	...	...	...	...	...
1830	...	43.32	...	...	...	...	...	...	...	...	...	...	...	...
1831	...	37.75	...	...	...	...	...	...	...	...	...	...	...	...
1832	...	39.15	...	...	...	...	...	...	...	...	...	...	...	...
1833	...	36.67	...	...	...	...	...	...	...	...	...	...	...	...
1834	...	34.06	...	...	...	...	...	...	...	...	...	...	...	...
1835	...	28.78	...	...	...	...	...	...	...	...	...	...	...	...
1836	...	36.57	...	...	...	...	...	...	...	...	...	...	...	...
1837	...	32.13	...	...	...	...	...	...	...	...	...	...	...	...
1838	...	33.70	...	...	...	...	...	...	...	...	...	...	...	...
1839	...	33.44	...	...	...	...	...	...	...	...	...	...	...	...
1840	...	35.47	...	...	...	...	...	...	...	...	...	...	...	...
1841	...	44.57	...	...	...	...	...	...	...	...	32.37	...	...	...
1842	...	41.59	...	...	...	...	...	...	...	...	37.31	...	...	...
1843	...	33.66	...	...	...	...	...	...	...	...	33.77	...	...	...
1844	...	44.72	...	...	...	...	...	...	...	...	29.23	...	...	...
1845	...	33.71	...	...	...	...	...	...	...	...	32.37	...	...	...
1846	...	35.94	...	...	...	...	...	...	...	...	...	...	...	...
1847	...	44.47	...	...	...	...	...	...	...	...	...	...	...	...
1848	...	32.76	...	...	...	...	...	...	...	...	...	...	...	...
1849	...	30.01	...	...	...	...	...	...	...	...	...	...	...	...
1850	...	...	...	...	...	...	...	...	...	...	57.52	...	...	...
1851	...	...	...	...	...	...	...	...	...	...	53.79	...	...	...
1852	...	35.30	38.33*	...	...	47.82	...	...	...	...	...	...	39.72	...
1853	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1854	...	...	...	...	...	...	...	...	20.18	...	...	...	...	...
1855	...	...	...	...	...	...	...	...	37.00	...	...	...	...	...
1856	...	...	...	...	...	...	...	...	23.84*	...	...	...	38.10*	...
1857	...	...	...	47.78*	...	...	...	...	33.38*	47.32	...	...	...	...
1858	...	...	...	42.36*	...	...	...	...	...	35.38	...	...	...	...
1864	...	...	52.75	...	...	...	...	...	...	...	...	...	...	...
1865	...	...	54.84*	...	...	...	...	...	...	...	...	...	...	...
1867	...	...	...	...	...	...	24.78*	...	...	...	...	...	...	...
1868	...	...	...	...	...	...	28.27	...	...	...	...	...	...	...
1869	...	...	...	...	65.00*	...	36.32	...	...	...	...	...	...	...
1870	...	...	...	...	...	...	44.48	...	...	...	22.74	...	...	...
1871	...	...	33.15*	...	...	...	37.90	31.98	...	32.84*	27.00	...	...	44.80*
1872	...	...	36.88	...	...	...	38.13	23.88	...	...	30.20	...	...	44.70*
1873	...	...	45.05	...	...	...	47.96	33.32	...	...	29.95	...	...	56.50*
1874	24.21	...	35.85	...	...	...	...	25.82*	...	...	26.88	...	...	...
1876	...	...	...	...	...	...	...	...	...	...	...	45.14	...	...
Mean . .	28.14	39.07	43.16	44.74	60.93	43.91	36.46	29.46	27.45	33.55	35.31	33.70	33.94	48.67

NEW YORK—CONTINUED.

Year.	Milo.	Minaville.	Newburg.	Newark Valley.	New York City.	Nichols.	North Hammond.	North Salem.	North Volney.	Ogdensburg.	Oswego.	Ovid.	Oxford.	Palermo.
1830	...	...	34.83	...	...	...	...	43.37	...	...	...	...	...	...
1831	...	...	...	...	...	...	...	43.04	...	...	...	...	...	...
1832	...	...	43.16	...	...	...	...	40.93	...	...	...	...	...	...
1833	...	...	41.17	...	...	...	...	43.26	...	...	...	...	...	...
1834	...	...	29.23	...	...	...	...	33.50	...	...	...	...	...	...
1835	...	...	25.04	...	...	...	...	34.99	...	...	...	...	...	...
1836	...	...	30.27	...	...	...	...	...	...	...	...	...	...	...
1837	...	...	25.32*	...	...	...	...	...	...	...	...	...	...	...
1838	...	...	48.24	...	...	...	...	30.87	...	...	...	...	...	...
1839	...	...	44.54	...	...	...	...	...	...	...	...	...	...	...
1840	...	...	38.98	...	...	...	...	37.38	...	...	...	...	...	...
1841	...	...	...	...	...	...	...	39.78	...	...	...	...	...	...
1842	...	...	30.63	...	...	...	...	45.72	...	...	...	...	...	...
1843	...	...	33.51	...	...	...	...	50.17	...	...	...	...	...	...
1844	...	...	31.87	...	...	...	...	34.90	...	...	...	...	...	...
1845	...	...	30.35*	...	...	...	...	39.50	...	...	...	...	...	...
1846	...	...	34.75	...	...	...	...	45.67	...	...	...	...	...	...
1847	...	...	29.82	...	34.49	...	...	44.80	...	...	...	...	...	...
1848	...	...	34.72	...	44.76	...	...	35.65	...	...	...	...	...	...
1849	...	...	33.72	...	37.61	...	...	42.65	...	...	...	...	...	...
1850	...	...	55.63	...	51.50	...	...	55.63	...	...	...	...	...	...
1851	...	...	45.41	...	...	...	...	35.38	...	...	...	...	...	...
1852	...	...	...	...	...	...	...	39.02	...	37.14	...	...	35.44	...
1854	...	...	...	...	43.12	...	...	...	...	...	...	...	...	...
1855	...	...	...	...	52.73	...	...	...	...	...	...	...	...	...
1856	...	...	...	...	39.83	...	...	...	...	...	...	32.66	...	...
1857	...	...	...	...	56.44	...	...	...	...	40.45*	...	44.33	...	...
1858	...	...	...	...	51.87	...	...	...	...	37.49*	...	...	...	...
1859	...	...	...	...	55.60	...	...	...	...	36.58*	53.52*	...	...	...
1860	...	...	...	...	42.08	...	...	...	...	...	...	...	...	...
1861	...	...	...	...	48.42	...	...	...	...	...	50.05	...	...	...
1862	...	...	...	...	45.61	...	...	...	...	...	44.59*	...	...	...
1863	...	...	...	...	50.48	...	...	...	...	...	56.16	...	...	...
1864	...	...	...	...	36.96	...	...	...	...	...	46.79	...	...	...
1865	...	...	40.59*	...	48.02	...	...	...	...	...	43.32	...	...	43.41
1866	...	...	40.89	...	41.95	...	...	...	...	...	43.23	...	...	51.85
1867	...	...	43.31	...	48.30	...	46.71	...	...	...	35.22	...	...	37.92*
1868	...	41.73	39.73*	...	53.97	...	31.56	...	...	...	42.51	...	...	38.74
1869	...	41.74	33.46*	...	48.30	...	41.27	...	...	...	47.06	...	...	35.96
1870	34.32	40.91	36.42*	38.70*	43.71	...	31.90	...	...	...	34.10	...	...	34.80
1871	...	...	...	39.70*	58.94	...	36.91*	...	...	...	31.07	...	...	31.18*
1872	...	...	...	...	46.20	...	33.76	...	...	...	31.74*	...	...	31.40
1873	...	...	...	...	45.90	...	44.84*	...	41.91	...	33.29	...	...	35.53*
1874	...	...	...	...	46.66	50.75	27.00	...	43.57	...	34.91	...	...	43.47
1875	...	...	...	...	45.09	...	...	...	...	...	31.41	...	...	...
1876	...	...	...	...	47.40	...	...	...	...	...	34.19	...	...	...
Mean . .	32.57	40.93	36.85	37.85	46.52	49.67	39.73	40.96	41.83	37.63	40.42	37.97	36.36	38.26

NEW YORK—CONTINUED.

Year.	Penn Yan.	Pierrepont Manor.	Plattsburg.	Pompey.	Rochester.	Rodman.	Sackett's Harbor.	Sag Harbor.	Seneca Falls.	Sing Sing.	South Hartford.	South Trenton.	Spencertown.	Syracuse.
1829	32.39	...	...	...	...	...	...	...	...	...	...	...	...	...
1830	30.07	...	...	31.66*	...	...	...	...	...	...	...	...	...	...
1831	29.90	...	...	29.47*	34.60	...	...	...	...	...	...	...	...	...
1832	30.70	...	...	26.44	31.45	...	...	...	...	...	...	...	...	...
1833	25.89	...	...	30.14	30.30	...	...	...	...	...	...	...	...	...
1834	22.39	...	...	...	22.90	...	...	...	...	...	...	...	...	...
1835	26.51	...	...	33.27	32.70	...	...	...	...	...	...	...	...	...
1836	27.85	...	...	23.48	...	...	...	...	...	...	...	...	...	...
1837	24.56	...	...	30.30	31.05	...	...	...	...	...	...	...	...	...
1838	31.43	...	...	23.21	25.69	...	...	...	...	...	...	...	...	...
1839	31.30	...	...	25.54	30.09	...	...	...	...	...	...	...	...	...
1840	29.54	...	35.70	32.79	29.39	...	...	...	...	...	...	...	...	...
1841	24.04	...	24.88*	25.28	32.33	...	...	...	...	...	...	...	...	...
1842	31.50	...	29.02	29.84	33.24	...	...	...	...	...	...	...	...	...
1843	29.18	...	40.92	31.38	30.21	...	...	...	...	...	...	...	...	...
1844	20.10	...	39.28	...	26.17	...	...	...	...	...	...	...	...	...
1845	24.40	...	27.61	...	34.43	...	...	...	...	...	...	...	...	...
1846	28.93	...	...	...	37.13	...	...	...	...	...	...	...	...	...
1847	27.72	...	...	...	36.14	...	...	...	...	...	...	...	...	...
1848	22.57	...	...	...	32.03	...	...	...	...	...	...	...	...	...
1849	22.97	...	...	...	33.37	...	...	...	...	...	...	...	...	...
1850	31.72	...	42.05	45.08	38.47	...	...	...	40.10	...	...	...	...	...
1851	26.81	...	31.44	40.26	24.97	...	...	...	31.02	...	...	...	...	...
1852	25.52*	...	25.10	41.33*	35.16	...	...	...	36.23	...	...	...	...	41.44
1853	29.47	...	...	...	32.52	...	...	...	...	...	...	...	...	...
1854	19.66	...	...	...	29.42	...	...	62.62	...	...	...	...	...	...
1855	29.96	...	...	...	33.93	...	...	40.52*	...	...	...	...	42.49	...
1856	21.66	...	...	...	26.43	...	...	42.04*	...	...	...	...	38.40	...
1857	44.36	...	...	...	44.02	...	...	37.21	...	...	...	...	44.77*	...
1858	26.78	...	...	...	35.97	...	...	43.90*	...	...	...	...	35.69*	...
1859	29.15	39.11	...	...	28.52	...	...	...	...	...	...	...	...	...
1860	25.62	34.62	...	...	30.38	...	34.80	...	...	...	...	...	...	...
1861	32.74	42.74	...	...	35.99	...	45.90	...	...	...	...	...	...	...
1862	31.46	29.29	...	...	40.21	...	28.76	...	...	...	...	...	...	...
1863	40.32	39.55	...	...	31.22	...	38.53	...	...	85.47	...	...	...	...
1864	31.97	39.19	...	...	40.84	...	41.54	...	...	73.46	49.19	52.04*	...	...
1865	31.77	38.99*	...	...	35.27	...	30.62	...	...	84.67	43.67	52.33	...	...
1866	26.85	...	...	...	36.07	...	38.92	...	...	75.70	34.98	55.22	...	...
1867	28.45*	...	...	...	31.66*	...	...	...	...	88.02	44.70	59.88	...	...
1868	...	...	...	...	39.22	...	...	...	...	95.42	39.66*	56.68*	...	...
1869	...	...	30.25	...	41.33	...	...	...	...	82.98	53.20*	67.01	...	...
1870	...	...	20.61	...	39.61*	...	...	...	...	70.54	29.11	53.21	...	...
1871	...	...	27.54	...	33.41	...	...	...	...	91.35	41.43	49.54*	...	...
1872	...	...	31.15	...	...	...	...	...	...	...	41.47	47.52*	...	...
1873	...	...	32.39	...	49.84	...	...	...	...	...	38.16*	50.11*	...	...
1874	24.70*	...	36.66	...	35.81	46.10	...	...	...	49.89	...	50.69*	...	...
1875	...	...	...	...	29.93	...	...	...	...	...	...	...	...	...
1876	...	...	...	...	35.82	...	...	...	...	...	...	...	...	...
Mean . .	28.31	37.64	31.98	30.76	33.65	47.50	36.73	43.07	35.78	76.65	41.76	53.90	38.55	36.75

NEW YORK—CONTINUED.

Year.	Tarrytown.	Theresa.	Throg's Neck.	Troy.	Utica.	Wampsville.	Waterburg.	Waterford.	Watertown.	Watervliet Arsenal.	West Day.	West Point.	Willett's Point.	White Plains.
1828	...	...	...	...	36.57	...	...	...	...	...	...	...	...	...
1829	...	...	...	...	36.16	...	...	...	...	...	...	...	...	...
1830	...	...	...	...	46.19	...	...	...	...	...	...	...	...	...
1831	...	...	...	...	37.85	...	...	...	...	...	...	...	...	...
1832	...	...	...	...	49.90	...	...	...	...	...	...	...	...	...
1833	...	...	...	...	37.79	...	...	...	...	...	...	...	...	...
1834	...	...	...	...	34.52	...	...	...	...	...	...	...	...	...
1835	...	...	...	...	38.58	...	...	...	...	...	...	...	...	...
1836	...	...	...	...	33.16	...	...	...	...	34.69*	...	...	...	...
1837	...	...	...	...	27.54*	...	...	...	...	32.04	...	...	...	...
1838	...	...	...	...	...	...	...	...	...	30.80	...	...	...	...
1839	...	...	...	...	35.44	...	...	...	...	29.73	...	...	...	...
1840	...	...	...	...	45.81	...	...	...	...	32.28	...	47.82	...	...
1841	...	...	...	...	41.95	...	...	...	...	35.79	...	53.94	...	...
1842	...	...	...	...	56.69	...	...	...	...	44.93*	...	50.62	...	...
1843	...	...	...	...	40.47	...	...	...	...	42.04*	...	50.60	...	...
1844	...	...	...	...	35.67	...	...	...	...	...	...	48.37	...	...
1845	...	...	...	...	40.28	...	...	...	...	36.54	...	43.38	...	...
1846	...	...	...	...	36.37	...	...	...	...	31.49	...	46.58	...	...
1847	...	...	...	...	31.96*	...	...	...	...	31.80	...	35.05	...	...
1848	...	...	...	...	...	...	...	...	...	39.93	...	50.79	...	...
1849	...	...	...	...	...	...	...	...	...	33.19*	...	38.25	...	...
1850	...	...	...	...	40.39	...	...	...	...	33.22	...	59.94	...	...
1851	...	...	...	...	...	...	...	...	...	34.08	...	40.60	...	...
1852	...	...	...	...	49.97	...	...	...	...	31.14	...	43.31	...	...
1853	...	...	...	...	42.78	...	...	...	...	42.82	...	63.56	...	...
1854	...	...	...	...	...	...	...	...	...	27.50	...	47.06	...	...
1855	...	...	...	...	...	...	...	...	...	...	...	49.28	...	...
1856	...	...	...	...	...	...	...	...	27.19	...	...	47.41	...	...
1857	...	...	...	...	...	...	...	...	...	...	...	47.19	...	...
1858	...	...	...	...	...	...	...	35.23	...	...	...	43.94	...	...
1859	...	...	...	...	...	72.62*	...	34.99	...	...	...	43.69	...	...
1860	40.44	...	...	37.48*	...	69.97*	...	...	...	...	...	...	...	...
1861	54.45	...	...	39.70	...	73.53	...	39.32	...	...	...	...	...	...
1862	40.15	31.18	...	32.39	...	63.71	...	35.90	...	...	...	...	...	...
1863	48.96	34.67*	...	...	...	66.82*	...	...	...	...	...	...	...	...
1864	39.80	45.50	35.92*	...	...	60.95	...	...	...	...	...	...	...	...
1865	49.69	33.86	...	...	...	64.99	...	...	...	...	...	45.40	...	...
1866	42.30	42.27*	...	...	...	64.22	...	...	...	...	...	43.79*	...	...
1867	46.10	34.09	...	38.39*	...	62.79*	...	...	...	....	...	51.78	...	...
1868	53.48	...	...	42.39	...	73.93	...	...	...	...	...	56.71	...	...
1869	50.78	...	...	...	...	77.22	...	...	...	...	...	47.66	...	...
1870	47.50	...	...	...	46.25	66.04*	...	...	...	...	...	42.34	30.92	...
1871	60.39	...	...	...	...	55.08	...	...	...	...	...	52.94	39.22	...
1872	...	...	...	...	...	72.56	...	...	...	...	44.76	30.64	42.78	...
1873	...	...	...	...	...	68.37	43.73	...	...	...	...	44.85	35.98	44.05*
1874	...	...	...	39.37	...	75.51*	34.04	...	...	...	...	38.41*	40.02	51.60
Mean . .	47.58	37.03	37.42	37.88	41.44	68.01	38.80	38.47	27.19	34.67	43.14	46.82	37.76	51.75

NORTH CAROLINA.

Year.	Asheville.	Attaway Hill.	Cape Hatteras.	Chapel Hill.	Charlotte.	Davidson College.	Fayetteville.	Fort Johnston.	Gaston.	Goldsboro.	Greensboro.	Johnston.	Kenansville.
1844	...	...	...	...	...	...	...	50.05	...	...	...	...	...
1856	...	...	...	40.98*	...	...	...	...	...	...	...	...	...
1857	...	...	...	38.66*	...	...	...	...	36.32	...	...	...	...
1858	...	...	...	43.94	...	45.44	...	...	40.83	...	...	...	...
1859	...	...	...	42.18	...	46.76*	...	...	49.69	...	...	...	...
1860	...	...	...	...	...	...	...	...	46.13	52.95*	...	...	...
1867	...	68.38	...	...	...	...	...	...	...	74.47	...	...	...
1868	...	64.20	...	...	...	...	...	...	...	41.01*	...	...	68.30*
1869	37.95	50.68	...	...	...	...	...	...	...	42.36	...	...	...
1870	45.35	43.98	...	...	...	...	...	...	...	58.60	...	...	...
1871	36.92*	45.89	...	...	...	...	40.15*	...	...	...	...	47.83*	...
1872	34.10	39.89	...	...	51.21*	...	...	...	...	...	22.88	47.17	...
1873	45.67	54.46	...	...	53.79	...	...	...	...	...	17.58*	66.14	...
1874	44.17*	59.08	...	...	...	...	...	...	...	48.78*	16.00	58.06	...
1875	...	...	68.26	...	...	...	...	...	...	...	...	...	...
1876	...	...	65.78	...	...	...	...	...	...	...	...	...	...
Mean . .	39.71	53.18	57.53	42.71	52.50	45.58	38.98	46.00	43.40	54.47	20.48	54.80	67.55

NORTH CAROLINA—Continued.

Year.	Kitty Hawk.	Lenoir.	Murphy.	Murfreesboro.	New Garden.	Oxford.	Raleigh.	Smithville.	Statesville, near	Tarboro.	Warrenton.	Weldon.	Wilmington.
1857	...	...	...	29.22	...	...	...	...	...	...	...	...	...
1858	...	...	...	32.54	...	...	...	...	...	...	...	...	...
1859	...	...	...	43.58	...	...	...	...	...	...	...	...	...
1860	...	...	...	41.07	...	...	...	...	...	...	...	...	...
1861	...	...	...	42.91*	...	...	...	...	...	...	...	...	...
1867	...	...	...	...	...	54.04	53.59	...	52.90*	...	...	...	...
1868	...	...	...	...	...	47.15	45.83	...	61.81	...	...	...	...
1869	...	...	...	...	...	37.83*	...	...	46.45*	...	...	...	...
1870	...	...	...	...	...	44.39*	...	...	55.29	...	38.45	...	...
1871	...	...	...	...	...	44.30*	...	...	44.76*	...	...	...	...
1872	...	43.75	75.85*	...	...	41.81	...	...	...	54.77	...	52.15*	...
1873	...	61.20	64.75	...	48.30*	53.55	...	...	...	...	...	54.37	59.76
1874	...	55.70	78.40	...	52.43	44.94*	40.63	...	48.94*	...	...	40.73	49.70
1875	69.75	...	...	...	...	...	...	...	...	...	...	...	49.59
1876	57.11	...	...	...	...	...	...	56.33	...	...	...	...	66.73
Mean . .	70.85	51.98	73.00	37.65	50.42	46.00	48.03	56.53	51.86	53.79	37.60	49.07	52.60

OHIO.

Year.	Austinburg.	Avon.	Bellefontaine.	Berlin Heights.	Bethel.	Bowling Green.	Carthagena.	Cincinnati.	Cleveland.	College Hill.	Cummins-ville.	East Cleveland.	East Fairfield.	Edinburg.	Freedom.	Gallipolis.
1835	...	...	...	...	...	...	...	52.15	...	...	...	...	...	...	...	...
1836	...	...	...	...	...	...	...	57.39	...	...	...	...	...	...	...	...
1837	...	...	...	...	...	...	...	42.71	...	...	...	...	...	...	...	...
1838	...	...	...	...	...	...	...	39.45	...	...	...	...	...	...	...	...
1839	...	...	...	...	...	...	...	30.62	...	...	...	...	...	...	...	...
1840	...	...	...	...	...	...	...	47.34	...	...	...	...	...	...	...	...
1841	...	...	...	...	...	...	...	41.05	...	...	...	...	...	...	...	...
1842	...	...	...	...	...	...	...	41.29	...	...	...	...	...	...	...	...
1843	...	...	...	...	...	...	...	51.25	...	...	...	...	...	...	...	...
1844	...	...	...	...	...	...	...	43.04	...	...	...	...	...	...	...	...
1845	...	...	...	...	...	...	...	46.38	...	...	...	...	...	...	...	...
1846	...	...	...	...	...	...	...	53.52	...	...	...	...	...	...	...	...
1847	...	...	...	...	...	...	...	65.18	...	...	...	...	...	...	...	...
1848	...	...	...	...	...	...	...	50.58	...	...	...	...	...	...	...	...
1849	...	...	...	...	...	...	...	52.97	...	...	...	...	...	...	...	...
1850	...	...	...	...	...	...	...	54.76	...	...	...	...	...	...	...	...
1851	...	...	...	...	...	...	...	31.70	...	...	...	...	...	...	...	...
1852	...	...	...	...	...	...	...	54.06	...	...	...	...	...	...	...	...
1854	...	...	...	...	...	...	...	...	...	47.72*	...	...	...	...	...	41.70*
1855	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37.02
1856	...	...	...	...	...	...	...	25.49	26.09	...	...	...	...	...	...	...
1857	...	...	...	...	...	...	...	35.25	39.75	...	...	...	...	49.02*	...	33.09*
1858	...	...	54.19	...	...	...	...	49.11	44.16	...	...	...	...	49.26*	...	...
1859	...	42.00	35.33	...	...	35.05	...	45.11	38.91	51.43*	...	...	...	...	...	...
1860	...	...	...	...	45.36	...	...	35.17	37.18	...	...	...	30.45*	...	...	...
1861	...	...	...	...	...	31.49	...	43.08	33.90	42.76*	...	...	35.38	...	48.91*	...
1862	...	...	...	...	41.19*	53.08*	...	38.14	39.29	...	...	30.70	30.14	...	...	...
1863	46.81*	...	...	...	...	29.72*	...	37.30*	34.87	48.17*	...	...	34.09	...	...	...
1864	41.86	...	...	...	47.53	...	...	33.32	33.18	47.37	...	...	33.58	...	...	...
1865	32.41*	...	...	...	47.32	...	...	43.98	32.02	52.49	...	...	40.70	...	...	43.89*
1866	...	...	...	...	47.22	59.26*	...	49.86	48.65	50.89	...	...	46.73	...	...	39.55*
1867	...	...	...	...	29.97	50.70*	...	30.15	31.13*	36.99*	...	...	...	...	...	...
1868	...	...	...	...	45.98	59.22	...	48.67*	35.82	59.93	...	...	...	...	...	...
1869	...	...	...	...	35.13	59.79	...	39.18	37.86	50.02	...	...	...	...	...	...
1870	...	...	...	...	37.01	43.95	...	31.28	47.70	35.08	...	...	...	...	...	38.67*
1871	...	...	36.34	...	36.09	35.57	43.80	39.56	32.78	41.63	...	...	...	...	...	30.03*
1872	...	...	33.16	...	40.36	...	38.62	36.11	36.34	40.72	...	...	...	...	...	...
1873	...	...	43 68	38.48	46.76	45.85	64.85	38.11	42.72	50.23	...	...	...	...	...	...
1874	...	...	32.01	31.29	39.17	...	43.29	37.21	35.91	40.85	...	...	...	...	...	...
1875	...	...	...	...	...	...	...	41.88	36.91	...	...	...	...	...	...	...
1876	...	...	...	...	...	...	...	52.62	41.20	...	...	...	...	...	...	...
Mean .	39.85	41.55	38.12	34.88	41.73	45.05	47.54	42.96	37.70	46.24	38.53	30.70	36.06	48.76	49.35	37.46

OHIO—CONTINUED.

Year.	Germantown.	Granville.	Hartford.	Hillsboro.	Hiram.	Hudson.	Jackson, Monroe co.	Jacksonburg.	Kelley's Island.	Kenton.	Kingston.	Little Mountain.	Madison.	Margaretta.	Marietta.	Marion.
1818	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50.92	...
1819	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36.30	...
1820	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39.11	...
1821	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43.32	...
1822	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43.38	...
1823	...	...	...	...	...	...	...	...	...	...	...	...	...	...	50.08*	...
1826	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41.60	...
1827	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41.48	...
1828	...	...	...	...	...	...	...	...	...	...	...	...	...	...	49.50	...
1829	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39.52	...
1830	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37.26	...
1831	...	...	...	...	...	...	...	...	...	...	...	...	...	...	53.54	...
1832	...	...	...	...	...	...	...	...	...	...	...	...	...	...	48.33	...
1833	...	...	...	...	...	...	...	...	...	...	...	...	...	...	40.37	...
1834	...	...	...	...	...	...	...	...	...	...	...	...	...	...	34.66	...
1835	...	...	...	...	...	...	...	...	...	...	...	...	...	...	42.46	...
1836	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36.75	...
1837	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43.86	...
1838	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35.48	...
1839	...	...	...	...	...	33.02	...	...	...	...	...	...	...	...	33.32	...
1840	...	...	...	...	...	42.25	...	...	...	...	...	...	...	...	39.09	...
1841	...	...	...	...	...	26.96	...	...	...	...	...	...	...	...	42.82	...
1842	...	...	...	...	...	39.36	...	...	...	...	...	...	...	...	42.07	...
1843	...	...	...	...	...	28.96	...	...	...	...	...	...	...	...	41.76	...
1844	...	...	...	...	...	33.25	...	...	...	...	...	...	...	...	36.64	...
1845	...	...	...	...	...	33.08	...	...	...	...	...	...	...	...	33.90	...
1846	...	...	...	...	...	...	...	...	...	...	...	...	...	...	46.27	...
1847	...	...	...	...	...	...	...	...	...	...	...	...	...	...	52.30	...
1848	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43.18	...
1849	...	...	...	...	...	...	...	...	...	...	...	...	...	...	42.89	...
1850	...	...	...	...	...	...	...	...	...	...	...	...	...	...	52.36	...
1851	...	...	...	...	...	...	...	...	...	...	...	...	...	...	34.94	...
1852	...	...	...	...	...	...	...	...	...	...	...	...	...	...	46.50	...
1853	...	...	...	...	...	...	...	...	...	...	...	...	...	...	37.04	...
1854	44.43	41.69	...	...	...	...	...	...	...	...	...	...	...	...	35.50	...
1855	47.00	54.88	...	...	...	...	...	...	...	...	...	...	60.50*	...	44.18	...
1856	24.12	25.63	...	28.10*	30.47	...	...	...	...	...	...	...	36.20*	...	32.46	...
1857	...	...	...	42.12	39.27*	...	...	...	...	...	...	...	49.23*	...	40.64	...
1858	...	...	...	47.29	34.71	...	43.20	...	...	...	...	...	62.12*	...	61.84	...
1859	...	...	...	51.93	...	41.38	46.67	...	...	...	...	...	51.16	...	48.55	...
1860	...	...	28.25*	30.34	...	...	...	...	25.88	...	...	...	47.97	...	38.69	...
1861	...	...	30.80	...	...	54.88	...	...	30.05	...	...	...	47.03	...	44.47	...
1862	...	...	35.72	...	...	32.16	...	...	41.92	...	...	...	36.93	...	41.10	...
1863	...	...	...	...	...	...	...	...	30.97	...	...	...	...	...	37.06	...
1864	...	...	...	35.35	...	...	...	...	37.41	...	29.98	...	...	...	40.94	...
1865	...	...	...	48.13	...	...	...	...	34.04	...	41.48	...	...	...	48.84	...
1866	...	...	...	46.61	...	...	...	...	38.18	...	34.72	...	...	...	47.27	49.70
1867	...	...	...	34.77	...	...	...	...	28.88*	50.09	...	41.34*	...	...	46.71	35.45
1868	...	...	...	49.66	...	...	...	...	27.45	64.27*	...	...	...	47.08	...	34.37
1869	...	...	...	37.99	...	...	...	44.22	32.58	64.86*	...	55.66*	...	46.48	...	48.81
1870	...	...	...	34.44	...	...	...	34.57	31.98	52.20	...	70.82	...	42.05	...	34.97
1871	...	...	...	36.16	...	...	...	45.23	...	47.71	...	48.05	...	36.59	...	30.64
1872	...	...	...	35.69	...	29.33*	...	33.83	...	49.04	...	41.90	...	44.73	...	33.33*
1873	...	...	...	40.83	...	46.96*	...	42.42	...	59.65	...	59.45	...	37.20*	...	41.62
1874	...	...	...	37.34	...	36.64	...	32.10	...	40.30	...	46.18	...	...	...	30.48
Mean .	34.74	48.62	32.21	39.55	36.06	35.99	44.91	39.37	32.04	55.89	35.48	52.13	49.32	42.35	42.50	37.58

OHIO—CONTINUED.

Year.	Medina.	Montville.	Newark.	New Birmingham.	New Lisbon.	North Bass Island.	North Bend.	North Fairfield.	Northwood.	Norwalk.	Oberlin.	Oxford.	Pennsville.	Perrysburg.	Portsmouth.
1830	...	...	...	...	...	...	...	...	...	...	...	...	...	...	26.50
1831	...	...	...	...	...	...	...	...	...	...	...	...	...	...	42.30
1832	...	...	...	...	...	...	...	...	...	...	...	...	...	...	45.40
1833	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36.70
1834	...	...	...	...	...	...	...	...	...	...	...	...	...	...	29.50
1835	...	...	...	...	...	...	...	...	...	...	...	...	...	...	25.50
1836	...	...	...	...	...	...	...	...	...	...	...	...	...	...	30.60
1837	...	...	...	...	...	...	...	...	...	...	...	...	...	...	47.80
1838	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36.50
1839	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27.20
1840	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41.64
1841	...	...	...	...	...	...	...	...	...	...	...	...	...	...	43.98
1842	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41.78
1843	...	...	...	...	...	...	...	...	...	...	...	...	...	...	55.05
1844	...	...	...	...	...	...	...	...	...	...	...	...	...	...	36.30
1845	...	...	...	...	...	...	...	...	...	...	...	...	...	...	40.13
1846	...	...	...	...	...	...	...	...	...	...	...	...	...	...	45.50
1847	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38.66*
1848	...	...	...	...	...	...	...	...	...	...	...	...	...	...	40.18
1849	...	...	...	...	...	...	...	...	...	...	...	...	...	...	41.64
1850	...	...	...	...	...	...	..	...	...	...	...	...	...	...	56.79
1851	...	...	...	...	...	...	...	...	...	...	...	...	...	...	28.43
1852	...	...	...	...	...	...	...	...	...	...	...	...	...	...	39.11*
1854	...	...	...	...	...	...	...	...	...	...	28.02	...	...	...	...
1855	...	...	...	...	...	...	...	...	...	...	48.06	...	...	55.18	...
1856	...	...	...	...	...	...	...	...	...	...	24.59*	...	...	...	...
1857	41.53*	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1858	44.84*	...	...	...	42.45	...	...	...	...	...	...	...	...	...	...
1859	...	30.77	...	...	40.18	...	...	...	39.15*	...	...	...	...	...	46.38
1860	...	...	...	...	...	...	38.02	...	...	...	...	...	...	...	...
1861	...	28.62	...	...	35.28	...	42.19	...	...	...	...	...	...	...	42.44
1862	...	32.89	30.06*	...	28.76	...	46.16*	...	...	40.25*	...	...	...	...	38.32*
1863	...	...	...	27.28*	27.36*	...	...	...	...	28.18*	...	...	...	...	...
1864	...	...	...	34.61*	30.11	...	...	...	...	32.70	...	41.48*	. .	...	36.82
1865	...	...	...	31.51	41.37	...	...	...	...	32.15	...	51.02*	...	...	...
1866	...	...	...	37.93	46.99	...	...	...	...	45.43*	...	...	...	...	...
1867	...	...	...	...	37.18	...	...	32.26*	...	20.83	...	40.05	...	...	...
1868	...	...	...	29.34*	32.69	...	...	26.01	...	28.00*	...	49.51	...	...	...
1869	...	...	...	42.56*	...	...	...	44.09	...	...	...	41.47	...	...	...
1870	...	...	...	36.26	...	36.83	...	31.14	...	...	32.62*	36.18*	...	...	...
1871	...	...	...	...	...	25.08	...	29.48	...	...	20.99*	39.51	28.00*	...	...
1872	...	...	...	29.52*	...	26.05	...	34.99	...	...	...	32.64	...	...	...
1873	...	...	...	40.50*	...	25.20*	...	...	...	...	...	40.55	...	...	...
1874	...	...	...	...	...	23.79*	...	...	...	...	...	...	...	...	...
Mean . .	43.18	31.14	30.66	33.41	36.13	28.11	40.02	33.09	39.11	31.52	32.77	42.08	29.65	43.80	38.31

OHIO—CONTINUED.

Year.	Ripley, Huron Co.	Ripley, Brown Co.	Ruggles.	Salem.	Sandusky.	Savannah.	Seville.	Steubenville.	Troy.	Toledo.	Urbana.	Welchfield.	Westerville.	Wooster.	Zanesville.
1831	...	...	...	...	...	...	...	43.55	...	...	...	...	...	...	...
1832	...	...	...	...	...	...	...	39.75	...	...	...	...	...	...	...
1833	...	...	...	...	...	...	...	35.65	...	...	...	...	...	...	...
1834	...	...	...	...	...	...	...	38.78	...	...	...	...	...	...	...
1835	...	...	...	...	...	...	...	38.15	...	...	...	...	...	...	...
1836	...	...	...	...	...	...	...	39.15	...	...	...	...	...	...	...
1837	...	...	...	...	...	...	...	35.39	...	...	...	...	...	...	...
1838	...	...	...	...	...	...	...	28.16	...	...	...	...	...	...	...
1839	...	...	...	...	...	...	...	28.02	...	...	...	...	...	...	...
1840	...	...	...	...	...	...	...	37.56	...	...	...	...	...	...	...
1841	...	...	...	...	...	...	...	31.27	...	...	...	...	...	...	...
1842	...	...	...	...	...	...	...	41.19	...	...	...	...	...	...	...
1843	...	...	...	...	...	...	...	41.04	...	...	...	...	...	...	...
1844	...	...	...	...	...	...	...	38.67	...	...	...	...	...	...	...
1845	...	...	...	...	...	...	...	38.44	...	...	...	...	...	...	...
1846	...	...	...	...	...	...	...	52.21	...	...	...	...	...	...	...
1847	...	...	...	...	...	...	...	57.28	...	...	...	...	...	...	...
1848	...	...	...	...	...	...	...	50.25	...	...	...	...	...	...	...
1849	...	...	...	...	...	...	...	47.32	...	...	...	...	...	...	...
1850	...	...	...	...	...	...	...	46.98	...	...	...	...	...	...	...
1851	...	...	...	...	...	...	...	28.59	...	...	...	...	...	...	...
1852	...	...	...	...	...	...	...	49.30	...	...	...	...	...	...	...
1853	...	...	...	...	...	...	...	35.50	...	...	...	...	...	...	...
1854	...	...	...	...	...	...	...	30.11	...	...	41.35	...	...	...	...
1855	...	...	...	...	...	61.66*	...	47.93	...	...	57.47	...	...	...	49.08*
1856	...	...	...	...	...	28.85	...	32.35	...	...	30.85	...	...	...	...
1857	...	...	...	...	...	44.01	...	54.98	...	...	39.82	58.11*	...	...	...
1858	...	45.11	...	...	...	51.71	...	50.49	...	...	41.02	49.05	45.40	...	...
1859	...	...	...	...	33.62	50.57	...	49.68	46.60	...	36.51	56.15	45.20	...	...
1860	...	...	...	...	30.92	...	...	46.48	...	...	...	56.78*	37.53	...	...
1861	...	...	...	...	29.18	34.39	31.23*	38.78	56.11	40.87	...	46.63	30.97	...	...
1862	...	...	...	...	39.58	44.97	...	42.36	62.21	44.85	37.61	45.45	43.34	...	...
1863	...	...	...	...	26.36	...	...	38.74	...	33.92	36.56	44.68	32.37*	...	...
1864	...	40.14*	...	...	34.23	...	...	49.22	...	37.17	32.03	53.51	...	...	...
1865	...	60.85	...	...	40.00	...	...	48.03	...	39.55	46.04	56.29	41.22*	...	...
1866	...	...	...	...	42.83	...	...	48.94	...	40.67	49.62	...	45.31*	...	...
1867	...	...	...	...	28.89	...	...	34.14	...	31.36	31.87	...	...	...	...
1868	...	...	...	...	...	...	...	...	...	42.16	46.51	...	40.59*	...	...
1869	...	...	...	...	...	...	...	39.29	...	42.44	42.62	...	39.42	38.29*	...
1870	...	...	...	38.76	...	...	...	38.51	...	...	31.63	...	31.34	...	...
1871	26.13*	...	...	24.97	...	21.86	...	34.19*	...	...	30.40	...	25.99	...	...
1872	...	...	...	21.93	...	31.98*	...	...	...	...	28.63	...	28.63	...	...
1873	...	...	37.15	39.60	...	39.10	...	...	...	35.38	37.17	...	39.90	...	...
1874	...	...	33.55	...	37.82	...	...	...	...	25.81	33.15	...	39.36	...	...
1875	...	...	...	...	...	...	...	...	...	28.03	...	...	...	...	...
1876	...	...	...	...	...	...	...	...	...	34.55	...	...	...	...	...
Mean . .	31.47	48.43	34.98	31.31	34.36	40.78	30.53	41.15	52.56	36.18	38.31	51.94	37.05	36.53	40.95

OREGON.

Year.	Albany, near	Astoria.	Blockhouse.	Camp Harney.	Camp Lyon.	Camp Three Forks.	Camp Warner.	Camp Watson.	Eola.
1851	...	86.35*	...	...	...	...	...	...	...
1854	...	60.35*	...	...	...	...	...	...	...
1855	...	79.20	...	...	...	...	...	...	...
1856	...	59.17	...	...	...	...	...	...	...
1857	...	79.82	...	...	...	...	...	...	...
1858	...	63.36	98.80*	...	...	...	...	...	...
1859	...	82.15	93.78*	...	...	...	...	...	...
1860	...	70.65	...	...	...	...	...	...	...
1861	...	92.93	...	...	...	...	...	...	...
1862	...	61.32	...	...	...	...	...	...	...
1863	...	94.13	...	...	...	...	...	...	...
1864	...	75.70	...	...	...	...	...	...	...
1865	...	85.22	...	...	...	...	...	...	...
1866	58.79*	100.40	...	...	...	...	...	...	...
1867	...	91.25	...	...	...	...	...	...	...
1868	...	57.74	...	10.19*	12.32*	10.65	...	14.38*	...
1869	...	69.61	...	8.47	...	15.09	...	...	...
1870	...	71.19	...	4.59*	...	...	11.79	...	38.41*
1871	...	100.42	...	10.58	...	...	13.24	...	40.94
1872	...	73.70	...	6.31	...	...	17.67	...	37.90
1873	...	74.41	...	11.90	...	...	14.26	...	35.65*
1874	...	80.89	...	...	...	...	...	...	37.02*
Mean	...	77.61	96.29	8.76	15.01	12.88	14.41	13.81	37.72

OREGON—CONTINUED.

Year.	Fort Dalles.	Fort Hoskins.	Fort Klamath.	Fort Orford.	Fort Stevens.	Fort Umpqua.	Fort Yamhill.	Oregon City.	Portland.
1851	...	...	...	...	...	...	...	51.26	...
1853	14.48	...	...	...	...	...	...	...	...
1854	12.39	...	..	...	...	...	...	...	...
1855	11.90*	...	...	82.75*	...	...	...	...	...
1857	29.34	65.06	...	...	...	62.95	57.78	43.65*	...
1858	43.65	67.97	...	...	...	73.17	62.00	43.09	...
1859	35.96*	71.04	...	...	...	69.15	55.63	...	...
1860	21.32	...	...	...	...	55.73	50.91	...	...
1861	28.85	77.39*	...	...	...	89.46	63.39*	...	...
1862	15.97*	45.80	...	...	...	...	56.76	...	...
1863	14.00	74.64	...	...	...	...	53.54*	...	...
1864	...	60.81*	...	...	...	...	43.35*	...	...
1865	22.18*	...	30.06*	...	...	...	54.70	...	...
1866	...	...	...	...	87.29*	...	...	...	...
1867	...	...	...	...	85.82	...	...	...	...
1868	...	...	...	...	52.33*	...	...	...	...
1870	...	...	...	...	...	...	...	...	33.50
1871	...	...	...	...	...	...	...	...	49.92
1872	...	...	...	...	84.00	...	...	...	...
1873	...	...	...	...	79.03	...	...	...	49.85
1874	...	...	18.05*	...	85.40	...	...	...	46.17
1875	...	...	...	...	...	...	...	...	60.08
1876	...	...	...	...	...	...	...	...	55.04
Mean	21.96	66.70	23.56	70.59	78.57	67.41	55.59	47.61	47.20

PENNSYLVANIA.

Year.	Allegheny Arsenal.	Allegheny City.	Avondell.	Beaver.	Bedford.	Berwick.	Blooming Grove.	Butler.	Byberry.	Canonsburg.	Carlisle.	Chambersburg	Chromedale.	Dyberry.
1837	35.66	...	...	...	...	...	...	...	...	...	...	...	...	...
1839	25.62	...	...	...	...	...	...	...	...	...	...	...	...	...
1840	28.64	...	...	...	...	...	...	37.47*	...	...	...	...	...	...
1841	34.84	...	...	...	...	...	...	36.57	...	...	...	...	...	...
1842	41.54	...	...	...	...	...	...	...	...	...	...	...	...	...
1843	38.71	...	...	...	...	...	...	...	...	...	...	...	...	...
1844	32.55	...	...	...	...	...	...	...	...	...	...	...	...	...
1845	31.89	...	...	...	...	...	...	...	...	...	...	...	...	...
1846	47.79	...	...	...	...	...	...	...	...	...	...	...	...	...
1847	46.22	...	...	...	...	...	...	...	...	...	...	...	...	...
1848	34.14	...	...	...	...	...	...	...	...	...	35.83*	...	...	...
1849	34.81	...	...	...	...	...	...	...	...	...	23.94	...	43.02	...
1850	37.41	...	...	...	...	...	...	...	...	...	47.36	...	53.79	...
1851	29.64	...	...	...	...	...	...	...	...	...	32.76*	...	40.77	...
1852	41.36	...	...	...	...	...	...	...	...	...	39.24	...	47.30	...
1853	33.63	...	...	...	19.32	...	...	...	...	...	25.81*	...	40.81	...
1854	26.67	...	...	...	17.43*	...	...	...	...	...	...	...	44.92	...
1855	43.33	...	...	...	33.04*	...	...	...	...	...	39.26*	...	46.58	...
1856	26.59	...	...	...	19.72*	...	...	...	...	23.97*	27.75	...	34.29	...
1857	38.96	...	...	...	...	...	...	...	...	40.84	42.69	...	45.60	...
1858	36.21	...	...	...	...	...	...	...	...	34.86	36.73	...	...	...
1859	34.08*	...	...	...	34.17*	...	...	...	...	40.27	41.35*	...	...	...
1860	...	...	...	...	44.65	...	...	...	51.62*	...	...	44.73*	...	...
1861	...	...	...	...	40.37	40.64*	...	...	73.64	36.88	...	37.24*	...	...
1862	...	...	...	...	...	...	...	...	50.56	...	...	...	...	...
1863	...	...	...	...	...	...	...	...	60.11*	32.00*	...	...	...	...
1864	...	...	...	...	...	...	...	...	...	38.78	...	...	...	...
1865	50.50	...	...	...	...	...	...	...	...	43.96	43.25	...	...	...
1866	...	...	...	...	...	...	45.59*	...	...	39.86*	...	...	...	...
1867	...	...	...	...	...	...	49.41	...	...	29.63	52.35	...	...	...
1868	...	...	41.16	...	...	...	47.51	...	...	34.79	76.38	...	...	...
1869	...	...	...	46.91*	...	...	50.38	...	...	37.61	49.75	...	...	37.02
1870	...	...	...	44.46*	...	...	38.94*	...	...	34.33	59.01	...	...	...
1871	...	...	...	...	...	...	45.32	...	...	29.67	45.49	...	...	38.02
1872	...	38.57	...	...	...	...	38.94	...	...	26.75	39.16	...	...	33.78
1873	...	...	...	...	...	...	46.24	...	...	40.37	46.66	...	...	39.97
1874	...	...	...	...	...	...	32.61	...	...	40.71*	37.67	...	...	32.67
Mean . .	36.38	34.34	46.22	43.97	30.17	36.64	44.77	36.06	56.51	35.95	41.53	41.48	44.16	35.36

PENNSYLVANIA—CONTINUED.

Year.	Easton.	Egypt.	Ephrata.	Erie.	Fleming.	Fort Mifflin.	Fountain Dale.	Franklin.	Germantown.	Gettysburg.	Greensburg.	Greenville.	Harrisburg.	Haverford.
1839	...	...	...	...	...	...	...	...	...	38.07	...	...	...	...
1840	...	...	...	...	...	...	...	39.29*	...	34.32	...	...	...	...
1841	...	...	...	...	...	...	...	30.73*	...	45.44	...	...	...	...
1842	...	...	...	...	...	...	...	...	...	36.24	...	...	...	...
1843	...	...	...	...	...	41.04	...	...	...	47.64	...	...	...	...
1844	...	...	...	...	...	46.82	...	...	...	31.18	...	...	...	...
1845	...	...	...	...	...	...	...	...	...	30.22	...	...	27.97*	...
1846	...	...	...	...	...	...	...	...	...	52.27	...	...	...	...
1847	...	...	...	...	...	...	...	...	...	50.89	...	...	...	...
1848	...	...	...	...	...	...	...	...	...	33.62	...	...	...	...
1849	...	...	...	...	...	42.34	...	...	...	31.55	...	...	...	...
1850	...	...	...	...	...	54.50*	...	...	...	45.64	...	...	...	...
1851	...	...	...	...	...	38.04	...	...	...	31.00	...	...	...	...
1852	...	...	...	...	...	51.33	...	...	...	43.34	...	...	...	...
1853	...	...	...	...	...	40.47*	...	...	...	32.86	...	...	...	...
1854	...	...	...	...	...	...	...	...	...	32.87	...	...	43.69*	...
1855	...	...	...	...	...	...	...	...	...	47.63	...	...	...	...
1856	36.52*	...	...	...	...	...	...	...	...	28.62	...	...	27.28*	...
1857	43.26	...	...	...	...	...	...	...	...	38.22	...	...	43.53*	47.38*
1858	38.56	...	...	...	...	...	...	...	...	45.64	...	...	40.26	44.19*
1859	51.66	...	...	...	39.75	...	...	...	...	42.42	...	...	50.83	54.89
1860	...	...	...	...	46.05	...	...	...	...	38.18	...	...	38.60	...
1861	...	...	...	...	41.75	...	...	...	...	37.01	...	...	39.27	45.66*
1862	...	...	...	...	42.33	...	...	...	...	31.89	...	...	39.41	49.28*
1863	...	...	...	...	42.43	...	...	...	...	...	...	...	54.85*	...
1864	...	...	...	...	44.70	...	...	...	...	...	...	...	51.08	...
1865	...	...	...	...	41.26	...	...	...	...	...	...	...	45.79	...
1866	...	...	41.44	...	41.93	...	...	...	...	...	...	...	39.13*	...
1867	...	...	54.09	...	...	...	...	...	...	...	...	...	50.50*	...
1868	...	...	...	...	...	...	50.90*	...	...	...	...	...	40.29*	...
1869	...	...	50.41	...	...	...	48.83	54.31*	...	...	...	...	47.80*	...
1870	...	...	42.98	...	...	...	47.11	59.72	34.26*	...	...	...	...	...
1871	...	...	48.34	...	...	...	40.20*	34.74	...	...	...	41.06*	...	...
1872	...	...	44.76	...	...	...	...	45.07	...	...	35.51	39.37	...	...
1873	...	39.62	...	...	...	...	...	52.15	...	...	39.47*	47.82*	...	...
1874	...	36.05*	...	37.83	...	...	...	47.36	...	...	...	...	...	...
1875	...	...	...	41.20	...	...	...	...	...	...	...	...	...	...
1876	...	...	...	44.65	...	...	...	...	...	...	...	...	...	...
Mean . .	45.56	38.93	46.86	41.22	42.58	45.41	45.25	45.57	37.21	38.89	38.81	42.75	43.59	48.41

PENNSYLVANIA—CONTINUED.

Year.	Hollidays-burg.	Huntingdon.	Indiana.	Johnstown.	Lancaster.	Lewisburg.	Meadville.	Moreland.	Mount Joy.	Morrisville.	Moss Grove.	Murrysville.	Nazareth.	New Castle.
1825	...	...	...	...	...	...	...	...	...	29.34*	...	...	...	...
1826	...	...	...	...	...	...	...	...	...	40.00	...	...	...	...
1827	...	...	...	...	...	...	...	...	...	39.50	...	...	...	...
1828	...	...	...	...	...	...	...	...	...	38.75	...	...	...	...
1829	...	...	...	...	...	...	...	...	...	42.00	...	...	...	...
1830	...	...	...	...	...	...	...	...	...	44.75	...	...	...	...
1831	...	...	...	...	...	...	...	...	...	41.50	...	...	...	...
1832	...	...	...	...	...	...	...	...	...	40.25	...	...	...	...
1833	...	...	...	...	...	...	...	...	...	48.87	...	...	...	...
1834	...	...	...	...	...	...	...	...	...	35.08*	...	...	...	...
1835	...	...	...	...	...	...	...	...	...	40.00	...	...	...	...
1836	...	...	...	...	...	...	...	...	...	43.00	...	...	...	...
1837	...	...	...	...	...	...	...	...	...	37.00*	...	...	...	...
1838	...	...	...	...	...	...	...	...	...	44.25	...	...	...	...
1839	...	...	...	...	39.95	...	...	...	...	44.75	...	...	...	...
1840	...	...	35.24*	...	35.47	...	...	...	...	47.65*	...	...	...	...
1841	...	32.28	...	...	37.45	...	...	...	...	57.00	...	...	...	...
1842	...	...	...	...	...	...	...	...	...	34.45	...	...	...	...
1843	...	...	...	...	...	...	...	...	...	46.50	...	...	...	...
1844	...	...	...	...	...	...	...	...	...	39.00	...	...	...	...
1845	...	...	...	...	...	...	...	...	...	39.75	...	...	...	...
1846	...	...	...	...	...	...	...	...	...	44.50	...	...	...	...
1850	...	...	...	...	...	...	...	...	...	51.98	...	...	...	...
1851	...	...	...	...	...	...	...	...	...	38.70	...	...	...	...
1852	...	...	...	...	...	...	...	...	...	52.50	...	...	...	...
1853	33.35	...	...	...	...	...	...	...	...	...	...	...	...	...
1854	...	...	...	...	...	...	...	...	...	45.00	34.23*	...	...	...
1855	...	...	...	...	...	...	...	...	...	43.10	43.67*	...	...	...
1856	...	...	...	...	...	26.34*	...	...	...	30.34	34.60*	...	...	...
1857	...	...	...	...	...	38.02	44.34	...	...	47.80	...	41.32*	...	...
1858	...	34.87	...	...	...	39.86	38.48*	...	44.41	40.10	...	36.01	...	...
1859	...	...	...	...	...	41.51	...	...	45.81*	51.65	...	...	...	...
1860	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1861	...	...	...	...	...	...	...	...	49.88	43.00	...	...	43.01*	...
1862	...	...	...	...	...	...	...	...	34.76*	42.80	...	...	...	...
1863	...	...	...	...	...	...	...	...	45.65*	46.90	...	...	...	...
1864	...	...	...	...	...	...	...	...	33.75	36.00	...	...	...	...
1865	...	...	...	...	...	45.93	...	48.40*	31.19*	43.50	...	...	...	...
1866	...	...	...	...	...	41.16*	...	44.51	27.02*	41.15	...	...	...	...
1867	...	...	...	...	...	47.40	...	55.13	40.85*	51.45	...	...	...	...
1868	...	...	...	61.58*	...	36.94	...	54.74	...	51.60	...	...	...	...
1869	...	...	...	49.93	...	38.63	...	48.03	...	49.60	...	...	...	...
1870	...	...	...	47.01	...	39.39	...	52.77	...	36.50	...	...	...	46.30
1871	...	...	...	42.55*	...	34.15	...	52.03	...	45.70	...	...	...	26.05
1872	...	...	...	...	...	32.19*	...	43.96	...	42.00	...	...	...	27.90
1873	...	...	...	...	...	46.13*	...	52.53*	43.08*	49.90	...	...	...	34.60
1874	...	...	...	...	...	...	...	...	...	37.30	...	...	...	33.00
Mean . .	33.35	35.07	35.31	50.12	38.16	39.97	40.48	49.48	39.34	44.01	37.00	42.26	45.36	33.57

PENNSYLVANIA—CONTINUED.

Year.	Newtown.	Norristown.	North Abington.	Northumberland.	Pennsville, near	Philadelphia.	Pittsburg.	Plainfield.	Plymouth Meeting.	Pocopson.	Pottsville.	Reading.	St. Vincent's College.	Salem.
1824	...	...	...	...	...	38.74	...	...	...	...	...	...	...	...
1825	...	...	...	...	...	29.57	...	...	...	...	...	...	...	...
1826	...	...	...	...	...	35.14	...	...	...	...	...	...	...	...
1827	...	...	...	...	...	38.50	...	...	...	...	...	...	...	...
1828	...	...	...	...	...	37.97	...	...	...	...	...	...	...	...
1829	...	...	...	...	...	41.85	...	...	...	...	...	...	...	...
1830	...	...	...	...	...	45.07	...	...	...	...	...	...	...	...
1831	...	...	...	...	...	43.94	...	...	...	...	...	...	...	...
1832	...	...	...	...	...	39.87	...	...	...	...	...	...	...	...
1833	...	...	...	...	...	48.55	...	...	...	...	...	...	...	...
1834	...	...	...	...	...	34.24	...	...	...	...	...	...	...	...
1835	...	...	...	...	...	39.30	...	...	...	...	...	...	...	...
1836	...	...	...	...	...	42.66	...	...	...	...	...	...	...	...
1837	...	...	...	...	...	39.04	...	...	...	...	...	...	...	...
1838	38.00	...	...	...	...	45.30	...	...	...	...	...	...	...	...
1839	44.01*	...	...	37.29	...	43.73	...	...	...	...	44.89*	...	...	...
1840	51.61*	...	...	41.33*	...	41.70	...	...	...	...	...	...	...	...
1841	57.34	...	...	39.73	...	49.41	35.90	...	...	...	...	...	...	...
1842	41.85	...	...	...	...	42.35	...	...	...	...	...	...	...	...
1843	...	...	...	...	...	41.52	...	...	...	...	...	...	...	...
1844	...	...	...	...	...	35.03	...	...	...	...	...	...	...	...
1845	...	...	...	...	...	33.18	...	...	...	...	...	...	...	...
1846	...	...	...	...	...	44.38	...	...	...	...	...	...	...	...
1847	...	...	...	...	...	45.21	...	...	...	...	...	...	...	...
1848	...	...	...	...	...	34.99	...	...	...	...	...	...	...	...
1849	...	...	...	...	...	42.10	...	...	...	...	...	...	...	...
1850	...	...	...	...	...	54.54	...	...	...	...	...	...	...	...
1851	...	...	...	...	...	37.93	...	...	...	...	...	...	...	...
1852	...	...	...	...	...	45.97	...	...	...	...	...	...	...	...
1853	...	...	...	...	...	42.96	36.52*	...	...	...	...	...	...	...
1854	...	43.79	...	...	...	45.23	23.26	...	...	45.90	...	...	...	...
1855	...	48.14	...	...	...	44.66	45.92	...	...	49.56	50.20*	...	...	...
1856	...	38.04	...	...	...	33.52	28.79	...	...	34.35	...	...	...	...
1857	...	47.55	...	...	...	53.02	36.07	...	...	46.72	...	...	...	...
1858	...	39.33	...	...	...	38.96	35.95*	...	...	44.36	...	...	...	...
1859	...	46.95	...	...	...	54.48	36.69	...	...	50.66	...	...	...	...
1860	...	...	...	...	...	48.90	...	...	...	52.97*	...	...	...	...
1861	...	47.05	...	...	...	43.22	...	...	...	41.99	...	...	50.91	...
1862	...	45.03	...	...	...	44.58	...	...	...	42.73	...	...	...	...
1863	...	...	...	...	...	49.63	...	...	...	51.84*	...	...	...	...
1864	...	...	...	...	...	42.24	...	...	...	45.11	...	...	...	...
1865	...	...	...	...	48.13	49.12	...	...	...	48.60	...	...	...	...
1866	...	...	...	...	46.86	43.58	26.71	...	...	40.47	...	...	...	...
1867	...	...	...	...	45.23*	61.29	...	...	...	51.35	...	...	...	...
1868	...	...	40.10*	...	47.82	46.94	...	...	...	50.18	...	...	...	...
1869	...	...	44.13	...	48.92	43.21	...	...	47.18	43.91*	...	...	...	48.26*
1870	...	...	40.09	...	45.30	43.57	38.21*	...	48.90	48.05	...	49.70	...	36.51
1871	...	...	49.55	...	36.18	45.98	31.16*	...	41.20	44.98	...	46.32	...	36.51*
1872	...	...	39.52	...	36.62	48.86	27.12*	...	...	44.17	...	40.38	...	...
1873	...	...	42.46	...	50.16*	55.01	37.79	50.71	...	52.94	...	58.53	...	...
1874	...	...	39.49	...	42.84	43.48	39.15	39.33	...	...	...	36.89	...	...
1875	...	...	...	...	...	39.95	34.05	...	...	...	...	...	...	...
1876	...	...	...	...	...	47.39	37.01	...	...	...	...	...	...	...
Mean . .	50.43	46.44	42.21	39.47	45.07	43.29	35.40	47.60	42.58	46.48	...	43.29	55.23	39.23

PENNSYLVANIA—CONTINUED.

Year.	Sewickley-ville.	Shamokin.	Silver Lake.	Smithport.	Somerset.	Spring Mills.	Tarentum.	Tioga.	Uniondale.	West Chester.	Westtown.	Williamsport.	Worthington.	York Sulphur Springs.
1810	...	...	...	...	...	32.66	...	...	...	...	...	...	...	...
1811	...	...	...	...	...	34.97	...	...	...	...	...	...	...	...
1812	...	...	...	...	...	39.30	...	...	...	...	...	...	...	...
1813	...	...	...	...	...	35.63	...	...	...	...	...	...	...	...
1814	...	...	...	...	...	43.14	...	...	...	...	...	...	...	...
1815	...	...	...	...	...	34.67	...	...	...	...	...	...	...	...
1816	...	...	...	...	...	27.95	...	...	...	...	...	...	...	...
1817	...	...	...	...	...	36.01	...	...	...	...	...	...	...	...
1818	...	...	...	...	...	30.18	...	...	...	...	...	...	...	...
1819	...	...	...	...	...	23.35	...	...	...	...	...	...	...	...
1820	...	...	...	...	...	39.61	...	...	...	...	...	...	...	...
1821	...	...	...	...	...	32.18	...	...	...	...	...	...	...	...
1822	...	...	...	...	...	29.86	...	...	...	...	...	...	...	...
1823	...	...	...	...	...	41.85	...	...	...	...	...	...	...	...
1839	...	...	31.10*	42.24*	...	...	...	...	...	...	...	...	...	...
1840	...	...	30.34*	36.57	33.74*	...	...	...	...	...	...	...	...	...
1841	...	...	25.35*	...	31.73*	...	...	...	...	...	...	...	...	...
1846	...	...	...	...	44.07	...	...	...	...	...	...	...	...	...
1856		28.76												
1857	...	57.01	...	...	...	...	...	...	...	...	...	...	...	...
1858	...	38.48	...	...	37.35	...	...	...	...	...	47.53*	...	...	...
1859	...	41.97	...	...	36.86	...	...	...	...	...	...	...	...	...
1860	...	47.91	...	...	49.32	...	...	...	...	55.81	...	...	35.88*	...
1861	43.13	46.18	...	...	40.07	...	...	...	...	38.69	...	...	54.42	...
1862	...	39.56	...	...	...	...	...	...	...	42.77	...	...	...	...
1863	...	...	...	...	...	...	...	...	...	52.99	...	...	...	...
1864	...	...	...	...	...	...	...	46.16*	...	45.19	...	...	...	...
1865	...	...	...	...	...	...	...	43.39	...	59.92	...	...	...	...
1866	...	...	...	...	...	...	...	36.02	...	46.09	...	...	...	...
1867	...	...	...	...	...	...	...	43.90*	...	55.13	...	...	...	...
1868	...	...	...	...	...	...	...	39.91	...	53.11	...	...	...	...
1869	...	...	...	...	...	...	...	42.97	...	47.06	...	...	...	...
1870	...	...	...	...	...	...	...	46.10	...	55.38	...	...	...	...
1871	...	...	...	...	...	...	...	33.30	...	49.34	...	...	...	37.50
1872	...	...	...	...	...	...	...	40.65*	...	46.28	...	...	...	35.88
1873	...	...	...	...	...	...	40.90	44.31*	46.07	54.64	...	43.00*	...	53.00*
1874	...	...	...	...	...	...	37.50	40.42	...	45.56	...	33.26	...	38.98*
Mean . .	45.38	42.92	25.95	37.82	38.72	34.38	39.93	41.39	43.52	48.64	51.01	37.77	49.44	41.34

Year.	RHODE ISLAND.			SOUTH CAROLINA.			
	Fort Adams.	Newport.	Providence.	Aiken.	All Saints.	Bluffton.	Camden.
1832	...	...	39.46	...	...	...	...
1833	...	...	34.44	...	...	...	...
1834	...	...	41.62	...	...	...	...
1835	...	...	30.96	...	...	...	...
1836	...	...	37.87	...	...	...	...
1837	...	...	31.62	...	...	...	...
1838	...	...	37.91	...	...	...	...
1839	...	...	36.75	...	...	...	...
1840	...	...	41.21	...	...	...	...
1841	...	...	47.86	...	...	...	...
1842	54.79	...	37.71	...	...	...	...
1843	67.61	...	42.50	...	...	...	...
1844	49.07	...	35.01	...	...	...	...
1845	42.69	...	43.26	...	...	...	...
1846	35.76*	...	30.61	...	...	...	...
1847	...	...	48.50	...	...	...	...
1848	...	...	40.48	...	...	...	...
1849	42.63	...	34.69	...	...	...	...
1850	54.15	...	51.49	...	...	...	54.60
1851	52.76	...	43.38	...	46.55	...	...
1852	57.33	...	39.76	...	53.11*	...	52.59
1853	65.59*	...	53.27	...	42.42	...	46.10
1854	...	...	46.55	...	...	...	51.58
1855	...	...	39.45	40.82	30.97	...	42.00
1856	...	...	41.02	54.49*	32.73	...	53.94
1857	...	...	44.74	35.87	40.12	...	41.68
1858	43.35*	...	45.51	45.92	51.14	...	...
1859	52.82*	...	45.16	44.62	44.41	...	...
1860	...	...	38.59	...	38.26	...	...
1861	...	...	44.27	...	...	...	...
1862	...	...	50.01	...	...	...	...
1863	...	...	54.09	...	...	...	...
1864	...	...	36.85	...	...	...	...
1865	...	...	44.70	...	...	...	...
1866	...	45.92	46.05	...	...	...	...
1867	42.10*	48.74	47.04	60.68*	...	...	...
1868	40.84	53.09	53.52	53.98*	...	...	...
1869	42.75	51.19	48.70	42.73	...	...	...
1870	34.16	43.88	49.02	40.67*	...	56.60	...
1871	39.70	49.32	47.91	49.56*	...	...	...
1872	34.02	43.54	48.71	...	...	...	...
1873	40.52	41.14*	52.66	51.78	...	...	...
1874	41.90	40.89*	43.39	53.19	...	...	...
1875	...	...	52.22	...	...	...	...
1876	...	50.32	50.36	...	...	...	...
Mean	46.09	46.79	43.35	47.25	43.20	56.60	50.49

SOUTH CAROLINA—CONTINUED.

Year.	Charleston.	Columbia.	Evergreen.	Fort Moultrie.	Fulton.	Gowdysville.	Hacienda. Saluda.	Hilton Head.	Pomaria.	Robertsville.	Saint John's.
1738	49.27	...	...	...	...	...	...	...	...	...	...
1739	65.96	...	...	...	...	...	...	...	...	...	...
1740	39.81	...	...	...	...	...	...	...	...	...	...
1741	52.07	...	...	...	...	...	...	...	...	...	...
1742	36.01	...	...	...	...	...	...	...	...	...	...
1743	39.75	...	...	...	...	...	...	...	...	...	...
1744	48.32	...	...	...	...	...	...	...	...	...	...
1745	50.15	...	...	...	...	...	...	...	...	...	...
1746	39.65	...	...	...	...	...	...	...	...	...	...
1747	44.57	...	...	...	...	...	...	...	...	...	...
1748	51.60	...	...	...	...	...	...	...	...	...	...
1749	54.42	...	...	...	...	...	...	...	...	...	...
1750	56.16	...	...	...	...	...	...	...	...	...	...
1751	50.82	...	...	...	...	...	...	...	...	...	...
1752	42.88	...	...	...	...	...	...	...	...	...	...
1753	47.36	...	...	...	...	...	...	...	...	...	...
1754	37.22	...	...	...	...	...	...	...	...	...	...
1755	43.29	...	...	...	...	...	...	...	...	...	...
1756	31.69	...	...	...	...	...	...	...	...	...	...
1757	44.44	...	...	...	...	...	...	...	...	...	...
1758	30.62	...	...	...	...	...	...	...	...	...	...
1759	36.37	...	...	...	...	...	...	...	...	...	...
1818	...	...	...	...	34.30	...	...	...	...	...	...
1819	...	...	...	...	40.80	...	...	...	...	...	...
1820	...	...	...	...	61.80	...	...	...	...	...	...
1821	...	...	...	...	77.90	...	...	...	...	...	...
1822	...	...	...	...	64.60	...	...	...	...	...	...
1823	...	...	...	...	47.30	...	...	...	...	...	...
1824	...	...	...	...	53.60	...	...	...	...	...	...
1841	53.94	...	...	...	...	...	...	...	...	...	...
1842	42.09	...	...	...	...	...	...	...	...	...	...
1843	54.72	...	...	42.82	...	...	...	...	...	37.14	...
1844	36.39	...	...	33.98	...	...	...	...	...	...	...
1845	46.44	...	...	43.51	...	...	...	...	...	...	...
1846	44.34	...	...	43.45*	...	...	...	...	...	...	45.83
1847	47.83	...	...	65.31	...	...	...	...	...	...	35.55
1848	43.40	...	...	56.87	...	...	...	...	...	...	29.28
1849	30.69	...	...	39.78	...	...	...	...	...	...	24.93
1850	23.69	56.69	...	35.80	...	...	...	...	...	...	39.29
1851	33.14	...	...	39.11	...	...	...	...	...	...	42.59
1852	49.72	...	...	51.26	...	...	...	...	...	...	56.98
1853	43.48	...	...	45.65	...	...	...	...	...	...	48.80
1854	37.62	...	...	39.76	...	...	...	...	...	...	44.45
1855	34.85	...	...	43.66	...	...	...	...	...	...	40.76
1856	40.82	...	...	40.75	...	...	...	...	...	...	57.48
1857	34.62	...	...	40.28	...	...	...	...	...	...	42.16
1858	45.03	36.57*	...	47.48	...	...	...	...	...	...	47.96*
1859	52.33*	42.81*	...	63.72	...	...	...	...	...	...	43.73
1861	42.59*	...	...	...	...	...	...	...	...	...	...
1864	...	...	...	...	...	...	...	37.26*	...	...	...
1865	...	...	...	...	...	...	...	49.89*	...	...	...
1866	...	...	...	...	...	...	...	32.27*	...	...	...
1867	...	...	...	...	...	...	...	43.39	...	...	...
1869	...	...	56.14*	...	...	45.76*	...	...	...	...	...
1870	...	...	...	...	...	47.10*	...	...	...	...	...
1871	...	...	...	...	...	44.05*	...	...	...	...	...
1872	...	...	...	...	...	48.94*	56.90*	...	44.60*	...	...
1873	62.15	63.25	...	...	...	...	60.12*	...	56.98*	...	...
1874	62.51	53.14	...	...	...	...	58.65	...	45.99	...	...
1875	50.37	...	...	...	...	...	...	...	...	...	...
Mean . .	44.82	50.83	57.64	45.51	54.31	47.82	60.01	41.20	49.19	37.14	43.47

TENNESSEE.

Year.	Austin.	Bethel Springs.	Castalian Springs.	Clearmont.	Elizabethton.	Glenwood Cottage.	Greenville.	Humboldt.	Knoxville.
1854	...	...	...	...	...	43.04	...	...	46.23
1855	...	...	...	...	...	44.10	...	...	...
1856	...	...	...	...	...	39.51	...	...	...
1857	...	...	...	...	...	43.45	...	...	...
1858	...	...	...	...	...	53.68	...	...	...
1859	...	...	...	...	...	45.58	...	...	...
1860	...	...	...	...	...	41.37*	...	...	...
1861	...	...	...	...	...	48.05	...	...	...
1862	...	...	...	...	...	49.55	...	...	...
1863	...	...	...	...	...	54.37	...	...	...
1864	...	...	...	...	...	41.33	...	...	...
1865	...	...	...	...	...	59.98	...	...	...
1866	...	...	...	...	...	44.80	...	...	...
1867	...	...	...	...	...	48.83	...	...	...
1868	51.28	...	...	...	...	44.76	...	...	...
1869	...	...	...	...	46.46	39.14	25.18*	...	...
1870	61.07*	...	...	...	48.46	49.13	...	...	44.05*
1871	55.83	...	...	44.44	37.86*	47.93	...	57.40	45.83
1872	51.44*	51.88*	46.76*	38.64	55.70	33.89	...	41.46	...
1873	53.73*	58.55	55.45*	...	...	53.49	...	70.93	59.31
1874	54.73*	56.50	56.67	...	...	49.02	...	42.07	58.38
1875	...	...	...	...	...	...	...	...	73.87
1876	...	...	...	...	...	...	...	...	41.21
Mean	54.16	55.64	52.96	42.44	47.14	46.43	23.20	53.09	51.58

TENNESSEE—CONTINUED.

Year.	La Grange.	McMinnville.	Memphis.	Nashville.	Rotherwood.	Smithville, near	Spring Garden.	Trenton.	University Place.
1840	...	...	...	59.14	...	...	...	...	...
1841	...	...	...	61.70	...	...	...	...	...
1842	...	...	...	53.59	...	...	...	...	...
1843	...	...	...	58.31	...	...	...	...	...
1844	...	...	...	42.27	...	...	...	...	...
1845	...	...	...	54.99	...	...	...	...	...
1850	...	...	47.56*	...	...	...	...	...	...
1857			44.30*						
1858	...	...	53.55	...	...	...	...	...	...
1859	...	...	52.30*	...	...	...	...	...	...
1860	...	...	41.65*	...	...	...	...	...	48.41
1868	...	...	50.45	...	...	...	...	...	...
1869	...	...	47.14	...	...	...	...	56.26*	...
1870	...	...	...	...	...	...	...	43.34*	...
1871	53.30	...	...	...	...	...	...	44.82	...
1872	40.99	...	...	...	43.20	...	...	39.16*	...
1873	56.15*	56.42	56.20	49.47	...	56.61*	61.08*	...	...
1874	47.70	59.68	44.07	58.14	...	64.78*	78.52	...	...
1875	...	...	57.02	53.48	...	...	...	...	...
1876	...	...	55.49	46.91	...	...	...	...	...
Mean	48.89	57.19	44.57	51.78	45.01	56.73	69.80	45.89	51.08

TEXAS.

Year.	Austin.	Belmont Farm.	Blue Branch.	Bluff Settlement.	Camp Colorado.	Camp Cooper.	Camp Hudson.	Camp Verde.	Cedar Grove Plantation.	Clarksville.	Clear Lake.	Corsicana.
1856	21.10*	...	...	...	...	...	...	...	...	...	...	...
1857	33.13*	...	...	...	16.64	48.49*	...	30.28	...	...	...	...
1858	36.37	...	...	...	18.75*	...	...	18.60*	...	...	...	...
1859	28.22	...	...	...	20.80	...	11.88*	19.76	...	...	...	...
1860	29.62	...	...	...	40.27	...	13.85	37.95	...	...	...	...
1861	28.69	...	...	...	...	...	...	...	...	...	...	...
1862	22.18	...	...	...	...	...	...	...	...	...	...	...
1863	34.70	...	...	...	...	...	...	...	...	...	...	...
1864	25.16	...	...	...	...	...	...	...	...	...	...	...
1865	37.79	...	...	...	...	...	...	...	...	...	...	...
1866	40.52	...	...	...	...	...	...	...	...	...	...	...
1867	26.74*	...	...	...	...	...	...	...	...	...	...	...
1868	40.09	...	...	...	...	...	...	19.20	47.74	...	...	...
1869	38.54	...	45.12	...	...	...	...	...	...	...	...	...
1870	42.49	...	35.95	...	...	...	...	...	...	...	...	...
1871	30.12	...	32.46	44.87*	...	...	...	...	...	...	41.61*	...
1872	33.25	...	...	33.35	...	...	...	...	...	46.56	...	...
1873	43.39	62.99	...	57.71*	...	...	...	...	...	109.78	...	...
1874	46.52	42.13	...	55.38	...	...	...	...	...	96.71*	...	...
1875	...	...	...	...	...	...	...	...	...	...	...	32.11
1876	...	...	...	...	...	...	...	...	...	...	...	33.69
Mean . .	33.52	45.13	41.14	45.82	24.10	...	12.13	29.27	48.21	80.16	41.61	38.33

TEXAS—Continued.

Year.	Corpus Christi.	Deloraine.	Fort Belknap.	Fort Bliss.	Fort Brown.	Fort Chadbourne.	Fort Clark.	Fort Concho.	Fort Crogham.	Fort Davis.	Fort Duncan.	Fort Ewell.	Fort Graham.
1846	45.05*	...	...	...	...	...	...	...	...	...	...	...	...
1850	...	...	...	...	20.76	...	...	...	25.60	...	17.98	...	35.84*
1851	34.90*	...	...	...	28.30	...	...	...	44.87	...	14.12	...	41.17
1852	...	...	...	...	28.80	...	...	...	45.71	...	28.37	...	44.86
1853	...	...	25.14	...	26.54	27.46	29.14	...	37.03*	...	33.31	39.34	...
1854	...	...	20.65	...	50.60	34.27	14.42	...	...	...	22.00	33.83*	...
1855	...	...	19.21	11.31*	60.80	27.43*	22.16	...	...	21.21	17.32	...	...
1856	...	...	35.92	21.81	26.14	20.03	15.79	...	...	25.94	17.92	...	...
1857	...	...	41.61	13.73*	20.70	20.07	41.60*	...	...	19.96*	28.29	...	...
1858	...	...	...	5.00	24.36	10.34	19.98	...	...	14.12	16.01	...	...
1859	...	...	...	4.83	...	21.39	17.75	...	...	22.55	...	...	...
1860	...	...	...	2.46*	...	12.83	20.23*	...	...	8.52	...	...	...
1867	...	...	...	2.84	...	...	...	...	...	...	...	...	...
1869	...	...	...	9.85*	...	...	...	...	...	...	...	...	...
1870	...	...	...	...	8.88	...	34.32	...	...	15.97*	...	...	...
1871	...	...	...	7.61	20.40	...	13.56	...	...	...	...	...	...
1872	...	30.11*	...	6.78	22.42	...	18.31	...	...	...	...	...	...
1873	...	28.10	...	5.74	27.65	...	...	18.42	...	17.13*	...	...	...
1874	...	...	...	7.24	26.85	...	...	23.80	...	...	18.59	...	...
Mean . .	37.77	30.07	28.05	8.53	27.88	22.88	22.61	20.35	36.56	17.12	21.33	34.58	40.58

TEXAS—Continued.

Year.	Fort Griffin.	Fort Inge.	Fort Lancaster.	Fort Lincoln.	Fort Martin Scott.	Fort Mason.	Fort Merrill.	Fort McIntosh.	Fort McKavett.	Fort Quitman.	Fort Richardson.	Fort Stockton.	Fort Terrett.
1850	...	26.48	...	...	32.52	...	...	17.35	...	...	...	...	...
1851	...	20.07*	...	20.58	26.07	...	18.48*	14.23	...	...	...	...	...
1852	...	32.82	...	...	...	42.80*	...	10.53	40.03*	...	...	...	43.00*
1853	...	37.64	...	...	...	30.28*	...	22.78	...	...	...	...	24.83
1854	...	24.05	...	...	...	...	35.22	23.90	16.77	...	...	...	...
1855	...	...	...	...	...	...	27.60*	22.98	16.18	...	...	...	...
1856	...	...	...	...	...	21.26*	...	18.71	24.29	...	...	...	...
1857	...	...	39.58	...	...	34.90	...	16.41	22.12	...	...	...	...
1858	...	...	28.21	...	...	19.73	...	10.29	21.62	...	...	...	...
1859	...	18.06	24.89	...	...	...	...	...	...	8.31	...	...	...
1860	...	16.77*	13.37	...	...	...	...	...	...	4.18*	...	8.39*	...
1868	...	...	...	...	...	...	...	...	...	...	33.75*	...	...
1869	...	...	...	...	...	...	...	...	...	...	28.45*	...	...
1870	35.01	...	...	...	...	...	...	11.92*	...	...	...	...	...
1871	16.44	...	...	...	...	...	...	9.90	...	...	...	5.16	...
1872	20.58	...	...	...	...	...	...	18.37	...	...	...	11.99	...
1873	12.03	...	...	...	...	...	...	18.74	25.48	...	26.60	11.20	...
1874	26.34	...	...	...	...	...	...	21.82	33.75	...	26.25	13.90	...
Mean . .	21.51	25.46	26.25	21.72	32.53	28.98	29.53	17.51	23.95	10.44	26.03	11.50	27.17

TEXAS—Continued.

Year.	Fort Worth.	Galveston.	Goliad.	Gonzales.	Huntsville.	Indianola.	Lavaca.	Mesquite.	New Braunfels.	New Ulm.	Oakland.	Pin Oak.	Phantom Hill.
1850	37.95	...	...	42.00	...	...	...	...	...	...	...	...	...
1851	42.49	...	...	...	...	...	...	...	...	...	...	...	...
1852	43.36	...	...	...	...	...	...	...	...	...	...	...	...
1853	...	...	...	...	...	...	...	...	...	...	...	...	14.13
1854	...	...	...	...	...	...	...	...	25.70	...	...	...	...
1855	...	...	...	...	...	...	...	...	25.42	...	...	...	...
1856	...	...	...	...	...	...	...	...	29.83*	...	...	46.75	...
1857	...	...	...	...	...	...	...	...	27.86*	...	...	...	...
1858	...	...	25.13	...	46.04	...	...	...	...	...	...	...	...
1859	...	...	...	...	23.93	...		...	25.60*	...	...	...	...
1868	...	68.82	...	...	...	...		...	...	...	...	...	...
1869	...	49.64	...	...	...	...	54.52	...	...	...	...	...	...
1871	...	...	...	...	...	...	...	...	...	...	41.27*	...	...
1872	...	...	...	...	...	...	...	...	...	...	26.63*	...	...
1873	...	58.91	...	...	...	43.27	...	...	...	88.17*	20.69*	...	...
1874	...	49.39	...	...	...	44.06	...	51.77*	...	67.40	...	...	...
1875	...	58.52	...	...	...	35.39	...	...	...	...	...	...	...
1876	...	50.92	...	...	...	32.04	...	...	...	...	...	...	...
Mean . .	40.86	57.07	24.92	42.00	34.98	40.18	44.03	51.77	27.58	72.73	28.75	46.75	17.22

TEXAS—CONTINUED.

Year.	Ringgold Barracks.	Round Top.	San Antonio.	Sisterdale.	Union Hill.	Waco.	Washington.	Yorktown.
1850	17.64	...	29.98	...	...	...	...	...
1851	14.08	...	30.84	...	...	...	...	...
1852	17.82	...	35.12*	...	...	...	...	...
1853	22.58	...	...	...	...	...	...	...
1854	29.05	...	...	...	...	...	...	...
1855	25.65*	...	...	...	...	...	...	...
1856	24.58	...	...	...	...	...	...	...
1857	12.60	...	...	...	...	...	...	...
1858	19.88	...	28.56	...	...	...	...	...
1859	...	26.18	31.98	23.50	25.23*	...	27.32	...
1860	...	25.74	22.31	...	24.66*	...	...	...
1868	...	...	...	...	...	43.05	...	...
1869	...	...	...	...	...	...	...	46.19*
1870	...	...	33.08	...	...	...	...	30.95
1871	9.48	...	23.74	...	...	...	...	31.47*
1872	14.76	...	28.89	...	...	...	...	...
1873	19.63	...	...	...	...	...	...	...
1874	20.33*	...	...	...	...	...	...	...
Mean . . .	19.60	27.65	31.30	23.50	31.11	43.38	30.23	32.76

UTAH.

Year.	Camp Douglas.	Camp Floyd.	Corinne.	Harrisburg.	Salt Lake City.	Saint George.
1857	...	...	...	...	14.70*	...
1859	...	11.28	...	...	20.27*	...
1860	...	4.83	...	...	...	...
1861	...	...	...	...	22.22*	...
1864	...	...	...	...	23.87	...
1865	16.86	...	...	...	22.67	8.09*
1866	17.54*	...	...	...	38.20	...
1867	28.00	...	...	...	...	...
1868	16.99	...	...	...	...	...
1869	21.19*	...	...	8.19*	...	...
1870	20.24	...	...	...	...	...
1871	19.97	...	...	...	...	...
1872	15.09	...	...	...	...	...
1873	15.21	...	14.75	...	32.95	...
1874	19.27	...	...	...	20.43*	...
1875	...	...	...	...	23.64	...
1876	...	...	...	...	21.28	...
Mean	18.82	7.33	14.55	13.14	24.81	11.39

VERMONT.

Year.	Brandon.	Burlington.	Castleton.	Craftsbury.	Fayetteville.	Ferrisburg.	Lunenburg.	Middlebury.	Norwich.
1827	...	...	...	...	66.40	...	...	...	...
1828	...	43.30	...	...	66.30	...	...	...	...
1829	...	...	...	...	43.60	...	...	...	...
1830	...	...	...	...	51.90	...	...	...	...
1831	...	...	...	...	62.20	...	...	...	...
1832	...	39.59	...	...	46.80	...	...	...	...
1833	...	49.44	...	...	50.42*	...	..	...	...
1838	...	30.83	...	...	...	...	...	...	...
1839	...	27.89	...	...	...	...	...	...	...
1840	...	37.19	...	...	...	...	...	...	...
1841	...	32.68	...	...	...	...	...	...	...
1842	...	33.85	...	...	...	...	...	...	...
1843	...	26.58	...	...	...	...	...	...	...
1844	...	31.21	...	...	...	...	...	...	...
1845	...	36.04	...	...	...	...	...	...	...
1846	...	29.66	...	...	...	...	...	...	...
1847	...	38.55	...	...	...	...	...	...	...
1848	...	31.38	...	...	...	...	41.00	...	...
1849	...	26.35	...	...	...	...	35.80	...	...
1850	...	37.51	...	...	...	...	40.00	...	...
1851	...	31.83	...	...	...	...	33.50	...	...
1852	...	28.82	...	...	...	...	39.00	...	...
1853	...	33.05	...	...	...	...	41.75	...	...
1854	...	25.45	...	...	...	...	36.60	...	...
1855	...	38.30	...	...	...	...	38.25	...	...
1856	34.68*	26.82	...	39.48*	...	...	39.80	...	...
1857	43.68	...	...	47.10	...	...	37.25	...	...
1858	32.92	28.69*	...	38.40	...	...	38.50	...	...
1859	31.49	...	...	34.37	...	...	35.30	...	...
1860	36.17*	...	...	37.70*	...	...	38.90	...	...
1861	42.93	42.56	...	40.45	...	...	47.00	...	...
1862	32.84*	40.82*	...	39.13	...	...	45.80	...	...
1863	46.11	39.47*	...	36.02*	...	...	46.00	...	...
1864	...	35.74*	...	39.50	...	...	41.16	37.38*	...
1865	...	...	...	36.53	...	...	43.36	35.20	...
1866	35.37*	...	...	42.99	...	...	38.10	37.03	...
1867	...	...	...	40.29	...	...	39.65	36.45	...
1868	...	...	...	34.23	...	...	41.73	32.55	...
1869	...	...	...	53.75	...	...	43.71	45.30	...
1870	...	...	24.80	38.60	...	40.76	46.97	...	...
1871	...	...	35.34	41.56	...	47.11*	41.82	...	33.42*
1872	...	...	42.07	48.59	...	...	57.94	...	41.00
1873	...	25.92	30.52	39.82*	...	...	40.46	...	36.57*
1874	...	31.94	...	44.19*	...	...	40.16	...	35.32
1875	...	26.94	...	...	...	...	...	...	...
1876	...	27.53	...	...	...	...	...	...	...
Mean	37.22	34.16	35.69	40.67	55.18	47.76	42.97	37.21	35.45

VERMONT—Continued.

Year.	Randolph.	Rutland.	Saint Johnsbury.	Shelburne.	South Troy.	Springfield.	Strafford.	West Charlotte.	Woodstock.
1789	...	41.17	...	...	...	...	...	...	...
1854	...	...	26.05*	...	...	...	...	...	...
1856	...	...	...	40.65*	...	...	...	...	...
1857	...	...	...	48.17	...	...	...	...	45.45
1858	...	...	...	...	...	...	...	...	35.70
1861	...	...	...	...	...	43.46	...	...	...
1862	...	...	...	...	...	40.80*	...	...	...
1866	33.30	...	...	...	...	...	...	...	...
1867	34.81	...	...	...	...	...	...	...	...
1868	38.70	...	...	...	...	...	...	...	...
1869	46.17	...	...	...	...	...	...	56.39*	43.23*
1870	35.24	...	...	...	...	...	...	43.41	41.54
1871	36.13	...	...	...	50.79*	...	...	49.63	33.80
1872	45.05*	...	...	...	39.26	...	...	41.28	42.32
1873	37.62*	...	...	...	...	...	47.91*	36.25	44.06
1874	...	...	...	...	...	...	40.65	30.81	34.09
Mean	38.51	39.94	35.50	44.41	43.96	43.15	44.19	43.80	40.10

VIRGINIA.

Year.	Alexandria.	Alleghany County.	Berryville.	Cape Charles Light House.	Cape Henry.	Capeville.	Cedar Hill.	Cottage Home.	Crichton's Store.
1848	...	35.75	...	...	...	...	...	...	...
1849	...	32.53	...	...	...	...	...	...	...
1850	...	38.48	...	...	...	...	...	...	...
1851	...	32.86	...	...	...	...	...	...	...
1853	40.55	...	...	...	...	...	...	...	...
1854	35.03	...	...	...	...	...	...	...	44.35
1855	33.32	...	...	...	...	...	...	...	40.16*
1856	29.89	...	...	...	...	...	...	...	36.47
1857	37.65	...	37.75	...	...	...	...	...	34.09
1858	...	...	38.16	...	...	...	...	...	32.16
1859	...	...	...	...	...	...	...	...	30.71
1860	...	...	...	...	...	...	...	...	33.07*
1867	...	...	...	83.64*	...	...	...	...	...
1870	...	...	...	...	...	...	...	62.35*	...
1872	...	...	...	...	...	...	28.92	...	...
1873	...	...	...	...	...	51.10*	43.89	...	...
1874	...	...	...	...	52.00	37.20*	34.73	...	...
1875	...	...	...	...	59.60	...	...	...	...
1876	...	...	...	...	64.17	...	...	...	...
Mean	34.90	35.37	37.48	83.64	54.78	43.90	36.18	59.62	36.37

VIRGINIA—CONTINUED.

Year.	Fortress Monroe.	Hampton.	King George Court House.	Lewinsville.	Lynchburg.	Marion.	Meadow Dale.	Mechanicsville.	Mount Solon.	Naval Hospital.	Norfolk.	Peach Lawn.	Piedmont.	Portsmouth.
1837	40.70	...	...	...	...	...	...	...	...	...	...	...	...	...
1838	44.94	...	...	...	...	...	...	...	...	...	...	...	...	...
1839	72.00	...	...	...	...	...	...	...	...	...	...	...	...	...
1840	74.11	...	...	...	...	...	...	...	...	...	...	...	...	...
1841	65.31	...	...	...	...	...	...	...	...	...	...	...	...	...
1842	67.06	...	...	...	...	...	...	...	...	...	...	...	...	...
1843	47.31	...	...	...	...	...	...	...	...	...	...	...	...	...
1844	41.68	...	...	...	...	...	...	...	...	...	...	...	...	...
1845	47.77	...	...	...	...	...	...	...	...	...	...	...	...	...
1846	50.39	...	...	...	...	...	...	...	...	...	...	...	...	...
1847	48.93	...	...	...	...	...	...	...	...	...	...	...	...	...
1848	29.44	...	...	...	...	...	...	...	...	...	...	...	...	...
1849	32.64	...	...	...	...	...	...	...	...	...	...	...	...	...
1850	49.76	...	...	...	...	...	...	...	...	...	...	...	...	...
1851	...	...	26.92	...	...	...	...	...	...	...	...	...	...	...
1852	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1853	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1854	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1855	24.47*	...	...	...	...	...	...	...	...	...	...	...	...	...
1856	40.42	...	...	...	...	...	...	...	...	...	...	...	...	54.48*
1857	42.88	...	...	...	...	...	...	...	...	...	...	...	...	54.41
1858	37.24	...	...	...	...	...	40.87	...	...	...	...	...	...	44.25
1859	39.74*	...	...	40.03*	...	...	...	...	...	...	...	54.47	...	52.58
1860	...	...	...	...	...	...	...	...	...	...	...	43.12	...	...
1865	45.23*	...	...	...	...	...	...	...	...	42.00*	...	...	...	...
1866	...	...	...	...	...	...	...	...	...	46.80	...	...	...	...
1867	63.52*	...	...	...	...	...	...	...	...	111.1 *	...	...	...	...
1868	45.52*	...	...	...	...	...	...	...	...	86.15	...	...	...	...
1869	34.76	36.65	...	...	...	...	...	...	...	48.36	...	...	...	...
1870	37.86	41.50	...	...	...	...	...	48.35	...	63.21	...	...	47.21	...
1871	46.34	50.14	...	...	39.58	...	...	34.50	26.85	102.22	...	...	43.75*	...
1872	47.82	45.00	...	...	33.63	...	...	27.90	30.96	60.15*	...	...	...	...
1873	41.40	43.80	...	...	51.09	...	...	33.85	35.97*	...	55.17	...	...	...
1874	35.13	36.55*	...	...	46.60	51.30*	...	...	28.13	...	50.21	...	...	...
1875	...	...	...	...	43.89	...	...	...	...	...	49.97	...	...	...
1876	...	...	...	...	40.04	...	...	...	...	...	46.54	...	...	...
Mean . .	46.13	42.29	26.92	37.07	41.13	49.30	41.97	36.92	32.70	68.40	53.01	47.36	45.00	52.20

VIRGINIA—CONTINUED.

Year.	Powhatan Hill.	Prospect Hill Farm.	Richmond.	Rose Hill.	Rougemont.	Ruthven.	Smithfield.	Snowville.	Staunton.	Lexington.	Vienna, near	Winchester.	Woodlawn.	Wytheville.
1850	37.95	...	...	...	...	...	...	...	...	...	...	...	...	...
1851	26.94	...	40.57	...	...	...	...	...	...	...	...	...	...	...
1852	37.74	...	47.54	...	...	...	...	...	...	...	...	...	...	...
1853	28.81	...	...	...	...	...	...	...	...	...	...	...	...	...
1854	30.05	...	...	...	...	...	...	...	...	...	...	...	...	...
1855	30.08	...	...	...	...	...	41.72	...	...	...	...	...	...	...
1856	29.17	...	...	...	...	...	48.50	...	...	...	...	...	...	...
1857	32.23	...	...	36.50*	...	37.12	47.20	...	...	...	...	42.91	...	...
1858	31.39	...	...	...	39.74	...	43.77	...	...	...	...	38.82	...	...
1859	34.59	...	...	41.15	55.79	...	52.56	...	...	...	...	43.00	...	...
1860	33.79	...	39.40*	...	46.31*	...	48.03*	...	...	...	...	48.46*	...	...
1861	44.79	...	...	...	...	...	...	...	...	...	...	...	...	...
1867	43.03	...	...	...	...	...	...	...	...	...	...	...	...	...
1868	27.11*	...	...	...	...	...	...	103.01	...	...	...	...	...	37.68*
1869	35.37	34.60	...	...	...	...	...	95.29	32.37	39.82	...	...	...	33.35
1870	26.98	33.37	...	...	...	...	...	...	49.65	54.14	41.50	...	...	37.70
1871	40.81	49.40	...	...	...	...	...	...	...	...	34.27*	...	34.81*	33.95
1872	24.30	46.75	...	...	...	...	...	...	...	...	...	...	37.29	39.05
1873	32.48	42.25	...	...	...	...	...	40.04*	...	...	...	...	48.48	45.01
1874	...	40.52	...	...	...	...	...	30.63	...	...	...	...	44.31	38.49
1875	...	...	...	...	...	...	...	...	...	...	...	...	...	47.20
Mean . .	32.77	41.15	44.68	38.46	50.48	41.35	47.15	67.79	37.75	46.96	38.00	42.72	41.04	40.04

WASHINGTON TERRITORY.

Year.	Camp Simiahmoo.	Cape Disappointment.	Cathlamet.	Fort Bellingham.	Fort Cascades.	Fort Colville.	Fort Simcoe.	Fort Steilacoom.	Fort Vancouver.	Fort Walla Walla	Neah Bay.	Port Townsend.	San Juan Island.	Tatoosh Light House.
1850	...	...	...	...	...	...	...	33.31	38.40	...	...	...	...	...
1851	...	...	...	...	...	...	...	39.32	...	...	...	...	...	...
1852	...	...	...	...	...	...	...	...	55.95*	...	...	...	...	...
1853	...	...	...	...	...	...	...	...	42.07	...	...	...	...	...
1854	...	...	...	...	...	...	...	...	32.75*	...	...	...	...	...
1855	...	...	...	...	...	...	...	...	45.43*	...	...	...	...	...
1856	...	...	...	...	...	...	...	...	52.57	...	...	...	...	...
1857	...	...	...	...	...	...	...	39.53	47.57*	17.89	...	...	...	...
1858	...	...	...	31.29	...	...	13.76	50.14	40.46	19.12	...	...	...	...
1859	32.97*	...	...	...	60.97	...	...	38.72	38.86	18.13	...	...	...	...
1860	...	...	...	...	57.17	...	...	30.62	34.97	20.50	...	...	...	...
1861	...	...	...	...	...	15.56	...	36.67*	44.09	40.57	...	...	...	...
1862	...	...	...	...	...	11.81	...	25.75	29.49	39.27*	...	...	...	...
1863	...	...	...	...	...	3.66*	...	45.09	42.41	5.29*	...	...	...	...
1864	...	...	...	...	...	...	...	30.65	31.48	8.38*	109.53*	...	20.41	...
1865	...	70.74*	...	...	...	...	...	37.23*	25.91*	...	121.30	...	...	...
1866	...	...	...	...	...	...	...	...	...	...	126.50*	...	...	...
1867	...	83.54*	...	...	...	14.65	...	58.47*	35.13	...	...	...	30.90	...
1868	...	74.60*	...	...	...	...	...	...	...	...	...	...	17.64	...
1869	...	...	...	...	...	19.15*	...	...	...	...	...	...	17.64	...
1870	...	...	...	...	...	20.27	...	...	...	...	...	...	19.37	84.27
1871	...	...	...	...	...	24.42	...	...	...	...	...	...	24.39	113.01
1872	...	...	...	...	...	17.45*	...	...	...	...	...	...	24.83*	...
1873	...	...	65.35*	...	...	8.84	...	...	...	...	...	...	60.75*	...
1874	...	...	69.19*	...	...	12.01	...	...	...	...	...	13.07	27.97*	...
1875	...	...	...	...	...	...	...	...	...	...	...	21.50	...	...
1876	...	...	...	...	...	...	...	...	...	...	...	18.37	...	...
Mean . .	33.62	71.24	68.23	29.66	64.64	14.06	10.61	38.92	38.37	19.36	123.35	16.05	28.34	95.25

WEST VIRGINIA.

Year.	Ashland.	Crack Whip.	Cross Creek.	Kanawha.	Lewisburg.	Morgantown.	Poplar Grove.	Sheetz Mills.	White Sulphur Springs.	Wirt Court-House.
1848	...	...	...	...	...	...	...	...	39.30	...
1849	...	...	...	...	...	...	...	...	35.39	...
1850	...	...	...	...	...	...	...	...	39.08	...
1851	...	...	...	...	...	...	...	...	34.46	...
1852	...	...	...	...	...	...	...	...	34.21	...
1854	35.34	...	...	...	...	...	...	...	...	...
1855	34.64*	...	...	...	...	...	...	...	...	...
1856	...	28.42*	...	29.25	30.74*	...	...	20.26	...	...
1857	43.70*	...	...	...	45.02*	...	38.76*	32.20	...	34.98
1858	...	...	...	34.43*	...	...	...	25.55	...	52.95*
1859	...	...	43.39*	...	33.26	...	65.89*	34.80	...	...
1860	...	...	...	...	36.78	...	75.09*	40.80	...	...
1861	...	...	...	...	...	...	...	38.05	...	...
1862	...	...	...	...	...	...	...	32.72	...	...
1863	...	...	...	...	...	...	...	41.35	...	...
1864	...	...	...	...	...	...	...	25.15	...	...
1865	...	...	...	...	...	...	...	35.56*	...	...
1866	35.74*	...	...	...	...	...	...	...	...	...
1867	34.80*									
1869	26.60	...	...	...	...	...	...	...	...	...
1873	...	...	...	...	...	51.87	...	...	...	...
1874	...	...	...	...	...	45.01	...	...	...	...
1875	...	...	...	...	...	50.26	...	...	...	...
1876	...	...	...	...	...	48.16	...	...	...	...
Mean . .	36.10	34.97	38.94	33.59	35.75	47.50	58.77	32.66	37.54	43.06

WISCONSIN.

Year.	Appleton.	Ashland.	Baraboo.	Beloit.	Bloomfield.	Delafield.	Delavan.	Edgerton.	Elkhorn.	Embarass.
1856	23.37	...	...	27.89	...	...	...	...	...	...
1857	27.60	...	...	33.30*	...	...	...	...	...	...
1858	36.39	43.09*	...	47.09*	...	...	...	...	...	...
1859	27.82*	53.57*	...	22.74*	...	...	...	...	...	...
1860	...	44.84*	...	...	...	...	...	...	...	...
1861	...	43.69*	...	37.64	...	32.67	...	...	...	...
1862	...	...	...	39.59	...	...	...	...	...	...
1863	...	...	...	29.76	...	...	...	...	...	...
1864	...	...	...	30.81	...	...	...	...	...	28.87
1865	...	...	...	24.50	...	...	31.29	...	...	40.58*
1866	...	...	...	30.10	...	...	31.42	...	...	35.49
1867	...	...	...	...	...	...	21.19	...	...	30.22*
1868	...	...	...	35.24	...	...	...	...	...	38.77
1869	...	...	66.05	30.40	35.38*	...	...	44.87*	...	35.24*
1870	...	...	52.18	20.40	23.82	...	...	41.32*	...	41.77
1871	...	...	47.70	27.45	31.52	...	...	38.74*	...	37.79
1872	...	...	...	25.28*	30.83	...	...	32.91*	...	28.53
1873	...	...	...	33.89	37.60	...	...	36.44*	27.18	34.95
1874	...	...	...	28.51	24.31	...	...	...	...	30.97
Mean . .	28.51	43.04	47.23	33.69	31.38	34.88	28.51	41.57	27.81	34.57

WISCONSIN—CONTINUED.

Year.	Fort Crawford.	Fort Howard.	Fort Winnebago.	Green Bay.	Holland.	Janesville.	Kenosha.	La Crosse.	Le Roy.	Lowell.	Madison.
1836	...	37.64	...	...	...	...	...	...	...	...	...
1837	34.05	40.55	31.34	...	...	...	...	...	...	...	...
1838	21.96	37.56	27.88	...	...	...	...	...	...	...	...
1839	32.70*	31.28	28.95	...	...	...	...	...	...	...	...
1840	31.25	30.48	27.12	...	...	...	...	...	...	...	...
1841	31.05	...	28.45	...	...	...	...	...	...	...	...
1842	38.34	...	24.51	...	...	...	...	...	...	...	...
1843	25.58	...	22.80	...	...	...	...	...	...	...	...
1844	39.06	...	30.59*	...	...	...	...	...	...	...	...
1851	...	31.27	...	...	...	...	...	...	...	...	...
1854	...	...	...	...	...	36.47	...	...	...	...	...
1855	...	...	...	...	...	31.14	...	...	...	...	...
1856	...	...	...	...	...	22.05	...	...	...	...	...
1857	...	...	...	...	...	27.41	...	...	...	30.25	28.36*
1858	...	...	...	...	...	45.69*	...	...	...	...	34.68*
1859	...	...	...	...	...	...	27.55	...	...	...	...
1861	...	...	...	...	...	...	35.25	...	...	...	...
1862	...	...	...	...	...	...	36.92	...	...	...	...
1864	...	...	...	29.69	...	...	...	...	...	...	...
1865	...	...	...	32.68*	...	...	...	...	...	...	...
1869	...	...	...	...	...	...	...	...	...	...	46.80
1870	...	...	...	...	...	...	...	...	...	...	30.46*
1871	...	...	...	...	...	...	...	...	...	...	28.03*
1872	...	...	...	...	26.64*	...	...	...	...	...	22.44
1873	...	...	...	...	29.97	...	...	22.64	33.36	...	27.49
1874	...	...	...	...	...	...	...	31.73	27.40*	...	29.06
1875	...	...	...	...	...	...	...	38.72	...	...	...
1876	...	...	...	...	...	...	...	39.41	...	...	...
Mean . .	31.40	34.64	27.50	32.42	28.22	31.55	33.47	32.18	28.81	30.25	30.09

WISCONSIN—CONTINUED.

Year.	Manitowoc.	Milton.	Milwaukee.	Mosinee.	New London.	Norway.	Platteville.	Plymouth.	Rocky Run.	Sturgeon Bay.	Superior City.
1841	...	...	34.32	...	...	...	...	...	...	...	...
1844	...	...	32.50	...	...	..	...	...	...	...	...
1845	...	...	20.54	...	...	...	...	...	...	...	...
1846	...	...	25.26	...	...	...	...	...	...	...	...
1847	...	...	22.45	...	...	...	...	...	...	...	...
1848	...	...	33.52	...	...	...	...	...	...	...	...
1849	...	...	31.09	...	...	...	...	...	...	...	...
1850	...	...	26.41	...	...	...	...	...	...	...	...
1851	...	...	30.40	...	...	...	...	...	...	...	...
1852	...	...	29.33	...	...	...	...	...	...	...	...
1854	...	...	31.38*	...	...	...	...	...	...	...	...
1855	...	...	36.04	...	...	...	...	...	...	...	...
1856	...	...	29.02	...	...	47.41*	29.61*	...	...	...	...
1857	...	...	30.89	...	29.59*	...	34.82	...	...	...	...
1858	...	...	44.86	...	...	...	47.26	...	...	...	...
1859	...	...	29.42	...	...	...	26.63*	...	...	...	...
1860	...	...	22.02	...	...	...	...	...	39.04*	...	29.52
1861	...	...	33.48	...	...	...	...	...	36.63	...	35.24
1862	...	...	41.45	...	...	...	...	...	38.82	...	21.96
1863	...	...	33.56	...	...	...	...	...	31.48*	...	18.04
1864	26.78	...	29.80	...	...	...	...	...	20.63	...	20.97
1865	31.59	...	31.86	...	...	...	...	...	31.52	...	30.06
1866	27.74	...	36.18	...	...	...	...	37.50	39.67*	...	25.74
1867	24.29	...	25.10	...	...	...	...	33.10	29.95	...	...
1868	30.53	...	29.27	...	...	...	...	36.50	26.24*	...	...
1869	38.43	...	37.51	...	...	...	...	43.80	43.74*	...	...
1870	28.58	...	26.61	74.28	...	...	...	...	34.27	35.46*	...
1871	27.85	...	29.04	84.37	...	...	...	...	39.95	24.43*	...
1872	23.81	...	...	44.58*	...	...	...	...	21.64	22.76*	...
1873	34.25	35.89*	30.61	...	...	...	...	...	31.90*	34.63	...
1874	28.57*	...	31.00	...	...	...	...	...	30.23*	...	...
1875	...	...	35.56	...	...	...	...	...	...	...	...
1876	...	...	50.34	...	...	...	...	...	...	...	...
Mean . .	29.76	35.89	31.54	67.75	34.76	47.54	39.31	37.98	33.03	28.81	25.92

WYOMING.

Year.	Camp Brown.	Cheyenne.	Fort Bridger.	Fort D. A. Russell.	Fort Fetterman.	Fort F. Steele.	Fort Laramie.	Fort P. Kearney.	Fort Sanders.
1850	...	...	...	...	...	...	9.43*	...	...
1851	...	...	...	...	...	...	9.89*	...	...
1852	...	...	...	...	...	...	31.42	...	...
1853	...	...	...	...	...	...	30.78	...	...
1854	...	...	...	...	...	...	22.26	...	...
1855	...	...	...	...	...	...	18.99	...	...
1856	...	...	...	...	...	...	15.02	...	...
1857	...	...	...	...	...	...	6.15	...	...
1858	...	...	...	...	...	...	7.90	...	...
1859	...	...	6.81*	...	...	...	6.26	...	...
1860	...	...	5.05	...	...	...	...	...	...
1862	...	...	...	...	...	...	12.70	...	...
1863	...	...	...	...	...	...	5.11*	...	...
1864	...	...	7.34*	...	...	...	...	...	...
1865	...	...	4.62*	...	...	...	...	...	...
1867	...	...	...	...	...	...	...	26.25*	...
1868	...	...	9.71*	...	...	...	...	...	...
1869	...	...	13.58*	...	11.52*	29.31*	9.46	...	8.98
1870	...	...	5.58	12.20	10.75*	26.29*	11.72	...	10.44*
1871	...	...	9.14	12.26	18.04	13.67*	...	...	8.16
1872	...	...	10.47	15.34	19.84	11.44	...	...	17.77
1873	...	10.01	10.83	15.43	18.21	6.58	18.35	...	15.14
1874	14.08	9.71	13.03	15.71	12.03*	7.18	12.20	...	11.60
1875	...	12.10	...	...	...	...	...	...	...
1876	...	5.03	...	...	...	...	...	...	...
Mean	14.38	10.14	8.43	14.09	15.10	15.38	14.45	29.48	11.46

MEXICO.

Year.	Chihuahua.	Cordova.	Matamoras.	Mirador.	Vera Cruz.
1830	...	...	...	...	205.60
1845	...	...	36.09*	...	...
1849	...	...	38.50*	...	...
1850	...	...	31.31*	...	...
1859	...	104.01	...	75.33	...
1861	...	129.44	...	109.75*	...
1862	...	103.46	...	71.41	...
1863	...	104.52	...	72.80	...
1864	...	118.64	...	101.77	...
1865	...	...	...	86.69	...
1866	...	...	...	55.52	...
1867	...	...	...	94.58	...
1868	...	...	...	88.50	...
1869	...	...	...	82.71	...
1870	...	...	...	73.24	...
1871	...	...	...	80.83	...
Mean . . .	25.44	112.02	36.74	83.86	179.40

COSTA RICA.

Year.	Heredia.	San José.
1862	...	89.54*
1866	...	68.23*
1868	47.64	...
Mean . . .	47.64	73.57

GUATEMALA.

Year.	Guatemala.
1857	54.52
1858	50.18
1859	59.36
Mean	54.68

HONDURAS.

Year.	Belize.
1863	53.20
1864	78.02
1865	75.08
1866	67.92
1867	88.84
Mean	72.34

BAHAMA ISLANDS.

Year.	Nassau.
1840	56.11
1841	49.99
Mean	46.75

BERMUDA ISLANDS.

Year.	H. M. Naval Yard.	Saint George.	Royal Naval Hospital.
1852	49.84	...	49.05
1853	67.78	...	...
1854	47.09	...	...
1855	50.10	...	...
1856	45.47	...	...
1857	59.66	50.17*	...
1858	64.37	...	...
1859	...	51.45	...
Mean . . .	55.55	55.64	49.05

CARIBBEAN ISLANDS.

Year.	Barbadoes.	Philipsburg.	Sombrero Island.
1847	48.10	...	...
1848	63.77	...	...
1856	48.49	...	...
1858	45.21	...	...
1859	54.22	...	...
1862	...	104.82	...
1863	42.36	64.99	12.58*
1864	59.19	89.14*	...
1867	69.88	...	...
1868	44.59	...	...
1869	48.52	...	...
1870	60.17	...	...
1871	41.90	...	...
Mean . . .	45.63	86.32	16.85

CUBA.

Year.	Havana.	Matanzas.
1835	...	55.29
1859	44.87	...
1860	45.35*	...
1861	44.32*	...
1862	43.35	...
1863	40.08*	...
1864	51.72*	...
1865	49.11	...
1866	45.98	...
1867	71.43	...
1868	40.91	...
1869	56.18	...
1870	46.27	...
1871	53.90	...
1872	47.88	...
1873	43.01	...
1874	43.22	...
Mean. . .	46.25	55.29

SAN DOMINGO.

Year.	Port au Prince, Hayti.
1864	60.68
1865	66.88
1866	67.56
1867	50.29
Mean . . .	61.17

DUTCH GUIANA.

Year.	Catharina Sophia.	Parimaribo.	Rustenburg Plantation.
1856	64.88*	...	...
1857	74.81*	...	...
1858	86.24	...	...
1859	85.89	...	...
1860	83.54	...	...
1862	...	...	103.92
1863	...	...	117.23*
1873	...	64.75	...
1874	...	85.72*	...
Mean . . .	79.15	75.24	97.37

NEW GRANADA.		VENEZUELA.		PERU.	
Year.	Aspinwall.	Year.	Caracas.	Year.	Yquitos.
1863	109.36*	1860	37.01	1872	115.82*
1864	115.74*				
1865	107.43				
1866	129.62				
1867	121.62*				
1868	120.43				
Mean	121.60	Mean	37.01	Mean	103.28

GENERALIZATION OF THE PRECEDING TABULAR RESULTS

AND

CONSTRUCTION OF RAIN-FALL CHARTS OF THE UNITED STATES.

The mutual relations and significancy of the tabular results can best be brought out by a graphical representation. In this form the amount and general distribution of the rain-fall over the country can at once be seen, and admit, at the same time, a close study of its special features. The increased material at disposal since the publication of the first edition of these tables, and the importance to the agriculturist of a knowledge of the distribution of the rain-fall in the several seasons, induced the Institution to enlarge the charts as well as to construct two new ones, thus presenting five, viz., one for the year and one for each of the four seasons.

CONSTRUCTION OF THE RAIN-FALL CHARTS.

For the delineation of the geographical distribution of the aqueous precipitation over the area of the United States the same base-map has been made use of which served for the exhibition of the distribution of the atmospheric temperature, published by the Smithsonian Institution in 1876.* It has, however, been improved by the introduction of the mountain systems, and it is believed that the study of the relationship of the distribution of temperature and of rain-fall will be facilitated by this uniformity of projection and scale. For the generalization of the results of the greater part of the western and elevated portion of the United States, the scale of the map appears inconveniently large, our material being too limited to adequately cover so large an area, otherwise it is well adapted for the exhibition of the general and the detail features presented in the numerical results. To explain the construction of these charts it suffices to show it for the one exhibiting the annual distribution. All stations for which the observations extended over four or more years were plotted by their coördinates, latitude and longitude, and against the dot was written the amount of precipitation in inches and to the nearest tenth of an inch; for all other

* Smithsonian Contributions to Knowledge, No. 277, "Tables, Distribution, and Variations of the Atmospheric Temperature in the United States." By Charles A. Schott. Washington, 1876.

stations with series of observations shorter than four years the position was marked as before, but only the nearest whole inch was written against the dot; the relative value of the results was thus, in a measure, indicated in the construction of curves of equal rain-fall. These curves were drawn with a free hand among the dots by graphical interpolation, and with due regard to the importance of long and short series. These curves, designated as iso-hyetal lines, and constructed in the manner of contour lines generally, are graduated for certain equal increments of rain, the difference between adjacent curves resulted from a consideration of the probable uncertainty of the results. If drawn too close, that is if too many curves were shown, they would exhibit temporary or accidental inflections, which could only tend to complexity and confusion; on the other hand, if the curves were too wide apart, there would be danger of losing portions of permanent features in the distribution. The distinction between long and short series in the graphical process is of importance in a phenomenon of such great variations from year to year and from the same season in different years, and the numbers of the second class given in whole inches were used to complete, modify, and generally to improve the curves resting upon the more reliable data. Special consideration was necessary to select for each chart those particular curves and their graduation which would best bring out its leading features, and further, to facilitate the understanding and the ready interpretation and use of the charts color-shading was introduced. The curves, whether principal or intermediate, are indexed, and can thus be easily followed by the eye, and each chart is supplied with a sufficient explanation to be understood, even when detached from the text. It was neither necessary nor practicable, from want of space, to indicate on the charts the individual stations and their amount of rain-fall, though they are crowded in on the manuscript charts. Thus, the number of stations plotted and utilized for the chart of the mean annual distribution is about 1,300, and the numbers are larger for each of the season charts. Comparing the new with the old rain charts, the superiority of the former will be apparent, and while perhaps too much detail was given on the charts of the first edition, which, through the increase of observations, is now known not to form part of permanent features, but arose from insufficient data at that time, yet the apparent distortion of the curves, when the two sets are compared, may be produced by small changes in the amount of rain-fall, and, while the general features are preserved, the present charts will bring them out only more prominently and broadly. We now pass to the special consideration of each of the charts.

GENERAL CHARACTER OF THE DISTRIBUTION OF THE RAIN-FALL ON THE AVERAGE DURING THE YEAR.

A knowledge of the distribution of rain over the country is most readily obtained by inspection of the fifth chart of the series, viz., that showing the average annual

amount. It at once discloses the broad feature of two nearly equal parts, one of which, or the eastern area, is well supplied with rain, and the other, or the western, is deficient in amount; the meridian of about 99° west of Greenwich (one or two degrees more or less) separating these areas. We further recognize the fact that the main source of vapor by whose condensation rain is produced is the Gulf of Mexico, and by it nearly the whole of the area lying east of the above meridian, and comprising the most fertile region of the United States, is supplied, and that but a narrow strip of coast along the Atlantic hardly fifty miles (more or less) broad receives an additional supply from the evaporation of that ocean. Similarly there is a narrow strip of coast in the western area, in Oregon and Washington Territory, which is supplied with abundant moisture from the Pacific Ocean. Over the eastern area the amount is nowhere less than 20 inches; it reaches about 50 inches along the Atlantic coast, and on the Gulf coast in Louisiana it attains its maximum of about 62 inches. Over the western area the amount is generally less than 20, sinking even below 8 inches over a great part of it, except in the extreme northwest, on the immediate sea coast, where it rises to more than 70 inches, thus surpassing the greatest amount in Louisiana. To understand this distribution and to explain its immediate cause, we shall find much light thrown upon it by collocation with the general motion of the atmosphere over the United States as shown by the prevailing winds, charted in direction and frequency (and velocity) by the late Professor James H. Coffin.* The general direction of the surface winds may be summarized as follows: The normal or average direction of the winds over nearly the whole of this surface is from the west,—in fact, they sweep from the Pacific to the Atlantic coast,—but are impinged upon by a southerly current derived from the trade winds, which, as an east wind, crosses the peninsula of Florida up to the limit of about 30° of latitude, where the mean annual temperature is about 68° Fahrenheit, passes the northern part of the Gulf of Mexico, and blows across its shores in Louisiana and Texas as a south or southeast wind, turning more southerly as it passes up the country (Indian Territory) and southwestly (in Arkansas and Missouri,) and finally merging into the general westerly drift. The winds, as they emerge from the Atlantic coast between North Carolina and Maine, assume an average direction of about west by north. These winds coming from the Gulf fully explain where the supply of vapor is obtained which is spread in rain over Texas, Louisiana, and Alabama, in that singular fan-like shape or in streaks as shown on the chart. As they pass up into Tennessee and North Carolina they tend more to the westward—a consequence of the earth's rotation. The great lakes do not appear to influence perceptibly the distribution of rain-fall in their vicinity, unless the detached, quite circumscribed, areas of greater

* Smithsonian Contributions to Knowledge, No. 268, "The Winds of the Globe, or the Laws of Atmospheric Circulation over the Surface of the Earth," Washington, 1876.

rain-fall to the south have some connection with them. On the Pacific coast, north of latitude 40°, from Cape Mendocino, whence the trend of the coast changes into an almost northerly direction, the rain-fall abruptly increases to a great amount; this seems to be due to the influence of the Coast Range of mountains intercepting the moisture swept over that part of the Pacific by the prevailing westerly wind, and is probably also connected with the ocean current along that shore. This influence of the Pacific Ocean on the rain-fall prevails but little beyond the eastern flank of the Cascade Range, but it extends into southern California along the Sierra Nevada. Between the meridians of about 100° and 119° the average rain-fall is between 8 and 20 inches; though in the vicinity of the higher mountain ranges, and in some valleys favored by local circumstances, depending on the direction of the wind and variations of temperature, there are no doubt limited areas of greater amount. These still await development. The driest regions are in Nevada, in western Utah, southeastern California, and southwestern Arizona, to which must probably be added the region of the Llano Estacado. It would be useless to attempt any more detailed description of the results laid down on this chart, as it speaks almost for itself.

Respecting the charts for the seasons, those showing the rain-fall during the summer (June, July, August) and during the winter (December, January, February) appear somewhat less complex and easier of construction than the charts for the spring (March, April, May) and the autumn (September, October, November.) The former comprise the solstices and periods when the solar heat passes through its maximum or minimum, at which times the atmosphere appears less disturbed; whereas the latter comprise periods of transition, and thus partake of a mixture of phenomena, which manifests itself in the greater contortions of our curves of equal rain-fall. From a purely scientific stand-point the periods of summer and winter are the more interesting ones, but those of the spring and autumn are not less valuable to the agriculturist. While the distinction of an eastern and a western part, the first well supplied with, the second deficient in precipitation, holds for each season, the contrast so far changes that in summer the western half becomes still more dry, while in winter its moisture increases; in fact, we shall find for each area a development of a dry and of a wet season. We, therefore, proceed to the

CHART SHOWING THE DISTRIBUTION OF RAIN-FALL FOR THE SUMMER.

It exhibits the rain-fall by curves, for every fourth inch, from 2 to 26 inches; its leading feature is the development of a maximum rain area in Florida. The rainy season in the peninsula attains its maximum about one month after the sun's greatest northern declination; during the three summer months as much as 26 inches of rain are precipitated. In great contrast with this, we find the region west of the Rocky Mountains almost devoid of rain, there being not as much as 1 or 2 inches of pre-

cipitation in California and Nevada and barely 6 inches in the northwestern part of Washington Territory. We also find on this chart a remarkable development of a new rain area of 14 inches, extending from eastern Kansas and western Missouri through Iowa and part of Minnesota into Wisconsin. During this season the trade winds blow across Florida with great steadiness from the southeast; they enter Texas in about the same direction, but as they recede from the coast the winds tend more from the south, and are felt in Kansas, western Missouri, and Iowa, where, and beyond, they become gradually southwest winds. The development of this new area of rain shown by the chart is, therefore, directly traceable to the increased violence and persistency of the southeasterly winds thrown across the coast of Texas and deflected, farther north, more nearly into a meridional direction; by them the Gulf vapor is directly carried as far north as Lake Superior, and the smaller area of rain development (also of 14 inches) just south of Lake Michigan is at once seen to be only a detached part of it taken hold of by the general westerly currents. The development in northern Alabama or western part of North Carolina, shown on the chart, except that for the autumn, is evidently due to the effect of the elevated ground interrupting the moisture thrown against its slope. At this season the Atlantic coast rains extend barely beyond the limit of North Carolina. The distribution of the rain during this season in the eastern part of the United States is more equable than in any other season, as is shown by reference to the charts. On the Pacific coast the winds at this season are generally northwesterly, or nearly parallel with the coast of California, and this evidently has some effect in lessening the amount of moisture, especially on the more northern coast, where the direction of the winds at other seasons is more nearly from the westward. This whole coast is of comparatively low temperature, near 60° Fahrenheit on the average during summer, and south of Point Conception increasing to about 70° Fahrenheit.

CHART SHOWING THE DISTRIBUTION OF RAIN DURING THE WINTER.

The curves of equal amount of rain and melted snow are given for every second inch from 2 to 36 inches. Compared with the preceding chart the most striking feature is the heavy rain-fall developed along the northern coast of California, of Oregon, and of Washington Territory, reaching 36 inches in the latter locality, and constituting for that coast a regular rainy season, spreading its influence over a part of Idaho and into western Montana. On the other hand, Florida enjoys a comparatively dry season, the precipitation there being less then than in the State of Maine. The maximum rain-fall in the eastern section, in parts of Louisiana, Mississippi, Alabama, and northern Georgia, is but 16 inches. If we now examine the average direction of the wind during this season, we find, correspondingly, great changes as compared with the summer season; the trade winds have retreated southward, giving

a northeasterly direction to the winds of Florida, to those of southern Lousiana, and to those of southeastern Texas; this is the season of the so-called "northerners." Under these conditions the diffusion of the moisture of the Gulf is, in a measure, counteracted, the ascending current of vapor is feeble and soon descends and mingles with the western current, to be driven to the Atlantic coast, along which, north of South Carolina, there is a slight increase of rain-fall. The remarkable rain area which had its centre in Iowa during the summer entirely disappears, indeed, in this region northwest winds have taken the place of southerly summer winds, and we have now but 4 inches of rain. In southern California the west winds prevail, they reach across Arizona and New Mexico, as northerly and westerly currents, and are deflected into northerly winds in southern Texas. The heavy rains on the coast of Oregon and Washington Territory take place under the influence of southwesterly and southerly winds, the latter prevailing in Washington Territory. On this coast more than double the amount of rain falls than the maximum in Louisiana, though its temperature is as low as 40° or at most 48° Fahrenheit, that of Louisiana being about 52° Fahrenheit. In all that region lying north of western Texas, part of Kansas, Nebraska, and Dakota, and again north of the head of the Gulf of California, and extending to southern Nevada, less than 2 inches of rain fall during the winter season.

CHART SHOWING THE DISTRIBUTION OF THE RAIN-FALL DURING THE SPRING.

It exhibits the iso-hyetal curves for every third inch from 3 to 18 inches, and beautifully illustrates the spread of the vapor northward and westward from the Gulf coast to the great lakes, with a branch merging into the eastern atmospheric drift and reaching the coast at Cape Hatteras, this branch extending to Massachusetts and producing coast rains. The greatest rain-fall in the east, in Louisiana, of 18 inches, is just equaled by the greatest rain-fall in the west in Washington Territory. The 18 inches of rain in Louisiana, Arkansas, and Mississippi are reduced to one-half that amount near the southern shore of Lake Superior; in the west the maximum rain-fall is reduced to one-third of the amount just east of the Cascade Range and of the Sierra Nevada. The distribution of rain in the spring has features in common with the winter and the summer precipitation; it exhibits still the remains of the winter rains on the northwest coast, and preserves the scanty supply of water over Florida; while, on the other hand, it points out very characteristically the high roads over which the moisture is carried and deposited from the Gulf to the lakes and to the middle Atlantic coast.

CHART SHOWING THE DISTRIBUTION OF THE RAIN-FALL DURING AUTUMN.

The curves are given for every second inch from 2 to 20. In general, the distribution is irregular, and the areas of equal fall are much broken up. There are still in Louisiana 18 inches, and on the coast of Washington Territory 20 inches of rain. This latter rain area, which had disappeared during summer, has now reappeared to attain its maximum growth during the coming winter. In Florida the broken remains of the summer rains are still persistent, but destined to disappear during the winter. A notable feature in the autumn rains is the detached areas of comparatively great rain-fall in the vicinity of the great lakes, rising to 12 and 14 inches; and another characteristic fact is the development of a rain belt near the Atlantic shore, between Florida and Maine, showing falls between 10 and 14 inches.

If we glance once more on the chart of the yearly average distribution we notice that many of the characteristic features shown by the chart for each season have their traces impressed upon it; thus, we recognize the detached patches of 44 inches of rain scattered on an arc between Iowa and Pennsylvania as formed by the breaking up of the vapor current, on its way north, through the influence of the westerly winds. Over the winter part of the elevated area of the western section of the United States the rain charts are still very imperfect for want of material, especially during the winter season; and, considering the diversified configuration of the country and the great variations in the rain and snow fall *as depending on height*, very much labor remains to be expended before we can gain any more satisfactory knowledge of the facts.

THE ANNUAL FLUCTUATION IN THE RAIN-FALL.

In the preceding charts of the distribution of the rains in summer and winter we already have had striking examples of the changes in the amount of rain during these extreme seasons. We now propose to follow these changes from month to month, or to develop the annual fluctuation. The data for this investigation are furnished by the tables, series B, from which we select those stations where the rain-record extends over the longest series of years. It is only by the combination of results for a longer period that we can hope to exhibit this inequality with desirable clearness.

The following three diagrams for Marietta, San Francisco, and Boston, are designed to show the *regularity* in the progression, from month to month, of the annual fluctuation; the *diversity* of distribution during the year in regard to number of maxima and minima as well as to their epochs of recurrence; and the *range* of the yearly variation.

To facilitate comparison all diagrams in this article are drawn to the same scale, excepting those plotted from ratios. The apparent irregularities in the curves can only be lessened by a series of observations extending over many years, and in the present discussion no station was admitted with less than fifteen years of record. To render the comparisons, as far as practicable, independent of these accidental irregularities, the mean monthly rain-fall was expressed analytically by means of Bessel's circular function.

$$R = A + B_1 \sin(\theta + C_1) + B_2 \sin(2\theta + C_2) + B_3 \sin(3\theta + C_3) + \ldots.$$

where R = rain-fall in inches for any one month.

A = its mean monthly amount.

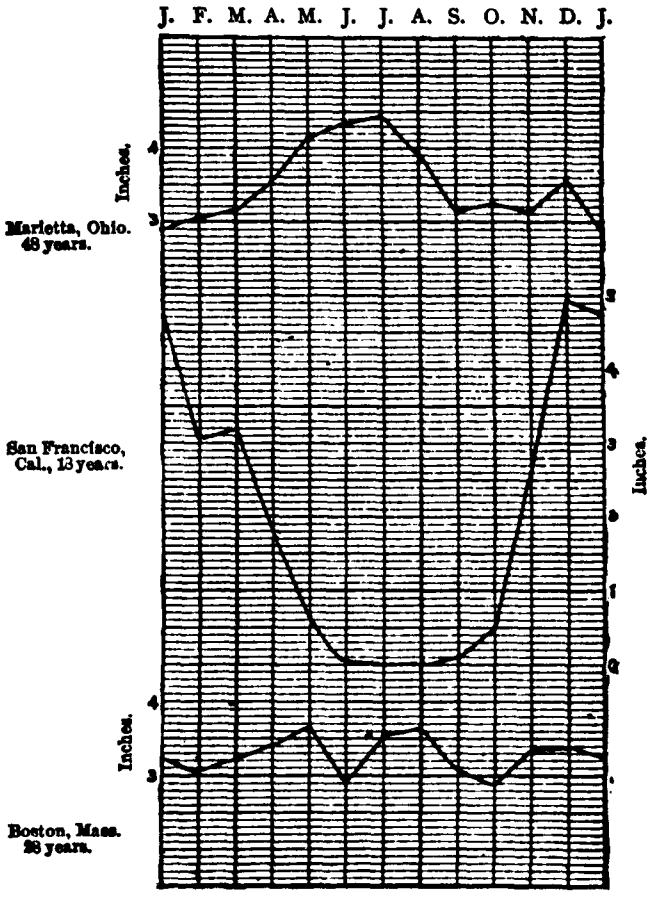
B_1 B_2 B_3 . . . the parameter of its fluctuations for the periods of one, one-half, and one-third of a year.

θ = arc proportional to the time and inversely proportional to the length of the period, which is represented by 360°. This angle consequently counts at the rate of 30° a month.

C_1 C_2 C_3 . . . angular constants having reference to the epochs of their respective periods.

Three terms (involving θ and its multiples) of this function are quite sufficient when applied to the fluctuations in the rain-fall.

DIAGRAM 1.



The following table contains the computed values of A B_1 B_2 B_3 C_1 C_2 C_3 for all stations having fifteen or more years of record. The angle θ counts from January 1.

The probable error of any computed monthly value, as given in the last column, is derived from the approximate formula $0.845 \frac{\Sigma\Delta}{\sqrt{n(n-7)}}$ in which $\Sigma\Delta$ = sum of differences of observed and computed monthly values, all taken as positive. The condition $\Sigma\Delta = 0$ is satisfied; $n = 12$. Of the 12 values given by observation at any station, 7 are necessary for determining the constants.

Station.	Lat.	Long.	Height above sea.	Epochs.	Years of record.	A	B_1	B_2	B_3	C_1	C_2	C_3	Prob. error.
			feet.		years.	in.	in.	in.	in.	°	°	°	in.
Gardiner, Me.	44°10′	69°46′	76	1837–66	27	3.51	0.09	0.26	0.18	148	172	145	±0.30
Brunswick, Me.	43 54	69 57	74	1808–59	32	3.72	0.26	0.44	0.32	233	171	174	.40
Hanover, N. H. . . .	43 42	72 17	530	1835–54	19	3.36	0.39	0.25	0.06	220	167	253	.24
Burlington, Vt.	44 29	73 11	346	1828–64	27	2.84	1.10	0.10	0.25	233	163	300	.24
Worcester, Mass. . . .	42 16	71 49	528	1841–67	26	3.91	0.33	0.04	0.39	205	300	140	.34
Cambridge, Mass. . .	42 23	71 07	71	1784–1867	31	3.72	0.24	0.08	0.52	193	353	116	.24
Boston, Mass.	42 22	71 04	..	1818–59	28	3.28	0.08	0.07	0.26	292	91	142	.19
New Bedford, Mass. .	41 39	70 56	90	1813–67	54	3.45	0.18	0.14	0.29	109	237	139	.21
Amherst, Mass.	42 22	72 34	267	1835–67	32	3.66	0.47	0.28	0.28	233	125	187	.29
Williamstown, Mass. .	42 43	73 13	705	1816–67	19	3.05	0.88	0.11	0.28	234	66	161	.22
Providence, R. I. . . .	41 50	71 23	150	1831–66	35	3.45	0.17	0.20	0.36	131	178	151	.18
New Haven, Conn. . .	41 18	72 55	50	1804–68	25	3.70	0.25	0.14	0.04	239	8	52	.28
East Hampton, N.Y. .	40 58	72 28	16	1828–52	17	3.11	0.11	0.47	0.34	245	210	84	.17
Jamaica, N. Y.	40 42	73 50	30	1827–52	25	3.26	0.72	0.16	0.19	236	167	194	.13
Flatbush, N. Y. . . .	40 37	74 02	54	1826–66	36	3.63	0.24	0.18	0.22	251	149	161	.31
Fort Hamilton, N.Y. .	40 36	74 02	25	1839–59	19	3.55	0.38	0.25	0.33	298	108	123	.30
Fort Columbus, N.Y. .	40 41	74 01	23	1836–59	24	3.60	0.42	0.25	0.43	254	146	112	.42
New York City, N. Y.	40 43	74 00	50	1836–66	31	3.72	0.32	0.27	0.28	281	132	115	.25
North Salem, N. Y. . .	41 20	73 38	361	1830–52	20	3.40	0.51	0.28	0.03	231	180	202	.42
Westpoint, N. Y. . . .	41 24	73 57	167	1840–59	20	3.97	0.43	0.24	0.40	241	165	132	.44
Newburgh, N. Y. . .	41 31	74 05	150	1830–52	20	3.01	0.57	0.39	0.27	243	152	337	.40
Poughkeepsie, N. Y. .	41 41	73 55	..	1830–49	15	3.36	0.51	0.28	0.24	234	116	139	.47
Kingston, N. Y. . . .	41 55	74 02	188	1829–49	19	3.02	0.26	0.62	0.23	246	128	247	.30
Hudson, N. Y.	42 13	73 46	150	1830–52	15	2.88	0.34	0.36	0.42	245	152	265	.42
Kinderhook, N. Y. . .	42 22	73 43	125	1830–46	17	3.04	0.98	0.46	0.17	254	136	240	.26
Albany, N. Y.	42 39	73 44	130	1826–66	28	3.38	0.70	0.35	0.26	253	138	302	.11
Watervliet Ars. N. Y.	42 43	73 43	50	1836–54	17	2.89	0.73	0.30	0.09	252	172	341	.08
Lansingburg, N.Y. . .	42 47	73 40	30	1826–46	20	2.78	0.57	0.35	0.29	236	139	300	.20
Granville, N. Y. . . .	43 20	73 17	250	1834–49	15	2.63	0.71	0.50	0.03	234	149	254	.20
Fairfield, N. Y.	43 05	74 55	1185	1828–49	17	3.04	0.88	0.36	0.12	241	104	302	.29
Clinton, N. Y.	43 00	75 20	1127	1830–52	19	2.82	0.56	0.17	0.37	227	125	310	.18
Utica, N. Y.	43 07	75 13	473	1826–52	22	3.43	0.68	0.49	0.23	250	105	218	.21
Lowville, N. Y. . . .	43 46	75 32	847	1827–58	22	2.79	0.56	0.23	0.29	219	113	300	.09
Gouverneur, N. Y. . .	44 25	75 35	400	1830–66	24	2.51	0.41	0.08	0.35	191	215	332	.13
Potsdam, N. Y.	44 40	75 01	394	1828–48	20	2.39	1.24	0.18	0.30	239	154	318	.29
Cazenovia, N. Y. . . .	42 55	75 46	1260	1830–65	25	3.35	0.76	0.23	0.14	249	149	286	.18
Oxford, N. Y.	42 28	75 32	961	1830–52	20	3.03	0.81	0.29	0.28	247	132	338	.07
Pompey, N. Y.	42 56	76 05	1300	1830–52	16	2.56	1.26	0.37	0.42	243	111	320	.12
Auburn, N. Y.	42 55	76 28	650	1827–49	22	2.87	0.61	0.29	0.22	227	150	7	.14
Ithaca, N. Y.	42 27	76 37	417	1830–52	19	2.89	0.78	0.42	0.10	250	199	322	.11
Geneva, N. Y.	42 53	77 02	567	1841–66	19	2.57	0.96	0.32	0.24	250	203	128	.32
Penn Yan, N. Y. . . .	42 42	77 11	740	1829–67	39	2.37	0.91	0.27	0.10	253	178	344	.03
Rochester, N. Y. . . .	43 08	77 51	516	1831–66	35	2.71	0.47	0.21	0.12	228	180	329	.14
Middlebury, N. Y. . .	42 49	78 10	800	1826–48	17	2.54	0.77	0.22	0.22	251	199	272	.03
Fort Niagara, N. Y. .	43 15	79 08	262	1841–66	17	2.56	0.42	0.04	0.03	228	15	79	.24
Fredonia, N. Y. . . .	42 26	79 24	710	1830–48	16	3.05	1.10	0.40	0.36	209	178	349	.23
Toronto, Up. Can. . .	43 39	79 23	342	1840–65	23	2.93	0.32	0.17	0.12	215	142	120	.30
Newark, N. J.	40 45	74 10	35	1843–66	23	3.74	0.17	0.07	0.40	222	141	124	.31
Lambertville. N. J. . .	40 23	74 56	96	1843–60	17	3.65	0.51	0.18	0.38	235	40	111	.31
Morrisville, Pa. . . .	40 12	74 53	30	1825–66	31	3.64	0.35	0.33	0.15	243	181	172	.23
Philadelphia, Pa. . . .	39 57	75 11	60	1824–67	43	3.67	0.45	0.15	0.22	260	110	136	.14
Gettysburg, Pa. . . .	39 49	77 18	624	1839–65	25	3.24	0.27	0.26	0.23	287	151	113	.09
Baltimore, Md.	39 18	76 37	..	1818–59	28	3.53	0.32	0.05	0.29	257	267	168	.25
Fort McHenry, Md. .	39 16	76 34	36	1836–59	23	3.43	0.19	0.14	0.42	235	189	153	.29
Washington, D. C. . .	38 54	77 03	110	1824–67	28	3.13	0.53	0.06	0.15	272	48	150	.22
Fortress Monroe, Va. .	37 00	76 18	8	1836–59	19	3.92	0.95	0.66	0.54	232	60	136	.30
Charleston, S. C. . . .	32 47	79 56	25	1738–1861	42	3.64	1.77	1.34	0.33	238	19	141	.43
Fort Moultrie, S. C. .	32 46	79 51	25	1842–59	17	3.79	1.77	1.36	0.63	247	22	156	.58
Savannah, Ga.	32 05	81 05	42	1836–59	23	4.03	2.21	1.52	0.68	253	32	145	.60
Fort Brooke, Flo. . . .	28 00	82 28	20	1840–58	17	4.47	3.42	2.57	1.04	247	37	206	.34
Key West, Flo.	24 34	81 48	13	1832–64	24	3.02	1.69	0.30	0.91	219	276	1	.52
Mt. Vernon Arsn. Ala.	31 12	88 02	200	1840–59	15	5.51	0.26	1.28	0.75	145	67	204	.58
New Orleans, La. . .	29 57	90 02	20	1833–61	23	4.25	0.74	0.93	0.60	248	58	181	.29
Baton Rouge, La. . .	30 26	91 18	41	1843–59	15	5.01	0.33	1.17	1.03	237	86	170	.41
Natchez, Miss.	31 34	91 25	264	1799–1866	18	4.46	0.70	0.43	0.39	44	44	124	.53
Vicksburg, Miss. . . .	32 23	90 56	350	1840–67	16	4.11	0.76	0.56	0.34	58	83	144	.38
Springdale, Ken. . . .	38 07	85 24	570	1841–66	24	4.05	0.43	0.51	0.36	324	120	178	.36
Richmond, Ind. . . .	39 49	84 44	850	1852–66	15	3.64	0.49	0.28	0.44	250	211	116	.47
Cincinnati, Ohio . . .	39 06	84 25	582	1835–66	31	3.74	0.51	0.30	0.17	279	123	164	.22
Portsmouth, Ohio . .	38 42	82 53	468	1830–65	26	3.19	0.37	0.44	0.11	310	120	178	.22

Stations.	Lat.	Long.	Height above sea.	Epochs.	Years of record.	A	B_1	B_2	B_3	C_1	C_2	C_3	Prob. error.
			feet.		years.	in.	in.	in.	in.	°	°	°	in.
Marietta, Ohio	39°25′	81°29′	580	1817–67	48	3.56	0.60	0.34	0.13	273	114	194	±0.14
Steubenville, Ohio . .	40 25	80 41	670	1830–67	37	3.46	0.51	0.12	0.15	266	132	144	.10
Alleghany Arsn. Pa. .	40 32	80 02	704	1836–59	23	2.94	0.53	0.40	0.15	270	158	134	.24
Detroit, Mich.	42 20	82 58	580	1836–66	21	2.50	0.75	0.17	0.09	266	241	253	.31
Fort Brady, Mich. . .	46 30	84 43	600	1836–56	18	2.53	1.33	0.07	0.24	207	271	54	.32
Fort Ripley, Min. . .	46 19	94 19	1130	1850–67	17	2.09	1.65	0.25	0.21	257	97	331	.36
Fort Snelling, Min. . .	44 53	93 10	820	1836–67	22	2.15	1.57	0.13	0.19	258	129	80	.31
Milwaukee, Wis. . . .	43 03	87 55	591	1841–66	23	2.53	0.92	0.30	0.07	257	177	69	.17
Dubuque, Io.	42 30	90 40	666	1851–66	15	2.79	1.32	0.20	0.45	255	161	338	.25
Muscatine, Io.	41 26	91 05	586	1846–66	19	3.57	1.27	0.32	0.26	264	247	115	.32
Fort Madison, Io. . .	40 37	91 28	600	1848–66	18	3.50	1.17	0.21	0.17	260	271	65	.20
Athens, Ill.	39 52	89 56	800	1843–58	16	3.30	1.16	0.74	0.33	291	159	28	.31
St. Louis Ars. Mo. . .	38 40	90 10	450	1836–56	19	3.55	1.35	0.79	0.41	291	162	268	.38
St. Louis, Mo.	38 37	90 16	481	1837–67	28	3.51	1.08	0.41	0.11	287	171	230	.30
Jefferson Barr'ks, Mo.	38 28	90 15	472	1840–62	21	3.41	1.20	0.44	0.19	267	140	270	.18
Ft. Leavenworth, Ka.	39 21	94 48	896	1836–67	31	2.64	1.74	0.39	0.19	257	121	351	.45
Ft. Gibson, Ind. T. . .	35 48	95 03	560	1836–57	20	3.03	0.69	0.91	0.23	290	201	356	.33
Ft. Smith, Ark.	35 23	94 29	460	1837–61	22	3.36	0.79	0.66	0.25	282	194	193	.30
Ft. Washita, Ind. T. .	34 14	96 38	645	1843–60	16	3.17	0.94	0.68	0.38	279	195	351	.43
Washington, Ark. . .	33 44	93 41	660	1840–67	22	4.54	0.65	0.10	0.36	18	207	196	.28
San Francisco, Ca. . .	37 48	122 26	170	1850–68	18	1.81	2.37	0.59	0.52	70	87	142	.24
Sacramento, Ca. . . .	38 35	121 28	82	1849–67	18	1.63	2.04	0.45	0.58	67	100	150	.39
Ft. Vancouver, W. T. .	45 40	122 30	50	1849–67	16	3.24	2.46	1.08	0.39	81	125	131	.40
Ft. Steilacoom, W.T. .	47 10	122 25	300	1849–67	16	3.66	2.96	0.45	0.24	82	136	154	.42
Sitka, Ala. T.	57 03	135 18	20	1847–67	16	6.95	3.07	1.25	0.56	146	274	25	.35

The observed and computed (by the above formulæ) values of monthly rain-fall at each of the 95 stations are shown graphically on the accompanying plates I. to V., the former by dots, the latter by continuous curves which are obtained by computing the rain-fall for periods of thirty days, or for each month.

The preceding results, by means of plates I to V, can be further generalized by combining into groups all stations exhibiting the same characteristics in their annual distribution of rain. For this purpose each observed monthly amount, at any station, was divided by the average monthly amount[1] at the station; we thus obtain the annual fluctuation in a manner which admits of more ready comparison.

The distinctive groups, as far as our material at present permits of their recognition, are the following:—

TYPE I.—*Atlantic sea-coast from Portland to Washington.*

Characteristics: Three nearly equal maxima, about the middle of May, August, and December, and one principal minimum about the beginning of February. The range between the extreme monthly values is small. The August maximum is generally the highest.

Month.	Gardiner, 27 years.	Brunswick, 32 years.	Worcester, 26 years.	Cambridge, 31 years.	Boston, 28 years.	New Bedford, 54 years.	Providence, 35 years.	Flatbush, 36 years.	Fort Hamilton, 19 years.	Fort Columbus, 24 years.	New York, 31 years.	Westpoint, 20 years.	Newark, 23 years.	Lambertville, 17 years.	Philadelphia, 43 years.	Baltimore, 28 years.	Fort McHenry, 23 years.	Washington, 28 years.	Mean of 18 Stations.
January	1.01	.87	.99	1.06	1.00	.97	.99	.94	.89	.84	.90	.88	.94	.88	.89	.79	.82	.91	.92
February	.82	.74	.83	.80	.94	.96	.84	.81	.96	.77	.88	.81	.89	.86	.81	.84	.77	.84	.84
March	1.02	1.00	.93	.96	.98	1.03	1.01	.98	.91	.91	.92	.82	.93	.88	.94	1.12	1.07	.92	.96
April	.97	.93	1.00	1.00	1.04	1.02	1.04	1.02	1.04	.93	.99	1.04	.98	.87	1.00	.95	1.01	1.13	1.00
May	1.11	1.22	1.04	1.04	1.10	1.06	1.01	1.06	1.24	1.31	1.24	1.25	1.17	1.18	1.09	1.11	1.07	1.10	1.13
June	.97	.99	.84	.86	.89	.82	.91	1.07	1.08	1.05	1.06	.88	.86	.93	1.13	.97	.97	1.06	.96
July	.91	.98	1.02	.92	1.08	.87	.89	1.01	1.01	.95	1.01	1.08	.98	1.12	1.08	1.10	.97	1.25	1.01
August	1.11	1.18	1.33	1.31	1.10	1.14	1.14	1.18	1.21	1.33	1.17	1.30	1.26	1.35	1.22	1.17	1.21	1.20	1.22
September	.82	.81	.91	1.06	.94	.95	.89	.88	.89	.93	.91	.83	.93	1.07	.99	1.01	.94	.91	.92
October	1.10	1.01	1.07	.92	.89	.98	.97	.99	.73	.92	.88	1.06	.96	.94	.91	.95	.97	1.01	.96
November	1.06	1.25	1.05	1.02	1.03	1.12	1.17	1.05	.98	.95	.97	1.03	1.01	.88	.95	.96	1.00	.83	1.02
December	1.10	1.04	.99	1.07	1.03	1.10	1.14	1.01	1.05	1.13	1.08	1.02	1.09	1.06	1.01	1.05	1.18	.85	1.06

[1] **The quantity called A in the preceding equations.**

The ratios in the last column, which are derived from an aggregate of 525 years, are represented by dots on diagram 2. The heavy continuous curve is drawn among these dots with a free hand. Comparing the curves at different places we notice that any one of the three maxima may become the highest, while the principal minimum, with hardly an exception, falls into midwinter.

TYPE II.—*Hudson River Valley, Vermont, northern and western New York; from Newburg to Burlington, and from Hanover to Fredonia.*

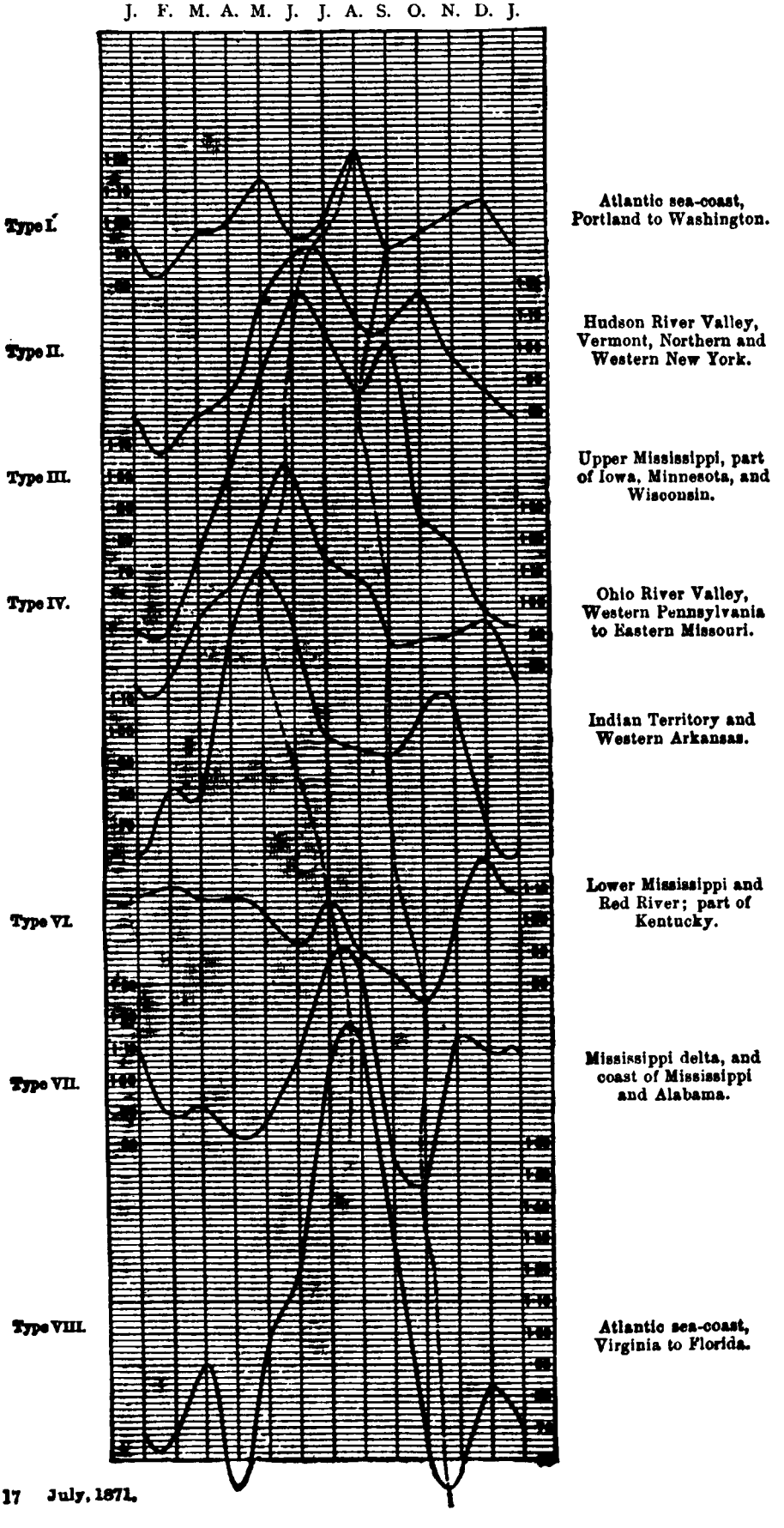
Characteristics: Two maxima, early in July and about middle of October, and a principal minimum early in February. Ordinary range between the extremes.

Month.	Newburg, 20 years.	Poughkeepsie, 15 years.	Kingston, 19 years.	Hudson, 15 years.	Kinderhook, 17 years.	Albany, 28 years.	Watervliet Arsenal, 17 years.	Lansingburg, 20 years.	Granville, 15 years.	Hanover, 19 years.	Burlington, 27 years.	Fairfield, 17 years.	Clinton, 19 years.	Utica, 22 years.
January	.91	1.00	1.02	.82	.73	.82	.72	.83	.78	.85	.62	.89	.80	.84
February	.72	.62	.69	.69	.50	.79	.72	.75	.55	.80	.65	.59	.89	.78
March	.85	.96	.95	1.12	.82	.82	.76	.78	.68	.89	.72	.78	.81	.79
April	.69	.86	.78	.79	.98	.91	1.01	.86	.79	.93	.74	.83	.73	.96
May	1.44	1.07	1.18	1.07	1.12	1.16	1.23	1.00	1.34	1.03	1.16	1.02	1.04	.97
June	1.15	1.09	1.21	1.25	1.50	1.31	1.29	1.41	1.21	1.16	1.19	1.41	1.25	1.35
July	1.21	1.22	1.29	1.27	1.43	1.29	1.22	1.28	1.34	1.01	1.54	1.39	1.30	1.38
August	1.04	1.31	.91	.91	1.10	1.00	1.07	.91	1.10	1.13	1.16	1.20	.92	1.06
Sept.	.96	.76	.75	.74	.97	.98	1.12	1.09	1.01	.94	1.27	1.01	1.17	1.02
October	1.18	1.17	1.03	1.34	1.07	1.10	1.04	1.15	1.10	1.19	1.31	1.17	1.21	.83
Nov.	1.05	1.00	1.13	.95	.89	.95	1.01	1.02	1.16	1.01	.92	.81	.96	1.05
Dec.	.82	.96	1.08	1.05	.91	.86	.81	.93	.94	1.05	.74	.90	.91	.98

Month.	Lowville, 22 years.	Governeur, 24 years.	Potsdam, 20 years.	Cazenovia, 25 years.	Oxford, 20 years.	Pompey, 16 years.	Auburn, 22 years.	Ithaca, 19 years.	Geneva, 19 years.	Penn Yan, 39 years.	Rochester, 35 years.	Middlebury, 17 years.	Fredonia, 16 years.	Mean of 27 Stations.
January	.85	.92	.59	.79	.82	.66	.87	.63	.62	.58	.79	.58	.67	.78
February	.91	.99	.44	.69	.73	.63	.71	.61	.44	.61	.81	.70	.60	.69
March	.71	.77	.62	.88	.75	.49	.74	.87	.70	.70	.80	.89	.65	.79
April	.77	.79	.71	.94	.83	.69	.78	1.04	1.27	1.01	.92	.97	.63	.86
May	1.00	.95	1.26	1.09	1.19	1.20	1.20	1.22	1.21	1.29	1.11	1.15	1.09	1.14
June	1.23	1.10	1.39	1.32	1.41	1.64	1.24	1.33	1.24	1.42	1.12	1.34	1.26	1.29
July	1.26	1.08	1.69	1.25	1.24	1.61	1.09	1.15	1.24	1.33	1.19	1.30	1.10	1.28
August	1.08	.88	1.18	1.10	1.10	1.25	1.13	1.03	1.41	1.19	.98	1.11	1.07	1.09
Sept.	1.04	1.28	1.30	1.04	1.11	1.15	1.12	1.18	1.06	1.16	1.14	1.11	1.46	1.07
October	1.18	1.29	1.40	1.13	1.11	1.26	1.18	1.16	1.19	1.10	1.20	1.13	1.41	1.17
Nov.	1.08	1.05	.81	.91	.90	.82	.99	.99	.88	.89	.99	1.01	1.07	.97
Dec.	.89	.92	.61	.88	.82	.61	.95	.81	.75	.71	.96	.70	.97	.87

This curve, derived on the aggregate from 564 years of observations, is presented on diagram 2. In a few exceptional cases, the second or autumn maximum surpasses the first or summer maximum in height, and the intermediate minimum approaches that of midwinter. Compared with Type I, curves like those at Amherst and Williamstown would seem to indicate that, in proceeding from the coast westwards, the May maximum gradually disappears, while the two remaining maxima occur nearly two months earlier.

DIAGRAM 2.—TYPE-CURVES OF THE ANNUAL FLUCTUATION IN RAIN FALL.



TYPE III.—*Upper Mississippi River, from Fort Madison, southern Iowa, to Fort Ripley, central Minnesota, and including part of Wisconsin.*

Characteristics: A principal maximum about the end of June, a secondary maximum about the middle of September, and a principal minimum about the beginning of February. Range, tolerably large.

Months.	Fort Ripley, 17 years.	Fort Snelling, 22 years.	Dubuque, 15 years.	Milwaukee, 23 years.	Muscatine, 19 years.	Fort Madison, 18 years.	Mean of 6 Stations.
January	.34	.41	.65	.62	.51	.57	.52
February	.30	.25	.53	.53	.69	.77	.51
March	.64	.58	.76	.78	.88	.86	.75
April	.77	1.11	.83	1.08	1.21	1.08	1.01
May	1.39	1.42	1.32	1.29	1.25	1.23	1.32
June	2.00	1.73	1.64	1.40	1.34	1.25	1.56
July	1.90	1.74	1.45	1.33	1.05	1.24	1.45
August	1.31	1.42	1.06	1.08	1.48	1.23	1.26
September	1.66	1.63	1.38	1.28	1.13	1.35	1.40
October	.68	.63	1.11	.93	.95	.91	.87
November	.68	.71	.76	.94	.81	.78	.78
December	.34	.39	.50	.76	.71	.71	.57

The curve is derived, on the aggregate, from 114 years of observation; it does not materially differ from that of Type II; the maximum in October appears now shifted into September, and the whole range of the variation is increased. Comparing the curves individually, there is a tendency to a single maximum, the earlier of the two; at one station they appeared to merge into one, and at another, the later maximum is higher than the earlier one. More observations are required to render this type more perfect.

TYPE IV.—*Ohio River Valley; from Alleghany Arsenal, western Pennsylvania, to St. Louis, eastern Missouri.*

Characteristics: One principal maximum, and one principal minimum; the former early in June, the latter early in February. Range, moderate.

Month.	Alleghany Arsenal, 23 years.	Steubenville, 37 years.	Marietta, 48 years.	Cincinnati, 31 years.	Portsmouth, 26 years.	Athens, 16 years.	St. Louis Arsenal, 19 years.	St. Louis, 28 years.	Jefferson Barracks, 21 years.	Mean of 9 Stations.
January	.70	.85	.82	.82	.90	.76	.56	.59	.67	.74
February	.73	.79	.86	.85	.93	.67	.63	.73	.63	.76
March	.88	.98	.90	.98	.97	.78	1.09	1.07	.88	.95
April	1.07	1.02	.99	.98	.97	1.25	1.14	1.10	.92	1.05
May	1.25	1.11	1.16	1.17	1.23	1.47	1.39	1.37	1.37	1.28
June	1.31	1.16	1.22	1.20	1.22	1.73	1.82	1.48	1.46	1.40
July	1.04	1.12	1.25	1.12	1.10	1.02	1.14	1.11	1.40	1.14
August	1.14	1.15	1.11	1.13	1.04	.90	.98	1.11	1.13	1.08
September	.90	1.01	.88	.90	.73	.99	.69	.88	.96	.88
October	.95	.92	.92	.88	.84	.76	.90	.87	.91	.88
November	.93	.91	.89	.91	.94	.84	.91	.83	.95	.90
December	1.09	.97	1.01	1.06	1.13	.84	.76	.86	.71	.94

The Type-curve IV is derived, on the aggregate, from 249 years of observation. The individual curves show considerable deviations in the time of the principal maximum and in the amount of the secondary maximum.

TYPE V.—*Indian Territory and Western Arkansas; Forts Gibson, Smith, and Washita.*

Characteristics: Two maxima, the principal one about the middle of May, the secondary one early in November, and a principal minimum early in January. Range tolerably moderate.

Month.	Fort Gibson, 20 years.	Fort Smith, 22 years.	Fort Washita, 16 years.	Means of 3 Stations.
January	.65	.62	.56	.61
February	.77	.80	.86	.81
March	.79	.78	.80	.79
April	1.40	1.44	1.07	1.30
May	1.52	1.34	1.68	1.51
June	1.32	1.23	1.37	1.31
July	.84	1.08	1.02	.98
August	.93	1.00	.90	.94
September	.78	.89	1.12	.93
October	1.29	.96	.93	1.06
November	1.01	1.08	1.11	1.07
December	.70	.79	.59	.69

TYPE VI.—*Lower Mississippi and Red Rivers; also Kentucky, Natchez, Vicksburg, Washington, Ark., and Springdale, Ken.*

Characteristics: One principal maximum and one principal minimum, the former early in December, the latter about the middle of October. Range small. Secondary maximum in July, secondary minimum in June.

Month.	Springdale, 24 years.	Washington, 22 years.	Vicksburg, 16 years.	Natchez, 18 years.	Means of 4 Stations.
January	.85	1.04	1.30	1.13	1.08
February	.90	1.10	1.13	1.26	1.10
March	1.08	1.13	1.06	1.00	1.07
April	1.04	1.20	.91	1.14	1.07
May	1.07	1.03	1.06	.94	1.02
June	1.26	.86	.79	.80	.93
July	1.05	1.04	1.02	1.08	1.05
August	1.01	.90	.88	.83	.90
September	.79	.75	.81	.99	.83
October	.76	.90	.63	.69	.75
November	.94	1.07	1.15	.88	1.01
December	1.25	.98	1.25	1.27	1.19

Type-curve VI depends on the aggregate of 80 years of observations. The individual curves show considerable variations in the earlier months of the year; after May the character of the type-curve is exhibited by each. This type probably extends over a large area, and is closely related to the following one.

TYPE VII.—*Mississippi, Delta, and Gulf Coast of Alabama and Mississippi; New Orleans, Baton Rouge, Mount Vernon Arsenal.*

Characteristics: Two maxima, the principal one about the end of July, the secondary one early in December, and a principal minimum early in October. Towards the end of April there occurs a secondary minimum. Range moderate.

Month.	New Orleans, 23 years.	Mt. Vernon Arsenal, 15 years.	Baton Rouge, 15 years.	Mean of 3 Stations.
January	1.06	1.21	1.01	1.09
February	.79	1.02	.84	.89
March	.91	.94	.87	.91
April	.86	.78	.85	.83
May	.90	.72	1.00	.87
June	1.06	1.12	1.01	1.06
July	1.57	1.20	1.35	1.37
August	1.35	1.31	1.34	1.33
September	.87	.68	.70	.75
October	.73	.72	.58	.68
November	.96	1.24	1.20	1.13
December	.96	1.06	1.25	1.09

The above type-curve depends upon a short series of observations, but the three curves agree remarkably well, excepting the non-appearance of a subordinate minimum at the Alabama station in February. This type is intermediate between Types VI and VIII.

TYPE VIII.—*Southeastern Coast of the United States. Virginia to Florida.*

Characteristics: One principal maximum, late in July or early in August, with two small adjacent minima, about the middle of April and late in October. The subordinate maxima occur in March and December. Range, very large.

Month.	Fortress Monroe, 19 years.	Charleston, 42 years.	Fort Moultrie, 17 years.	Savannah, 23 years.	Fort Brooke, 17 years.	Mean of 5 Stations.
January	.86	.65	.68	.72	.51	.68
February	.70	.73	.66	.63	.66	.68
March	.85	.90	1.10	.92	.72	.90
April	.76	.48	.46	.50	.38	.52
May	.99	.95	1.01	1.22	.68	.97
June	1.10	1.16	1.14	1.13	1.53	1.21
July	1.36	1.63	1.69	1.91	2.60	1.84
August	1.44	1.93	2.02	2.07	2.14	1.92
September	1.19	1.42	1.29	1.15	1.24	1.26
October	.74	.79	.56	.56	.49	.63
November	.84	.55	.56	.44	.43	.56
December	1.17	.81	.83	.74	.61	.83

The aggregate number of years used in forming the type-curve is 118. The individual curves exhibit well the characteristic summer maximum; the other features partake of more or less variations. That the central maximum of the three maxima

of Type I corresponds to the principal maximum of Type VIII is very well shown by the curves for Fort McHenry, Washington, and Fortress Monroe on plate 3. The dividing line between Types I and VIII is intermediate between the two last-named stations and well defined.

TYPE IX.—*Western Coast of the United States, from the Bay of San Francisco to Puget's Sound.*

Characteristics: A most decided minimum during the summer months, amounting at some places almost to an absence of rain, and a well-marked maximum late in December. Range, excessive.

Month.	San Francisco, 18 years.	Sacramento, 18 years.	Fort Vancouver, 16 years.	Fort Steilacoom, 16 years.	Mean of 4 Stations.
January	2.60	2.15	1.91	1.88	2.14
February	1.71	1.63	1.15	1.37	1.46
March	1.78	1.97	1.21	1.34	1.58
April	.99	1.02	.76	.91	.92
May	.37	.54	.76	.48	.54
June	.03	.04	.57	.48	.28
July	.01	.02	.43	.13	.15
August	.01	.01	.16	.33	.13
September	.06	.05	.51	.65	.32
October	.28	.29	.74	.89	.55
November	1.44	1.31	1.59	1.68	1.50
December	2.72	2.99	2.22	1.88	2.45

The four curves on plate 5 are sufficiently characteristic to require no further illustration. This type appears to have no relation whatever to any of the preceding ones, excepting perhaps the existence of a maximum in December.

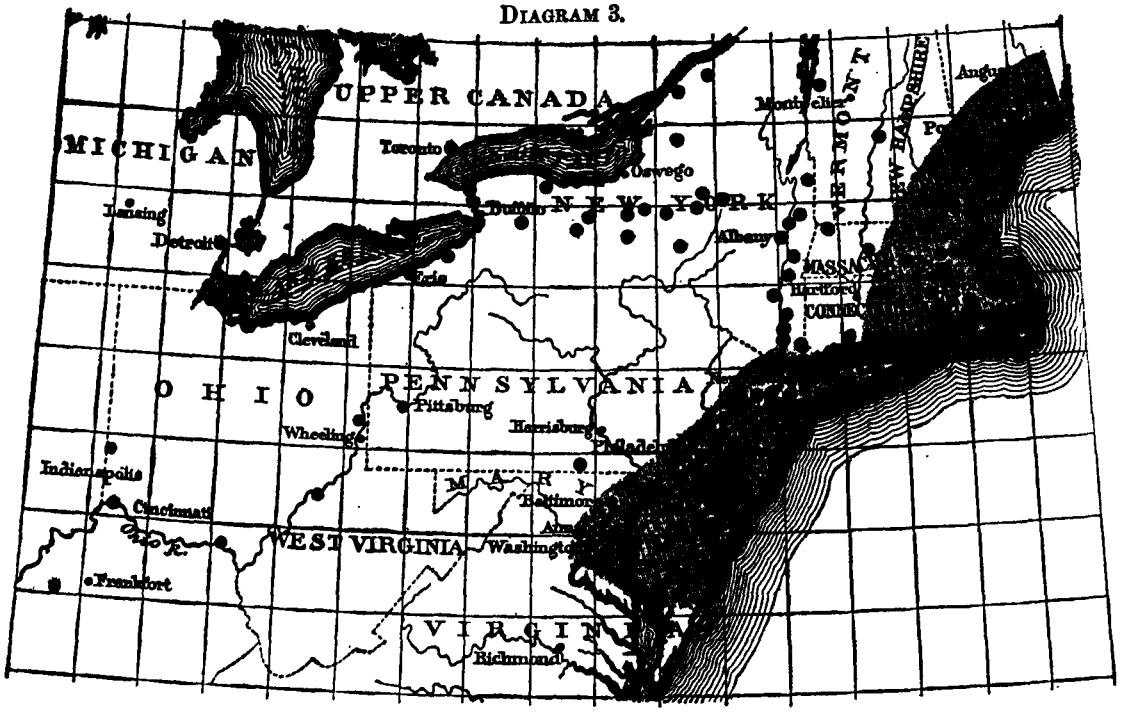
TYPE X.—*Alaska, as observed at Sitka.*

Characteristics: A minimum in June and a maximum in October. Range, excessive.

This curve is shown on plate 5; Types IX and X can not be connected for want of intermediate stations, but it seems probable that the maximum of IX in December is shifted to October in X. The minima of IX and X fall in the same season of the year.

The geographical distribution of the rain stations, from which the type-curves were derived, is very unequal. These stations are most numerous in the State of New York and in adjacent States; their location is shown by dots on the accompanying sketch, diagram 3; the strip of shaded area along the sea-coast exhibits the extent of the annual distribution having three maxima and one principal minimum, as given by Type-curve I. These annual fluctuations are so blended that an exact limit for any one type can not, in general, be assigned, though the above boundary for Type I appears quite distinct.

DIAGRAM 3.



The lines of dashes connecting the several type-curves on the preceding diagram (2) are an attempt at further generalization by showing the existence and connection of a principal maximum in summer, followed by a minimum in autumn. We can further trace out a secondary maximum late in the year, and a minimum, sometimes of a primary, sometimes of a secondary character, about the second month.

Large tracts of country are still destitute of stations of long series, but covered with a sufficient number of stations of short series to enable us to make out the character of the annual fluctuation. The following stations have been thus combined into groups:—

Group 1.—Central Pennsylvania. 10 stations: Bedford, Somerset, Fleming, Moss Grove, Butler, Huntingdon, Shamokin, Harrisburg, Carlisle Barracks, Canonsburg.

Group 2.—West Virginia and adjacent part of Virginia. 7 stations: Winchester, White Sulphur Springs, Ashland, Lewisburg, Sheetsmills, Alleghany County, Anthony's Creek.

Group 3.—Southeastern Virginia. 5 stations: Williamsburg, Crichton's store, Genito Mills, Smithfield, Powhatan Hill.

Group 4.—Western Florida. 4 stations: Fort Barrancas, Warrington Navy Yard, Pensacola, Barrancas Barracks.

Group 5.—Alabama and adjacent part of Mississippi. 4 stations: Huntsville, Greene Springs, Greensboro', Columbus.

Group 6.—Central Texas. 5 stations: Fort Belknap, Fort Chadbourn, Fort Mason, Fort McKavett, Fort Lancaster.

Group 7.—Southeastern Texas. 10 stations: Fort Brown, Ringgold Barracks, Fort McIntosh, Fort Duncan, Fort Inge, San Antonio, Fort Clark, New Braunfels, Matamoras.

Group 8.—Tennessee. 3 stations: Nashville, Glenwood, Memphis.

Group 9.—Kentucky. 4 stations: Danville, Millersburg, Chilesburg, Paris.

Group 10.—Ohio. 14 stations: Cleveland, Urbana, Bowling Green, Kelley's Island, Toledo, Granville, Norwalk, Savannah, Oberlin, Madison, Hudson, Welchfield, Westerville, Sandusky.

Group 11.—Southern Michigan. 5 stations: Holland, Grand Rapids, Battle Creek, Monroe City, Monroe.

Group 12.—Northern Michigan. 4 stations: Fort Mackinac, Thunder Bay Island, Tawas City, Marquette.

Group 13.—Indiana. 5 stations: New Harmony, Indianapolis, Logansport, Cannelton, Spiceland.

Group 14.—Illinois. 11 stations: Pekin, Manchester, Upper Alton, Augusta, Marengo, Ottawa, Peoria, Riley, Winnebago, Sandwich, Galesburg.

Group 15.—Wisconsin. 6 stations: Fort Howard, Fort Winnebago, Fort Crawford, Beloit College, Platteville, Rocky Run.

Group 16.—Iowa. 5 stations: Iowa City, Pleasant Plain, Lyons City, Davenport, Brookside.

Group 17.—Eastern Nebraska and Kansas. 4 stations: Fort Scott, Fort Riley, Bellevue, Manhattan.

Group 18.—Eastern New Mexico. 3 stations: Fort Marcy, Fort Union, Fort Stanton.

Group 19.—Western New Mexico. 4 stations: Fort Craig, Fort Fillmore, Albuquerque, Camp Burgwin.

The stations on the Pacific Slope are yet too scattered, and at too different elevations to admit of combination.

The results for each group are contained in the following tables. The monthly values are given in terms of the monthly average, as was done in the preceding tables of the type-curves.

Group No.		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Mean lat.		40.°6	38.°3	37.°0	30.°4	33.°4	31.°5	28.°2	35.°9	38.°2	41.°2	42.°4	45.°4	39.°3	40.°9	43.°3	41.°7	39.°3	35.°0	34.°3
Mean long.		78.4	80.2	77.3	87.3	87.7	99.9	98.8	88.0	84.3	82.5	84.7	84.7	86.4	89.5	89.6	91.2	95.8	105.5	106.4
No. of years.		76	41	37	19	37	32	82	28	25	109	34	34	29	99	50	33	40	28	36
Ratio of Annual Fluctuation.	*J.*	.82	.73	.98	.87	1.10	.42	.50	.99	.96	.72	.81	.93	.65	.70	.56	.50	.50	.31	.45
	F.	.68	.84	.81	.74	1.13	.70	.90	1.16	.92	.72	.75	.70	.76	.70	.49	.67	.45	.58	.47
	M.	.82	.92	1.04	.98	1.15	.47	.63	1.13	.95	.92	1.00	.86	1.12	.94	.63	.80	.76	.44	.45
	A.	1.18	1.10	.97	.92	1.05	.78	.65	1.18	1.09	1.08	.89	1.02	1.13	1.11	1.07	1.23	1.07	.39	.44
	M.	1.31	1.23	.99	.94	.91	1.38	1.12	1.14	1.14	1.10	1.08	.92	1.26	1.22	1.29	1.09	1.60	.37	.25
	J.	1.28	.94	1.06	.77	.97	1.34	1.60	1.02	1.05	1.25	1.09	1.08	1.02	1.11	1.51	1.18	1.91	1.23	.91
	J.	.99	1.34	1.12	1.61	.86	1.14	.94	.91	1.03	1.09	1.01	1.17	.93	1.35	1.63	1.40	1.53	2.40	2.07
	A.	1.09	1.10	1.59	1.69	1.07	1.32	1.09	.91	1.18	1.13	1.07	1.11	.97	1.15	1.30	1.42	1.17	2.98	2.72
	S.	.99	.86	.85	.71	.72	1.80	1.89	.77	.78	1.09	1.39	1.34	1.19	1.32	1.25	1.28	1.10	1.51	1.86
	O.	.89	.73	.83	.68	.51	1.22	1.16	.70	.64	.88	.94	1.01	.79	.85	.86	1.16	.73	.69	.94
	N.	.97	1.01	.72	1.10	1.13	.69	.79	.96	1.00	1.09	1.01	1.04	1.18	.72	.81	.60	.69	.60	.91
	D.	1.00	1.20	1.03	.99	1.40	.74	.72	1.12	1.25	.94	.97	.82	1.01	.83	.60	.66	.49	.52	.52
Average annual am't.		in 38.0	in 37.2	in 42.5	in 60.4	in 52.8	in 25.8	in 26.8	in 48.0	in 43.6	in 40.0	in 34.6	in 28.4	in 40.2	in 38.3	in 33.1	in 41.9	in 31.2	in 19.6	in 9.2

As the above numbers give the character of the annual fluctuation almost by inspection, but few remarks are required respecting these secondary results.

The rains in central Pennsylvania (group 1) partake of the combined characters of Types I and IV, as do also those in West Virginia (group 2); in southeastern Virginia (group 3) the rains are distributed according to Types VII and VIII; in western Florida (group 4) according to Type VII; in Alabama (group 5) according to Type VI, which modified gulf type is a very remarkable one, owing to its very low summer maximum. The curves for central and southeastern Texas (groups 6 and 7) are peculiar; they rise to two maxima, in June and September (the principal one), and fall to a principal minimum in January. The range is very large. The distribution in Tennessee (group 8) and in Kentucky (group 9) is a reproduction of Type VI; the Ohio (group 10) and Indiana (group 13) curves approximate more towards Type II, and Illinois (group 14) towards Type III. The curves for southern and northern Michigan (groups 11 and 12) are alike, and present a peculiar type, which may be called the lake-type, exhibiting one maximum in September, and a minimum in February, with a moderate range. The Wisconsin (group 15) and Iowa (group 16) curves approach Type III; also the Nebraska and Kansas (group 17) curve, the secondary September maximum, however, disappeared. The distribution of rain in New Mexico (groups 18 and 19) is similar to that given in Type VIII, with a high maximum in August and low minima in January and May.

By means of the preceding ratios of the annual distribution and the annual amount given on the chart by hyetal curves, the *normal amount* of rain for *every month* may readily be obtained for any desired locality.

Permanency of the Annual Fluctuation.—The combinations made in the preceding investigation imply that no sensible change has taken place in the law of the annual distribution within the period of observation; that such is really the case remains to be proved. The material collected which mainly refers to our own times, and hardly reaches back into the past century, is evidently insufficient for a full investigation, and obliges us to be satisfied, for the present, with a less complete proof; but it can be shown that the secular change, if any, in the annual distribution, must be very small. The best proof of the invariability of the annual fluctuation, during the past hundred years, is furnished by the observations at Charleston, S. C. between 1738–1759, and 1841–1861; these observations are represented by the equations:—

For the 22 years in the 18th century,

$$R = +3.76 + 1.93\,sin\,(\theta + 239°) + 1.16\,sin(2\theta + 20°) + 0.22\,sin\,(3\theta + 130°,)$$

and for the 20 years in the present century,

$$R = +3.49 + 1.59\,sin\,(\theta + 243°) + 1.19\,sin\,(2\theta + 14°) + 0.46\,sin\,(3\theta + 147°,)$$

which equations give nearly identical results. That the differences are within the probable error of observation becomes apparent by a comparison of the modern results among themselves by means of station Fort Moultrie in Charleston Harbor, where we have a 17 year series between 1842 and 1859. The expression for Fort Moultrie is

$$R = +3.19 + 1.77\,sin\,(\theta + 247°) + 1.36\,sin\,(2\theta + 22°) + 0.63\,sin\,(3\theta + 156°.)$$

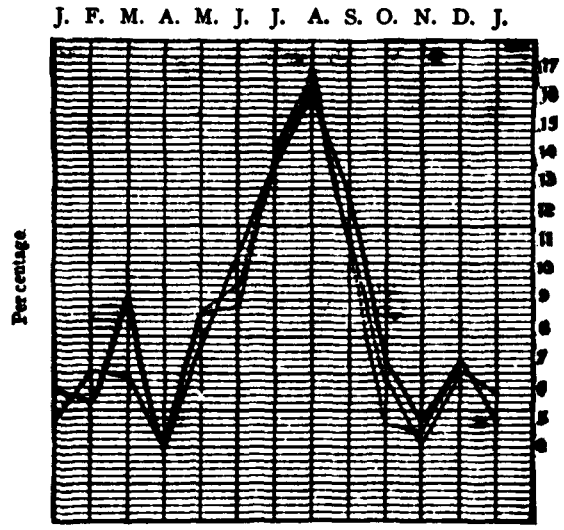
The following table gives the *monthly per centage* of the mean *annual* rain-fall obtained by dividing, in each series, the amount in each month by that of the year, and shifting the decimal point.

MONTHLY PER CENTAGE OF RAIN-FALL.

Month.	(*a*) 1738–59	(*b*) 1841–61	(*c*) 1842–59	Mean of *b* and *c*.
January	4.9	5.9	5.7	5.8
February	6.5	5.5	5.5	5.5
March	6.3	9.0	9.2	9.1
April	4.0	4.0	3.8	3.9
May	7.4	8.5	8.4	8.5
June	10.5	8.7	9.5	9.1
July	13.5	13.8	14.1	13.9
August	15.9	16.4	16.8	16.6
September	12.4	11.2	10.8	11.0
October	6.9	6.3	4.7	5.5
November	4.8	4.2	4.6	4.4
December	6.9	6.5	6.9	6.7

The numbers of columns (*a*), (*b*), and (*c*) are plotted on the accompanying diagram 4, the first by a full line, the second by dashes, and the third by dots. The accordance of these lines is sufficiently close to indicate no material change.

DIAGRAM 4.



In the following tables the monthly percentage of the annual rain-fall is given for successive periods for two of the longest series available, and for a third station selected on account of its geographical position.

Epoch.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.
New Bedford, Mass. 54 years, 1813–68.												
1813–19	6.6	10.8	8.7	10.1	9.7	8.2	3.9	9.2	10.4	6.0	10.5	6.0
1820–29	7.2	8.9	9.8	7.2	8.9	6.1	6.8	11.8	7.1	9.2	8.9	8.0
1830–39	9.0	6.6	7.8	8.0	9.6	7.7	7.5	9.8	7.2	8.7	8.3	9.8
1840–49	7.9	7.3	8.8	7.7	7.8	6.7	6.0	9.0	7.2	9.6	11.1	11.0
1850–59	9.0	7.1	7.0	11.2	8.4	5.6	9.8	7.6	9.4	6.3	8.6	9.9
1860–68	7.9	8.6	9.5	7.3	8.9	7.5	7.6	9.2	7.3	7.9	9.4	9.0
Marietta, Ohio. 48 years, 1818–67.												
1818–23	5.5	7.6	9.3	7.6	9.3	9.3	12.6	9.5	8.0	7.5	8.1	5.7
1826–29	6.3	11.1	7.9	10.7	7.3	10.5	9.8	7.7	5.7	6.9	6.2	9.8
1830–39	7.0	7.2	6.2	5.8	10.5	13.0	12.1	9.3	7.0	7.1	8.1	6.7
1840–49	6.8	5.1	7.7	6.9	8.9	11.5	10.1	9.0	8.4	8.5	6.7	10.4
1850–59	5.7	7.9	6.1	10.0	10.8	9.2	8.3	9.9	6.9	7.4	8.0	9.8
1860–67	9.2	6.6	8.7	9.9	9.6	7.2	10.0	9.1	7.3	8.0	6.9	7.5
Sacramento, Cal. 18 years, 1849–67.												
1849–55	12.5	12.1	24.6	10.9	3.1	0.2	0.0	0.0	0.9	1.4	10.7	23.8
1856–61	13.9	14.9	14.2	7.3	5.9	0.6	0.6	0.0	0.0	4.5	11.4	26.7
1862–67	29.2	13.9	8.3	6.3	4.9	0.0	0.0	0.0	0.0	1.1	13.6	22.7

It will be seen that in the above specimens of successive annual fluctuations, the incidental irregularities even for decennial means are yet far too great to allow a recognition of any secular change in the annual inequality, which, at any rate, must be quite small.

Causes of the Annual Fluctuation.—The subject of the annual fluctuation may be closed with a few remarks respecting the cause of the same. Of the various forms which we have seen the annual inequality to assume, there is for the eastern part of the United States an evident tendency of a maximum about summer and of a minimum about winter, while on the Pacific Slope the reverse of this obtains. In the first named locality two intermediate maxima, and particularly one minimum in autumn, combine in various degrees with the principal extremes to shape the annual fluctuation. The capacity of the atmosphere for rain is a maximum in summer, when it holds the greatest absolute amount of vapor, and a minimum in winter, when the vapor is least in amount; but the *relative* humidity, which is more directly related to rain, at these seasons is the reverse of the above distribution. The temperature *changes*, as measured by daily or monthly extremes, are greater in winter than in summer, and supposing the air saturated with moisture, any fall in temperature will precipitate rain or snow; these temperature changes are generally brought about by changes in the direction of the wind, and this is one of the causes of the annual fluctuation; its principal origin, however, must be sought in the *relative frequency* of those winds which are charged with the vapors derived directly from the surrounding oceans. We thus require, for the study of the rain-fall, a classification of the winds, as recorded at the time of rain or snow, together with

the annual fluctuation of the wind for each given direction. To be of value such tables must extend over a long series of years.

At Marietta, Ohio, for which place I have discussed[1] the relative frequency and the relation of wind to rain, the results are in entire accordance with the rain charts; the summer rains are accompanied by S. W. and W. winds, and the winter rains by E. and S. E. winds. The relative frequency of the S. W. reaches a maximum in July, and that of the S. E. a minimum in December or January, in accordance with the rain curve at this place. A similar correspondence between the charts and the rainy directions can be traced at Brunswick, Me.;[2] here I found the rainy wind in winter to be the N. E., and in summer the S. E., also the S. W.. and less frequently the N. E.

At Toronto, Canada West, the diagram of the observed annual fluctuation is of a remarkable zigzag character and of small range (see Plate 2, bottom); its most expressive feature is a minimum about the close of winter. The very elaborate tabulation of meteorological results at the Toronto Observatory,[3] by G. T. Kingston, Director, shows that the winds most accompanied by rain or snow are from the E. N. E., E., E. S. E. and S. E. in winter, and from the E. N. E., S. W., and W. S. W. in summer, as observed between 1853 and 1862. There are consequently two opposing rainy directions in summer. The annual variation in the relative frequency exhibits one or two maxima, and as many minima.

Distribution of Rainy Days in the Year.—The number of rainy days in a year was collected from the records, and tabulated to be available in the shape of averages for each month, and for various geographical positions. Less time was expended in this collection than in that of the amount for two reasons: First, it became evident that all observers are not agreed in the manner of recording days of precipitation. While some only note days of settled or continuous rains, others include all days of precipitation, even if hardly a measurable amount fell, and days, otherwise clear, on which thunder and rain storms occurred, lasting but a small fraction of an hour. Storms of the latter kind, for instance, frequently pass in summer, over this city from the westward, in the afternoon, with remarkable regularity, for a number of days in succession, and if the average temperature be increasing they will occur earlier each succeeding day. It is proper to make a distinction, by separate entries, between these two extreme cases, and thus the differences in records may be greatly reduced. In some records, where rainy and snowy days are given separately, the number of days of precipitation becomes doubtful when it rains and snows on the same day. In the first two Army Registers it would seem

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[1] Smithsonian Contributions to Knowledge (120). Results of Meteorological Observations made at Marietta, Ohio, between 1826 and 1859, by S. P. Hildreth, M. D., etc. etc. Washington, June, 1868.

[2] Smithsonian Contributions to Knowledge (204). Results of Meteorological Observations, made at Brunswick, Me., between 1807 and 1859, by P. Cleaveland, LL.D., etc. etc. Washington, June, 1867.

[3] Results of Meteorological Observations made at the Magnetical Observatory, Toronto, Canada, W., during the years 1854 to 1859 inclusive, also during the years 1860–1–2. Two volumes. Toronto, 1864.

to have been the practice, at some stations, to divide the sum of rainy hours by 24, to obtain the number of rainy days; it is often doubtful whether a bar — is to be interpreted "no record," or "no precipitation." Secondly, it was thought unnecessary to develop separately the laws to which the number of rainy days appear subject, since they are nearly identical with those of the amount, and generally but slightly depending upon the seasons. In my discussion of the rain-fall at Marietta,[1] Ohio, it is shown that the copiousness of precipitation is nearly the same throughout the year. The following table gives, for each month, the average quantity in any one day, as derived from thirty-two years of record.

Month.	No. of rainy days.	Average fall of rain (or snow).
January,	6.1	0.44 inches.
February,	5.9	.51 "
March,	6.7	.44 "
April,	7.5	.44 "
May,	8.4	.50 "
June,	9.2	.51 "
July,	8.3	.53 "
August,	7.6	.53 "
September,	6.2	.52 "
October,	6.8	.48 "
November,	6.4	.52 "
December,	6.5	.55 "

Dividing the average monthly amount by the average monthly number of rainy days, the quotient is nearly the same for the extreme sections; the *summer rains* are slightly *heavier* than the winter rains. The same is the case at Brunswick,[2] Me., as shown by the following table of daily averages (of rain and snow) copied from my discussion and derived from thirty-two years of record.

January	0.33	July	.51
February	.34	August	.65
March	.42	September	.51
April	.46	October	.54
May	.51	November	.55
June	.51	December	.42

The heaviest rains therefore fall in August, the lightest in January and February, epochs in which the air's capacity for vapor is greatest and least, respectively.

The following figures are copied from Tables IX and X of Prof. Caswell's Meteorological Summaries,[3] for Providence, R. I., to which I have added the ratios in the last column, derived from twenty-eight years of observation.

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[1] Results of Meteorological Observations made at Marietta, Ohio, between 1817 and 1859, by J. Wood and Dr. S. P. Hildreth. Smithsonian Contributions to Knowledge, No. 120. Washington, 1868.

[2] Results of Meteorological Observations made at Brunswick, Me., between 1807 and 1859, by Prof. P. Cleaveland. Smithsonian Contributions to Knowledge, No. 204. Washington, 1867.

[3] Meteorological Observations made at Providence, R. I., between 1831 and 1860, by Prof. A. Caswell. Smithsonian Contributions to Knowledge. Washington, 1860.

Month.	Average amount.	Average No. of rainy or snowy days.	Ratio.
	inches.		
January,	3.19	8.34	0.38
February,	2.76	8.00	.34
March,	3.20	7.07	.45
April,	3.56	8.86	.40
May,	3.42	8.45	.41
June,	3.04	8.59	.35
July,	3.00	7.90	.38
August,	4.05	9.41	.43
September,	2.93	6.63	.44
October,	3.39	6.63	.51
November,	3.88	7.27	.53
December,	3.93	9.43	.42

Here the autumn rains appear heavier than any others; those in mid-winter are the lightest.

The following figures are from Tables LXXXVII and LXXXVIII of Director Kingston's Results of Meteorological Observations made at the Magnetical Observatory at Toronto, Canada West (Toronto, 1864), derived from twenty-two years of record, ending with 1862.

Month.	Amount of rain.	No. of days of rain.	Ratio for rain.	Ratio for rain and snow.
	inches.			
January,	1.27	5	0.25	0.16
February,	1.03	4	.26	.18
March,	1.55	6	.26	.16
April,	2.39	9	.27	.22
May,	3.08	11	.28	.28
June,	2.96	12	.25	.25
July,	3.67	10	.37	.37
August,	3.03	10	.30	.30
September,	3.79	11	.34	.34
October,	2.53.	12	.21	.19
November,	3.19	10	.31	.22
December,	1.64	5	.33	.17

Here, also, we note a slight increase in the average daily rain-fall in the warmer season, and a slight decrease in the colder season. The above examples, drawn from long records and from stations in different geographical relations, suffice to prove the above assertion as to the nearly uniform copiousness of average daily precipitation, with a slight excess in the warmer months, and a slight deficiency in the colder months, over the average amount. The last table also exhibits the comparatively light precipitation when in the form of snow.

The average number of days of precipitation, during a year, are given in the following table, arranged according to States and Territories. In compiling this Table only those records were admitted which were continuous during a year.

Locality.	Aggregate years.	Days.	Locality.	Aggregate years.	Days.
Maine	89	93	Kentucky	10	89
New Hampshire	15	76	Ohio	118	116
Vermont	26	89	Michigan	87	117
Massachusetts & Connecticut	26	98	Indiana and Illinois	10	107
Rhode Island	50	96	Wisconsin	48	89
New York	214	109	Minnesota	47	89
New Jersey	12	118	Iowa	19	98
Pennsylvania	93	119	Missouri	49	70
Delaware, Maryland, and District of Columbia	58	83	Indian Territory	60	73
Virginia	37	85	Kansas	43	77
North and South Carolina	52	89	Nebraska	10	75
Georgia	18	83	Wyoming	8	72
Florida	77	91	New Mexico[1]	47	56
Alabama	17	98	Arizona	8	75
Mississippi and Louisiana	50	92	California[2]	47	50
Texas	111	58	Oregon[3]	16	131
Arkansas	15	75	Washington Territory[3]	19	132
			Alaska	14	235

At Toronto, Canada, the number of rainy and snowy days averages 162 in a year, as derived from 23 years of record; at Hamilton, Canada, ten years of record gave 122 days.

For Colorado, Dakota, and Utah, from three, four, and one year of record, we have 51, 72, and 102 days of precipitation, respectively.

From the above table, and by means of the ratios of amount for each month, compared with the mean amount, we can readily deduce the probable number of rainy days in any given month; thus, for the month of May, in the State of New York, for instance, we have the average number of rainy days in a month $= \frac{109}{12}$ by preceding table, and the monthly ratio 1.14 from Table, Type II, hence, number of rainy days to be expected in May $= 1.14$ times $\frac{109}{12} = 10$.

The aggregate number of years upon which the average num ers for rainy and snowy days of the preceding table depend is 1620.

SECULAR CHANGE OF THE RAIN-FALL.

The question whether the annual rain-fall is gradually increasing or diminishing, stationary, of a periodic character, or apparently irregular, is one of great interest, scientifically as well as practically. The preceding table B has been specially prepared for the investigation of these changes of the annual amount of rain, and if these records should not be of sufficient extent, they will at least form a basis for

[1] Average very uncertain, the precipitation depending too much upon the *elevation* and other circumstances. Number of rainy and snowy days vary between 31 and 93.

[2] The extremes, Fort Yuma 11 days, and Fort Humboldt 82 days, also Fort Crook 83 days, are not included in the tabular mean. Average hardly admissible without further specification, as in the case of New Mexico.

[3] Averages uncertain without specification.

future investigators. This table is derived from table A, and contains all stations where records extend over one or more years; the resulting mean values given at the bottom of each column are taken from the monthly mean sums of table A, and will therefore coincide with the means of the annual values of table B, in case the observations suffered no interruption. In order not to lose observations extending over nine or more months in any year, the values for the remaining months were interpolated, either by substituting the average values at those months, as resulting from the whole series, or by substituting, when practicable, amounts observed at an adjacent station. Such interpolated annual amounts have less weight, and are distinguished by an asterisk; they may be omitted, if desirable, in rigorous investigations. The fact that comparatively few of the records, extending over a number of years, at any station, are free from occasional interruptions, greatly increases the labor of reduction, and seriously interferes with the value of the whole record. The difficulty in attempting to interpolate any monthly amount, even within the limits of a city, will appear in the following sample of comparisons of annual amounts, as given by three observers at different stations in San Francisco:—

1853.	By Assist. Surg. U. S. A.	18.70 inches.
	" Mr. Walthall and Dr. Gibbons	19.70 "
1854.	" Assist. Surg. U. S. A.	17.00 "
	" Mr. Walthall and Dr. Gibbons	22.12 "
1855.	" Assist. Surg. U. S. A.	19.26 "
	" Mr. Tennent	26.39 "
1856.	" Assist. Surg. U. S. A.	14.40 "
	" Mr. Tennent	22.31 "
1857.	By Assist. Surg. U. S. A.	16.04 inches.
	" Dr. Ayres	12.97 "
	" Mr. Tennent	20.96 "
1858.	" Assist. Surg. U. S. A.	15.95 "
	" Dr. Ayres	17.76 "
	" Mr. Tennent	23.46 "
1859.	" Assist. Surg. U. S. A.	16.34 "
	" Dr. Ayres	25.41 "
	" Mr. Tennent	21.39 "
1860.	" Assist. Surg. U. S. A.	20.19 "
	" Mr. Tennent	21.18 "

From these comparisons the great diversity in the corresponding monthly amounts may be inferred. Quite a remarkable case of an extraordinary fall of rain, which occurred at Charleston, S. C., in August, 1859, with a sharply defined boundary, is recorded in the statistical report on the sickness and mortality in the army of the United States, between 1855 and 1860, by Brevet Brigadier-General T. Lawson, page 504. "If *two inches* could fall during *one and half an hour* in one part of the city (at the U. S. Arsenal), while but 0.35 fell at the same time about *two miles* distant (City Registrar, Tradd Street), it may be readily believed that even if only *six and three-quarter inches* fell in Charleston during thirty hours, 16.45 inches, or even twice that quantity, may have fallen in forty-seven and one-half hours at Sullivan's Island, which is *seven miles* distant."

If the rain-fall is recorded by more than one observer in any place, for the same month or year, the mean has been taken and inserted in Table B.

Before making use of this table with a view of a study of the permanency in the amount of the rain-fall during a long series of years, it will be desirable to inquire into the degree of uncertainty, or the probable error, of the annual sums and the mean amount there given. A cursory examination of the table reveals the fact of a limiting variation in the annual amount at any place to the extent of nearly one-half and of one and a half of the mean quantity, which itself, however, is subject to a considerable uncertainty even when derived from a long series. Supposing the changes in the yearly amounts to be due to accidental circumstances, and if subject to periodic changes, that these be small and extend over a comparatively long time, we may apply without sensible error the formulæ

$$e = 0.845 \frac{\Sigma\Delta}{\sqrt{n^2 - n}} \text{ and } r = \frac{e}{\sqrt{n}}$$

where e the probable error of any annual amount and r that of the mean of the whole series of n years; $\Sigma\Delta$ equals the sum of the annual differences from the mean irrespective of sign.

Applying these formulæ to the Marietta, Ohio, results we find the probable error of any observed annual amount $= \pm 4.1$ inches, of the mean amount from forty-eight years of observation $= \pm 0.59$ inches, and it would take a hundred years of record to reduce the probable error of the mean to 0.4 of an inch, as shown in the following table:—

Probable Error in Mean Annual Amount of Rain-fall, at Marietta, Ohio.

Deduced from	1	year of	observation	± 4.1
" "	5	years	"	1.8
" "	10	"	"	1.3
" "	20	"	"	0.9
" "	30	"	"	0.7
" "	40	"	"	0.6
" "	50	"	"	0.5
" "	100	"	"	0.4

Supposing these numbers to express the average variability in the rain-fall of a country, the successive curves on a rain chart showing the annual distribution should not be for a less difference than about three inches, even if we employ results from stations occupied for at least five years, otherwise the graphical representation becomes confused and expresses temporary instead of permanent features. In accordance with the above principle, the proper selection of curves, as constructed on each of the three accompanying rain-charts, was readily determined.

The following table contains, for a number of selected stations in different parts of the country and of long record, the probable error e of the amount of rain fallen in any one year, also the ratio of this quantity to the average yearly amount, or $\frac{e}{R}$. These fractions admit of comparison for different localities, and are an index of the greater or less variability in the rain-fall from year to year. The last column gives the probable error r, or the amount of uncertainty which attaches to the resulting average rain-fall as made out from the present record.

Station.	Location.	No. of years of record.	ϵ	$\frac{\epsilon}{R}$	r
			inches.		inches.
Gardiner,	Maine,	27	±3.9	±.09	±0.8
Brunswick,	Maine,	31	7.6	.17	1.4
Hanover,	New Hampshire,	19	4.3	.11	1.0
Burlington,	Vermont,	27	4.3	.13	1.3
Worcester,	Massachusetts,	25	5.5	.12	1.1
Boston,	Massachusetts,	41	6.1	.14	0.9
New Bedford,	Massachusetts,	54	4.5	.11	0.6
Amherst,	Massachusetts,	32	3.8	.09	0.7
Providence,	Rhode Island,	36	4.1	.10	0.7
Jamaica,	New York,	23	4.4	.12	0.9
Flatbush,	New York,	32	4.8	.11	0.8
New York,[1]	New York,	30	7.6	.17	1.4
Newburg,	New York,	22	5.5	.15	1.2
Albany,	New York,	28	3.5	.09	0.7
Penn Yan,	New York,	39	3.1	.11	0.5
Rochester,	New York,	35	3.0	.09	0.5
Toronto,	Canada West,	26	3.7	.10	0.7
Morrisville,	Pennsylvania,	37	3.7	.09	0.6
Philadelphia,	Pennsylvania,	43	4.1	.09	0.6
Gettysburg,	Pennsylvania,	24	5.3	.14	1.1
Baltimore,[2]	Maryland,	30	6.6	.16	1.2
Washington,	Dist. Columbia,	30	5.3	.14	1.0
Fortress Monroe,	Virginia,	23	10.7	.23	2.2
Charleston,	South Carolina,	42	4.4	.12	0.8
Savannah,	Georgia,	23	7.5	.15	1.6
Key West,	Florida,	19	5.9	.16	1.4
New Orleans,	Louisiana,	20	4.5	.09	1.0
Fort Brown,[3]	Texas,	11	8.5	.26	2.6
Springdale,	Kentucky,	23	5.5	.11	1.2
Cincinnati,	Ohio,	28	6.2	.14	1.2
Portsmouth,	Ohio,	27	5.2	.14	1.0
Marietta,	Ohio,	48	4.1	.10	0.6
Steubenville,	Ohio,	37	5.6	.14	0.9
Detroit,	Michigan,	22	3.8	.12	0.8
Fort Snelling,	Minnesota,	21	3.0	.12	0.7
Milwaukee,	Wisconsin,	23	3.5	.12	0.7
Muscatine,	Iowa,	18	9.0	.21	2.1
St. Louis,	Missouri,	31	5.5	.13	2.0
Fort Leavenworth,	Kansas,	30	6.8	.21	1.2
Fort Gibson,	Indian Territory,	20	6.4	.18	1.4
Washington,	Arkansas,	21	7.0	.13	1.5
Fort Laramie,	Wyoming,	17	6.7	.45	1.9
Fort Kearny,	Nebraska,	14	4.2	.17	1.1
Fort Marcy,	New Mexico,	12	5.6	.33	1.6
San Francisco,	California,	17	4.1	.19	1.0
Fort Vancouver,	Washington Ter.	16	6.7	.18	1.7
Fort Steilacoom,	Washington Ter.	15	8.7	.19	2.3
Sitka,	Alaska,	14	6.7	.08	1.8

The numbers in the column headed $\frac{e}{R}$ do not indicate, upon the whole, any very great variation from the *average irregularity* in the rain-fall as observed from year

[1] Fort Columbus, Institution of Deaf and Dumb.
[2] Baltimore City, Fort McHenry. [3] Fort Brown and Matamoras.

to year; in the New England States and along the sea-board as far south as Washington, the probable uncertainty in *any one annual amount* is 12 per cent., and the same holds good for the Ohio and eastern part of the Mississippi Valleys, and in the region of the Lakes; along our southern Atlantic coast, and along the Gulf coast, the probable error is 17 per cent; west of the Mississippi it is 23 per cent.; in California, Oregon, and Washington Territory, it is 19 per cent.; and at Sitka, Alaska, but 8 per cent. of the annual amount.

The figures in the last column of the above table vary from about $\pm \frac{1}{2}$ to about $\pm 2\frac{1}{2}$ inches, and on the average indicate a probable error of $\pm 1\frac{1}{4}$ inch in the resulting annual amount from the longer series. In the construction of the annual hyetal curves on the accompanying chart, results from series as short as four years were admitted, and upon the average these curves must be considered as being liable to a probable error of ± 2 or 3 inches, less or more, according to location, as indicated by the ratio $\frac{e}{R}$.

The probable uncertainty of the hyetal curves of the extreme seasons may be estimated at $\frac{1}{3}$ of that given above.

Returning to the consideration of a secular change in the annual amounts, we might, for limited localities where the rain-fall is nearly the same, examine for every year the difference from the mean amount; but for our purpose it becomes necessary to employ the *ratio* of each annual to the mean amount in order to render the results in different localities strictly comparable.

The following table contains these ratios for a number of stations selected on account of their extent of record.

	Maine.		N.H	Vt.	Massachusetts.								R.I.	Con.	New York.		
	Gardiner.	Brunswick.	Hanover.	Burlington.	New Bedford.	Cambridge.	Boston.	Amherst.	Worcester.	Waltham.	Lake Cochituate.	Lowell.	Providence.	New Haven.	Flatbush.	East Hampton.	North Salem.
1800	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	.98	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	.92	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	.87	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	1.02	...	...	...
8	...	1.19	...	...	...	...	...	...	...	...	...	...	...	1.11	...	...	...
9	...	.95	...	...	...	...	...	...	...	...	...	...	..	1.00	...	...	...
1810	...	.63	...	...	...	...	...	...	...	...	...	...	...	.89	...	...	...
1	...	.86	...	...	...	...	...	...	...	...	...	...	...	1.07	...	...	...
2	...	.91	...	...	...	...	...	...	...	...	...	...	...	1.00	...	...	...
3	...	.84	...	...	...	...	...	...	...	...	...	...	...	1.20	...	...	...
4	...	1.08	...	...	.93	...	...	...	...	...	...	...	...	1.26	...	...	...
5	...	.61	...	...	.88	...	...	...	...	...	...	...	...	1.14	...	...	...
6	...	.73	...	...	.95	...	...	...	...	...	...	...	...	.86	...	...	...
7	...	.88	...	...	.93	...	...	...	...	...	...	...	...	.98	...	...	...
8	...	.59	...	...	.87	...	.95	...	...	...	...	...	...	.86	...	...	...
9	...	...	...	...	.85	...	.79	...	...	...	...	...	...	.76	...	...	...
1820	...	...	...	...	.89	...	.98	...	...	...	...	...	...	1.04	...	...	...
1	...	...	...	...	.98	...	.82	...	...	...	...	...	...	1.00	...	...	...
2	...	...	...	...	.90	...	.61	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	1.29	...	1.03	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	1.02	...	.80	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	.82	...	.72	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	1.18	...	.93	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	1.35	...	.99	...	...	...	...	...	...	1.16	...	...	...
8	...	...	...	1.27	.84	...	.75	...	...	...	...	...	...	1.18	...	.83	...
9	...	...	...	...	1.40	...	1.07	...	...	...	...	...	...	...	...	1.14	...
1830	...	...	...	...	1.39	...	.99	...	...	...	...	...	...	...	1.23	1.25	1.06
1	...	...	...	...	1.31	...	1.13	...	...	...	...	...	...	...	.98	1.03	1.05
2	...	...	...	1.16	1.06	...	1.04	...	...	...	...	...	.95	...	.99	1.12	1.00
3	...	...	...	1.45	.92	...	.88	...	...	...	...	...	.82	...	1.07	.97	1.06
4	...	...	...	...	.97	...	.85	...	...	...	...	...	1.01	...	.91	1.08	.82
5	...	...	.79	...	1.01	...	.79	...	...	...	...	...	.75	...	.88	.82	.86
6	...	...	.94	...	.92	...	.80	.93	...	...	...	...	.91	...	1.01	.95	...
7	.77	...	.88	...	.84	...	.67	.88	...	...	...	...	.76	...	.80	.94	...
8	.72	...	1.01	.90	.82	...	.70	.91	...	...	...	...	.91	...	.95	.75	.76
9	.97	1.21	.80	.82	.95	...	.77	.98	...	...	...	...	.89	...	.99	1.24	...
1840	.98	.81	1.12	1.09	1.07	...	...	1.07	...	...	...	...	.99	...	.83	1.16	.92
1	.91	1.08	.95	.96	1.09	.88	...	.95	1.09	...	...	...	1.15	...	1.20	1.17	.98
2	.91	1.23	1.19	.99	.84	.88	...	.87	.87	...	...	...	.91	...	1.08	.89	1.12
3	1.10	1.50	1.39	.78	1.09	1.13	...	1.17	1.04	...	...	...	1.03	...	1.15	.79	1.23
4	.91	1.13	1.19	.92	.88	.71	...	.92	.80	...	...	...	.84	...	.90	...	.86
5	.93	1.69?	.93	1.06	1.03	1.09	...	.90	.91	...	...	...	1.04	...	.74	...	.97
6	.84	.97	.92	.87	.74	.66	...	.80	.74	...	...	...	.74	...	1.01	...	1.12
7	1.07	1.37	1.14	1.13	.99	1.04	...	1.09	1.05	...	...	...	1.17	...	1.06	...	1.10
8	1.16	1.33	1.20	.92	.88	.93	...	.94	.82	...	...	...	.98	...	.77	...	.87
9	.94	.88	.95	.77	.77	.88	.90	.88	.80	.94	...	1.15	.84	...	.75	...	1.05
1850	1.22	1.29	1.00	1.10	1.25	1.17	1.20	1.26	1.18	1.43	...	1.03	1.24	...	1.12	...	1.36
1	1.21	1.06	1.03	.93	1.20	.91	.99	.99	.93	.94	...	.92	1.05	...	.94	...	.87
2	1.11	1.24	.89	.85	1.00	.87	1.06	.99	1.32	.97	.90	.96	.93	...	1.09	...	.96
3	...	...	...	.97	.85	1.16	1.08	1.16	1.27	1.04	1.10	.99	1.28	...	...	...	...
4	...	1.03	.86	.74	1.16	.97	1.02	1.08	1.26	.95	.85	.95	1.12	...	...	...	...
5	.93	1.00	...	1.12	.88	1.03	.98	1.10	1.25	.94	.69	1.05	.94	...	...	...	...
6	.90	.73	...	.79	.80	1.16	1.16	.92	1.00	.97	80	1.00	.99	...	.92	...	...
7	1.10	.96	...	.84	.93	1.25	1.26	1.09	1.14	1.01	1.24	1.14	1.08	...	1.14	...	...
8	1.12	1.02	...	...	1.02	.98	1.17	.97	.87	.86	.96	.83	1.07	...	.99	...	...
9	1.14	1.08	...	.	1.18	1.28	1.26	1.17	1.04	1.12	.97	1.08	1.09	...	1.35	...	...
1860	...	...	...	...	.93	.97	1.14	.90	1 04	...	1.09	1.05	.92	...	...	...	...
1	.95	...	...	1.25	1.08	1.08	1.11	1.07	.90	...	.91	.97	1.06	...	1.09	...	...
2	.93	...	...	1.20	1.00	1.23	1.36	1.13	.94	...	.98	1.00	1.21	...	...	...	...
3	1.18	...	...	1.16	1.07	1.22	1.50	1.24	...	1.23	1.37	1.24	1.30	...	.76	...	...
4	.97	...	...	1.05	.95	.85	1.10	.77	...	.84	.84	.89	.89	...	.77	...	...
5	.99	...	...	...	1.08	.94	1.06	.98	.82	.82	.97	.86	1.03	.94	1.09	...	...
6	1.09	...	...	...	.93	.76	1.13	1.03	.90	1.00	1.23	.89	1.06	1.06	.80	...	...
1867	...	...	...	...	1.10	.90	1.24	1.05	1.04	.95	1.11	1.03	1.13	1.02	...	...	...

	New York.—Continued.													Canada.		N. J.	
	Jamaica.	Newburgh.	Albany.	Utica.	Pompey.	Penn Yan.	Rochester.	Fort Hamilton.	Ft. Columbus & Inst. for D. &D.; N. York.	Westpoint.	Watervliet Arsenal.	Fort Niagara.	Gouverneur.	Montreal.	Toronto.	Newark.	Lambertville.
1800	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1810	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1820	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
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3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	.82	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	1.23	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	1.25	...	.93	.89	...	...	...	...	...	...	...	...	...	...	...	...	...
9	1.17	...	.94	.88	...	1.14	...	...	...	...	...	...	...	...	...	...	...
1830	1.11	.95	1.03	1.12	1.03	1.06	...	...	...	...	...	...	...	...	...	...	...
1	.97	...	.98	.92	.96	1.05	1.06	...	...	...	...	...	...	1.12	...	...	...
2	1.00	1.18	1.10	1.21	.86	1.08	.97	...	...	...	...	...	...	.87	...	...	...
3	.94	1.13	1.03	.92	.98	.91	.93	...	...	...	...	...	...	1.14	...	...	...
4	.87	.80	.80	.84	...	.79	.70	...	...	...	...	...	...	.68	...	...	...
5	.74	.69	1.00	.94	1.08	.93	1.00	...	...	...	...	...	...	1.08	...	...	...
6	.94	.83	1.10	.81	.76	.98	...	...	.64	...	1.09	...	...	.79	...	...	...
7	.82	.69	1.03	.67	.99	.86	.95	...	1.52?	...	.92	...	...	.66	...	...	...
8	.86	1.32	1.04	...	.75	1.11	.79	...	.97	...	.89	...	.65	.67	...	...	.87
9	.85	1.22	.94	.86	.83	1.10	.92	1.20	.99	...	.86	...	.78	.59	...	...	1.00
1840	.91	1.06	1.08	1.11	1.06	1.04	.91	...	.69	1.00	.93	...	...	.92	.91	...	.95
1	1.14	...	.94	1.02	.83	.85	.99	...	.97	1.13	1.03	...	.75	...	1.06	...	1.30
2	1.06	.84	1.12	1.38	.97	1.11	1.02	...	.79	1.06	1.30	1.61	.65?	...	1.24	...	.95
3	.86	.92	1.19	.99	1.02	1.03	.93	1.04	.96	1.06	1.21	1.20	.52?	...	1.43	...	1.17
4	1.14	.87	.80	.87	...	.71	.80	.77	.84	1.02	...	.61	.85	...	.95	.90	.92
5	.86	.83	1.00	.98	...	.86	1.06	.82	.79	.91	1.06	.67	1.11	...	.79	.81	.97
6	.92	.95	.98	.89	...	1.02	1.14	1.24	1.13	.98	.91	...	...	...	1.09	1.15	1.03
7	1.14	.81	1.02	...	...	.98	1.11	1.47	1.50	.74	.92	...	...	...	1.05	1.20	1.16
8	.84	.95	1.19	...	...	.79	.98	.80	.85	1.07	1.15	...	.86	...	.76	.82	.78
9	.77	.92	.91	...	...	.81	1.03	.70	.74	.80	.96	...	...	...	1.04	.89	.99
1850	...	1.52	1.26	.98	1.46	1.12	1.18	1.08	1.26	1.26	.96	1.29	...	...	1.01	1.14	1.21
1	...	1.24	.86	1.22	1.31	.95	.77	.89	.94	.85	.98	.85	...	...	.87	.92	.74
2	.90	...	.79	1.08	1.34	.90	1.08	.93	1.01	.91	.90	1.20	...	...	1.16	.97	1.03
3	...	...	...	...	...	1.04	1.00	1.30	1.21	1.33	1.24	.86	...	...	.85	1.17	.97
4	...	...	...	...	...	.69	.90	1.04	.95	.99	.79	.96	.96	...	.93	.97	.98
5	...	...	...	...	...	1.05	1.04	.95	1.03	1.03	...	...	.85	...	1.18	.99	1.03
6	...	...	...	...	...	.76	.81	.85	.83	1.00	...	...	...	1.01	.80	.77	.74
7	...	...	...	...	...	1.58	1.32	1.00	1.02	.99	...	...	...	1.27	1.15	1.10	1.11
8	...	...	...	...	...	.95	1.10	.85	.95	.92	...	...	...	1.09	.93	.90	.92
9	...	...	...	...	...	1.03	.88	1.01	1.27	.92	...	...	...	1.39	1.13	1.27	1.08
1860	...	...	...	...	...	.90	.92	...	...	...	...	.95	...	...	.80	1.00	...
1	...	...	...	...	...	1.15	1.10	...	1.13	...	...	1.10	1.68	1.52	.98	.97	...
2	...	...	...	...	...	1.11	1.24	...	1.06	...	...	.94	1.11	1.10	.97	1.00	...
3	...	...	...	...	...	1.42	.96	...	1.13	...	...	.87	1.02	...	.93	1.05	...
4	...	...	...	...	...	1.12	1.25	...	.96	...	...	.99	1.22	...	1.05	.86	...
5	...	1.11	.94	...	...	1.12	1.08	...	1.25	...	...	.79	.92	...	.94	1.17	...
6	...	1.12	...	...	...	.95	1.11	...	1.08	...	...	1.02	...	...	...	.89	...
1867	...	...	...	...	...	1.01	...	...	...	...	...	...	...	...	...	...	...

	Pennsylvania.					Md.	D.C.	Va.		S. C.			Ga.		Florida.		
	Philadelphia.	Morrisville.	Spring Mill.	Gettysburg.	Alleghany Arsenal.	Baltimore & Ft. McHenry.	Washington.	Fortress Monroe.	Powhatan Hill.	Charleston.	Ft. Moultrie.	St. Johns.	Savannah.	Whitemarsh Island.	Key West.	Ft. Brooke.	Ft. & Bar'ks, Barrancas.
1800	...	...	...	...	...	...	...	...	1738	1.13	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	9	1.51	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	1740	.91	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	1	1.20	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	2	.83	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	3	.91	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	4	1.11	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	5	1.15	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...	...	6	.91	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	7	1.02	...	...	...	...	...	...	...
1810	...	...	.92	...	..	...	...	...	8	1.18	...	...	...	...	...	...	...
1	...	...	.98	...	...	...	...	...	9	1.25	...	...	...	...	...	...	...
2	...	...	1.11	...	...	...	...	...	1750	1.29	...	...	...	...	...	...	...
3	...	...	1.00	...	...	...	...	...	1	1.17	...	...	...	...	...	...	...
4	...	...	1.21	...	...	...	...	...	2	.98	...	...	...	...	...	...	...
5	...	...	.97	...	...	...	...	...	3	1.09	...	...	...	...	...	...	...
6	...	...	.79	...	...	...	...	...	4	.85	...	...	...	...	...	...	...
7	...	...	1.01	...	...	1.15	...	...	5	.99	...	...	...	...	...	...	...
8	...	...	.85	...	...	.77	...	...	6	.73	...	...	...	...	...	...	...
9	...	...	.66	...	...	.68	...	...	7	1.02	...	...	...	...	...	...	...
1820	...	...	1.11	...	...	1.01	...	...	8	.70	...	...	...	...	...	...	...
1	...	...	.90	...	...	1.19	...	...	1759	.84	...	...	...	...	...	...	...
2	...	...	.84	...	...	.69	...	...		...	...	...	...	...	...	...	...
3	...	...	1.18	...	...	1.05	...	...	...	...	...	...	...	...	...	...	...
4	...	...	1.09	...	...	1.00	.78	...	...	...	...	...	...	...	...	...	...
5	.67	.67	...	...	...	...	.65	...	...	...	...	...	...	...	...	...	...
6	.80	.92	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	.87	.90	...	...	...	...	.70	...	...	...	...	...	...	...	...	...	...
8	.86	.89	...	...	...	...	.63	...	...	...	...	...	...	...	...	...	...
9	.95	.96	...	...	...	...	1.15	...	...	...	...	...	...	...	...	...	...
1830	1.02	1.02	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	1.00	.95	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	.90	.92	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	1.11	1.12	...	...	...	...	...	...	...	...	...	...	...	...	.76	...	...
4	.78	.80	...	...	...	...	...	...	...	...	...	...	...	...	1.00	...	...
5	.89	.92	...	...	...	...	...	...	...	...	...	...	...	...	.83	...	...
6	.97	.99	...	...	...	...	1.26	...	...	...	...	...	...	...	.68	...	...
7	.89	.85	...	...	1.01	1.10	.85	.87	...	...	...	...	.78	...	1.08	...	...
8	1.03	1.01	...	...	...	1.15	.94	.95	...	...	...	...	.80	...	.57	...	...
9	.99	1.02	...	.98	.73	1.26	1.01	1.53	...	...	...	...	.54	...	...	...	...
1840	1.08	1.09	...	.88	.81	.91	.95	1.58	...	...	...	...	.97	...	...	1.68	...
1	1.26	1.30	...	1.17	.99	1.07	1.21	1.39	...	1.24	...	...	1.45	...	...	.94	...
2	1.10	1.04	...	.93	1.18	.85	...	1.43	...	.96	...	...	1.32	...	...	.86	...
3	1.07	1.07	...	1.23	1.10	1.19	...	1.01	...	1.26	.94	...	.90	...	...	1.05	1.08
4	.91	.89	...	.80	.92	.79	...	.89	...	.83	.75	...	1.01	...	1.06	.96	1.01
5	.91	.91	...	.78	.91	.69	...	1.02	...	1.06	.96	...	.78	...	...	.99	.70
6	1.01	1.02	...	1.34	1.35	1.30	1.11	1.07	...	1.02	.95	1.07	1.17	...	...	1.01	1.27
7	1.02	...	...	1.31	1.31	.94	.96	1.04	...	1.10	1.44	.83	1.45	...	...	.86	...
8	.79	...	...	.86	.97	.87	.62	.63	...	1.00	1.25	.68	1.18	...	...	...	...
9	.95	...	...	.81	.99	.79	...	.70	...	.70	.87	.58	1.04	...	...	...	...
1850	1.24	1.19	...	1.17	1.06	1.14	...	1.06	1.13	.54	.79	.92	1.14	.94	...	.87	...
1	.86	.89	...	.80	.84	.89	...	.57	.79	.76	.86	.99	.91	.74	1.47	...	.74
2	1.04	1.20	...	1.12	1.18	1.28	.97	...	1.12	1 14	1.13	1.33	1.14	1.24	1.28	1.29	...
3	.95	...	...	.84	.96	.89	.85	...	.85	1.00	1.00	1.14	.97	1.13	1.27	.84	.91
4	1.03	1.03	...	.84	.76	1.44	.75	...	.89	.86	.87	1.04	.90	1.02	1.23	1.44	.86
5	1.01	.99	...	1.23	1.23	.72	.79	...	.90	.80	.96	.95	.80	.93	1.23	.71	1.31
6	.76	.70	...	.73	.75	.56	.90	.86	.88	.95	.90	1.34	.94	.96	1.11	1.00	.91
7	1.10	1.09	...	.98	1.11	.93	1.11	.91	.95	.80	.89	.98	.70	.76	1.07	.67	...
8	.93	.92	...	1.17	1.03	.98	1.04	.79	.93	1.03	1.04	1.12	1.11	1.30	.99	...	...
9	1.24	1.18	...	1.09	.97	...	1.13	.85	1.02	1.20	1.40	1.02	1.12	1.13	.87	...	1.18
1860	1.03	...	...	.98	...	...	1.08	...	1.00	...	...	...	...	.82	...	...	...
1	1.05	.98	...	.95	...	...	1.18	...	1.32	.98	...	...	...	...	.72	...	...
2	1.04	.98	...	.82	...	...	1.11	...	...	...	...	...	...	...	.93	...	...
3	1.13	1.07	...	...	...	...	1.16	...	...	...	...	...	...	...	.89	...	...
4	1.05	.82	...	...	...	...	.91	...	...	...	...	...	...	...	...	...	...
5	1.25	1.00	...	...	...	...	1.19	...	...	...	...	...	...	...	...	...	...
6	.99	.94	...	...	...	...	1.25	...	...	...	...	...	...	...	...	...	...
7	1.43	...	...	...	...	...	1.43	...	1.27	...	...	...	...	...	...	...	...

	Alabama.			Miss.		La.		Texas.					Ark.		Ten.	Ken.
	Huntsville.	Mt. Vernon Arsenal.	Greensboro' University.	Natchez.	Vicksburg.	New Orleans.	Baton Rouge.	Ft. Brown & Matamoras.	Ringgold Barracks.	Fort McIntosh.	Fort Duncan.	Austin.	Fort Smith.	Washington.	Glenwood.	Springdale.
1799	...	...	...	.81	...	...	...	...	...	...	...	...	...	...	...	...
1800	...	...	...	.58	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	.85	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	1.08	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	.70	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
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7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
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1810	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
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4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
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9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1820	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1830	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	.79	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	.85	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	1.23	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	1.15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	1.10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	1.00	...	...	...	...	1.02	...	...	...	...	...	...	...	...	...	...
7	.86	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	.88	...	...	...	...	...	...	...	...	...	...	...	.68	...	...	...
9	.53	...	...	...	...	.91	...	...	...	...	...	...	1.05	...	...	...
1840	...	...	...	.91	.94	.87	...	...	...	...	...	...	1.14	1.24	...	...
1	...	...	...	1.12	.99	.98	...	...	...	...	...	...	1.33	1.00	...	...
2	...	...	...	.81	.95	.85	...	...	...	...	...	...	.96	.76	...	.84
3	...	1.16	...	1.47	1.22	1.20	1.01	...	...	...	...	...	.94	1.16	...	1.00
4	...	...	...	.86	.76	.96	.73	...	...	...	...	...	.82	.84	...	.83
5	...	1.04	...	.99	1.01	...	.84	1.08	...	...	...	...	.83	.86	...	.89
6	...	.99	...	1.15	1.07	...	1.93	...	...	...	...	...	1.13	.76	...	.98
7	...	1.08	...	1.41	1.21	1.05	...	...	...	...	...	...	1.21	1.07	...	1.03
8	...	.75	...	...	1.04	1.05	...	...	...	...	...	...	1.10	1.10	...	1.20
9	...	1.20	...	...	.89	1.07	.93	1.15	...	...	...	...	1.42	1.29	...	.93
1850	...	.75	...	...	1.02	1.00	1.28	.78	.83	.98	.85	...	...	1.21	...	1.38
1	...	.74	...	...	.88	1.03	.69	.85	.66	.79	.67	...	...	.76	...	.87
2	...	.78	...	...	.88	.86	.89	.86	.84	.59	1.34	...	1.51	1.28	...	1.07
3	...	1.61	...	...	1.05	1.22	.88	.80	1.06	1.28	1.57	...	.60	1.01	...	.73
4	...	.95	...	...	...	1.03	1.01	1.52	1.36	1.34	1.04	...	.94	1.09	.92	.95
5	...	.90	.75	...	...	.82	.82	1.82	1.21	1.29	.82	...	.84	.87	.95	.94
6	...	.88	1.04	...	...	1.31	1.13	.78	1.15	1.05	.84	.68	.73	.85	.85	.64
7	...	.75	.95	...	...	.92	.83	.62	.59	.93	1.33	1.07	.96	1.05	.93	.96
8	...	.97	.87	...	...	1.19	1.06	.73	.93	.58	.76	1.17	...	1.04	1.15	1.03
9	...	.98	1.06	.89	...	.97	.85	...	...	...	...	.91	...	.85	.98	1.05
1860	...	...	1.09	...	...	...	...	...	...	...	...	...	.71	1.14	...	...
1	...	...	.99	.96	...	...	...	...	...	...	...	.92	...	...	1.03	1.02
2	...	...	.86	.78	...	...	...	...	...	...	...	.72	...	...	1.06	1.24
3	...	...	1.08	...	...	...	...	...	...	...	...	1.12	...	...	1.17	.99
4	...	...	1.06	...	...	...	...	...	...	...	...	.81	...	...	.89	.93
5	...	...	1.12	1.15	...	...	...	...	...	...	...	1.30	...	...	1.29	1.28
6	...	...	1.10	1.33	...	...	...	...	...	...	...	1.34	...	...	.96	1.23
7	...	...	.96	...	.99	...	...	...	...	...	...	...	...	...	...	...

	Ohio.				Mich.		Indiana.		Illinois.			Wis.	Minnesota.			Iowa.	
	Marietta.	Steubenville.	Cincinnati.	Portsmouth.	Detroit.	Fort Brady.	Richmond.	New Harmony.	Athens.	Ottawa.	Pekin.	Milwaukee.	Ft. Snelling.	Fort Ripley.	Ft. Ridgely.	Ft. Madison.	Muscatine.
1799	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1800	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1810	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	1.19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	.85	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1820	.92	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	1.01	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	1.02	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	1.17	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	.98	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	.97	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	1.16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	.93	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1830	.87	...	...	.69	...	...	...	...	...	...	...	...	...	...	...	...	...
1	1.25	1.05	...	1.11	...	...	...	...	...	...	...	...	...	...	...	...	...
2	1.13	.96	...	1.19	...	...	...	...	...	...	...	...	...	...	...	...	...
3	.95	.86	...	.96	...	...	...	...	...	...	...	...	...	...	...	...	...
4	.81	.93	...	.77	...	...	...	...	...	...	...	...	...	...	...	...	...
5	1.00	.92	1.16	.67	...	...	...	...	...	...	...	...	...	...	...	...	...
6	.86	.94	1.28	.80	1.34	...	...	...	...	...	...	...	...	...	...	...	...
7	1.03	.85	.95	1.25	.91	1.22	...	...	...	...	...	...	.93	...	...	...	...
8	.83	.68	.88	.95	...	1.13	...	...	...	...	...	...	1.07	...	...	...	...
9	.78	.67	.68	.71	.81	.79	...	...	...	...	...	...	.82	...	...	...	...
1840	.92	.91	1.06	1.09	.99	1.09	...	...	...	...	...	...	.90	...	...	...	...
1	1.01	.75	.91	1.15	.91	.80	...	...	...	...	...	1.13	.84	...	...	...	...
2	.99	.99	.92	1.09	1.06	.87	...	...	...	...	...	...	1.03	...	...	...	...
3	.98	.99	1.14	1.44	.92	.90	...	...	1.04	...	...	...	.92	...	...	...	...
4	.86	.93	.93	.95	1.10	1.14	...	...	1.23	...	...	1.07	1.17	...	...	...	...
5	.79	.93	1.03	1.05	.72	.98	...	...	1.09	...	...	.68	.98	...	...	...	...
6	1.08	1.26	1.19	1.19	...	.99	...	...	1.13	...	...	.83	1.01	...	...	...	.81
7	1.23	1.38	1.45	1.01	...	1.04	...	...	.82	...	...	.74	.85	...	...	...	.66
8	1.01	1.21	1.11	1.05	...	...	...	...	1.12	...	...	1.10	.90	...	...	1.21	.93
9	1.00	1.14	1.18	1.09	1.11	...	...	...	.97	...	...	1.02	1.92	...	...	1.29	1.38
1850	1.23	1.13	1.22	1.48	.85	1.18	...	...	1.03	...	...	.87	.99	1.41	...	1.20	1.14
1	.82	.69	.71	.74	...	1.50	...	...	1.19	...	...	1.00	.91	1.44	...	1.08	1.73
2	1.09	1.19	1.20	1.02	...	...	1.07	...	.97	...	...	.97	.59	1.38	...	1.25	1.41
3	.87	.86	...	...	...	.72	.74	...	.88	...	...	...	.79	1.04	...	...	1.05
4	.91	.73	...	...	1.54	.96	.97	.92	.79	...	...	1.03	1.03	.73	.99	1.10	.55
5	1.07	1.16	...	...	...	.75	1.31	1.24	1.10	...	1.22	1.12	.96	.94	1.35	1.15	.73
6	.76	.78	.57	...	.95	.82	.57	.60	.63	.87	.67	.96	.88	1.01	.91	1.05	.98
7	.95	1.33	.77	...	...	...	.91	1.02	.82	.95	.79	1.01	1.25	...	1.49	.66	.81
8	1.45	1.22	1.10	...	1.18	...	1.28	1.26	1.19	1.26	1.47	1.48	...	.79	.88	1.22	1.36
9	1.14	1.20	1.01	1.21	.96	...	1.05	1.14	...	.75	.74	.95	...	1.04	1.28	.89	.84
1860	.94	1.12	...	...	.94	...	.88	...	...	.73	.88	.79	...	1.22	.66	.77	...
1	1.09	.94	.94	1.11	1.28	...	.91	.97	...	1.05	.91	1.10	...	1.29	.90	.74	1.00
2	1.00	1.02	.85	1.00	1.05	...	1.16	1.19	...	1 50	1.25	1.36	...	.57	1.17	.89	1.24
3	.87	.93	.90	...	1.01	...	.85	.90	...	.87	.88	1.11	...	.69	.73	.72	...
4	.96	1.19	.74	.96	.86	...	.79	.87	...	.79	.83	.98	...	.48	.56	.74	.86
5	1.15	1.16	.98	...	.70	...	1.21	1.17	...	1.00	1.18	1.05	...	1.00	1.36	1.06	.80
6	1.11	1.18	1.11	...	1.05	...	1.31	.96	...	.88	...	1.19	...	...	...	1.00	...
7	1.09	.82	...	...	...	...	...	...	...	...	...	...	...	1.21	...	...	...

	Iowa.	Missouri.			Indian Territory.			Kansas.		Nebr.	Wyo.
	Dubuque.	Jefferson Barracks.	St. Louis Arsenal.	St. Louis.	Fort Towson.	Washita.	Ft. Gibson.	Ft. Leavenworth.	Fort Riley.	Ft. Kearny.	Ft. Laramie.
1836	...	...	...	...	...	...	...	...	...	...	...
7	...	...	.63	.64	.86	...	.95	1.21	...	...	...
8	...	...	.56	.67	.67	...	.52	.83	...	...	...
9	...	...	.99	1.12	1.29	...	.93	1.05	...	...	...
1840	...	...	...	.98	1.09	...	1.53	1.01	...	...	...
1	...	.89	.93	1.01	1.30	...	1.00	.82	...	...	...
2	...	.73	...	.75	1.44	...	.80	.83	...	...	...
3	...	.79	.73	.82	1.09	...	.98	.51	...	...	...
4	...	.91	1.20	1.08	.91	.95	1.03	1.52	...	...	...
5	...	.80	.93	.90	.74	.91	.72	1.09	...	...	...
6	...	.88	1.32	1.05	...	1.31	.93	.75	...	...	...
7	...	...	1.53	1.13	...	.98	.66	.66	...	...	...
8	...	.86	1.48	1.09	...	.93	1.04	1.20	...	...	...
9	...	.94	1.68	1.08	...	1.69	1.45	1.35	...	1.81	...
1850	...	.97	.82	1.20	.97	1.09	.96	.85	...	.99	.62
1	...	.88	.81	1.01	.96	.83	1.43	1.19	...	1.05	.66
2	...	1.35	.95	1.11	...	1.24	1.42	1.15	...	.82	2.07
3	...	.88	.68	.73	.82	.80	.71	.79	...	1.19	2.03
4	.83	1.06	.73	.96	...	1.14	.79	.77	.72	1.05	1.47
5	.87	1.14	1.26	1.19	...	.57	.98	.87	1.11	1.00	1.25
6	...	...	.75	1.00	...	.76	1.09	1.35	1.05	1.15	.99
7	...	1.01	...	.92	...	.87	...	1.00	.76	1.14	.40
8	1.41	1.22	...	1.63	...	...	...	1.88	1.36	1.03	.52
9	.89	1.26	...	1.45	...	...	...	1.23	1.00	.64	.41
1860	.80	.98	...	.71	...	...	...	.61	.56	.67	...
1	1.15	1.27	...	.90	...	...	...	.86	1.34	.77	...
2	1.05	...	...	1.04	...	...	...	.93	.86	.87	.84
3	1.01	...	...	.88	...	...	...	.96	1.16	...	.34
4	.75	...	...	.79	...	...	...	.51	.61	...	...
5	1.08	...	...	1.11	...	...	...	1.61	.94	...	...
6	1.08	...	...	.99	...	...	...	...	1.15	...	...
7	...	...	...	.89	...	...	...	.81	1.28	...	...

	New Mexico.			California.					Oreg.	Wash. Ter.		Alas.
	Albuquerque.	Fort Marcy.	Fort Union.	Sacramento.	San Diego.	San Francisco.	Benicia Barracks.	Fort Humboldt.	Dalles of Columbia.	Fort Vancouver.	Fort Steilacoom.	Sitka.
1848	...	...	...	...	...	...	...	...	...	...	...	1.09
9	...	...	...	...	...	...	...	...	...	...	...	.90
1850	.60	...	...	1.00	.86	...	.89	...	...	.99	.76	1.15
1	...	...	...	.78	.82	.70	1.01	...	...	...	.89	.87
2	1.80	...	1.22	1.38	1.30	1.18	1.18	...	...	1.44	1.11	.94
3	.88	1.31	.61	1.03	.86	.88	.78	...	.67	1.08	1.30	1.09
4	1.54	1.49	.66	1.12	1.32	.95	.83	.81	.57	.82	1.60	1.04
5	...	1.46	.85	.95	1.46	1.13	1.16	1.09	.55	1.17	...	...
6	.51	1.38	.93	.73	1.11	.83	.81	.76	...	1.35	...	1.05
7	.64	.52	.96	.87	.75	.82	.81	.90	1.35	1.22	.89	1.07
8	2.01	.68	1.04	.86	.98	.93	.83	1.16	2.01	1.04	1.14	.97
9	.73	.57	1.12	.86	...	.98	.90	1.19	1.66	1.00	.88	.98
1860	.47	.53	.66	1.01	...	.95	.97	1.14	.99	.90	.69	...
1	...	.95	1.88	1.07	...	1.06	...	.96	1.33	1.13	.83	.70
2	...	...	.98	1.40	.78	1.66	1.33	...	.73	.76	.59	1.03
3	...	.47	...	.62	...	.70	...	1.04	.65	1.09	1.03	.89
4	.76	1.25	...	.99	.81	.91	...	.86	...	.81	.69	...
5	...	1.39	...	.57	.93	.54	...	.88	1.02	.67	.85	...
6	...	...	...	1.36	...	1.57	...	...	...	...	...	...
7	...	...	...	...	...	1.32	...	...	...	.90	1.33	...

To free the ratios of the preceding table from the accidental irregularities, and to exhibit the nature of the fluctuations from year to year more distinctly, we unite them into groups formed of stations where the annual rain-fall appears subject to the same laws. The number and extent of these groups may be recognized by means of the investigation of the annual distribution as shown by the type curves, and the proper selection of stations so combined may be verified, to some extent, by the agreement within the accidental irregularities of the ratios themselves. These means, the number of stations from which they were derived, and the fourth order of successive means are given in the following table for a number of groups or types. The successive means[1] are introduced to smooth down the incidental irregularities of the phenomenon as a means for the further study of the annual fluctuation.

Group I is composed of stations on the Atlantic sea-board from Maine to Virginia (see Diagram 3); Group II covers the State of New York, it includes also Hanover, Burlington, Amherst, Montreal, and Toronto; Group III is formed by Forts Ripley and Snelling, Dubuque, Milwaukee, Muscatine, Fort Madison, and Ottawa; Group IV covers the Ohio Valley from Pittsburg westward, and includes Eastern Missouri; Group V is formed by Forts Gibson, Washita, Towson, Smith, and Washington, Ark.; Group VII includes New Orleans, Baton Rouge, Mount Vernon Arsenal, Huntsville, Greensboro', and Fort Barrancas; Group VIII comprises the Southern coast from Virginia to Florida; and Group IX the Pacific coast stations San Diego, San Francisco, Sacramento, Benicia Barracks, and Fort Humboldt.

Results from Groups I, II, IV are tolerably trustworthy, but the remaining ones can only be taken for rough approximations on account of an insufficiency of stations.

The decimal points are omitted in the tabular quantities; they are expressed, therefore, in percentage of the mean amount.

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[1] The following formulæ may also be employed, occasionally, to effect the same; they involve no special supposition as to curvature (being based upon the consideration of straight lines), and are directly derived from the average ordinate $y_m = \frac{1}{2}(y_1 + y_2)$;

for three ordinates $y_m = \frac{1}{4}(y_1 + 2y_2 + y_3)$;

for four " $y_m = \frac{1}{8}(y_1 + 3y_2 + 3y_3 + y_4)$;

for five " $y_m = \frac{1}{16}(y_1 + 4y_2 + 6y_3 + 4y_4 + y_5)$;

for six " $y_m = \frac{1}{32}(y_1 + 5y_2 + 10y_3 + 10y_4 + 5y_5 + y_6)$;

for seven " $y_m = \frac{1}{64}(y_1 + 6y_2 + 15y_3 + 20y_4 + 15y_5 + 6y_6 + y_7)$; and so on;

for $n+1$ ordinates the coefficients are those of the n^{th} power of a binomial and corresponding to successive means of the n^{th} order.

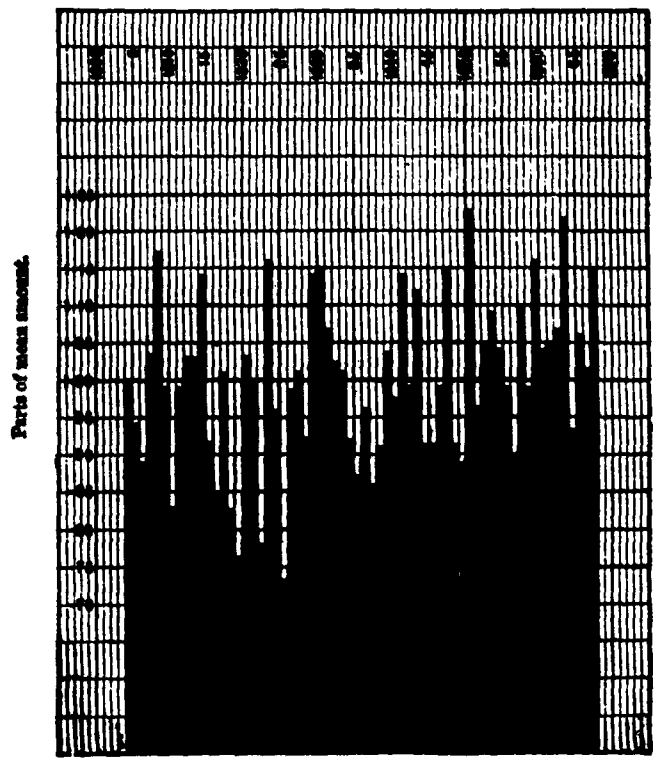
At what order of successive means we should stop depends entirely on the nature of the irregularities; care must be taken not to eliminate by the process any of the characteristic features.

	Group I. Sea-coast Maine to Virginia.			Group II. State of New York and adjacent parts of Canada, N.H., Mass. and Vt.			Group III. Parts of Iowa Minnesota, Ill., Wis.			Group IV. Ohio Valley, Ohio, Ind., Ill., Kent. and part of Mo.			Group V. Indian Ter. and Ark.			Group VII. Louisiana, Alab., West. Flor.			Group VIII. Sea-coast Virginia to Florida.			Group IX. Sea-coast California.		
	Per cent. of mean amount.	No. of stat'ns.	4th order of suc. means.	Per cent. of mean amount.	No. of stat'ns.	4th order of suc. means.	Per cent. of mean amount.	No. of stat'ns.	4th order of suc. means.	Per cent. of mean amount.	No. of stat'ns.	4th order of suc. means.	Per cent. of mean amount.	No. of stat'ns.	4th order of suc. means.	Per cent. of mean amount.	No. of stat'ns.	4th order of suc. means.	Per cent. of mean amount.	No. of stat'ns.	4th order of suc. means.	Per cent. of mean amount.	No. of stat'ns.	4th order of suc. means.
1804	100	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	94	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	89	1	96	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	104	1	102	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	117	2	106	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	99	2	101	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1810	83	3	94	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1	99	3	96	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2	103	3	101	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
3	103	3	104	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
4	114	4	103	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	92	4	97	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	85	4	92	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	101	5	90	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	83	6	87	...	...	...	...	...	...	120	1	...	...	...	...	...	...	...	...	...	...	...	...	...
9	76	5	87	...	...	...	...	...	...	86	1	...	...	...	...	...	...	...	...	...	...	...	...	...
1820	103	5	93	...	...	...	...	...	...	93	1	95	...	...	...	...	...	...	...	...	...	...	...	...
1	100	5	94	...	...	...	...	...	...	102	1	100	...	...	...	...	...	...	...	...	...	...	...	...
2	78	4	96	...	...	...	...	...	...	103	1	105	...	...	...	...	...	...	...	...	...	...	...	...
3	116	4	97	...	...	...	...	...	...	118	1	107	...	...	...	...	...	...	...	...	...	...	...	...
4	96	5	94	...	...	...	...	...	...	...	...	106	...	...	...	...	...	...	...	...	...	...	...	...
5	73	5	89	...	...	...	...	...	...	...	...	104	...	...	...	...	...	...	...	...	...	...	...	...
6	98	4	91	81	1	...	...	...	...	99	1	103	...	...	...	...	...	...	...	...	...	...	...	...
7	101	6	96	122	1	...	...	...	...	98	1	103	...	...	...	...	...	...	...	...	...	...	...	...
8	92	8	102	102	3	105	...	...	...	117	1	102	...	...	...	...	...	...	...	...	...	...	...	...
9	114	7	108	98	3	102	...	...	...	94	1	97	...	...	...	...	...	...	...	...	...	...	...	...
1830	115	8	111	103	5	101	...	...	...	79	2	95	...	...	...	...	...	...	...	...	...	...	...	...
1	107	8	108	100	6	102	...	...	...	115	3	101	...	...	...	79	1	...	...	...	...	...	...	...
2	102	9	104	104	8	102	...	...	...	110	3	102	...	...	...	85	1	...	...	...	...	...	...	...
3	101	9	99	106	8	97	...	...	...	93	3	97	...	...	...	123	1	106	...	...	...	...	...	...
4	92	9	94	76	6	90	...	...	...	85	3	93	...	...	...	115	1	112	...	...	...	...	...	...
5	87	9	91	93	8	87	...	...	...	95	4	93	...	...	...	110	1	108	...	...	...	...	...	...
6	96	10	90	89	9	87	...	...	...	98	4	93	...	...	...	101	2	99	...	...	...	...	...	...
7	86	11	90	84	10	87	93	1	...	92	7	89	90	2	...	86	1	90	83	2	...	...	...	...
8	91	14	93	90	11	88	107	1	...	77	6	84	62	3	...	88	1	83	87	2	...	...	...	...
9	104	16	98	88	12	91	82	1	93	82	7	86	109	3	100	72	2	82	103	2	105	...	...	...
1840	97	16	103	101	12	95	90	1	93	97	6	92	125	4	112	87	1	86	127	2	120	...	...	...
1	114	18	105	93	11	100	99	2	97	96	8	95	116	4	112	98	1	91	136	3	125	...	...	...
2	99	17	106	113	12	104	103	1	100	95	8	98	99	4	105	85	1	95	124	3	118	...	...	...
3	112	18	103	109	12	101	92	1	100	102	11	99	104	4	98	111	4	97	103	4	105	...	...	...
4	91	18	98	85	11	95	112	2	98	102	11	100	91	5	92	90	3	97	87	4	96	...	...	...
5	91	17	96	93	12	92	83	2	92	96	11	104	81	5	91	86	3	103	95	4	97	...	...	...
6	99	19	100	95	10	95	88	3	87	115	11	110	103	4	96	140	3	111	106	5	103	...	...	...
7	115	18	102	102	9	98	75	3	90	118	11	114	98	4	103	106	2	109	117	5	104	...	...	...
8	91	18	99	96	10	98	104	4	102	112	11	113	104	4	113	90	2	102	95	5	96	...	...	...
9	89	20	100	91	9	100	123	3	113	110	11	110	146	4	119	107	3	99	78	5	88	...	...	...
1850	123	20	105	117	12	104	112	5	118	115	11	106	106	4	115	101	3	95	93	7	86	92	3	...
1	96	20	106	99	12	104	123	5	117	90	11	102	99	4	110	80	4	90	80	7	91	83	4	...
2	105	23	105	101	11	101	112	5	110	111	12	97	136	4	107	84	3	93	118	6	100	126	4	101
3	109	17	105	101	7	97	96	3	100	83	10	93	79	5	100	115	4	98	102	6	100	89	4	102
4	104	19	102	86	8	96	88	6	94	88	11	93	99	4	91	96	4	99	93	6	95	101	5	102
5	99	20	98	109	5	97	96	6	94	117	12	94	82	4	87	92	5	98	89	6	93	116	5	101
6	89	21	98	84	6	100	96	6	98	71	12	93	86	4	89	105	5	97	98	7	93	85	5	94
7	110	21	102	120	6	105	94	5	103	96	12	99	96	3	93	86	4	96	85	7	95	83	5	90
8	99	21	106	100	5	106	125	6	105	126	12	109	104	1	95	102	4	98	105	7	100	95	5	93
9	116	20	108	111	5	103	89	6	100	112	11	109	85	1	...	101	5	102	111	7	103	98	4	98
1860	104	11	108	88	5	103	86	5	96	93	6	103	93	2	...	109	1	102	91	2	...	102	4	102
1	105	15	108	116	7	106	105	6	100	102	10	101	...	...	...	99	1	98	115	2	...	103	3	107
2	107	14	111	109	7	109	110	6	103	109	9	99	...	...	...	86	1	97	...	...	...	129	4	106
3	122	13	110	109	6	108	88	5	102	91	8	95	...	...	...	108	1	101	...	...	...	79	3	95
4	93	14	106	103	6	108	110	6	102	90	9	93	...	...	...	106	1	107	...	...	...	89	4	88
5	106	16	104	115	6	108	100	6	105	91	8	97	...	...	...	112	1	108	...	...	...	73	4	100
6	102	16	...	104	5	...	104	4	...	114	7	...	...	...	...	110	1	...	...	...	...	146	2	...
7	115	11	...	102	2	...	121	1	...	94	3	...	...	...	...	96	1	...	127	1	...	132	1	...

The tabular mean results are graphically exhibited in Diagrams 5, 6, and 7 for the more reliable groups.

The irregularities in the successive annual amounts of rain are very great, yet they do not wholly obliterate the indications of a conformity to general laws; thus Diagrams 5 and 6 distinctly indicate an increase of rain, on the average, since 1835, and show a certain tendency to an arrangement of groups of years of drought

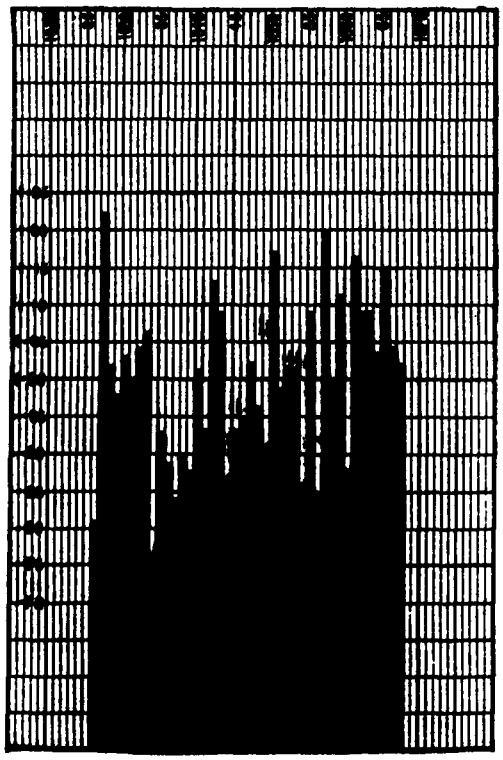
DIAGRAM 5.



FLUCTUATIONS IN THE ANNUAL RAIN FALL
GROUP I.—*Atlantic Sea-coast, Maine to Maryland.*

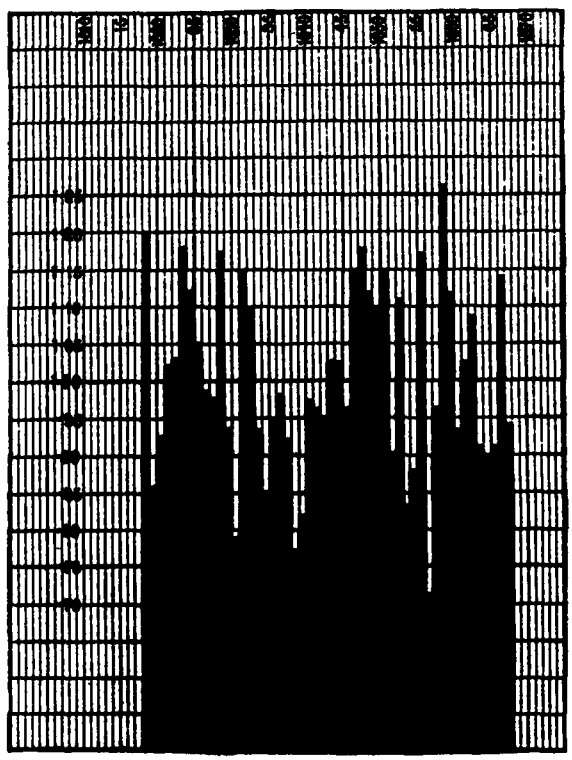
followed by unusually wet years. The fluctuations of rain, as shown on Diagrams 5 and 6, are evidently similar, and these groups might have been combined into one; the fluctuations in the Ohio Valley are of quite a different character.

DIAGRAM 6.



FLUCTUATIONS IN THE ANNUAL RAIN FALL
Group II.—*State of New York with some adjacent localities.*

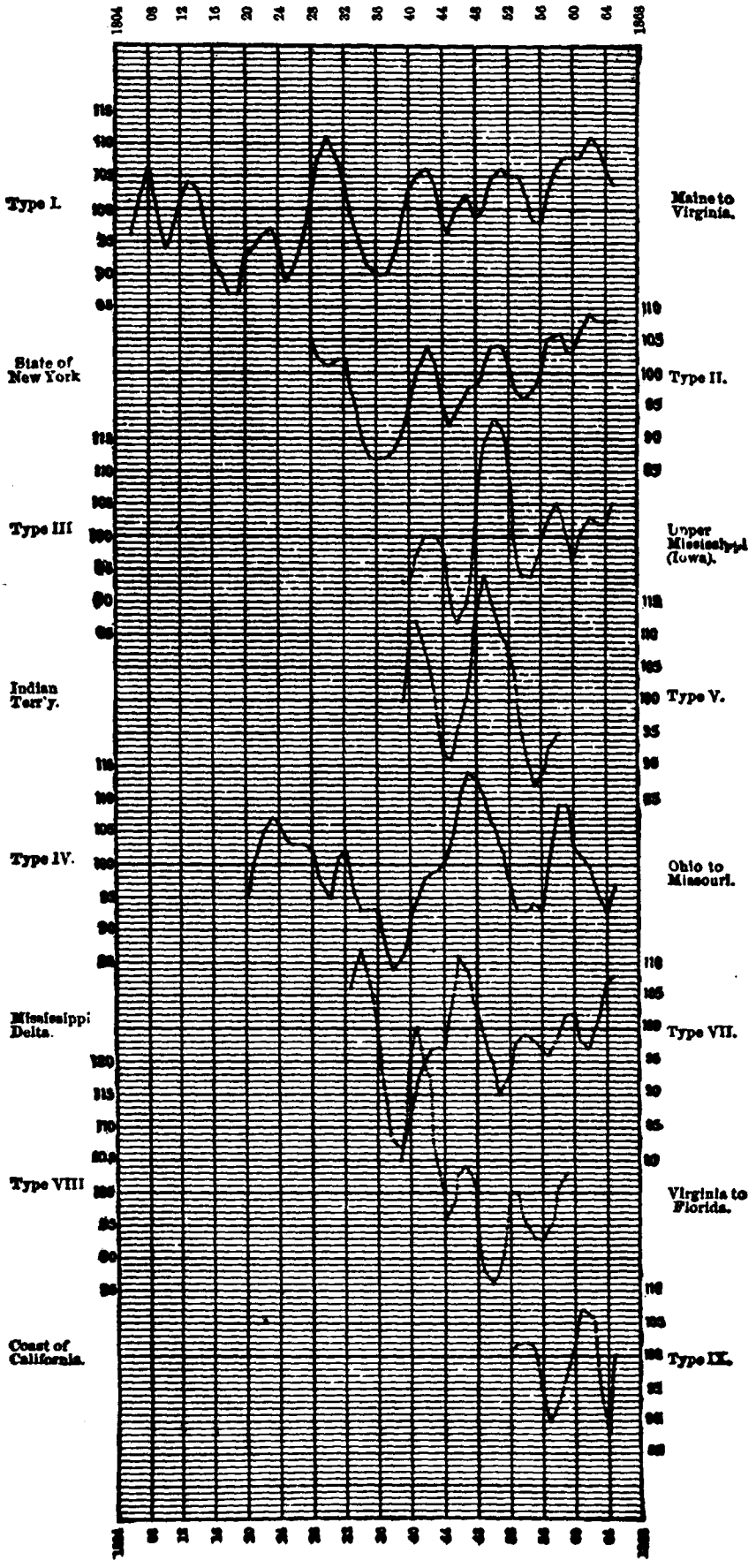
DIAGRAM 7.



FLUCTUATIONS IN THE ANNUAL RAIN FALL
Group IV.—*Valley of the Ohio River; Ohio to Eastern Missouri.*

These fluctuations can be compared and studied to better advantage by means of a graphical representation of the *successive means* (of the 4th order as given in the table); these are given in Diagram 8.

DIAGRAM 8.


1804
08
12
16
20
24
28
32
36
40
44
48
52
56
60
64
1868
Type I.
State of New York
Type III
Indian Terr'y.
Type IV.
Mississippi Delta.
Type VIII
Coast of California.
Maine to Virginia.
Type II.
Upper Mississippi (Iowa).
Type V.
Ohio to Missouri.
Type VII.
Virginia to Florida.
Type IX.

The observed succession of annual amounts of rain-fall on the Atlantic coast from Maine to Virginia, and in the interior of the State of New York, seems to be governed by the same circumstances or laws, as is evident by a comparison of the curves Type I and Type II; and indeed Type III, region of the upper Mississippi (Iowa), bears some resemblance to these curves, but is not yet sufficiently developed to be pronounced identical in character. The curve of Type I points to a gradual increase of the average annual precipitation from about 1818 to the present time; whether or not we have reached the maximum of this long fluctuation or secular change cannot yet be determined, but it is probable that we have passed it. Besides this greater change, which extends over several decades, and which undoubtedly is of a periodic character, there are smaller undulations covering a period of but a few years; these latter waves are superposed upon the larger one, and appear of variable parameter, those near the minimum of the greater period being greatest, and decreasing gradually to the present time. As our records increase in extent this general character of the rain-fall will no doubt receive some modification; the above description answers, however, to its aspect within the period now available for discussion.

The variations in the rain-fall, from year to year, in the Ohio Valley, and as far west as Missouri, are different from those just noticed, though they are not of an opposite character. Type IV indicates *no* secular increase, and the secondary waves appear larger than in Type I; the remarkable period of droughts about 1836, as well as the less conspicuous or relative one about 1855, are common to the two regions. A comparison with Type VII of the Mississippi delta and Alabama leads to the inference that the law of succession of dry and wet years along the region of the Ohio partakes largely of the character of that on the Gulf coast. On our southern Atlantic coast the distribution is different from any of the above types; the rain-fall here seems to have been on the decrease (see Type VIII). Type IX, for the coast of California, is too limited in extent to be analyzed.

The wavelike irregularities presented in Diagram 8 were compared with a curve representing the state of the sun's annual average activity in the production of spots, a phenomenon which may possibly have some indirect connection with the variations in the annual rain-fall. The decided minimum in precipitation about the years 1837–8 corresponds to the decided maximum of solar disturbance at this epoch; but the comparison of the two phenomena about the period 1854–5 leads to an opposite conclusion. This last epoch is one of minimum rain-fall, as well as of a minimum in the number of spots occurring in 1855–6. The two curves appear, of course, to coincide for some years about these epochs, yet it is plain that either there is no such connection between the two phenomena, as has been supposed, or else the accidental and local irregularities in the rain-fall are not sufficiently eliminated to allow of the recognition of the law regulating the secular changes.

Taking a general view of the results of this investigation, it must be admitted that, while they exhibit, in a concise form, the broader features of the laws of distribution of rain in the United States, they must still be regarded as but first

approximations, considering the irregularity in the phenomenon itself, and the comparative scantiness and frequent discontinuity of our records. While these deductions follow from the present collection and combination of available material, they may stimulate to more extended observations and serve as a basis of more detailed investigations hereafter.

LIST OF METEOROLOGICAL STATIONS

AT WHICH THE RAIN-FALL WAS OBSERVED.

Abbeville, 80
Adams, 60, 151
Adrian, 44
Afton, Iowa, 30, 125
Afton, Minnesota, 48, 140
Agricultural College, Maryland, 40, 133
Aiken, 80, 169
Ailsa Craig, 6, 109
ALABAMA, 10, 11, 112, 189, 191, 192, 199, 202, 204, 206, 212, 220, 224, 228
ALASKA, 10, 11, 113, 203, 212, 216, 222
Albany, New York, 60, 151, 196, 198, 215, 218
Albany, Oregon, 74, 163
Albion Mines, 2, 106
Albuquerque, 58, 150, 205, 222
Alcatraz Island, 14, 115
Alexandria, 90, 176
Alfred, 60
Algona, 30, 125
Allegheny County, Virginia, 90, 176, 204
Allegheny Arsenal, 76, 164, 197, 200, 219
Allegheny City, 76, 164
Allenton, 50, 143
Alligator, 21
Allowaystown, 56, 148
All Saints, 80, 169
Alpena, 44, 138
Alto, 24
Alton, Illinois, 24
Alton, Kansas, 32
Altoona, 76
Alto Vista, 91
Ames, 30
Amesville, 68
Amherst, 42, 135, 196, 198, 215, 217, 223
Amoskeag, 56
Amsterdam, 60
Anandale, 69
Andalusia, 24, 122
Andover, 42, 135
Angelica, 60, 151
Angel Island, 14, 115
Annapolis, Indiana, 28, 124
Annapolis, Maryland, 40, 133
Ann Arbor, 44, 138
Anthony Creek, 90, 204
Anticosti Island, 4, 108
Antrim, 56
Appleton, 94, 179
Aransas Canal, 84
Arcadia, 36, 129
Arcola, 72
Ardenia, 60
Argyle, 60, 151
ARIZONA, 12, 13, 113, 190, 212
ARKANSAS, 12, 13, 114, 189, 192, 199, 201, 212, 220, 224
Arkansas City, 32
Asheville, 68, 158
Ashland, Pennsylvania, 76
Ashland, Virginia, 90
Ashland, West Virginia, 92, 179, 204
Ashland, Wisconsin, 94, 179
Aspinwall, 100, 185
Astoria, 74, 163
Asuncion, 100
Atalissa, 30
Atchison, 32, 127
Atco, 56, 148
Athens, Georgia, 22, 120
Athens, Illinois, 24, 122, 197, 221
Athens, Missouri, 50, 143, 200
Atlanta, Georgia, 22, 120
Atlanta, Kansas, 32, 127
Atlantic City, 56, 148
Atsena Otie, 21
Attaway Hill, 68, 158
Auburn, Alabama, 10, 112
Auburn, New Hampshire, 56
Auburn, New York, 60, 196, 198
Auburn, Oregon, 74
Augusta, Georgia, 22, 23, 120
Augusta, Illinois, 24, 122, 205
Augusta, Maine, 38
Aurora, Illinois, 24, 122
Aurora, Indiana, 28, 124
Austin, Tennessee, 82, 171
Austin, Texas, 84, 172, 220
Austinburg, 68, 159
Avon, Kansas, 34
Avon, Ohio, 68, 159
Avondell, 76, 164
Aylmer, 6

Baar Tabasco, 98
Baddeck, 2
BAHAMA ISLANDS, 98, 99, 183
Bakersville, 68
Baldwinsville, Massachusetts, 42, 135
Baldwinsville, New York, 60
Baldwyn, 50
Ballardsville, 36, 129
Baltimore, 40, 133, 196, 197, 215, 217
Bangor, Iowa, 30
Bangor, Maine, 38
Baptist Mission, Indian Territory, 30
Baraboo, 94, 179
Barbadoes, 98, 184
Bardstown, 36, 129
Barnegat, 56, 148
Barnesville, 60
Barnet, 88
Barnstable, 42, 135
Barnstead, 56
Barratsville, 80
Barrie, 6, 109
Bass River, 4, 107
Batavia, 24, 122
Bath, 38, 131
Bathurst, 4, 107
Baton Rouge, 36, 130, 196, 202, 220, 223
Battle Creek, 44, 138, 205
Baxter Springs, 32, 127
Bay City, 94
Bayfield, 94
Bay Saint George, 2, 106
Beatrice, 6
Beaufort, 82
Beaufort Hospital, 68
Beaver, 76, 164
Beaver Bank, 2, 106
Beaver Bay, 48, 140
Beaver Brook, 60
Beaver Island, 47
Bedford, 76, 164, 204
Beech Fork, 36
Beech Grove, 28, 124
Belfast, 38
Belize, 98, 183
Belle Center, 73
Bellefontaine, 68, 159
Bellefonte, 76
Belleville, Kansas, 32, 127
Belleville, New York, 60
Belleville, Ontario, 6, 109
Bellevue, Iowa, 30, 125
Bellevue, Nebraska, 54, 145, 205
Bellport, 60, 151
Belmont Farm, 84, 172
Beloit, 94, 179, 205
Belvidere, 24, 122
Benicia Barracks, 14, 115, 222, 223
Benton, 53
Benton Center, 60
Benzonia, 44, 138
Berea, 68
Berlin Heights, 68, 159
BERMUDA ISLANDS, 98, 99, 184
Berne, 22, 120
Berryville, 90, 176
Berwick, 76, 164
Bethel, Maine, 38, 131
Bethel, Ohio, 70, 159
Bethel Springs, 82, 171
Beverly, 60, 151
Biddeford, 38, 131
Biscayne, 20
Bismarck, 18
Black River, 36, 130
Blacksburg, 90
Bladensburg, 40, 133
Blair, 54
Blandville, 36, 129
Blockhouse, 74, 163
Bloomfield, New Jersey, 56, 148
Bloomfield, Wisconsin, 94, 179
Blooming Grove, 76, 164
Bloomington, Indiana, 28, 124

Bloomington, Iowa, 33
Blue Branch, 84, 172
Blue Hill, 38
Bluff Settlement, 84, 172
Bluff Spring, 10
Blufton, 82, 169
Bolivar, Alabama, 10
Bolivar, Missouri, 50, 143
Bonham, 84
Bon Homme, 18
Bon Secour, 10
Boonesboro, 30, 125
Boonville, 60
Border Plains, 30, 125
Boston, Georgia, 22
Boston, Massachusetts, 42, 135, 194, 195, 196, 197, 215, 217
Bowen's Prairie, 30, 125
Bowling Green, 70, 159, 205
Boyd's Corners Reservoir, 60, 151
Bozeman, 52
Braddock's Point, 22
Bradford, 42, 135
Brampton, 6, 109
Branchburg, 56, 148
Brandon, 88, 175
Brantford, 6, 109
Breckinridge, 48, 140
Brecksville, 70
Breslau, 60
Bridgewater, Massachusetts, 42, 135
Bridgewater, New York, 60
Brighton, 24, 122
BRITISH AMERICA, 2, 3, 4, 5, 6, 7, 8, 9, 106, 107, 108, 109, 110, 111
BRITISH COLUMBIA, 8, 9, 111
BRITISH GUIANA, 100, 101
Brockville, 6, 109
Brome, 4
Brookfield, Connecticut, 16
Brookfield, Vermont, 88
Brookhaven, Mississippi, 50, 142
Brookhaven, New York, 60, 151
Brooklyn, Michigan, 44
Brooklyn, New York, 60, 151
Brookside, 30, 125, 205
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Brownsville, 76
Bruce, 24
Brunswick, 38, 131, 196, 197, 209, 210, 215, 217
Buckhorn, 12
Bucksport, 38, 131
Bucksville, 70
Buffalo, 60, 151
Buffalo Creek, 32
Buffalo Springs, 84
Burkeville, 84
Burlingame, 32, 127
Burlington, Iowa, 30
Burlington, Kansas, 34, 127
Burlington, Minnesota, 48, 140
Burlington, New Jersey, 56, 148
Burlington, Vermont, 88, 175, 196, 198, 215, 217, 223
Bustleton, 76
Butler, 76, 164, 204
Byberry, 76, 164
Byron, 30

Cabaniss, 22, 120
Cadiz, 28, 124
Cahto, 14, 115
Cairo, 24, 122
Calais, 88
Caldwell, 60
Caledonia Coal Mine, 2, 106
CALIFORNIA, 14, 15, 16, 17, 115, 190, 191, 192, 194, 212, 216, 222, 224, 227, 228
Cambridge, Massachusetts, 42, 135, 196, 197, 217
Cambridge, New York, 60
Camden, Arkansas, 12
Camden, South Carolina, 82, 169
Camp Baker, 52, 141
Campbell County, Kentucky, 36
Camp Bowie, 12, 113
Camp Brown, 96, 182
Camp Burgwin, 58, 205
Camp Cadwallader, 76
Camp Cady, 14, 115
Camp Colorado, Arizona, 12, 113
Camp Colorado, Texas, 84, 172
Camp Concordia, 84
Camp Conner, 24
Camp Cook, 52, 141
Camp Cooper, 84, 172
Camp Crittenden, 12, 113
Camp Date Creek, 12, 113
Camp Dennison, 70
Camp Douglas, 88, 174
Camp El Dorado, 12
Camp Far West, 14, 115
Camp Floyd, 88, 174
Camp Gaston, 14, 115
Camp Goodwin, 12, 113
Camp Grant, 12, 113
Camp Halleck, 54, 145
Camp Harney, 74, 163
Camp Hualpai, 12, 113
Camp Hudson, 84, 172
Camp Independence, 14, 115
Camp Kew, 12
Camp La Paz, 12
Camp Lincoln, Arizona, 12
Camp Lincoln, California, 14, 115
Camp Logan, 74
Camp Lowell, Tucson, 12, 113
Camp Lyon, 74, 163
Camp MacDermit, 54, 145
Camp MacDowell, 12, 113
Camp MacGarry, 54, 145
Camp MacPherson, 12
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PLATE I.

ANNUAL FLUCTUATION IN THE RAIN FALL.

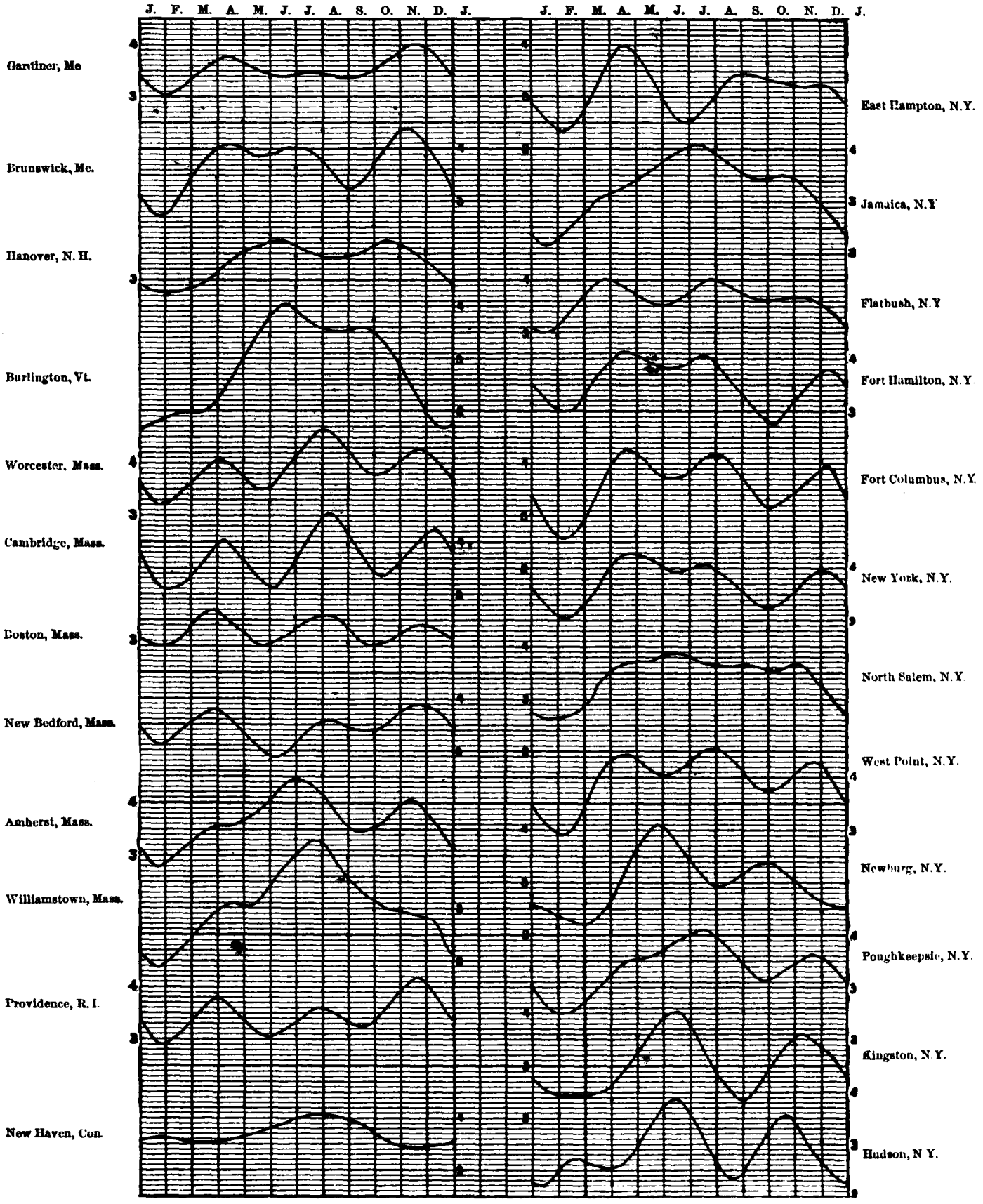
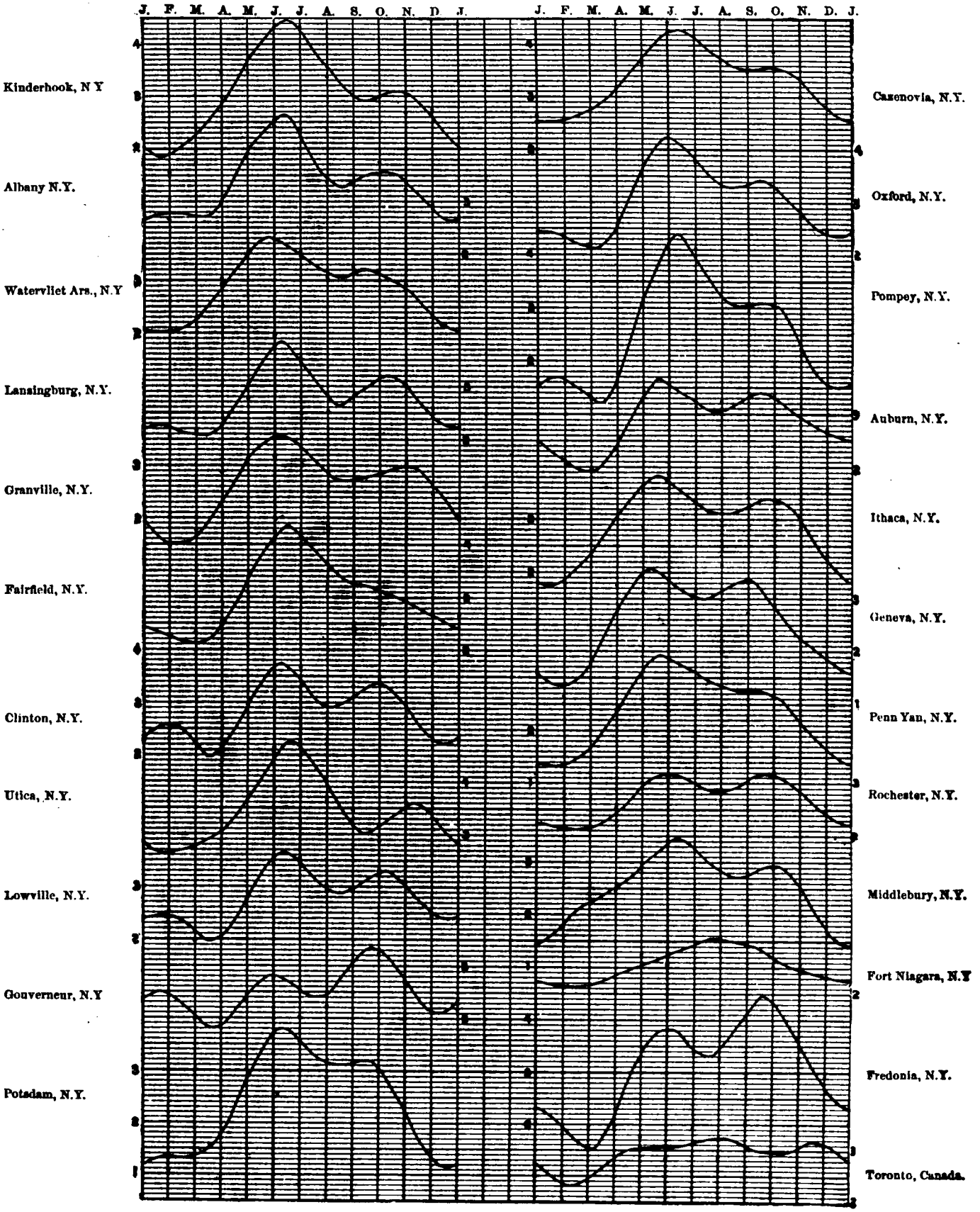


PLATE II.

ANNUAL FLUCTUATION IN THE RAIN FALL.



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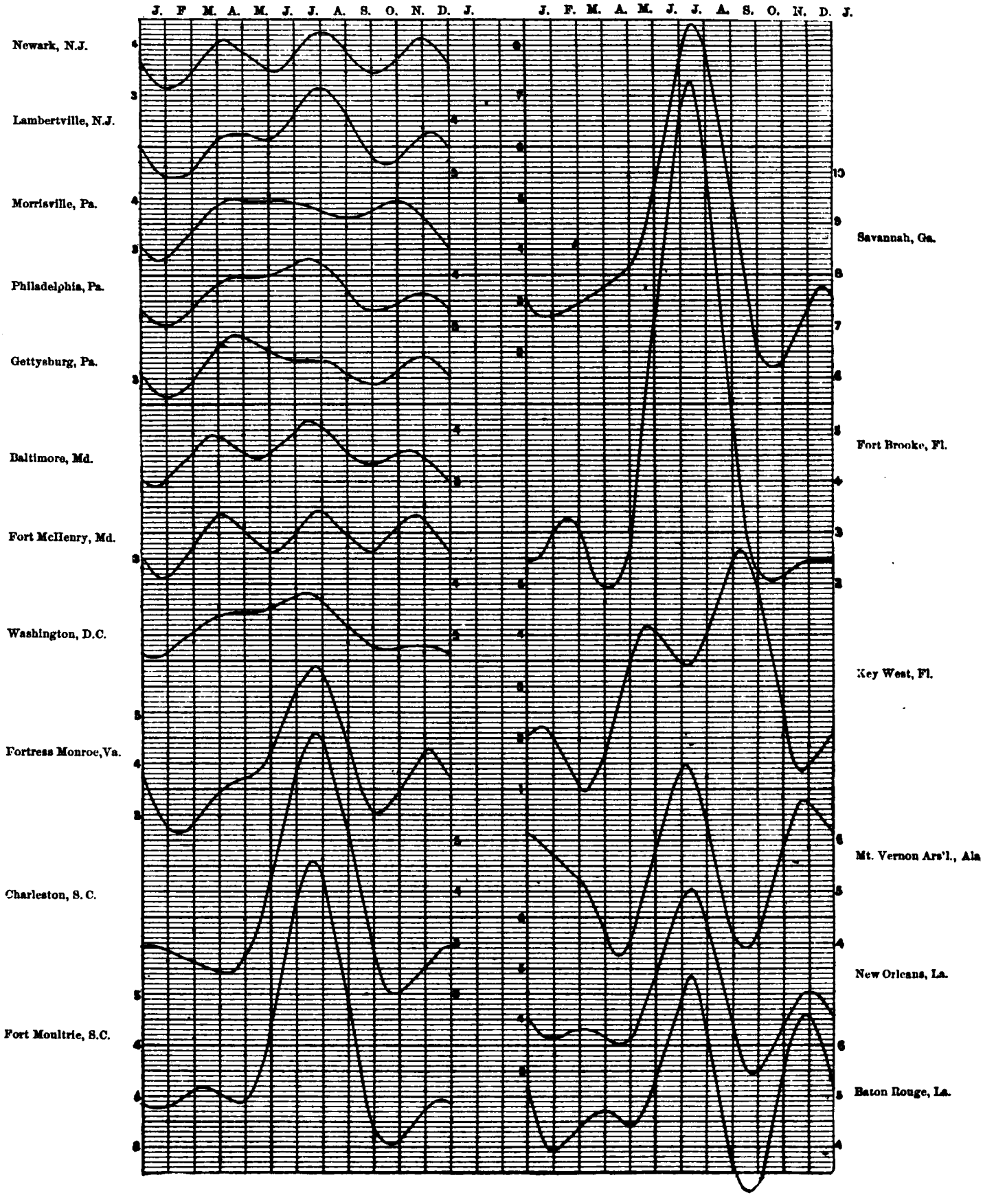

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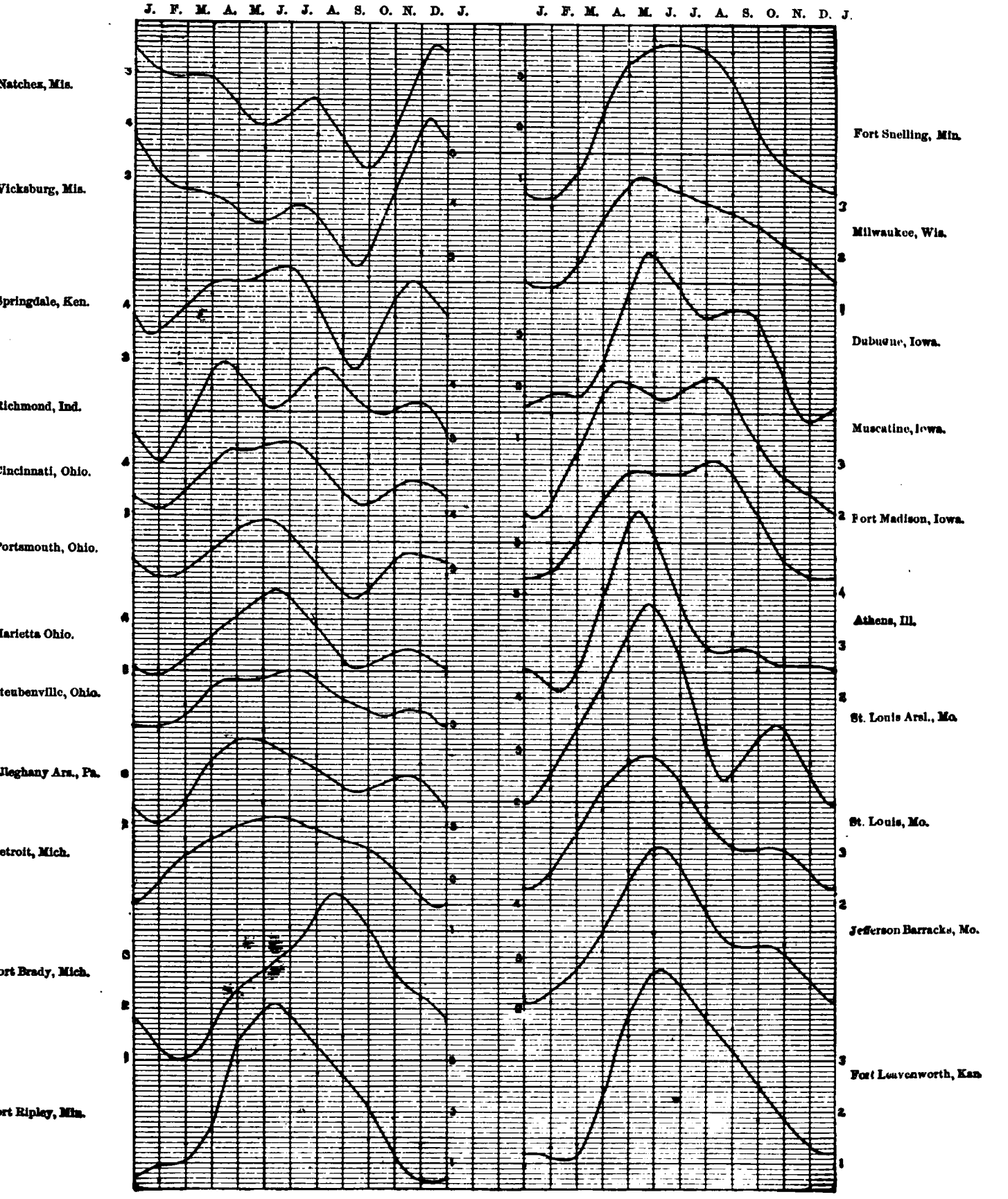

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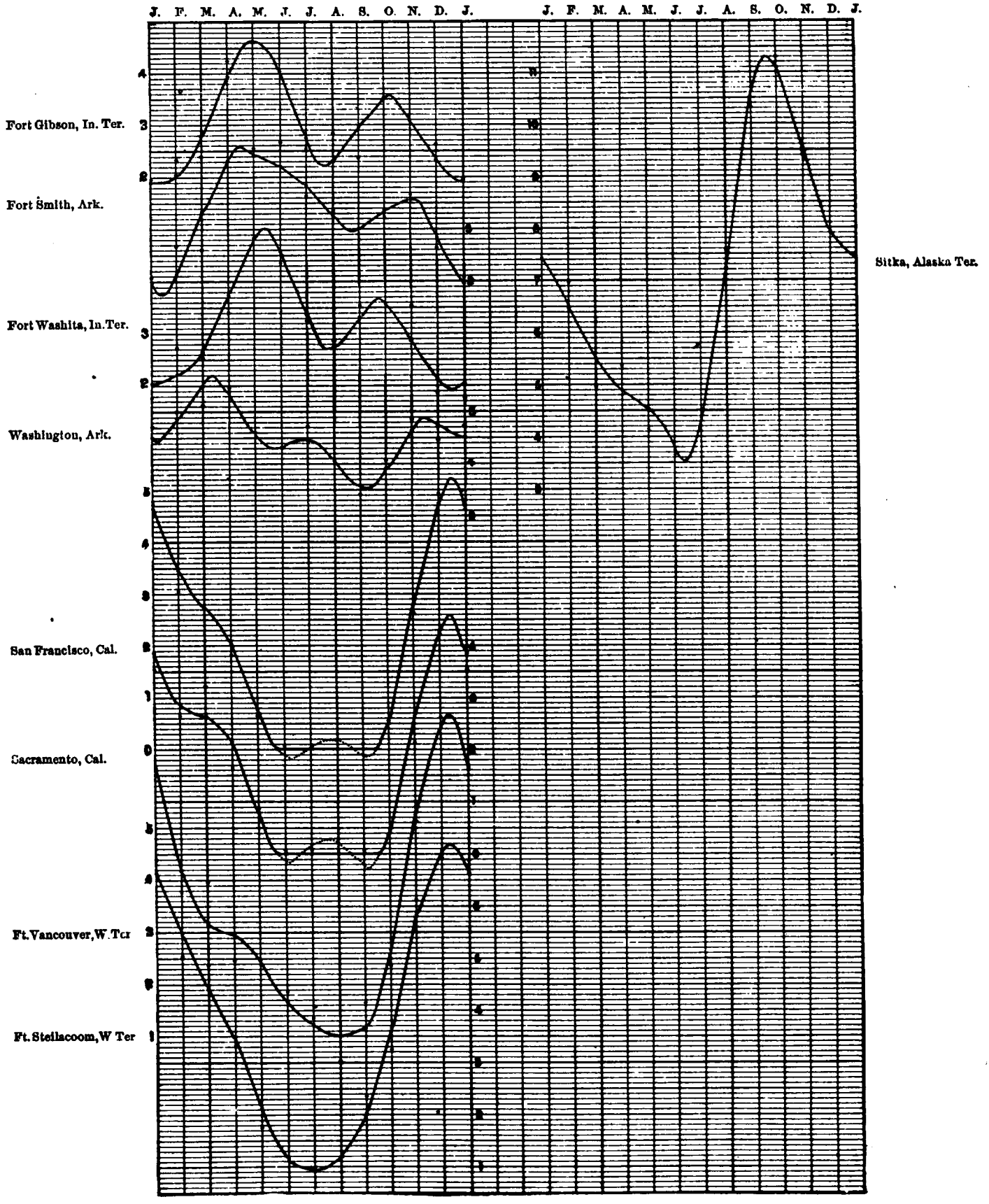

CHART OF THE UNITED STATES

ETC. SHOWING THE MEAN PRECIPITATION IN RAIN AND MELTED SNOW FOR THE SPRING.

MEAN SPRING PRECIPITATION

March 1st and May 1st

SHOWN BY ISOHYETAL CURVES FOR EVERY THIRD INCH

FROM 3 TO 18 INCHES.

From material collected and observations made for the

SMITHSONIAN INSTITUTION, Prof J HENRY, Secretary

Second Edition including records to 1877

Prof SPENCER F BAIRD, Secretary

Constructed by CHARLES A SCHOTT Assistant U S C & G Survey

August [illegible] 1884.

RAINFALL-C

SHOWIN : THE DISTRIBUTION BY ISOHYE

Explanation of Tints

Areas having an a Spring Precipitation

less than	6	in	white
6	to	9	light
9	to	12	middle
12	to	15	dark
over	15	inches	darkest

N.B. Precipitation between longitudes 103 and 125 imperfectly known

UNITED STATES

ECIPITATION IN RAIN. FOR THE SUMMER.

MEAN SUMMER PRECIPITATION

(June July and August)

SHOWN BY ISOHYETAL CURVES FOR EVERY FOURTH INCH

FROM 2 TO 26 INCHES.

From material collected and observations, made for the

SMITHSONIAN INSTITUTION, Prof. J. HENRY, Secretary

Second Edition, including records to 1877

Prof. SPENCER F. BAIRD, Secretary

Constructed by CHARLES A. SCHOTT, Assistant U. S. C. & G. Survey

WASHINGTON 1880

RAINFALL-CHART OF THE U

SHOWING THE DISTRIBUTION BY ISOHYETAL CURVES OF THE MEAN PRECIPI

Explanation of Tints

Mean Summer Precipitation

Less than 6 in. white

6 to 10 light

10 to 14 middle

14 and upwards darkest

SHC

SMI

J. Bien lith. N.Y.

ıE UNITED STATES

N PRECIPITATION IN RAIN AND MELTED SNOW FOR THE WINTER

MEAN WINTER PRECIPITATION

(December, January and February)

SHOWN BY ISOHYETAL CURVES FOR EVERY SECOND INCH

FROM 2 TO 36 INCHES.

From material collected and observations made for the

SMITHSONIAN INSTITUTION, Prof. J. HENRY, Secretary

Second Edition, including records to 1877.

Prof. SPENCER F. BAIRD, Secretary

Constructed by CHARLES A. SCHOTT, Assistant U.S.C.& G. Survey

WASHINGTON 1880.

RAINFALL-CHART OF THE

SHOWING THE DISTRIBUTION BY ISOHYETAL CURVES OF THE MEAN PR

Explanation of Tints

Areas having a Winter Precipitation

less than	1	in.	white
1	to 8	"	light
8	to 12	"	middle
12	to 16	"	dark
over	16	inches	darkest

N.B. Precipitation between longitudes 103 and 123° imperfectly known.

J. Bien, lith. N.Y.

THE UNITED STATES

E MEAN PRECIPITATION IN RAIN AND MELTED SNOW FOR THE YEAR.

MEAN ANNUAL PRECIPITATION
SHOWN BY ISOHYETAL CURVES FOR EVERY SIXTH INCH
FROM 8 TO 68 INCHES.

From material collected and observations made for the
SMITHSONIAN INSTITUTION, Prof. J. HENRY, Secretary
Second Edition, including records to 1877.

Prof. SPENCER F. BAIRD, Secretary

Constructed by CHARLES A. SCHOTT, Assistant U.S.C.&G. Survey

WASHINGTON 1880

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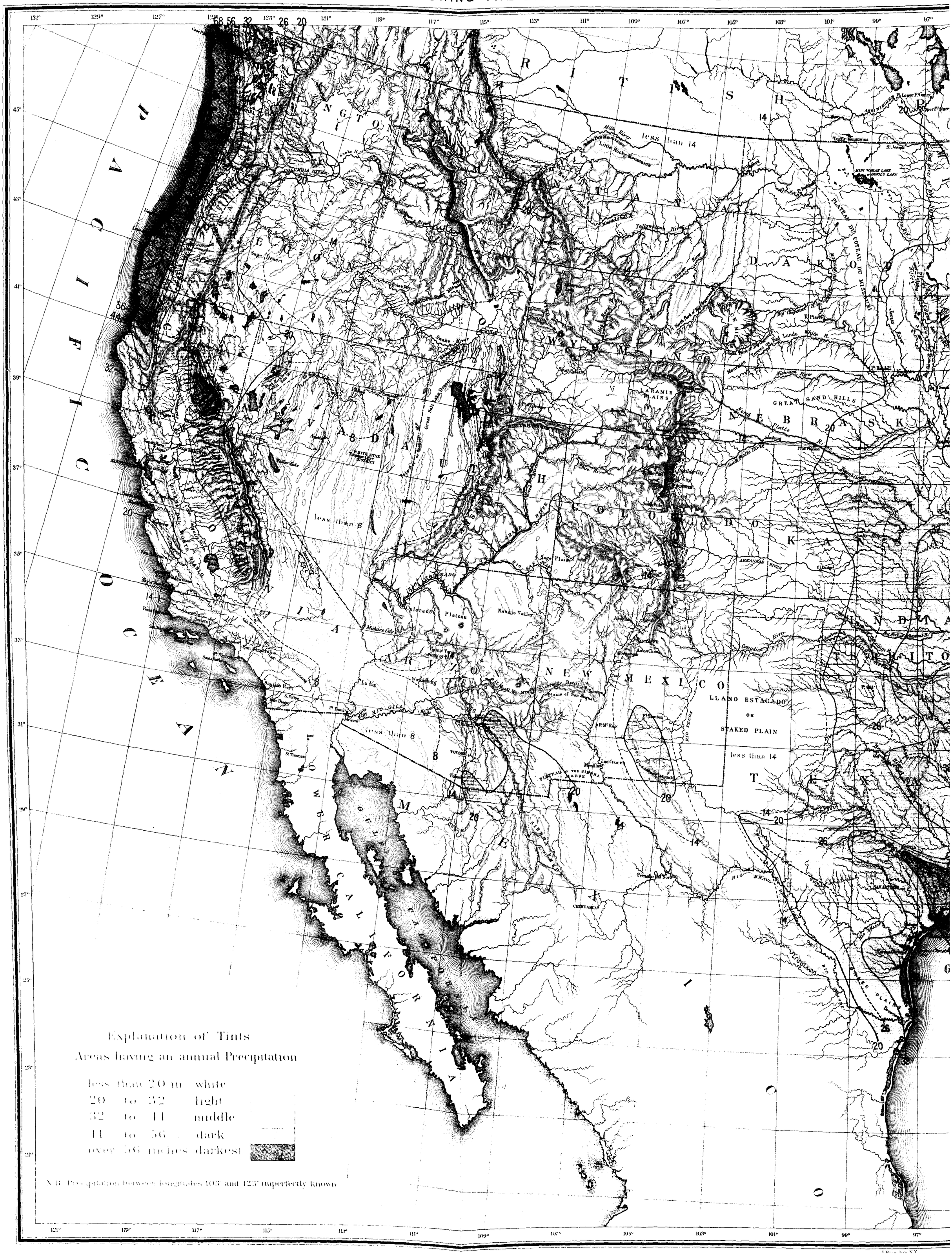
SHOWING THE DISTRIBUTION BY ISOHYETAL CURVES OF THE MEAN