METEOROLOGICAL TABLES.

[*Prepared by the Records Division.*]

Table I gives, for 140 Weather Bureau stations making two observations daily and for 10 others making only the 8 p. m. observation, the data ordinarily needed for climatological studies, viz, the monthly mean pressure, the monthly means and extremes of temperature, the average conditions as to moisture, cloudiness, movement of the wind, and the departures from normals in the case of pressure, temperature, and precipitation.

The stations are arranged in geographical or climatological divisions, for each of which the mean temperature and average precipitation for the month are also given, together with their departures from normal values.

Generally the headings of the several columns are sufficiently explicit as to the data underneath.

The mean pressure is based on the 8 a. m. and 8 p. m. simultaneous observations. Mean values thus computed differ from the mean of the 24 hourly readings by amounts varying from zero to 0.02 of an inch; the departures east of the ninetieth meridian are generally above the mean of 24 hourly readings and those west of that meridian are generally below. A comparison for each individual station can readily be made in connection with the data given in Table VI.

The pressures have been reduced to sea level by the empirical method published by Prof. H. A. Hazen in Signal Service Professional Paper No. VI, which, however, has been further modified for a few special stations.

The mean temperature of the dew point and the mean relative humidity are based on daily observations of the whirled psychrometer at 8 a. m and 8 p. m.

The maximum wind velocities given in the table are the velocities as read from the sheets of the register for any 5-minute period in the 24 hours, midnight to midnight, seventy-fifth meridian time.

The number of clear and cloudy days and the average cloudiness are based upon numerous personal estimates by the observer during the daytime and do not relate especially to the nighttime after the 8 p. m. observation.

When these personal estimates give from 0 to 3 cloudiness, on a scale of zero to ten (0—10), the day is classed as clear; 4 to 7, partly cloudy; and 8 to 10, cloudy.

Table II gives, for about 2,200 stations occupied by voluntary observers, the extreme maximum and minimum temperatures, the mean temperature deduced from the average of all the daily maxima, and minima, or other readings, as indicated by the numeral following the name of station; and the total monthly precipitation.

For the sake of uniformity the monthly mean temperature has been deduced from readings of self-registering maximum and minimum thermometers whenever practicable. Formerly the means obtained by the use of observations at 7 a. m., 2 and 9 p. m. were printed in this table, whenever given, in preference to those deduced from the daily extremes.

These stations are arranged alphabetically by States, and their reports are generally received through the co-operation of the respective State Weather Services. The voluntary stations in the Republic of Mexico and those in the West Indies are included in this list for convenience of tabulation.

Table III gives, for about 30 Canadian stations, the mean pressure, mean temperature, total precipitation, prevailing wind, and the respective departures from normal values. Reports from Newfoundland and the Bermudas are included in this table for convenience of tabulation.

The mean pressures and temperatures here given are based upon observations made simultaneously for telegraphic purposes at 8 a. m. and 8 p. m., seventy-fifth meridian time; the pressures have been reduced to sea level by the Weather Bureau method and, therefore, differ slightly from those reduced by the method employed by the Canadian Meteorological Service.

Table IV gives for 34 stations the percentages of hourly sunshine as derived from the automatic records made by two essentially different types of instruments, designated, respectively, as the thermometric recorder and the photographic recorder. The kind of instrument used at each station is indicated in the table by the letter T or P in the column following the name of the station.

The thermometric recorder operates on the principle of a Leslie differential air thermometer, one of the bulbs being blackened. It is fully described in the "American Meteorological Journal," Vol. IX, pp. 345–349. The record is produced electrically whenever the intensity of the sunshine surpasses a certain minimum limit and is sufficient to cause a mercurial column to rise above the upper of two platinum wires. The intensity of sunshine above this limit is not recorded. The instrument is adjusted by trial and observation so that a record will just be made when the cloudiness is not sufficient to quite obscure the disc of the sun. Denser cloudiness than this, so that the exact form of the sun's disc can not be seen with the unaided eye, will cause an interruption of the record.

The photographic recorder operates on the principle of Jordan's recorder. The record sheets for this instrument are sensitized each month with the ordinary blue-print solution, and are generally used only for a period of fifteen days, a new sheet being then introduced, but the instrument can be used for a whole month's record without changing the sheets.

Neither of these instruments will record satisfactorily the duration of the sunshine for about one hour after sunrise and one hour before sunset and, on this account, it has been considered necessary to apply to the recorded hours of sunshine what has been designated a "twilight correction." The amount of this correction is found from a table of the time of sunrise and sunset, noting, in connection therewith, the time of beginning and ending of sunshine on the automatic record. This correction is applied when we know, by personal observation, the comparative clearness of the sky at the time of sunrise or sunset, as the case may be.

Although the action of the thermometric recorder is based on the heating effect of the sun's rays, while that of the photographic recorder is based on the actinic effect, it is found there is not a very great difference between the two instruments. In general, however, the photographic recorder does not give such good results at stations where rain is more or less frequent and with comparatively high relative humidities, since under these conditions the sensitized paper deteriorates.

Although the original instruments are regulated by standard eastern time, yet the readings of the record sheets are adjusted to local mean time. The last column gives the percentage of sunshine deduced by taking the complement of the local observer's estimate of cloudiness, which latter is published in Table I.

Table V gives for 82 stations the mean hourly temperatures deduced from thermographs of the well-known pattern manufactured by Richard Bros., Paris, described and figured in the report of the Chief of the Weather Bureau, 1891–'92,

p. 29. These instruments are placed in the standard shelter with other thermometers, and are checked twice daily, for time errors and for agreement with the standard whirled thermometer.

In transcribing the hourly values, the readings of the dry-bulb thermometer of the whirled psychrometer at 8 a. m. and 8 p. m. are adopted as the standard of reference, and these standard readings are given in the appropriate columns of Table V. Corrections for intermediate hours, interpolated from the known differences at 8 a. m, and 8 p. m., are applied to the curve throughout the twenty-four hours, thus making it conform as closely as practicable to the indications of the standard mercurial thermometer. The averages given in this table are, therefore, those of the standard dry thermometer at 8 a. m. and 8 p. m., and the corrected thermograph reading for intermediate hours.

In general the magnitude of the corrections applied is about 1° Fahrenheit, although a number of instruments accord with the standard dry thermometer within less than a degree.

As has been noted elsewhere, the greatest differences are those between the daily extremes registered by thermographs and by standard self-registering maximum and minimum thermometers, respectively.

Table VI gives for 68 stations the mean hourly pressures (seventy-fifth meridian time) as automatically registered by barographs of the pattern manufactured by Richard Bros., Paris, except for Washington, D. C., where Foreman's barograph is in use. Both instruments are described in the Report of the Chief of the Weather Bureau for 1891–'92, pp. 26 and 30.

The readings of the mercurial barometer at 8 a. m. and 8 p. m., seventy-fifth meridian time, corrected for temperature and instrumental error, are used as a means of checking and correcting the barograph curve, in the same manner as described in the table of temperature means, and are those given in this table.

The corrections applied to the individual hourly barograph readings vary in magnitude. The average is about 0.02 of an inch, while in extreme cases it may be 0.06 or 0.08 of an inch, depending somewhat on the individual skill of the observer in keeping the instrument in adjustment.

The means have not been reduced to sea level, neither has a correction to reduce to standard gravity been applied.

Although the mean pressures are given in this table to the nearest thousandth of an inch, yet it is probable that these figures still need appreciable systematic corrections, therefore, as in the case of so many other similar European series, caution should be exercised in using them for the investigation of diurnal periodicities of pressure. The adopted process of reduction to the standard mercurial barometer prevents the accumulation of any progressive error, whether due to the time scale or to the vacuum box, but does not inform us of any periodic errors that may have occurred within the 12-hour periods. On this latter point we have only the little knowledge that is given to us by a general investigation into the effect of temperature on these aneroids. In this respect Prof. Marvin's experiments have shown that, although the manufacturer has introduced a compensation for temperature (presumably by introducing some air into the vacuum box), yet this result has not always been perfectly satisfactory. Several aneroids have been found to show higher pressures when the instrumental temperature rises, while others do the reverse. In a number of cases a rise of 10° F., in the instrumental temperature produces a fall of 0.010 or 0.015 of an inch in the recorded pressure.

In general, it is safe to assume that any one of the Richard barographs at Weather Bureau stations is liable to a temperature correction of this amount, although the average of several instruments would undoubtedly be much smaller. Since the highest temperature, and, therefore, the largest plus or minus correction for temperature, generally occurs some time after the 8 a. m. reading, and *vice versa*, the lowest temperature with the largest minus or plus correction occurs before the 8 a. m. reading; therefore, there is introduced into every daily barograph record an error that will be either positive between 8 p. m. and 8 a. m., and negative between 8 a. m. and 8 p. m., or *vice versa*. The average amount of the maximum value of this error for a month, varying as it does with the temperature of the room in which the aneroid is kept, may easily amount in the winter season to 0.02 of an inch, but when station barometers are located in large buildings of uniform temperature the limit will diminish. It is evident, therefore, that these hourly means can not be used for determining by the harmonic analysis the shorter and smaller periodicities, although they sometimes give the semi-amplitude of the principal simple daily component to within 0.01 of an inch, or less. To this extent, therefore, these may be cautiously used in the study of both the geographical and chronological distribution of this first component, a study whose importance undoubtedly warrants the preparation and publication of this table from month to month. Some of the results of such studies will be published in subsequent numbers of this REVIEW.

Table VII gives for 142 stations the arithmetical means of the hourly movements of the wind ending with the respective hours, as registered automatically by the Robinson anemometer, in conjunction with an electrical recording mechanism, described and illustrated in the Report of the Chief of the Weather Bureau, 1891–'92, p. 19. No corrections have been applied to reduce the registered velocities to true velocities.

In studying the diurnal variations of wind movement, the following facts should be kept in mind. In graduating the dials of the various sizes of Robinson anemometers, it has been assumed by the makers that the centers of the cups move only one-third as fast as the wind, although numerous experiments have demonstrated that cups and arms of various proportions require different formulæ and tables of reduction even in perfectly steady motion. Prof. Marvin has further shown that for ordinary gusty winds, when the anemometer cups rapidly vary their rate of rotation, the moment of inertia of the revolving parts is a most important factor. The instruments having the least inertia record most truly, and those having large inertia exceed these in proportion as the gusts are stronger, consequently, the anemometer records are liable to be too large in the gusty winds of the daytime as compared with the more steady winds of nighttime. No correction for this inertia error has been determined, nor can be, unless we have simultaneous records with two anemometers having different moments of inertia; therefore, the apparent diurnal variations of wind velocity include a slight inertia error which is probably periodic in character between the winds of daytime and nighttime.

While we must regard the gustiness of the ordinary wind, that is, its sudden and momentary fluctuations of velocity, as highly variable, yet in practical anemometry we can not do more than make an average allowance for its effects upon an anemometer.

For the ordinary gusty winds of the free atmosphere Prof. Marvin adopts the following equation expressing the relation between the motion of the cups and the velocity of the wind at any moment:

$$\text{Log. } V = 0.509 + 0.9012 \text{ log. } v;$$

where V is velocity of wind in miles per hour and v is the linear velocity (also in miles per hour) of the cup centers.

This equation applies strictly to anemometers that have 4-inch hemispherical brass cups on arms 6.72 inches long, whose revolving parts weigh about 590 grams (22 ounces) and have a moment of inertia of about 50,000 C. G. S. units.

This equation has been deduced from comparative observations in the open air of anemometers whose behavior in steady velocities on the whirling machine had been previously studied. The recognition thus given the important effects of inertia enables us to say that by applying this formula, or the following equivalent table, we partly annul the influence of the inertia of brass anemometers used by the Weather Bureau.

The following table gives the corrected velocities corresponding to observed velocities up to 90 miles per hour:

Wind velocities, as indicated by Weather Bureau anemometer, converted to true velocities (in miles per hour).

Indicated velocity.	0	1	2	3	4	5	6	7	8	9
0	.....	.....	.....	.....	.....	5.1	6.0	6.9	7.8	8.7
10	9.6	10.4	11.3	12.1	12.9	13.8	14.6	15.4	16.2	17.0
20	17.8	18.6	19.4	20.2	21.0	21.8	22.6	23.4	24.2	24.9
30	25.7	26.5	27.3	28.0	28.8	29.6	30.3	31.1	31.8	32.6
40	33.3	34.1	34.8	35.6	36.3	37.1	37.8	38.5	39.3	40.0
50	40.8	41.5	42.2	43.0	43.7	44.4	45.1	45.9	46.6	47.3
60	48.0	48.7	49.4	50.2	50.9	51.6	52.3	53.0	53.8	54.5
70	55.2	55.9	56.6	57.3	58.0	58.7	59.4	60.1	60.8	61.5
80	62.2	62.9	63.6	64.3	65.0	65.8	66.4	67.1	67.8	68.5
90	69.2	.....	.....	.....	.....	.....	.....	.....	.....	.....

Table VIII gives the resultant movements of the winds for 67 stations of self-registration as deduced from the continuous record for every hour of the month. The contents of the columns are as follows:

Column 1—the name and number of the station, the latter being the same as in tables I and IX for convenience of reference. Columns 2 and 3—the direction and duration of the prevailing wind, viz, that observed most frequently. Columns 4 and 5—the total movement in all directions for the whole month and the average hourly movement corresponding thereto. Column 6—the resultant direction, assuming the wind to have always a uniform velocity. Column 7—the duration in hours of this resultant direction, considered as a wind that has blown with the average velocity. Column 8—the approximate average hourly velocity in this resultant direction, found by dividing the resultant movement of column 10 by the resultant duration of column 7. Column 9—the direction of the resultant movement, computed by using the miles actually traveled each hour, as read from the registers. Column 10—the amount of the resultant movement in miles. Column 11—the azimuth of the resultant movement minus the azimuth of the resultant direction; these azimuths are counted around the circle from zero at the south through 90° at the west, and if the azimuth of the resultant movement is greater than that of the resultant direction, the difference in column 11 is called positive; the azimuth of the movement is equal to that of the direction plus the positive, or minus the negative differences. Column 12—the ratio of the resultant movement in column 10 divided by the total movement in column 4; this ratio would be unity in the ideal case of wind blowing from one direction only, but would be zero in the ideal case of equal opposing winds.

Table IX gives for 140 stations, or all that make observations at 8 a. m. and 8 p. m. (seventy-fifth meridian time), the four component directions and the resultant directions based on these two observations only and without considering the velocity of the wind in miles. The total movement for the whole month, as read from the dial of the Robinson anemometer, is given for each station in Table I. By adding the four components for the stations comprised in each geographical division one may obtain the average resultant direction for that region. From these resultant directions one may pass to the resultant movement, at least approximately, by applying the average corrections indicated by column 11 of Table VIII.

TABLE I.—*Climatological data for Weather Bureau Stations, January*, 1894.

Districts and stations.	Elevation above sea-level, feet.	Length of record, years.	Pressure, in inches. Mean pressure, 8 a. m. and 8 p. m. ÷ 2.	Mean reduced.	Departure from normal.	Temperature of the air, in degrees Fahrenheit. Mean max. and min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.	Humidity and precipitation. Mean temperature of the dew-point.	Mean relative humidity, per cent.	Precipitation, in inches.	Departure from normal.	Days with .01, or more.	Wind. Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Direction.	Date.	Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Mean temperature data since opening of station. Highest for month.	Year.	Lowest for month.	Year.
New England.						29.0	+ 2.4										3.29	— 0.8														
Eastport	76	21	29.99	30.09	+ .09	21.2	+ 0.9	51	25	29	— 9	10	14	38	13	70	2.00	— 2.0	13	10,828	nw.	78	ne.	30	7	12	12	6.1	28.0	1889	13.1	1875
Portland	103	23	29.99	30.10	+ .05	22.2	+ 2.1	46	24	30	— 8	13	14	28	15	72	3.13	— 0.4	12	5,883	n.	38	nw.	30	14	3	14	4.9	32.3	1880	14.3	1888
Northfield	872	7	29.16	30.16	+ .09	17.6	+ 2.8	51	4	28	— 8	10	8	39	12	80	2.56	— 1.3	13	7,131	n.	42	n.	30	5	12	14	6.3	23.7	1889	5.7	1893
Boston	125	24	30.00	30.14	+ .07	30.1	+ 4.7	56	24	37	2	13	23	26	22	72	3.01	— 1.2	12	9,126	w.	51	ne.	29	9	9	13	5.7	35.8	1889	20.0	1888
Nantucket	14	8	30.11	30.12	+ .06	33.2	+ 2.5	50	24	38	8	13	29	22	28	80	3.14	— 0.8	13	10,051	n.	58	se.	29	9	7	15	6.3	37.7	1889	23.8	1893
Woods Holl	.....	17	.....	.....	.....	32.8	+ 1.5	53	24	38	9	13	28	20	.....	.....	5.07	+ 1.6	15	11,877	nw.	68	nw.	30	10	4	17	6.4	38.8	1880	21.6	1893
Vineyard Haven	.....	8	.....	.....	.....	35.6	+ 0.6	58	25	42	8	13	29	32	.....	.....	5.51	+ 2.0	15	.....	nw.	.....	.....	...	11	5	15	....	39.5	1890	24.9	1893
Block Island	27	14	30.12	30.15	+ .06	33.6	+ 2.4	54	24	38	7	13	29	23	28	79	3.16	— 1.3	12	13,549	nw.	68	e.	29	7	14	10	5.8	37.0	1890	23.7	1893
Narragansett Pier	.....	12	.....	.....	.....	31.0	+ 3.9	58	24	40	0	13	22	42	.....	.....	2.41	— 3.3	13	.....	nw.	.....	.....	...	17	2	12	....	36.0	1890	19.8	1893
New Haven	107	22	30.03	30.15	+ .03	30.5	+ 3.5	51	24	37	11	13	24	25	23	75	2.74	— 1.5	18	6,671	ne.	35	ne.	29	12	6	13	5.5	37.5	1880	20.2	1893
New London	45	23	30.12	30.17	+ .07	31.4	+ 1.9	52	24	38	8	13	25	26	24	78	3.50	— 0.8	16	5,655	nw.	36	w.	30	10	9	12	5.8	37.7	1880	21.0	1893
Mid. Atlantic States.						38.0	+ 4.2										2.43	— 1.2														
Albany	85	21	30.08	30.18	+ .08	26.6	+ 2.4	50	24	34	5	13	19	30	22	83	2.54	— 0.3	17	6,159	s.	36	se.	18	7	9	15	6.5	31.0	1889	14.5	1875
New York, N. Y	185	24	29.96	30.17	+ .05	34.6	+ 3.7	58	24	40	17	20	29	21	28	78	2.70	— 1.2	17	8,004	nw.	43	nw.	12	8	11	12	5.9	40.2	1890	23.3	1893
Harrisburg	377	6	29.77	30.20	.....	33.4	.....	54	5	40	15	26	27	22	29	83	1.77	.....	12	5,391	e.	47	nw.	30	8	14	9	5.2	38.0	1890	21.0	1893
Philadelphia	117	24	30.05	30.18	+ .02	36.6	+ 4.5	58	24	42	17	26	31	22	29	76	1.78	— 1.6	14	7,651	nw.	38	nw.	12	9	6	16	6.2	41.8	1890	24.0	1893
Atlantic City	53	21	30.12	30.17	+ .04	37.4	+ 5.1	54	5	43	19	26	32	22	33	86	2.07	— 1.7	13	8,715	nw.	52	w.	30	6	7	18	7.0	42.1	1890	22.9	1893
New Brunswick	.....	.....	.....	.....	.....	32.2	.....	59	24	40	10	28	24	36	.....	.....	2.22	.....	15	.....	e.	.....	.....	...	7	11	13	....	.....	.....	.....	....
Baltimore	179	24	29.98	30.19	+ .03	37.5	+ 3.2	57	24	43	18	26	32	22	28	72	1.46	— 1.7	12	5,413	nw.	48	w.	30	12	13	6	5.2	44.0	1890	24.6	1893
Washington, D. C.	112	24	30.08	30.20	+ .02	37.8	+ 5.2	58	14	44	17	28	31	30	29	77	2.14	— 1.2	14	4,788	s.	46	nw.	30	15	1	15	5.7	43.8	1890	24.6	1893
Cape Henry	.....	21	.....	.....	.....	45.8	+ 6.1	66	24	53	27	28	39	34	.....	.....	3.52	— 1.1	11	.....	w.	.....	.....	...	10	3	18	....	51.8	1890	29.4	1893
Lynchburg	685	23	29.46	30.22	+ .05	41.2	+ 4.3	65	16	50	20	26	33	32	32	76	2.11	— 2.1	12	3,136	sw.	30	nw.	11	10	11	5.8	47.2	1890	26.6	1893
Norfolk	57	24	30.13	30.20	+ .04	44.1	+ 3.6	68	24	50	29	13	38	20	38	82	3.54	— 0.3	12	5,839	ne.	41	nw.	12	9	10	12	5.7	51.2	1890	30.4	1893
S. Atlantic States.						49.6	+ 2.9										2.91	— 1.4														
Charlotte	773	16	29.36	30.21	+ .03	44.7	+ 3.5	64	16	52	24	26	37	27	34	73	3.23	— 2.1	12	5,265	sw.	24	sw.	30	6	9	16	6.5	50.8	1890	32.6	1893
Hatteras	11	14	30.18	30.19	+ .03	48.7	+ 3.1	65	6	53	36	28	44	19	44	85	4.45	— 1.8	13	11,594	n.	50	w.	30	3	12	16	7.0	55.7	1890	36.5	1893
Kittyhawk	9	19	30.16	30.17	.00	46.0	+ 3.8	68	24	51	31	13	41	22	40	81	3.43	— 2.3	14	11,645	ne.	52	n.	25	8	8	15	6.3	55.1	1890	32.1	1893
Raleigh	388	8	29.79	30.27	+ .04	43.6	+ 2.1	69	24	52	25	28	36	29	36	79	4.66	+ 1.1	12	4,781	n.	25	nw.	12	8	8	15	6.2	51.6	1899	30.8	1893
Southport	34	19	30.16	30.19	+ .02	48.8	+ 3.2	66	11	56	31	26	42	23	44	86	4.31	+ 0.7	9	7,523	ne.	29	w.	30	7	13	11	6.0	56.0	1890	38.9	1893
Wilmington	78	24	30.12	30.22	+ .05	49.6	+ 2.3	75	6	58	31	26	42	24	42	84	3.70	— 0.2	10	6,622	ne.	36	w.	11	9	11	11	5.5	57.2	1890	39.0	1893
Charleston	52	24	30.17	30.22	+ .04	52.8	+ 2.9	74	6	60	30	27	46	23	45	82	1.71	— 2.4	10	6,218	n.	29	sw.	11	8	15	8	5.8	59.3	1890	42.8	1886
Columbia	.....	7	.....	.....	.....	49.2	+ 2.8	74	6	58	27	27	40	28	.....	.....	1.73	— 2.1	9	.....	ne.	.....	.....	...	8	9	14	....	54.8	1890	38.0	1893
Augusta	209	23	30.02	30.25	+ .05	49.7	+ 2.3	73	6	58	26	27	41	34	41	78	1.68	— 2.8	10	4,562	ne.	24	sw.	7	12	6	13	5.4	56.5	1880	38.8	1893
Savannah	98	24	30.11	30.22	+ .02	54.0	+ 2.4	78	5	62	32	27	46	29	45	82	0.86	— 2.6	11	6,173	ne.	26	ne.	18	9	9	13	5.5	59.8	1890	44.3	1893
Jacksonville	43	23	30.16	30.21	+ .03	58.6	+ 3.3	79	11	67	36	27	50	31	50	84	2.29	— 1.2	9	4,651	n.	27	w.	29	6	8	17	6.7	63.4	1890	49.2	1893
Florida Peninsula.						67.4	+ 1.2										2.70	— 0.4														
Jupiter	28	7	30.14	30.18	.....	68.0	+ 1.0	82	29	74	49	31	62	22	61	83	2.55	— 1.6	7	6,993	e.	28	ne.	18	17	9	5	4.0	72.2	1890	60.0	1893
Key West	22	24	30.15	30.17	+ .03	71.0	+ 0.6	80	6	75	61	3	67	13	63	80	1.21	— 0.9	8	7,707	e.	33	ne.	19	8	16	7	5.5	74.9	1875	63.8	1886
Tampa	36	....	30.16	30.20	.....	63.6	.....	80	8	73	41	31	54	31	56	84	1.42	.....	4	3,977	n.	27	sw.	29	5	24	2	5.3	....	....	....	....
Titusville	44	7	30.16	30.20	.....	63.2	+ 2.1	81	7	71	40	31	55	27	57	85	4.35	+ 1.2	6	7,594	nw.	34	nw.	12	11	17	3	4.0	66.4	1890	53.2	1893
Eastern Gulf States.						53.6	+ 4.7										3.76	— 1.6														
Atlanta	1,131	16	29.01	30.24	+ .03	46.7	+ 4.2	66	5	54	18	25	39	27	38	77	5.09	— 1.2	10	7,614	e.	40	nw.	29	10	7	14	6.1	54.1	1880	35.7	1884
Pensacola	56	15	30.11	30.17	— .02	56.8	+ 3.9	75	7	65	27	26	49	30	49	80	2.92	— 2.0	11	6,787	n.	35	se.	20	12	6	13	5.3	62.8	1890	46.3	1886
Mobile	57	24	30.12	30.19	.00	55.3	+ 4.4	77	7	65	24	26	46	30	47	85	3.97	— 1.0	14	5,694	n.	30	n.	24	13	6	12	5.1	62.0	1890	43.5	1884
Montgomery	257	22	29.92	30.20	.00	52.1	+ 3.9	78	6	62	21	25	43	37	44	80	2.58	— 2.4	9	3,970	e.	30	nw.	24	10	9	12	5.6	57.6	1880	40.5	1884
Meridian	358	....	29.78	30.18	.....	49.4	.....	74	•	60	12	25	39	37	42	83	4.70	.....	12	4,257	ne.	25	w.	20	14	8	9	4.6	....	....	....	....
Vicksburg	254	23	29.87	30.15	— .04	53.0	+ 7.7	76	18	63	16	25	43	37	41	71	6.23	+ 0.8	12	5,500	se.	46	sw.	20	13	6	12	5.5	59.8	1880	38.0	1886
New Orleans	54	24	30.11	30.17	+ .01	58.0	+ 4.2	79	9	66	28	25	50	26	48	77	1.70	— 3.6	9	6,726	ne.	30	nw.	24	11	11	9	5.2	65.1	1890	45.5	1886
Port Eads	.....	....	.....	.....	.....	60.6	.....	74	9	67	40	25	54	18	.....	.....	1.13	.....	7	.....	ne.	.....	.....	...	5	14	12	....	....	....	....	....
Western Gulf States.						61.5	+ 5.3										2.43	— 1.3														
Shreveport	249	23	29.85	30.12	— .07	50.8	+ 6.8	76	18	60	13	24	42	31	42	77	4.16	— 0.8	10	5,349	se.	32	nw.	20	12	8	11	4.8	60.4	1880	38.1	1886
Fort Smith	492	12	29.60	30.14	— .04	41.7	+ 5.3	77	16	52	— 7	24	31	37	30	67	1.94	— 0.4	8	5,497	e.	28	w.	20	11	10	10	5.5	46.4	1890	27.1	1886
Little Rock	302	15	29.82	30.15	— .05	44.6	+ 4.3	72	16	53	1	25	36	32	35	74	3.21	— 1.8	7	5,346	s.	36	nw.	23	13	7	11	5.2	55.7	1880	29.1	1886
Corpus Christi	20	7	30.09	30.11	— .06	58.8	+ 5.3	80	4	65	24	25	53	27	54	87	1.59	— 2.3	9	7,887	se.	40	nw.	24	8	8	15	6.1	64.0	1890	48.3	1888
Galveston	42	23	30.11	30.15	— .01	58.0	+ 5.7	72	15	63	24	25	53	22	52	82	2.41	— 1.6	11	8,030	s.	50	nw.	24	9	8	14	6.0	64.6	1880	46.7	1884
Palestine	511	12	29.59	30.15	— .05	51.1	+ 5.9	79	17	61	4	25	41	33	40	73	2.28	— 2.1	7	4,736	sw.	29	w.	20	12	12	7	4.9	55.6	1890	39.3	1886
San Antonio	679	15	29.42	30.15	— .02	55.5	+ 4.0	81	15	66	16	25	45	35	36	55	1.42	— 0.2	9	4,842	e.	34	n.	23	13	10	8	4.5	61.2	1880	43.4	1881
Ohio Val. & Tenn.						40.0	+ 6.6										3.18	— 1.4														
Chattanooga	762	16	29.40	30.23	+ .04	45.6	+ 4.4	70	6	54	15	25	37	36	37	78	4.63	— 2.5	15	4,995	se.	40	se.	20	6	16	9	6.0	51.7	1880	33.2	1886
Knoxville	980	24	29.14	30.22	+ .02	43.8	+ 5.7	67	6	52	12	25	35	39	35	76	3.80	— 2.0	11	3,304	sw.	31	sw.	24	10	11	10	5.1	49.5	1880	29.6	1893
Memphis	330	23	29.81	30.18	— .01	46.0	+ 8.6	72	17	55	2	25	37	32	37	77	4.03	— 1.8	11	5,762	se.	37	se.	20	14	6	11	4.6	54.3	1880	29.6	1886
Nashville	553	24	29.57	30.18	+ .01	43.0	+ 6.1	68	17	51	— 2	25	35	27	36	80	4.28	— 1.1	13	4,434	se.	36	se.	20	7	7	17	6.7	52.5	1880	29.0	1886
Lexington	989	11	29.06	30.16	.....	38.0	+ 7.0	64	17	47	— 6	25	29	30	30	77	3.58	— 0.9	12	10,003	sw.	48	se.	20	7	16	8	5.8	44.0	1890	23.1	1893
Louisville	525	23	29.58	30.17	— .01	39.8	+ 7.2	69	17	48	— 5	25	31	30	28	64	2.81	— 1.4	11	6,525	s.	38	sw.	20	10	12	9	5.5	50.1	1880	24.9	1893
Indianapolis	766	23	29.29	30.15	— .01	34.6	+ 7.6	60	17	42	— 7	25	27	28	26	72	1.43	— 1.8	11	5,538	se.	28	se.	20	9	9	13	6.1	45.9	1880	17.9	1893
Cincinnati	628	24	29.47	30.17	.00	37.7	+ 5.5	61	4	45	— 4	25	30	32	29	73	2.75	— 0.7	9	5,701	se.	34	w.	11	12	10	9	5.7	48.6	1880	21.2	1893
Columbus	868	16	29.20	30.18	+ .03	34.7	+ 6.7	58	4	42	— 4	25	28	33	28	80	2.42	— 1.1	8	7,705	s.	42	nw.	11	7	14	10	6.2	43.8	1880	18.8	1893
Pittsburg	820	23	29.25	30.16	+ .01	37.2	+ 7.4	60	18	45	10	25	29	30	30	78	2.02	— 1.2	11	5,477	sw.	28	w.	24	8	12	11	5.8	44.1	1880	21.6	1893
Parkersburg	638	6	29.49	30.21	.....	37.4	.....	61	5	46	4	25	29	33	30	75	2.64	.....	13	4,618	s.	40	w.	12	9	13	9	5.5	42.4	1890	22.2	1893
Lower Lake Region.						31.0	+ 6.3										2.24	— 0.5														
Buffalo	690	24	29.34	30.12	+ .03	30.6	+ 7.0	48	4	36	12	26	25	25	24	76	2.77	— 0.1	15	10,125	nw.	48	w.	24	3	14	14	6.8	36.8	1880	16.8	1893
Oswego	335	24	29.73	30.12	+ .03	27.4	+ 4.5	54	4	33	5	13	22	20	22	80	3.24	+ 0.2	17	10,880	se.	42	nw.	11	4	8	19	7.4	36.2	1880	15.4	1888
Rochester	523	24	29.56	30.15	+ .06	30.6	+ 7.2	56	4	37	11	26	24	23	24	80	3.27	+ 0.1	17	7,041	sw.	38	sw.	24	9	10	12	6.0	36.5	1880	17.0	1893
Erie	714	21	29.31	30.11	+ .01	32.8	+ 6.5	54	4	39	9	26	27	28	25	76	2.07	— 1.4	17	9,788	s.	47	s.	20	4	12	15	7.2	39.7	1880	17.8	1893
Cleveland	740	24	29.30	30.13	+ .02	32.5	+ 7.0	54	4	38	5	25	27	32	25	76	2.21	— 0.4	10	10,862	se.	54	w.	11	7	9	15	6.5	39.5	1880	17.3	1875
Sandusky	629	17	29.42	30.13	+ .01	32.6	+ 6.9	57	17	40	— 1	25	26	35	25	75	1.95	— 0.3	8	6,417	sw.	36	nw.	12	2	12	17	7.5	41.0	1880	16.8	1893
Toledo	674	24	29.37	30.12	+ .01	31.9	+ 6.8	54	18	39	— 2	25	25	30	26	80	1.48	— 0.8	10	7,816	w.	48	s.	20	6	9	16	6.6	40.6	1880	16.0	1893
Detroit	724	24	29.29	30.11	+ .01	29.9	+ 4.8	50	4	36	— 3	25	24	24	24	80	0.94	— 1.1	8	8,879	sw.	45	w.	11	5	13	13	6.2	37.0	1880	14.9	1875
Upper Lake Region.						22.2	+ 5.4										1.86	— 0.2														
Alpena	609	22	29.37	30.07	+ .01	23.4	+ 7.2	50	18	30	— 2	25	17	25	19	83	1.59	— 1.0	15	7,770	w.	37	nw.	11	4	10	17	7.2	29.6	1880	9.5	1875
Escanaba	.....	23	.....	.....	.....	17.3	+ 6.1	41	15	25	—15	9	9	41	.....	.....	2.12	+ 0.6	13	.....	nw.	.....	.....	...	10	7	14	....	25.9	1880	4.1	1875
Grand Haven	628	23	29.35	30.07	.00	29.2	+ 5.6	57	17	35	10	28	24	29	24	85	2.74	+ 0.4	16	9,260	sw.	38	nw.	11	1	8	22	8.1	37.1	1880	17.0	*
Marquette	734	23	29.19	30.03	— .02	18.9	+ 4.6	52	14	26	— 9	25	12	34	15	86	2.77	+ 1.1	21	7,625	w.	46	sw.	10	6	6	19	7.5	28.4	1880	6.9	1875
Port Huron	639	20	29.38	30.10	.00	28.0	+ 6.9	50	18	34	0	25	22	27	22	79	0.86	— 1.3	12	9,013	sw.	45	w.	11	8	11	12	5.9	34.9	1880	13.3	1875
Sault Ste. Marie	642	6	29.29	30.03	.....	15.2	.....	40	*	23	—14	6	8	29	14	94	3.82	.....	18	6,851	se.	46	nw.	11	1	3	27	8.8	20.4	1889	6.0	1893
Chicago	824	24	29.17	30.09	— .02	27.5	+ 3.4	60	17	34	— 9	25	21	23	23	81	1.55	— 0.6	8	14,149	sw.	51	s.	20	10	9	12	5.8	40.1	1880	12.0	1893
Milwaukee	673	24	29.32	30.08	— .02	24.6	+ 6.0	54	17	31	—14	25	18	27	18	78	1.64	— 0.6	10	8,224	w.	38	nw.	11	6	11	14	6.2	34.6	1880	9.7	1875
Green Bay	617	8	29.38	30.10	— .01	18.6	+ 5.1	45	20	26	—16	25	11	48	13	80	1.98	— 0.9	13	6,275	sw.	30	sw.	21	4	7	20	7.5	22.6	1891	5.5	1888
Duluth	656	24	29.30	30.08	— .03	12.6	+ 4.0	51	14	20	—24	25	5	36	8	86	1.51	+ 0.4	14	4,621	nw.	32	nw.	11	11	5	15	5.6	22.1	1880	— 0.5	1885
North Dakota.						— 0.2	+ 0.1										0.52	— 0.1														
Moorhead	935	14	29.03	30.15	— .02	— 0.2	+ 1.3	38	13	8	—34	24	— 8	43	—3	85	0.22	— 0.5	6	7,878	n.	42	w.	10	12	11	8	5.0	14.1	1891	— 9.7	1883
Saint Vincent	804	14	29.10	30.14	— .04	— 4.7	— 0.3	46	13	6	—38	24	—15	43	—9	86	0.80	+ 0.2	9	7,019	n.	36	nw.	10	18	5	8	3.3	11.0	1891	—13.5	1888
Bismarck	1,698	20	28.18	30.16	— .03	3.2	— 0.1	45	14	11	—33	24	— 4	36	—4	74	0.20	— 0.4	2	6,269	nw.	48	nw.	10	20	4	7	3.7	23.8	1891	— 9.0	1875
Williston	1,874	16	27.96	30.14	— .03	1.1	— 0.5	47	12	11	—36	24	— 9	52	—6	71	0.88	+ 0.3	5	6,084	w.	54	w.	10	10	9	12	5.4	21.2	1891	— 5.6	1888
Upper Miss. Valley.						25.3	+ 4.9										1.70	— 0.3														
Minneapolis	.....	.....	.....	.....	.....	12.4	.....	44	17	21	—24	24	4	30	.....	.....	1.12	.....	13	.....	se.	.....	.....	...	8	13	10	....	.....	.....	.....	....
Saint Paul	850	24	29.13	30.13	— .02	10.2	+ 0.2	43	17	18	—25	25	2	36	6	79	1.04	0.0	10	5,164	se.	32	w.	11	8	12	11	5.9	26.2	1880	— 0.9	1888
La Crosse	720	22	29.28	30.11	— .01	18.0	+ 4.5	56	17	26	—19	25	9	35	11	75	1.27	0.0	12	5,222	s.	30	nw.	11	8	14	9	5.6	31.2	1880	2.6	1888

TABLE I.—*Climatological data for Weather Bureau Stations, January*, 1894—Continued.

Districts and stations.	Elevation above sea-level, feet.	Length of record, years.	Pressure, in inches. Mean pressure, 8 a. m. and 8 p. m. + 2.	Mean reduced.	Departure from normal.	Temperature of the air, in degrees Fahrenheit. Mean max. and min. ÷ 2.	Departure from normal.	Maximum.	Date.	Mean maximum.	Minimum.	Date.	Mean minimum.	Greatest daily range.	Humidity and precipitation. Mean temperature of the dew-point.	Mean relative humidity, per cent.	Precipitation, in inches.	Departure from normal.	Days with .01, or more.	Wind. Total movement, miles.	Prevailing direction.	Maximum velocity. Miles per hour.	Direction.	Date.	Clear days.	Partly cloudy days.	Cloudy days.	Average cloudiness, tenths.	Mean temperature data since opening of station. Highest for month.	Year.	Lowest for month.	Year.
Up. Miss. Val.—Con.																																
Davenport	613	23	29.42	30.12	— .03	24.2	+ 5.1	62	17	31	—21	25	17	29	18	77	1.33	— 0.4	9	7,082	w.	40	w.	11	12	11	8	5.3	37.6	1880	9.1	1893
Des Moines	869	16	29.14	30.14	— .04	21.0	+ 4.3	55	1	30	—27	25	12	41	14	78	1.09	— 0.3	6	5,986	nw.	32	se.	19	14	7	10	5.3	36.2	1880	6.9	1888
Dubuque	651	21	29.36	30.11	— .02	21.8	+ 5.3	60	17	30	—22	25	14	34	15	77	1.11	— 0.6	6	4,138	s.	24	w.	11	10	9	12	5.6	34.2	1880	6.6	*
Keokuk	613	23	29.42	30.12	— .03	28.0	+ 7.0	69	17	36	—16	24	20	41	20	74	2.24	+ 0.6	7	6,013	n.	35	w.	11	14	8	9	4.3	41.3	1880	13.6	1888
Cairo	359	23	29.75	30.15	— .02	40.0	+ 7.0	68	17	48	— 4	25	32	29	32	77	2.18	— 1.9	11	6,988	s.	36	s.	20	14	6	11	5.1	51.3	1880	25.4	1886
Springfield, Ill.	644	15	29.41	30.13	— .04	29.4	+ 3.8	66	17	37	—17	25	22	39	23	77	2.51	+ 0.1	9	7,324	s.	35	s.	17	11	7	13	5.6	43.7	1880	16.8	1893
Hannibal	534	....	29.52	30.12	.....	30.0	.....	71	17	39	—14	24	21	40	22	73	2.29	.....	6	6,830	s.	29	w.	11	13	8	10	4.9	....	....	....	....
Saint Louis	571	24	29.50	30.13	— .03	35.5	+ 6.8	72	17	43	—11	24	28	35	25	68	2.56	+ 0.1	6	8,788	s.	40	se.	17	20	5	6	3.2	45.7	1880	21.7	1881
Missouri Valley.						21.2	+ 2.5										1.16	+ 0.2														
Columbia	.....	....	.....	.....	.....	32.5	.....	74	17	44	—16	25	21	40	.....	.....	2.46	.....	8	5,487	nw.	30	sw.	17	16	7	8	3.8	....	....	....	....
Kansas City	963	6	29.05	30.14	— .06	29.6	+ 3.8	67	16	38	—15	24	21	35	21	72	1.67	+ 0.5	5	7,043	s.	35	nw.	11	14	7	10	5.2	34.0	1891	22.0	1893
Springfield, Mo.	1,356	9	28.63	30.12	— .05	35.6	+ 5.7	70	17	45	—17	24	26	33	25	73	2.88	+ 0.6	5	7,307	se.	30	se.	20	8	14	9	5.0	39.4	1890	27.5	1888
Topeka	.....	7	.....	.....	.....	29.8	+ 4.5	70	16	41	—14	24	19	41	.....	.....	0.72	— 0.5	5	.....	n.	....	.....	...	12	12	7	....	31.4	1891	17.5	1888
Omaha	1,123	24	28.88	30.16	— .06	20.6	+ 3.4	61	16	30	—22	24	12	40	14	80	0.51	— 0.2	7	5,587	nw.	26	nw.	23	13	4	14	5.5	34.5	1880	7.3	1886
Valentine	2,613	8	27.24	30.16	— .06	16.5	+ 2.1	53	15	27	—38	24	6	42	8	77	1.09	+ 0.6	9	6,451	nw.	48	nw.	28	13	10	8	5.2	28.0	1891	7.1	1886
Sioux City	1,165	....	28.81	30.15	.....	14.6	.....	52	16	24	—26	24	6	34	9	84	0.60	.....	6	7,474	nw.	30	nw.	11	12	10	9	4.5	....	....	....	....
Pierre	1,470	....	28.46	30.16	.....	10.8	.....	47	13	20	—28	24	2	47	6	84	0.46	.....	10	5,168	se.	32	nw.	10	7	14	10	5.5	....	....	....	....
Huron	1,310	13	28.64	30.18	— .03	3.9	— 1.1	42	10	14	—35	24	— 6	56	1	88	0.71	+ 0.3	9	8,308	nw.	37	nw.	21	9	12	10	5.4	24.1	1891	— 1.4	1888
Yankton	1,232	21	28.73	30.16	— .04	12.6	— 1.2	50	13	22	—26	24	4	38	6	77	0.57	0.0	7	5,473	nw.	35	nw.	10	9	11	11	5.6	28.9	1880	0.5	1875
Northern Slope.						17.3	+ 2.0										0.72	0.0														
Havre	2,477	14	27.27	30.07	— .08	11.2	+ 5.9	54	13	21	—26	23	2	59	6	79	0.99	0.0	13	8,034	sw.	50	sw.	13	5	17	9	6.2	26.6	1891	— 5.1	1890
Miles City ‡	2,374	17	27.43	30.13	.....	9.2	— 1.4	46	15	18	—30	24	0	45	6	90	0.73	+ 0.2	12	3,175	sw.	33	w.	10	8	13	10	5.7	25.0	1891	— 2.0	1888
Helena	4,118	14	25.67	30.09	— .03	18.7	+ 3.4	52	13	26	—26	23	11	35	11	71	1.64	+ 0.3	15	4,840	sw.	45	sw.	10	9	7	15	5.7	27.5	1891	5.3	1888
Rapid City	3,280	9	26.54	30.12	— .06	18.5	— 0.7	59	16	29	—26	24	8	40	9	71	0.41	+ 0.1	11	5,761	w.	42	n.	28	9	11	11	5.8	31.8	1891	10.7	1888
Cheyenne	6,105	23	23.85	30.15	— .04	25.4	+ 1.6	59	15	36	—17	24	15	50	11	56	0.20	— 0.1	3	10,768	nw.	44	w.	16	17	13	1	3.3	31.8	1893	13.2	1875
Lander	5,377	....	24.50	30.17	.....	17.7	.....	53	15	32	—23	6	3	43	7	67	0.49	.....	4	3,014	sw.	30	sw.	16	21	10	0	2.8	....	....	....	....
Kearney	2,206	....	27.70	30.17	.....	21.0	.....	58	16	32	—26	24	10	36	10	70	0.81	.....	6	8,993	nw.	48	nw.	28	14	8	9	4.5	....	....	....	....
North Platte	2,841	20	27.05	30.19	— .03	20.9	+ 3.0	55	15	32	—26	24	9	39	10	73	0.33	— 0.2	5	6,050	w.	37	nw.	28	10	18	3	4.5	32.1	1880	7.7	1875
Middle Slope.						29.4	+ 4.9										0.11	— 0.4														
Colorado Springs	6,098	16	23.89	30.10	.....	28.3	+ 2.0	65	15	42	—10	6	15	43	7	45	0.03	— 0.2	2	8,354	n.	73	nw.	20	15	15	1	3.4	34.9	1893	19.1	1875
Denver	5,287	23	24.63	30.11	— .08	31.4	+ 4.7	66	15	44	— 7	23	18	42	10	42	0.18	— 0.4	3	6,632	s.	40	nw.	20	10	18	3	4.4	38.3	1893	16.8	1875
Pikes Peak	.....	16	17.45	.....	.....	0.6	.....	23	15	5	—26	6	— 4	22	— 5	77	0.43	.....	8	24,252	w.	102	w.	20	14	7	10	4.7	6.6	1893	— 1.9	1883
Pueblo	4,734	6	25.16	30.08	.....	31.7	.....	70	15	47	— 7	6	16	52	6	39	0.09	.....	3	6,813	nw.	44	nw.	20	13	10	2	4.0	36.6	1893	23.8	1891
Concordia	1,410	9	28.58	30.16	— .06	27.1	+ 5.7	72	16	38	—17	24	16	43	16	74	0.18	— 0.8	4	5,328	n.	28	n.	28	20	8	3	3.2	31.6	1891	10.5	1886
Dodge City	2,523	20	27.38	30.14	— .06	30.8	+ 7.2	68	15	45	—15	24	17	45	14	61	0.04	— 0.4	1	7,057	se.	39	nw.	28	16	10	5	3.6	38.1	1880	13.2	1875
Wichita	1,366	6	28.61	30.14	.....	32.1	.....	72	16	43	—12	24	22	35	20	69	0.78	.....	3	7,062	s.	37	n.	23	17	8	6	3.7	33.6	1891	29.1	1892
Oklahoma City	1,239	....	28.77	30.15	.....	36.8	.....	76	16	48	— 8	24	26	35	25	70	3.74	.....	6	7,071	n.	45	n.	23	20	6	5	3.6	....	....	....	....
Southern Slope.						.....	.....																									
Abilene	1,748	9	28.26	30.15	— .05	45.2	+ 4.7	78	17	56	4	24	34	34	29	61	1.24	+ 0.3	5	7,319	sw.	48	nw.	20	17	8	6	3.1	49.8	1890	34.9	1886
Amarillo	3,691	....	26.22	30.11	.....	36.3	.....	72	16	48	— 2	24	25	39	17	53	0.02	.....	1	13,041	s.	50	w.	5	15	11	5	4.0	....	....	....	....
Southern Plateau.						41.1	— 1.8										0.13	— 0.4														
El Paso	3,796	16	26.24	30.19	+ .02	43.0	— 0.5	71	16	56	14	8	30	41	13	36	0.33	— 0.2	2	7,153	nw.	48	w.	3	20	7	4	2.9	53.2	1879	39.9	*
Santa Fe	7,051	22	23.19	30.16	— .01	27.8	0.0	51	15	37	3	7	19	30	7	42	0.23	— 0.3	3	5,208	ne.	32	nw.	19	21	7	3	2.9	33.6	1893	22.1	1878
Tucson	2,432	11	27.55	30.14	.....	45.2	— 4.2	75	30	61	18	20	30	47	22	49	0.11	— 0.7	2	4,996	nw.	34	sw.	4	21	6	4	3.4	51.3	1893	45.2	1894
Yuma	141	19	29.96	30.11	+ .03	51.7	— 2.2	74	29	65	28	20	38	37	31	49	0.00	— 0.4	0	5,614	n.	38	w.	4	24	6	1	1.9	60.3	1877	50.2	1882
Keeler	3,622	9	26.35	30.15	+ .01	38.0	— 2.0	64	29	48	15	6	28	29	17	42	T.	— 0.3	0	4,084	e.	36	se.	15	24	6	1	2.3	43.1	*	35.3	1888
Middle Plateau.						31.0	+ 2.4										1.67	+ 0.1														
Carson City	4,720	7	25.30	30.19	.....	33.7	+ 2.7	56	28	43	— 7	6	24	41	20	59	2.79	+ 0.8	10	.....	.....	....	.....	...	18	1	12	5.2	36.2	1893	21.0	1890
Winnemucca	4,340	16	25.06	30.18	— .02	30.2	+ 3.2	54	14	38	— 8	9	22	31	19	65	0.92	— 0.2	12	8,649	sw.	52	sw.	1	2	12	17	7.4	34.8	1887	14.7	1890
Salt Lake City	4,345	20	25.68	30.26	+ .01	29.0	+ 1.3	50	15	36	— 1	6	22	22	21	72	1.31	— 0.2	17	4,135	se.	36	s.	20	7	13	11	6.3	33.2	1887	21.4	1889
Northern Plateau.						30.0	+ 4.6										4.68	+ 2.2														
Baker City	3,430	....	26.40	30.06	.....	25.5	.....	46	14	32	— 4	5	19	24	20	78	3.40	.....	19	4,365	se.	36	se.	17	3	9	19	7.5	....	....	....	....
Idaho Falls	4,742	....	25.17	30.16	.....	21.8	.....	43	1	28	—10	5	16	25	19	83	1.81	.....	16	7,070	s.	36	s.	20	0	6	25	9.0	....	....	....	....
Spokane	1,930	13	27.92	30.06	— .05	26.4	+ 5.4	49	13	32	— 1	6	21	20	23	86	4.38	+ 1.6	20	4,321	s.	30	sw.	15	0	11	20	8.3	34.9	1891	15.5	1888
Walla Walla	1,018	9	28.94	30.07	— .00	33.7	+ 3.0	60	13	40	11	5	28	29	31	88	4.09	+ 2.8	21	5,019	s.	38	se.	17	3	8	20	7.5	41.0	1887	20.6	1890
N. Pac. Coast Region.						40.1	+ 1.1										11.96	+ 2.0														
East Clallam §	.....	....	.....	.....	.....	37.4	.....	54	13	42	24	5	32	18	.....	.....	17.95	.....	19	.....	se.	....	.....	...	7	2	20	....	....	....	....	....
Fort Canby	179	11	29.74	29.94	— .08	41.1	+ 0.2	50	14	45	29	5	38	13	38	88	11.02	+ 2.0	29	13,597	s.	91	s.	12	6	8	17	6.9	45.6	1891	35.5	1888
Neah Bay	.....	11	.....	.....	.....	39.5	— 1.1	54	26	46	22	5	33	21	.....	.....	18.50	+ 1.2	21	.....	e.	....	.....	...	7	3	21	....	45.0	1891	35.5	1888
Olympia	52	17	29.91	29.96	— .07	38.7	+ 0.9	55	12	44	18	5	34	20	36	90	10.14	+ 1.6	24	4,236	s.	35	s.	17	2	6	23	8.5	42.4	1891	32.5	1888
Port Angeles	29	9	29.89	29.92	— .05	37.2	+ 2.5	55	12	43	23	5	32	21	32	83	5.37	— 0.2	24	3,763	s.	24	sw.	15	4	15	12	6.7	38.8	1892	31.4	1890
Port Crescent	.....	....	.....	.....	.....	34.2	.....	50	12	39	21	5	29	17	.....	.....	8.45	.....	16	.....	sw.	....	.....	...	8	6	17	....	....	....	....	....
Pysht	.....	....	.....	.....	.....	35.2	.....	52	13	40	21	5	30	16	.....	.....	13.59	.....	21	.....	e.	....	.....	...	7	4	20	....	....	....	....	....
Seattle	119	....	29.82	29.95	.....	38.8	.....	55	11	43	22	5	35	20	34	83	6.01	.....	23	6,059	s.	37	s.	15	5	4	22	7.7	....	....	....	....
Tatoosh Island	86	10	29.81	29.91	— .11	39.8	— 0.4	50	13	43	30	5	37	13	36	83	16.39	+ 3.2	24	13,679	e.	62	s.	13	5	5	21	7.7	44.8	1891	36.4	1888
Astoria	.....	10	.....	.....	.....	41.4	+ 1.3	56	13	46	25	5	37	17	.....	.....	15.54	+ 3.8	30	.....	e.	....	.....	...	3	3	25	....	45.1	1891	34.7	1888
Portland	157	23	29.85	30.03	— .06	40.3	+ 2.5	61	12	45	27	5	36	20	37	88	9.65	+ 2.2	26	8,092	sw.	50	sw.	13	3	6	22	8.2	44.6	1893	30.0	1888
Roseburg	528	17	29.52	30.09	— .04	42.9	+ 2.6	60	13	48	21	5	38	20	39	86	9.06	+ 2.4	25	2,672	sw.	24	sw.	15	4	7	20	7.8	44.0	1878	35.1	1888
Mid. Pac. Coast Reg.						45.0	— 1.7										6.96	+ 1.2														
Eureka	64	8	30.07	30.13	.00	45.6	— 0.4	59	14	50	28	6	41	16	44	94	12.38	+ 2.8	19	5,245	se.	44	s.	1	3	4	24	7.9	48.0	*	42.2	1890
Red Bluff	342	17	29.80	30.17	+ .02	42.4	— 2.9	59	24	49	27	6	36	27	38	86	5.29	+ 0.6	14	5,184	nw.	40	se.	14	7	15	9	5.2	50.0	1881	39.2	1890
Sacramento	64	17	30.11	30.18	+ .04	44.4	— 1.3	58	29	51	26	6	37	20	39	85	4.17	+ 0.3	8	5,154	se.	34	se.	20	8	11	12	6.2	49.7	1878	41.9	1883
San Francisco	153	23	30.02	30.19	+ .06	47.7	— 2.3	58	27	53	36	6	43	17	42	82	5.99	+ 1.0	14	5,945	nw.	36	se.	17	9	12	10	5.6	54.6	*	46.2	1890
Point Reyes Light	.....	....	.....	.....	.....	45.8	.....	58	12	50	34	6	42	16	.....	.....	10.06	.....	13	.....	nw.	....	.....	...	8	0	23	....	....	....	....	....
S. Pac. Coast Region.						48.0	— 2.4										1.17	— 0.9														
Fresno	338	7	29.82	30.19	+ .04	43.8	— 0.5	64	13	52	25	6	36	29	38	79	2.27	+ 1.0	12	3,220	nw.	28	nw.	18	7	9	15	6.1	48.5	1892	42.2	1890
Los Angeles	330	17	29.78	30.14	+ .05	50.7	— 2.6	75	28	62	32	6	40	38	38	70	0.94	— 2.0	5	2,511	w.	14	w.	4	21	6	4	2.7	57.2	1893	49.1	1890
San Diego	93	23	30.04	30.14	+ .04	49.5	— 4.2	69	*	58	32	7	41	30	40	74	0.29	— 1.7	4	3,746	nw.	26	w.	4	14	15	2	3.6	57.4	*	49.5	1894

NOTE.—The data at stations having no departures are not used in computing the district averages. Letters of the alphabet denote number of days missing from the record.
*Two or more directions, dates, or years. † Received too late to be considered in departures, etc. ‡ All temperature and precipitation normals and extremes of temperature are obtained from Fort Keogh records. ‖ All temperature and precipitation normals and extremes of temperature are obtained from Fort Buford records. § All data except precipitation for 29 days only.

TABLE II.—*Meteorological record of voluntary and other co-operating observers, January, 1894.*

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean.	Precip'n.
	°	°	°	Ins.
Alabama.				
Alco	79	24	54.1	.....
Bermuda *†[5]	77	21	51.8	1.77
Birmingham †	70[d]	13[d]	50.4[d]	8.49
Brewton †	77	22	55.0	2.40
Carrollton *†[1]	68	12	48.6	7.71
Chepultepec †	69[d]	8[d]	44.2[d]	5.63
Citronelle †	74	23	55.2	2.21
Claiborne Landing †	.....	.....	.....	1.96
Cordova †	.....	.....	.....	5.48
Demopolis †	.....	.....	.....	3.80
Eufaula *a* †	77	32	54.8	4.50
Eufaula *c* †	.....	.....	.....	4.25
Florence *a* †	.....	.....	.....	6.10
Florence *b* †	67	3	45.6	6.18
Fort Deposit *k* †	72	20	50.0	0.69
Gadsden †	73	15	49.0	5.83
Geneva †	82	28	55.2	6.14
Greensboro †	72	13	49.0	4.91
Healing Springs †	81	16	49.9	3.34
Highland Home †	76	21	52.4	1.92
Livingston *b* †	.....	.....	.....	3.48
Lock No. 4	.....	.....	.....	7.89
Lynn *a* †	.....	.....	.....	4.88
Maple Grove	76	12	50.2	6.22
Marion †	.....	.....	.....	3.60
Mount Willing †	78	22	54.1	2.38
Newbern †	73	15	48.8	4.22
Newburg †	72	3	46.5	5.63
Newton †	75	28	53.8	9.38
Oxanna *†[1]	66	17	47.3	7.73
Pine Apple †	79	20	50.6	1.74
Pushmataha †	73	18	51.0	4.82
Rock Mills †	.....	.....	.....	4.03
Scottsboro †	67	10	45.8	5.89
Selma *a* †	.....	.....	.....	3.67
Starlington *†[1]	70	22	50.3	1.83
Sturdevant †	.....	.....	.....	0.86
Talladega *a* †	.....	.....	.....	7.37
Talladega *b* †[1]	69	14	47.2	7.78
Tallassee Falls †	.....	.....	.....	3.23
Tuscaloosa †	71	12	46.4	8.57
Union Springs *a* †	76	23	49.8	3.23
Uniontown	78	17	52.1	3.29
Valley Head †	68	12	44.1	4.57
Warrior †	.....	.....	.....	7.15
Wetumpka	.....	.....	.....	3.15
Wilsonville †	.....	.....	.....	5.99
Alaska.				
Killisnoo †	40	— 2	20.8	5.85
Metlakahtla †	44	12	29.2	7.48
Arizona.				
Antelope Valley †	.....	.....	.....	0.15
Arizola †	72	20	45.3	0.21
Ariz. Canal Co. Dam	79	32	51.1	0.13
Benson *[8]	78	25	52.9	T.
Bisbee †[1]	63*	18	42.0	0.61
Buckeye †	83	20	51.4	T.
Calabasas †	69	16	42.1	0.60
Casa Grande *[8]	76	34	51.9	0.00
Chiricahua M't's †	.....	.....	.....	1.60
Dragoon †	.....	.....	.....	0.43
Dragoon Summit *[5]	72	26	50.2	0.43
Dudleyville †	73	23	44.8	0.62
Eagle Pass *[3]	.....	18	33.8	0.40
Farleys Camp	64	26	44.1	0.15
Flagstaff †	54	—19	24.4	2.00
Florence †	75	26	48.5	0.39
Fort Apache	61	—12	32.8	1.24
Fort Bowie †	66	17	42.2	0.65
Fort Grant	69	18	41.3	0.38
Fort Huachuca	67	14	41.4	0.32
Gila Bend *b* *[8]	73	22	49.3	0.00
Globe †	66	21	42.2	0.79
Holbrook †	63	— 2	32.4	0.02
Keams Canyon †	51[e]	— 8[e]	25.5[e]	0.17
Lochiel *†[1]	65	15	41.2	0.35
Maricopa *[8]	72	25	43.3	0.32
Mount Huachuca †	65	14	41.5	0.35
Natural Bridge †	.....	.....	.....	0.60
Navajo Springs *†[3]	.....	0	18.6	.....
Oracle †	64	20	42.3	0.92
Oro	.....	.....	.....	0.15
Palomas †	72	12	44.6	0.00
Pantano *[8]	62	28	43.1	0.00
Parker †[1]	84	10	44.0	0.00
Payson *[1]	61	— 5	34.0	1.24
Peoria †	68	28	48.2	0.15
Phœnix *a* †	.....	.....	.....	0.08
Phœnix *b* †	71	23	46.0	0.00
Red Rock *†[6]	70	25	47.4	0.00
Reymert †	66	26	45.2	0.40
Rye †	.....	.....	.....	0.33
St. Helena R'h †	71	21	44.8	0.44
San Carlos	71	15	40.8	0.63
San Simon *[8]	80	14	45.6	0.08
Signal †	68	20	44.5	0.06
Texas Hill *[8]	75	21	50.4	0.00
Tucson *a* †	75	20	46.4	0.15
Tucson *b* *[8]	68	28	47.7	0.19
Walnut Ranch *†[1]	63	14	38.9	0.60
Whipple Barracks	67	— 7	31.8	0.30
Wilgus †	.....	.....	.....	0.66
Willcox *[8]	68	18	38.8	0.50
Arizona—Cont'd.				
Yuma *[8]	78	32	51.0	0.00
Arkansas.				
Arkadelphia †	.....	.....	.....	2.78
Arkansas City †	.....	.....	.....	6.87
Ashdown †	75	7	46.0	3.34
Bee Branch †	77	0	45.6	2.02
Blanchard Springs †	73	12	48.4	6.40
Brinkley †	65	5	42.4	4.80
Camden *a* †	.....	.....	.....	4.19
Conway *[1]	69	1	43.1	1.48
Corning †	70	— 3	38.4	2.19
Dardanelle †	.....	.....	.....	2.45
Fayetteville †	75	—17	40.0	3.50
Fulton †	.....	.....	.....	2.51
Gaines Landing †	.....	.....	.....	7.44
Hamburg	75	10	47.8	8.58
Helena *a* †	.....	.....	.....	4.84
Hot Springs	76	— 1	44.8	3.51
Keesees Ferry †	76	—13	39.3	1.84
Kirby †	74	2	45.0	3.10
Lonoke *[1]	68	3	46.7	2.19
Mount Nebo †	66	— 4	40.4	2.42
New Gascony *[1]	67[h]	4[f]	43.4[h]	4.83
Newport *a* †	.....	.....	.....	2.37
Newport *c* †	70[c]	— 2	41.6	1.89
Osceola †	72	1	43.6	4.08
Ozark †	72	— 3	44.0	1.77
Rison †	72	6	46.6	4.85
Rogers †	75	—22	34.8	4.20
Russellville †	72	0	43.6	2.60
Searcy †	70	— 2	40.6	3.91
Stuttgart †	69	6	45.2	4.59
Texarkana †	75	10[j]	49.3[j]	0.25
Washington *b* †	72	7	46.0	3.24
Winslow *†[1]	62	— 15	34.0	2.34
California.				
Agnew	68	29	48.6	3.51
Anaheim *[8]	76	35	49.4	0.68
Anderson *[1]	55	21	37.7	7.12
Antioch *[8]	61	30	45.5	4.29
Aptos *[8]	60	18	45.6	7.56
Arcata †	59	25	45.1	12.35
Arlington Heights	76	25	48.5	0.00
Athlone *[8]	60	26	45.6	2.55
Auburn *[8]	75	25	46.5	6.90
Bakersfield *a* *[8]	65	28	45.8	0.91
Ballast Point L. H.	.....	.....	.....	0.40
Barstow †	68	17	42.5	0.02
Beaumont *[8]	70	27	48.0	0.30
Belmont *[8]	65	34	48.8	.....
Berendo *[8]	68	27	45.5	1.79
Berkeley	59	31	46.0	9.54
Bethany *[1]	68	34	47.4	4.22
Bishop Creek *[8]	67	8	39.5	0.30
Boca *[8]	65	—22	26.5	5.10
Borden *[8]	70	24	46.1	0.00
Boulder Creek *[8]	74	26	51.7	14.92
Brentwood *[8]	58	27	44.1	5.04
Brighton *[6]	70	24	48.8	2.45
Byron *[8]	56	26	42.4	3.99
Caliente *[8]	65	29	45.6	3.30
Calistoga *[8]	69	24	49.2	15.28
Campo Seco	.....	.....	.....	5.89
C. Mendocino L. H.	.....	.....	.....	19.31
Capitola *[8]	68	24	48.9	.....
Castroville *[8]	68	20	49.2	4.95
Centerville *[1]	63	34	49.6	7.28
Chico *[8]	64	24	44.8	7.19
Chino *[6]	68	24	44.3	1.10
Cisco *[3]	39	— 5	23.9	.....
Claremont †	70	24	45.4	1.73
Cloverdale *[6]	62	28	47.3	13.72
Colegrove	.....	.....	.....	1.10
Colfax *[8]	60	20	39.3	13.43
Colton *[8]	68	29	48.5	0.20
Colusa †	59	25	43.4	3.37
Corning *[8]	66	32	44.8	3.90
Crescent City	.....	.....	.....	16.40
Crescent City L. H.	.....	.....	.....	16.39
Crofton *[8]	70	28	46.6	1.32
Davisville *a* *[8]	62	30	44.8	3.50
Deep Creek	.....	.....	.....	1.94
Delano *[8]	64	24	44.5	0.47
Delta *[8]	55	23	42.3	14.30
Dinuba *[8]	62	23	44.0	1.68
Downey *[8]	80	30	52.9	0.74
Dry Creek *†[3]	51	24	39.9	.....
Drytown	58	22	42.7	6.32
Dunnigan *[8]	60	20	45.9	5.78
Dunsmuir *[8]	51	15	37.8	17.53
East Brother L. H.	.....	.....	.....	1.93
Edgwood *[8]	48	10	30.2	5.13
Edmanton *[1]	54	4	30.2	17.46
Eldorado *[8]	62	26	45.8	8.74
Elmira *[8]	65	28	45.4	8.12
El Verano *[8]	61	27	46.2	11.86
Emigrant Gap *[8]	47	11	30.6	10.10
Escondido	77	30	50.8	1.18
Esparto *[8]	60	30	44.8	5.58
Evergreen	.....	.....	.....	4.90
Exeter *[8]	66	28	46.9	1.39
Fall Brook *[1]	76	30	45.2	0.87
Farmington *[8]	68	23	46.8	5.17

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
	°	°	°	Ins.
California—Cont'd.				
Felton *[8]	74	20	48.2	11.36
Fernando *[8]	70	28	47.0	0.59
Florence *[8]	80	30	52.5	.....
Florin *[5]	57	26	44.4	4.41
Folsom City *a* *[8]	68	25	48.5	6.47
Folsom City *b* *[1]	62	26	46.3	5.89
Fort Ross	.....	.....	.....	18.66
French Corral	62	24	43.9	7.17
Fresno *[8]	65	26	46.6	1.73
Fruto *[8]	60	30	44.6	5.35
Galt *[8]	63	28	47.0	4.02
Georgetown †	58	15	39.5	13.89
Gilroy *[8]	64	22	45.7	4.71
Girard *[8]	60	11	36.9	1.75
Glendora	.....	.....	.....	1.80
Glen Ellen *[8]	58	25	44.6	18.67
Gormans Station	.....	.....	.....	3.00
Goshen *[8]	66	22	45.8	1.45
Grass Valley *a*	.....	.....	.....	11.24
Green Valley	.....	.....	.....	2.18
Gridley *[1]	59	19	42.2	9.49
Guinda	.....	.....	.....	7.15
Haywards *[8]	58	32	45.8	7.06
Healdsburg *[1]	56	28	41.1	12.21
Hendersons R'ch	.....	.....	.....	0.46
Hollister *[8]	65	20	47.0	3.99
Hornbrook *[8]	55	18	36.4	3.20
Humboldt L. H.	.....	.....	.....	11.84
Huron *[8]	65	35	53.4	0.40
Hyde Ranch	.....	.....	.....	5.43
Hydesville †	60	23	45.0	13.57
Independence †	63	9	37.2	0.12
Indio *[8]	83	23	54.1	0.00
Ione *[8]	60	24	43.4	4.44
Iowa Hill *[1]	62	20	40.6	11.07
Jackson	54	22	38.8	9.88
Jolon	.....	.....	.....	1.48
Keeler *[8]	57	19	38.0	T.
Keene *[8]	60	12	39.9	3.60
Kelseyville	74	22	45.5	12.56
Kennedy Gold Mine	58	22	42.2	9.32
King City *[8]	66	20	46.6	1.47
Kingsburg *[8]	62	25	46.5	1.79
Knights Landing *[8]	60	26	45.4	3.42
Kono Tayee	56	28	42.8	6.92
Lagrange *[5]	63	25	46.2	6.17
Lathrop *[8]	64	28	45.4	3.13
Laurel *[8]	65	24	44.4	10.80
Lemoore *a* *[8]	65	23	44.6	1.34
Lemoore *b*	62	23	45.0	1.33
Lick Observatory †	53	17	35.9	9.74
Lime Point L. H.	.....	.....	.....	6.52
Little Bear Valley	.....	.....	.....	2.48
Little Bear Valley (near)	.....	.....	.....	2.88
Livermore *[8]	62	30	46.3	4.97
Livingston *[8]	68	28	47.7	2.63
Lodi	60	24	45.0	3.99
Long Beach *[8]	78	28	47.7	.....
Los Angeles *[8]	72	26	44.2	0.71
Los Banos *[8]	65	23	45.0	1.80
Los Gatos *a* *[8]	66	28	49.0	5.70
Los Gatos *b*	62	25	44.5	6.98
Lower Holcomb Valley	.....	.....	.....	0.87
Mammoth Tank *[8]	75	27	50.8	0.00
Manzana *[1]	67	14	37.7	0.21
Mare Island L. H.	.....	.....	.....	5.64
Mariposa *[1]	68	22	39.7	6.70
Martinez *[8]	58	26	45.2	6.44
Marysville *a* *[8]	63	28	48.4	0.34
Menlo Park *[8]	60	30	47.0	4.00
Merced *[8]	62	22	43.3	2.68
Middletown *†[1]	71	24	43.6	14.37
Mills College	.....	.....	.....	10.36
Milton *[8]	68	23	42.9	6.92
Milton (near) *[1]	62	27	44.2	6.31
Modesto *[8]	69	27	45.9	3.36
Mohave *[8]	66	16	41.0	0.48
Mokelumne Hill *[3]	.....	24	39.2	9.32
Monson *[8]	61	25	46.5	1.51
Montague *[8]	60	18	40.0	2.72
Monterey *[8]	60	26	46.1	3.25
Monterey (Hotel del Monte) *[8]	63	30	48.6	.....
Morses House	.....	.....	.....	4.78
Mountain View	.....	.....	.....	4.06
Mount Glenwood *[1]	60	30	44.6	9.51
Mutah Flat	.....	.....	.....	0.54
Napa *a* *[8]	63	24	46.8	9.84
Napa *b*	60	30	47.0	8.17
National City †	76	32	50.0	0.36
Needles *a* †	69	26	47.9	0.00
Neenach *[1]	65	14	38.0	.....
Nevada City †	58	12	37.7	11.71
New Almaden *[8]	65	26	46.2	4.80
Newark *[8]	68	32	48.4	6.00
Newcastle *a* †	58	23	41.4	7.17
Newcastle *b* *[8]	56	22	40.7	3.55
Newhall *[8]	76	19	48.9	0.85
Newman *[8]	65	25	44.1	1.97
Niles *[8]	64	30	46.0	8.40
Nordhoff †	72	22	45.9	0.68
Norwalk *[8]	75	20	50.0	0.67
Oakdale *a* *[4]	63	20	38.4	5.59
Oakdale *b* *[8]	64	22	44.5	5.46
Oakland *a*	58	29	44.7	9.02
Oakland *b* *[8]	62	31	46.1	8.45
Ogilby *[8]	76	33	50.0	0.00
Oleta *[1]	57	20	39.8	7.23
Ontario *a* *[8]	72	29	48.3	1.12
Ontario *b*	74	25	47.4	1.75
Orangevale †	57	24	44.6	5.85
Orland *[8]	58	30	45.6	3.13
Oroville *a* *[8]	63	28	48.4	5.97
Oroville *b*	65	27	47.0	5.97
Pajaro *[8]	66	26	46.6	4.97
Palermo †	59	22	44.0	3.76
Palm Springs *[8]	78	25	50.2	0.00
Pasadena †	75	28	48.6	1.45
Paso Robles *a* *[8]	65	17	44.1	1.46
Paso Robles *b*	63	19	42.4	1.06
Petaluma *[1]	62	28	47.5	8.41
Piedras Blancas LH	.....	.....	.....	3.34
Pigeon Point L. H.	.....	.....	.....	2.24
Placerville *a* *[8]	62	23	41.7	11.55
Placerville *b*	57	16	38.5	11.05
Pleasanton *a* *[8]	70	22	47.4	4.18
Pt. Ano Nuevo L. H.	.....	.....	.....	8.00
Point Arena L. H.	.....	.....	.....	10.38
Point Bonita L. H.	.....	.....	.....	9.18
Pt. Conception L. H.	.....	.....	.....	2.08
Point Fermin L. H.	.....	.....	.....	0.29
Point Loma L. H.	.....	.....	.....	0.20
Point Montara L. H.	.....	.....	.....	7.58
Point Pinos L. H.	.....	.....	.....	3.21
Point Reyes L. H.	.....	.....	.....	8.26
Point Sur L. H.	.....	.....	.....	4.77
Pomona *[8]	78	22	43.4	1.71
Pomona (near)	69	24	45.2	2.36
Portersville *[8]	66	28	46.7	1.52
Port Los Angeles *[8]	68	42	51.1	1.08
Poway *[3]	.....	23	39.2	0.79
Puente *[8]	73	30	50.7	0.42
Ravenna *[8]	72	24	41.7	0.13
Red Bluff *[8]	58	30	43.6	6.03
Redding *a* *[8]	60	28	42.9	9.69
Redding *b* †	62	25	41.5	9.78
Redlands *a*	.....	.....	.....	1.43
Redlands *b* *[8]	69	28	46.8	0.67
Represa	64	26	46.0	4.71
Rio Vista	59	25	44.8	5.61
Riverside *a* †	79	26	47.3	0.99
Rocklin *[8]	70	28	50.2	6.30
Roe Island L. H.	.....	.....	.....	3.95
Sacramento *a*	55	19	39.6	4.88
Sacramento *b* *[8]	65	27	45.4	2.83
Sacramento *c* *[8]	58	31	45.1	3.93
Salinas *[8]	63	26	47.9	5.07
Salton *[8]	79	24	53.2	0.00
San Ardo *a* *[8]	68	19	44.9	1.18
San Ardo *b* †	73	19	47.2	1.05
San Bernardino †	74	23	47.0	1.26
San Gabriel *[8]	74	28	47.3	0.73
Sanger Junction *[8]	70	27	46.4	2.14
San Jacinto †	78	20	46.6	0.67
San Jose *a* *[8]	64	28	47.3	4.73
San Jose *b*	63	18	44.6	4.71
San Luis L. H.	.....	.....	.....	1.67
San Luis Obispo	.....	.....	.....	1.94
San Mateo *[8]	60	32	49.3	7.42
San Miguel *[8]	63	21	44.7	0.90
San Pedro *[8]	71	37	52.2	0.43
San Rafael †	59	27	45.5	10.79
Santa Ana *[2]	75	32	52.5	0.50
Santa Barbara *a*	70	33	49.7	0.99
Santa Barbara *b* *[8]	74	40	53.9	0.65
Santa Barbara L. H.	.....	.....	.....	0.76
Santa Clara *a* *[6]	65	27	46.0	4.64
Santa Cruz *a* *[8]	64	30	48.7	7.13
Santa Cruz *b* †	65	27	48.8	7.02
Santa Cruz L. H.	.....	.....	.....	7.01
Santa Margarita *[8]	59	19	38.5	2.99
Santa Maria	70	26	48.4	1.16
Santa Monica *[8]	65	26	45.8	0.95
Santa Paula *[8]	60	28	46.2	1.04
Santa Rosa *[8]	59	26	47.2	9.61
Saticoy †	.....	.....	.....	0.83
Selma *[8]	65	26	45.7	1.51
Shasta Springs †	56	13	36.6	13.39
Shingle Springs *[8]	70	19	41.8	7.07
Sims *[8]	55	14	34.7	10.98
Sisson *[8]	52	12	30.8	10.72
Sneddens Ranch	.....	.....	.....	1.31
Soledad *[8]	66	22	46.2	2.05
Sonoma *[3]	62	28	43.8	10.39
S. E. Farralon L. H.	.....	.....	.....	5.59
South Vallejo *[8]	59	32	48.3	6.26
Spadra *[8]	78	30	49.2	.....
Squirrel Inn	.....	.....	.....	4.00
Stockton *a*	62	26	44.1	3.88
Stockton *b* *[8]	62	26	49.2	3.88
Suisun City *[8]	60	26	45.6	6.33
Summit *[8]	43	— 5	24.0	.....
Susanville *†[1]	48	4	29.9	6.10
Sutter Creek *[6]	54	18	37.4	5.95
Tehachapi *a* *[8]	55	12	34.1	2.80
Tehachapi *b*	59	— 2	33.4	1.94
Tehama *[8]	70	29	52.7	5.92

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
	°	°	°	Ins.
California—Cont'd.				
Templeton *[8]	63	20	44.9	1.58
Towles *[8]	60	12	37.3	13.76
Tracy *[8]	54	29	43.6	2.13
Traver *[5]	59	30	45.9	1.51
Trinidad L. H.				10.48
Tropico *[8]	72	28	48.9	0.72
Truckee *[8]	44	—12	23.2	8.06
Tulare *a* *[8]	69	25	45.7	1.16
Tulare *b*				1.28
Tulare *c*	78	24	47.4	1.24
Tunnel No. 2				1.75
Turlock *a* *[5]	67	29	49.4	2.74
Turlock *b* †	64	19	42.7	2.82
Ukiah †	64	22	43.6	15.68
Upper Mattole *[1]	73	27	48.0	27.56
Vacaville *a* *[1]	60	28	45.4	8.70
Vacaville *b* *[8]	60	28	45.7	10.77
Valley Springs *[8]	64	26	47.7	6.91
Ventura †	69	33	50.0	0.81
Vina *[8]	57	29	45.5	4.18
Volcano Springs *[8]	78	28	51.3	0.00
Walnut Creek	59	22	42.7	5.85
Weaverville †	73	17	42.6	11.47
Wenrich Ranch				1.05
West Butte *	55	25		3.55
Westley *[8]	63	32	46.7	1.93
Wheatland	58	22	43.8	5.71
Whittier *[8]	78	32	55.2	0.65
Williams *[8]	60	26	43.4	3.27
Willows *a* †	52	25	40.6	3.49
Willows *b* *[8]	60	29	43.6	3.65
Winchester †	74	21	46.2	0.47
Winters *[8]	60	30	46.3	8.07
Wire Bridge *[5]	60	22	43.8	9.18
Woodland *[8]	58	30	43.5	3.99
Yerba Buena L. H.				6.06
Yreka †	54	8	35.2	7.59
Yuba City *[5]	60	32	46.0	4.95
Colorado.				
Abbott				0.05
Akron †	70	—18	28.4	0.40
Alma †	43	—14	14.7	0.46
Amherst †				0.04
Arboles				0.50
Avoca				0.02
Boulder †	65	—13	32.0	0.16
Breckenridge †	57	—28	12.0	2.65
Brush †	61	—17	22.0	0.15
Byers *[1]	64	—12	25.4	
Canyon †	69	— 7	33.7	0.00
Castle Rock †	64	—11	26.8	0.20
Cheyenne Wells *† [1]	62	—15	26.0	T.
Climax *† [1]	36	—15	7.7	4.83
Collbran				0.93
Como (near) †	46	— 9	16.4	0.18
Cope †	69	—15	29.1	0.25
Deer Trail *[5]	65	— 4	30.9	T.
Delta †	58	— 2	24.0	0.12
Divide Ex. Station	60	—12	23.8	T.
Downing †	80	—15	32.8	0.10
Dumont	56	— 8	25.6	0.30
First View *[6]	64		29.8	0.05
Fort Collins †	63	—22	23.9	0.25
Garnett				T.
Glen Eyrie †	62	— 6	29.4	0.02
Glenwood Sp'gs †	52	— 1	27.3	1.27
Gold Hill *[5]	56	—14	27.0	0.89
Grand Junction †	51	3	25.9	0.08
Greeley †		—16		0.03
Gunnison †	35	—35	1.8	0.55
Hugo *[5]	62	—12	27.8	0.15
Hugo (near) †	68	—11	26.0	0.07
Husted †	72	—13	29.0	T.
Idaho Springs † [1]	57	— 6	24.5	0.19
Julesburg †	59	—28	22.0	0.48
Kit Carson *[1]	70	—10	24.8	0.10
La Jara †	56	—10	23.6	0.02
La Porte				0.29
Las Animas †	78	— 9	31.4	0.00
Lay *† [1]	46	—23	14.6	1.12
Le Roy *† [1]	56	—16	22.4	0.35
McCoy †				0.94
Meeker †	51	—22	14.9	1.86
Minneapolis †	80	—12	33.1	0.05
Monte Vista *b*	50	—12	19.5	0.01
Moraine †	49	—16	22.5	0.40
Pagoda (near) †	44	—23	17.6	1.85
Paonia †				0.10
Parachute †	46	— 8	23.3	0.40
Red Cliff				3.75
Rico				1.73
River Bend *[6]	70	0	31.7	T.
Rocky Ford †	71	— 6	31.3	0.10
Saint Cloud				0.25
Sanborn				0.60
San Luis †	57	—15	19.9	0.71
Scissors †				0.30
Seibert †				0.02
Smoky Hill Mine †	66	— 1	28.2	0.04
Stamford *[1]	52	— 8	19.6	0.50
Sunnyside	52	—20	17.9	1.30
Surface Creek †	53	— 1	25.4	0.35
Thon †	64	— 6	28.9	0.06
T. S. Ranch †	51	0	24.0	0.30
Twin Lakes				0.04

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
	°	°	°	Ins.
Colorado—Cont'd.				
Wallet †				0.50
Ward District				0.80
Watkins *[1]	51	4	32.0	
Yuma				0.50
Zuck				0.04
Connecticut.				
Bridgeport *[1]	49[e]	12	30.3	2.92
Canton	47	6	27.4	2.90
Colchester	54	6	29.9	2.45
Falls Village				2.03
Greenfield Hill				2.88
Hartford *b*				2.58
Hartford *c*	52	7	29.2	
Lake Konomoc				2.50
Lebanon				2.63
Middletown	52	2	28.8	2.83
New Hartford *a* *† [1]	50	— 2	25.5	2.77
New Hartford *b*				1.95
N. Grosvenor Dale	53	4	29.0	2.66
Norwalk	51	3	29.2	1.64
Southington *[1]	53	4	27.9	2.21
South Manchester				2.07
Stevenson				2.43
Storrs	55	2	27.6	2.24
Thompson	52	— 1	26.6	
Voluntown †	55	— 2	29.5	3.84
Wallingford †				2.92
Waterbury	53	5	30.4	2.68
West Simsbury				2.56
Delaware.				
Dover †	61	20	38.0	2.77
Kirkwood *[2]	60		33.4	
Milford	62	19	39.0	2.70
Millsboro	61	19	39.0	2.53
Seaford †	62	20	39.1	2.85
District of Columbia.				
Dist'ing Reserv'r *[5]	55	18	37.2	1.15
Rec'ing Reserv'r *[5]	54	16	36.9	1.87
West Washington	64	17	39.0	2.04
Florida.				
Amelia †	72	34	56.4	2.80
Archer †	82	30	61.6	2.71
Brooksville †	76	34	60.3	1.55
Clermont †	80	43	63.4	1.92
De Land †	79	30	60.9	
Eustis †	80	37	62.6	2.32
Federal Point †	78	36	59.2	4.23
Fort Meade †	81	32	62.2	0.97
Grasmere †	80	36	63.1	1.37
Homeland †	81	32	62.4	1.32
Kissimmee †	84[b]	38	66.0[b]	2.29
Lake City †	78	36	60.8	2.48
Manatee †	82	32	62.2	0.46
Merritts Island †	78	49	65.9	1.63
Moseley Hall †	74	30	56.5	1.71
Mullet Key †	73	48	63.2	0.90
Myers †	81	41	63.8	0.68
New Smyrna †	79	34	61.2	2.27
Oak Hill *[1]	79	51	67.7	
Ocala *† [1]	80	31	60.0	2.21
Orange City †	83	31	61.3	1.81
Orlando †	83	36	63.5	1.86
Oxford *† [1]	78	33	58.7	1.96
Plant City †	85	32	63.5	2.35
Saint Francis B'ks.	78	33	58.0	3.48
Saint Petersburg †	80	45	64.1	2.65
Tallahassee †	72	33	55.2	1.29
Tarpon Springs †	82	37	62.5	3.03
Georgia.				
Adairsville †	69	16	44.2	4.40
Alapaha †				1.00
Albany †				2.64
Americus †	77	28	52.7	2.96
Athens *a*	70	27	47.0	4.79
Bainbridge *b* †				1.66
Blakely *† [5]	75	32	53.9	3.86
Bragg † [h]	75	26	52.0	0.75
Camilla	78	30	53.6	1.48
Canton †				6.69
Clayton †	64	19	43.6	
Cohutta	66	18	46.8	4.12
Columbus †	79	28	52.8	2.40
Cordele † [f]	74	26	50.8	2.30
Covington	73	24	48.4	3.81
Dahlonega †	68	23	46.4	6.76
Darien †	79	19	60.8	1.53
Diamond †				6.02
Dublin *a* †	74			1.54
Dublin *b* †				0.78
Elberton †	68	25	46.6	5.27
Fleming †	79	26	52.7	0.93
Forsyth *[1]	74	31	52.7	4.16
Fort Gaines †	76	10	53.0	3.33
Hawkinsville †	79	24	50.6	1.54
Hephzibah *† [3]	71	30	49.8	2.65
Lafayette †	65	16	45.1	4.68
Lagrange †	75	22	48.8	3.14
Lawrenceville †	75	15	43.2	3.20
Leverett *	76	21	46.0	2.46
Louisville †	74	23	49.0	2.13
Lumpkin †	70	27	51.4	3.59
McArthur †	75	29	52.5	1.51
Macon *b* †				2.03
Marietta †	66	17	44.6	6.12
Marshallville †	73	27	52.0	3.07

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
	°	°	°	Ins.
Georgia—Cont'd.				
Millen †	78	23	50.6	1.24
Monticello *† [1]	70	29	49.4	4.00
Morgan †	77	29	54.0	3.77
Piscola	75	31	56.0	1.10
Point Peter *[1]	68	26	46.5	3.95
Poulan †	79	25	53.0	2.28
Resaca †				3.99
Reynolds †				2.70
Rome †	67	18	45.4	5.00
Thomasville	76	29	55.8	1.02
Toccoa †	64	24	44.4	5.90
Union Point †	70	26	48.8	3.13
Washington †	70	30	49.5	3.23
West Point †	74	22	47.8	4.38
Whitesburg †				5.39
Idaho.				
American Falls †	42	—11	26.2	2.13
Boise Barracks	56	— 1	32.2	2.88
Chesterfield †	47	7	30.0	0.63
Egin †	38	—18	16.9	1.17
Fort Lemhi †	50	—10	21.8	2.56
Fort Sherman †	42[k]	— 5	25.1[k]	8.70
Garden Valley †	39	— 7	23.8	5.45
Grangeville	47	5	27.8	4.86
Kootenai †	48	— 4	24.2	3.85
Lake †	44	—26	15.1	3.80
Martin †	45	—13	17.8	2.53
Moscow †	45	— 3	27.4	6.01
Murray †	44[d]	—10[d]	22.8[d]	7.91
Nampa	62	— 1	33.1	0.99
Oakley †	48	1	29.8	0.30
Paris †	52	—14	22.5	1.50
Payette †	50	— 4	30.8	2.42
Salubria *[1]	42	— 2	25.5	5.45
Illinois.				
Albion †	65	— 9	35.8	2.59
Aurora †	60	—17	25.6	2.76
Beardstown †				2.40
Bloomington †	65	—24	27.9	2.32
Braidwood †	62	—15	30.4	1.16
Bushnell †	68	—15	28.0	1.05
Carlinville †	68	—21	30.6	3.09
Carlyle				2.17
Cordova †				1.83
Decatur †	67	—22	32.2	1.83
Dixon †	62	—26	23.4	2.15
East Peoria †	68	—18	30.2	2.44
Effingham †	62	— 8	36.0	1.50
Fort Sheridan †	60	—13	26.4	2.94
Galva †	63	—19	25.4	1.64
Golconda †	70	— 5	41.6	3.08
Greenville †	69	—12	34.7	2.45
Griggsville †	73	—20	30.8	2.06
Havana †	68	—11	32.8	2.08
Jordans Grove †	67	— 7	36.8	2.30
Lagrange †	61	—19	27.1	1.64
Louisville †	68	— 6	35.9	2.41
McLeansboro *[1]	66	—10	36.7	2.35
Martinsville †	65	— 7	32.5	2.43
Mascoutah *[5]	65	—13	32.4	1.17
Mattoon	65	— 9	37.1	1.53
Monmouth †	64	—20	26.4	1.78
Mount Carmel †				2.70
Mount Pulaski	66	—20	30.2	2.79
Muddy Valley *[3]	66[d]	— 9[d]	34.0[d]	2.07
Olney *a* *[1]	65	—10	36.6	2.27
Olney *b* *[1]	58	—10	31.1	2.73
Oregon †	62	—20	25.0	1.63
Oswego *[1]	56	—22	24.4	2.31
Ottawa †	64	—16	26.4	2.38
Palestine †	65	— 9	34.2	2.21
Paris †	64	—11	31.7	2.95
Peoria *a* †				2.59
Peoria *b*	67	—17	29.6	2.60
Philo †	64	—25	29.8	2.38
Quincy †				1.66
Rantoul *† [5]	60	—24	28.6	1.91
Riley †	57	—20	22.9	2.24
Rockford *[1]	60	—20	24.8	1.47
Rushville	68	—13	29.2	2.70
Saint John *[3]	62	— 5	33.8	1.86
Streator †	58	—16	26.8	1.90
Sycamore *[1]	58	—18	24.9	2.50
Tuscola *† [1k]	61	—16	29.2	1.53
Vienna † [1]	67	—12	38.2	2.31
Walnut †	64	—20	25.7	2.11
Warsaw †				1.74
Winnebago †	60	—23	22.6	1.48
Indiana.				
Angola *[1]	52	— 7	30.1	1.85
Ashboro †	67	—10	35.6	2.11
Bedford †	67	4	35.6	2.42
Butlerville †	60	—12	36.0	2.67
Cambridge City †	58	— 8	32.6	1.57
Columbia City *[1]	55	— 8	30.0	1.83
Columbus	60	— 9	36.0	2.14
Connersville †	58	— 7	34.9	1.48
Degonia Springs *[6]	63	— 7	38.5	3.79
Delphi	57	—12	31.3	1.91
Evansville †				4.66
Farmland †	57	— 6	34.1	1.40
Franklin *[1]	58	— 7[e]	33.3	1.78
Hammond †	58	—16	30.4	1.29
Hawpatch †	53	— 5	27.4	1.65
Huntingburg *† [1]	64	— 4	38.6	4.10

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
	°	°	°	Ins.
Indiana—Cont'd.				
Huntington	56	— 5	33.4	2.35
Jasper †	65	—10	36.8	3.42
Jeffersonville	62	— 4	38.8	2.81
Kokomo †	60[c]	— 9[c]	32.3[c]	1.79
Laconia	61	— 8	37.2	2.80
Lafayette †	61	—17	32.0	2.19
Logansport *a* †				2.27
Logansport *b*	60	—12	31.7	1.68
Madison †	63	— 6	39.1	3.33
Marengo *[1]	68	—10	37.7	4.40
Marion †	60	—10	33.5	1.03
Markle †	56	— 8	31.8	1.66
Mauzy	57	—11	32.8	1.77
Mount Vernon †	64	— 6	37.1	3.81
Muncie †	58	— 2	36.3	3.87
New Albany *† [1]	63	— 9	38.4	2.76
Princeton *† [1]	66	— 8	36.0	3.72
Rockville †	65	—12	33.0	2.29
Rushville †				1.84
Seymour †	60	— 4	34.8	2.56
Shelbyville †	60[f]	— 6[f]	32.7[f]	0.89
South Bend †	59	—10	29.4	1.68
Terre Haute †	65	— 4	35.7	1.99
Union City †	59	—10	34.0	1.33
Valparaiso †	58	—12	26.6	1.70
Veedersburg †	62[f]	—12[f]	30.4[f]	2.16
Vevay	62	— 6	37.2	3.20
Worthington †	66	— 8	34.7	2.29
Indian Territory.				
Eufaula †				3.97
Gwenndale †	73	3	42.7	2.00
Healdton †	74	4	40.7	3.72
Kemp †	79	— 1	46.0	1.49
Lehigh †	79	— 4	42.2	3.56
Purcell †	66	— 7	40.5	3.54
South McAlester †				3.70
Tulsa †				1.64
Iowa.				
Algona *[1]	44	—24	13.0	1.05
Alta †	47	—28	12.3	0.71
Amana †	58	—29	20.4	1.13
Ames *b*	55	—37	15.6	1.06
Ames *c*				0.57
Atlantic †	60	—28	19.0	0.95
Audubon	56	—26	18.0	1.10
Belle Plaine	59	—28	18.7	1.20
Bonaparte †	52	—18	25.6	1.40
Carroll †	56	—30	17.4	1.17
Cedar Falls †	56	—27	16.9	1.75
Cedar Rapids †	58	—23	21.9	1.51
Centerville †	61	—27	27.8	1.50
Charles City †	52	—26	15.6	1.42
Clarinda †	50	—22	20.4	0.48
Clinton	62	—28	23.3	2.02
College Springs	60	—24	22.0	0.96
Corning †	59	—24	22.2	0.89
Cresco †	52	—24	15.0	0.99
Decorah †	53	—24	16.3	1.14
Delaware *[3]	55	—28	17.6	0.96
Denison †	52	—28	13.9	0.95
Elkader †	57	—27	19.0	0.91
Fairfield †	64	—17	24.8	1.57
Fort Madison *† [1]	64	—16	28.6	2.05
Galva †	51	—29	14.2	0.32
Glenwood †	62	—22	23.2	0.32
Grand Meadow *[1]	54	—22	18.7	1.18
Greenfield †	58	—25	20.4	0.91
Grinnell †	57	—20	21.1	0.91
Grundy Center	58	—26	16.1	1.00
Hampton	52	—27	14.4	1.05
Hawkeye				1.89
Hopeville †	56	—22	22.0	0.74
Hopkinton *[5]	56	—26	23.2	1.30
Humboldt †				1.21
Independence †	55	—28	19.4	0.87
Indianola †	57	—25	23.1	0.68
Iowa City †	61	—30	24.6	1.95
Iowa Falls †	50	—33	13.7	0.72
Keosauqua †	63	—16	25.6	1.52
Knoxville	57	—22	20.9	0.90
Larrabee †	48	—28	12.6	0.78
Le Claire †				1.81
Logan †	51	—26	17.9	0.74
Maxon *[1]	56	—28	20.2	1.20
Mechanicsville	59	—22	20.8	1.45
Monticello *† [1]	57	—30	18.9	1.08
Mount Pleasant *[2]	50		22.8	1.49
Mount Vernon *[1]	59	—25	20.8	
Muscatine †	62	—21	25.9	1.80
Newton	58	—27	19.4	0.69
Osage *† [3]		—24	12.5	0.75
Oskaloosa †	51	—27	22.1	1.19
Ottumwa	63	—20	25.2	2.10
Ovid †	61	—25	23.8	1.21
Panama †	55	—25	17.5	0.37
Richland *[1]	57	—27	21.0	1.65
Rock Rapids	41	—29	9.6	0.65
Rockwell City				0.75
Sac City †	47	—30	14.0	1.35
Seymour †	62	—20	25.6	1.17
Sibley	40	—30	9.1	0.97
Spirit Lake †	45	—30	10.3	0.80
Tipton †	61	—26	23.3	1.62
Toledo *[1]	58	—30	19.9	0.72
Villisca †	54	—22	19.5	0.48

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
Iowa—Cont'd.	°	°	°	*Ins.*
Vinton *[1]	57	−30	16.5	0.88
Washington †	62	−24	23.2	1.10
Webster City *[1]	50	−26	15.3	1.12
West Bend *†[1]	48	−26	10.7	0.90
Williams *[1]	46	−27	14.4	0.87
Winterset †	57	−26	21.2	0.85
Kansas.				
Abilene †	74	−13	29.0	0.52
Achilles *†[3]	74	−26	17.0	0.41
Allison *†[2]	65	−21	20.0	0.38
Altoona *†[3]	69	−10	29.2	2.73
Atchison †	69	−17	27.0	1.02
Beloit †	65	−22	25.6	0.15
Bucklin	.....	.....	.....	0.10
Burlington †	70	−13	30.7	1.86
Cawker City *[1]	60	−20	23.3	T.
Colby †	72	−26	25.4	0.41
Coldwater †	72	−12	30.8	0.40
Columbus †	73	−14	32.6	3.12
Coolidge †	.....	−11	27.6	T.
Cunningham †	68	−14	29.8	0.20
Downs	.....	.....	.....	0.33
Eldorado †	72	−11	30.5	1.15
Elk City *[1]	74	− 9	33.0	1.75
Emporia †	70	−12	31.4	1.10
Englewood †	77	− 9	32.2	.....
Eureka Ranch †	65	−21	26.0	0.16
Fort Riley †	74	−14	30.6	0.20
Garden City †	67	−15	28.5	T.
Garfield	.....	.....	.....	0.05
Grenola *[1]	72	−10	31.5	1.95
Halstead *	68	−18	29.2	0.53
Hays City †[c]	69	−22	26.2	T.
Horton †	66	−16	26.8	1.03
Hutchinson †	73	−14	33.6	0.30
Independence †	75	−10	33.0	3.38
Kiowa †	73	−11	34.6	0.40
Lakin †	67	−25	27.6	T.
Lebo †	72	−14	30.4	1.50
Leoti †	70	−21	29.8	0.12
Macksville †	68	−16	29.0	0.25
McPherson †	64	−17	26.4	0.41
Manhattan *b*	74	−14	27.4	0.71
Manhattan *c* *[1]	69	−14	25.0	0.72
Marion †	73	−14	29.6	0.59
Marmaton	.....	.....	.....	3.15
Medicine Lodge	.....	.....	.....	0.43
Minneapolis †	72	−16	26.7	0.05
Morland †	67	−21	26.1	0.39
Morton †	76	− 9	33.4	0.20
Mount Hope *[1]	72	−12	32.3	0.51
Norton †	63	−18	25.7	0.41
Oberlin †	.....	.....	.....	0.98
Oswego †	74	−16	32.2	2.38
Phillipsburg †	66	−22	25.2	0.03
Pleasant Dale †	68	−20	27.0	0.05
Rome *†[1]	75	−10	32.8	1.87
Sedan †	74	−10	33.6	3.45
Sterling †	69	−14	32.2	0.10
Topeka	71[g]	−16[g]	28.8[g]	0.78
Tribune †	71	−15	30.2	T.
Wakefield *[2]	73	−14	25.6	0.58
Wallace *a* †	.....	.....	.....	0.03
Wamego *[1]	70	−14	26.2	1.00
Washington †	73	−20	26.2	0.42
Yates Center †	70	.....	.....	2.32
Kentucky.				
Alpha *†[1]	72	0	47.5	3.08
Bowling Green *a* *[1]	65	− 7	38.8	3.43
Bowling Green *b* †	72	− 6	39.2	3.09
Burnside †	.....	.....	.....	2.40
Caddo *†[1]	64	− 8	41.5	4.30
Canton *†[1]	70	− 3	41.6	3.24
Carrollton *†[1]	62	− 4	39.0	1.56
Catlettsburg *†[5]	62	4	41.2	2.54
Earlington	72	− 5	40.8	2.25
Eddyville †	.....	.....	.....	2.88
Edmonton †	64	− 4	39.8	3.31
Elizabethtown †	65	− 6	37.4	3.07
Eubank †	67	− 7	38.6	2.66
Falmouth †	.....	.....	.....	2.92
Fords Ferry †	71	− 4	40.8	2.86
Franklin *†[1]	78	− 5	42.9	3.86
Greendale *[1]	64	− 5	38.5	3.39
Greensburg *†[1]	66	− 5	39.3	2.92
Harrodsburg †	71	− 8	39.4	3.10
Henderson †	64[k]	− 5[f]	38.3[k]	3.92
Hendricks †	.....	.....	.....	2.70
Lagrange †[k]	67	− 8	35.1	.....
Louisa †	.....	.....	.....	4.12
Middlesboro †	64[e]	− 5[e]	40.6[e]	2.74
Mount Sterling †	62	− 4	36.5	3.52
Munfordville *†[1]	64	− 6	41.6	4.69
Paducah *a* †	.....	.....	.....	2.94
Paducah *b* †	72	− 4	40.6	2.70
Pellville †	64	−12	39.2	2.16
Princeton †	70	− 9	35.1	2.22
Russellville †	69	− 6	41.0	3.72
Sandy Hook †	68	− 4	39.8	2.48
Shelby City *[1]	64	− 3	39.6	2.63
Shelbyville †	64	− 8	37.9	3.37
South Fork †[2]	.....	.....	36.1	2.18
Springfield †	69	− 5	40.6	3.41
Williamsburg †	.....	.....	.....	3.10

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
Louisiana.	°	°	°	*Ins.*
Abbeville	83	22	57.5	3.25
Alexandria †	.....	.....	.....	5.92
Amite †	82	18	55.0	4.56
Bastrop †	79	13	51.4	6.99
Baton Rouge †	77	21	54.6	3.61
Calhoun †	75	13	47.8	8.39
Cameron *†[6]	.....	24	55.9	4.10
Cheneyville †	.....	19	.....	5.63
Clinton †	78[e]	30[e]	59.6[e]	4.74
Coushatta *a* †	.....	.....	.....	6.41
Coushatta *b* †	78	14	49.2	6.90
Covington †	.....	28	.....	2.57
Davis	77	13	49.2	7.87
Delhi †	.....	.....	.....	6.48
Donaldsonville †	82	24	57.6	1.95
Emilie †	76	24	54.3	1.90
Farmerville †[f]	75	14	51.6	9.08
Franklin †	77	25	57.2	1.83
Girard †[g]	74	14	44.5	6.29
Grand Coteau	76	23	55.4	4.30
Hammond †	80	22	54.8	1.78
Houma †	80	26	60.9	0.90
Jeanerette †[e]	80	24	55.4	3.37
Lafayette †	81	22	56.6	4.47
Lake Charles †	74	18	52.4	3.40
Lake Providence †[f]	75	13	49.0	6.31
Lawrence †[h]	76	30	56.8	1.21
Liberty Hill	80	13	51.2	8.24
Maurepas	83	21	55.8	2.50
Melville †	78	29	58.8	4.14
Minden †	77	13	51.6	6.99
Monroe †	73	14	51.0	7.34
Natchitoches †	77	12	52.7	6.81
New Iberia	77	22	58.2	2.17
Opelousas †	77	20	56.0	3.98
Oxford †	79	15	50.4	0.45
Paincourtville †	80	24	57.7	2.51
Plain Dealing	74	14	48.6	3.77
Plaquemine	79	25	57.6	2.59
Rayne †	80	19	55.2	4.85
Roseland	81	20	57.6	4.40
Schriever †	79	24[c]	59.2	2.31
Shell Beach	75	22	56.8	4.40
Sugar Ex. Station †[f]	77	26	56.7	1.32
Wallace	81	24	56.6	2.05
West End	.....	.....	.....	1.14
Winnfield †	78	15	52.2	7.44
Maine.				
Bar Harbor	51	− 3	23.6	3.46
Belfast *[6]	38	− 9	18.0	4.37
Calais †	47	−16	16.8	3.08
Cornish *[1]	44	− 3	20.9	2.32
East Machias †	50	−17	17.6	2.53
Easton †	40	−21	9.6	2.30
Fairfield	45	−27	14.0	2.43
Farmington †	48	−18	16.6	1.64
Fort Kent †	38	−40	3.8	1.85
Gardiner	51	−13	16.5	3.30
Houlton †	49	−39	7.2	2.54
Indian Stream	38	−25	11.4	3.15
Kents Hill	41	−12	14.8	.....
Lewiston	46	−10	16.8	2.93
Madison *[1]	40	−28	16.0	3.23
Mattawamkeag	37	−36	8.2	.....
North Bridgeton	43	− 8	17.9	1.64
Orono †	46	−32	12.4	3.01
Petit Menan *[1]	45	0	27.2	.....
West Jonesport *[1]	39	−15	19.1	.....
Maryland.				
Bachmans Val. *[1]	50	12	30.2	1.24
Benedict †	62	20	39.2	2.37
Boettcherville *[1]	64	14	34.4	1.30
Cambridge	58	27	40.2	3.13
Charlotte Hall †	58	17	38.6	2.11
Chestertown †	53	20	37.0	2.34
Cumberland *a* †	64	14	35.0	1.22
Cumberland *b*	67	18	39.8	1.28
Darlington †	54	16	35.6	1.52
Easton †	57	22	39.0	2.44
Fallston *[1]	53	18	35.5	2.08
Fenby *[1]	60	16	34.4	2.00
Great Falls *[5]	53	13	35.9	1.56
McDonogh	59[l]	16[l]	38.4[l]	.....
Mardela Springs †	62	19	38.5	2.30
Mt. St. Marys Col †	57	10	33.0	2.36
New Market *[1]	58	20	34.8	1.19
Oakland †	56	9	32.4	3.70
Solomons †	60	23	40.8	2.43
Sunnyside	56	3	31.4	2.84
Taneytown †	.....	.....	.....	1.74
Upper Marlboro †	57	14	37.8	.....
Valley Lee[2]	.....	.....	39.4	2.10
Woodstock	64	13	35.9	2.06
Massachusetts.				
Adams *a*	55	0	27.4	.....
Amherst	53	− 1	26.6	2.60
Amherst Ex. St'n *a*	52	0	25.4	2.43
Amherst Ex. St'n *b*	53	1	26.4	2.16
Andover	51	6	27.2	2.96
Ashland	.....	.....	.....	3.95
Bedford	54	0	27.8	2.74
Beverly Farms	50	− 2	27.3	3.77
Blue Hill (sum't)	54	− 1	27.6	3.18
Blue Hill (valley)	55	− 2	27.5	3.37
Boston	.....	.....	.....	3.84

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
Massachusetts—Con.	°	°	°	*Ins.*
Brockton *a*	56	− 6	28.7	2.78
Brockton *b*	.....	.....	.....	2.67
Cambridge *a*	57	1	28.2	3.33
Cambridge *b*	56	0	27.6	3.05
Chestnut Hill	56	0	28.6	3.90
Clinton	.....	.....	.....	2.55
Concord †	57	− 3	25.3	2.47
Dudley	54	− 2	27.2	2.01
East Templeton *[1]	50	− 2	25.0	4.72
Egg Rock, Nahant	50	0	28.2	.....
Fall River *[1]	55	5	31.1	3.43
Fiskdale	.....	.....	.....	1.58
Fitchburg *a* *[1]	52	0	26.1	2.99
Fitchburg *b*	56	− 1	26.2	2.65
Framingham	54	− 6	26.7	4.23
Gilbertville	52	− 2	25.9	3.24
Great Barrington	53	0	25.8	.....
Groton *a*	52	− 3	25.3	2.44
Hingham	.....	.....	.....	2.66
Hyannis	50	6	33.8	5.77
Kendall Green	45	3	27.4	5.01
Lake Cochituate	58	− 9	27.5	3.95
Lawrence	53	− 2	25.8	3.00
Leeds	51	− 1	23.8	2.26
Leicester	54	− 3	28.8	0.63
Leominster *[4]	46	− 1	25.0	2.27
Long Plain *[4]	48	2	26.8	5.46
Lowell *a*	46	− 2	25.4	3.35
Lowell *b*	47[f]	− 3	25.5[f]	.....
Lowell *c*	50	− 1	28.0	.....
Ludlow Center	47	− 1	24.5	2.32
Lynn *a*	53	− 1	28.8	2.84
Lynn *b*	55	− 2	28.0	.....
Mansfield *[1]	53	0	27.9	3.79
Medford	.....	.....	.....	3.07
Middleboro	56	1	28.5	4.62
Milton	54	1	29.8	2.13
Monroe	50	− 5	22.7	2.13
Monson[1]	55*	* 0	26.2	3.12
Mount Nonotuck	.....	.....	.....	3.00
Mystic Lake	.....	.....	.....	3.93
Mystic Station	.....	.....	.....	3.79
New Bedford *a* *[1]	50	3	30.1	4.85
New Bedford *b*	55	3	31.1	5.13
Newburyport	.....	.....	.....	3.42
North Billerica	55	0	27.8	2.80
Plymouth *[1]	57	4	33.2	4.26
Provincetown	51	6	32.2	3.98
Randolph	.....	.....	.....	2.76
Roberts Dam	.....	.....	.....	3.63
Roxbury	56	2	30.1	3.14
Royalston *[1]	42	− 2	24.5	2.72
Salem	.....	.....	.....	3.43
Salisbury	.....	.....	.....	2.85
Somerset *[1]	56	4	31.0	2.88
South Dennis	49	0	31.7	5.56
Springfield Arm'ry	52	4	27.3	2.30
Taunton *b*	56	3	29.9	3.62
Taunton *c*	56	− 2	29.2	4.31
Taunton *d*	50	0	27.6	3.22
Turners Falls	46	2	26.6	1.75
Wakefield †	56	− 3	26.9	3.33
Waltham	.....	.....	.....	2.54
Webster	.....	.....	.....	3.04
Wellesley	56	− 4	27.5	4.39
Westboro †	55	− 1	28.3	3.10
Williamstown	55	− 1	26.1	2.54
Winchendon †	.....	.....	.....	2.40
Winchester	.....	.....	.....	3.43
Winthrop	53	0	28.0	2.87
Worcester *a*	54	1[d]	27.0[d]	1.99
Worcester *b*	54	0	27.2	2.98
Michigan.				
Adrian	63	− 9	29.6	1.47
Albion	57	− 2	30.2	2.03
Allegan	55	− 1	29.7	1.86
Alma	52	−18	25.7	3.17
Ann Arbor	52	− 4	28.6	1.05
Arbela[2]	.....	.....	24.0	2.15
Ball Mountain	51	− 7	26.5	0.95
Bear Lake	50	− 6	24.7	1.40
Bellaire	50	− 5	23.1	1.24
Benton Harbor	57	2	31.3	2.11
Benzonia	48	2	23.9	5.30
Berlin *[1]	47	− 4	26.6	1.24
Berrien Springs *a* *[1]	56	−10	31.7	2.31
Berrien Springs *b*	.....	.....	.....	2.04
Birmingham	52	− 5	28.5	0.95
Boon	48	− 8	22.4	3.55
Bronson	54	−10	27.0	0.94
Brown City	51	− 3	26.2	1.16
Calumet	49	− 4	15.8	2.48
Charlevoix	54	4	24.3	2.05
Cheboygan	48	−20	19.2	2.46
Climax *[1]	49	− 5	28.6	1.23
Clinton	53	− 8	28.3	1.26
Crystal Falls	52	−23	12.6	0.50
Fairview	50	− 7	26.2	2.26
Fitchburg	51	−10	27.6	1.59
Flint	55	− 8	26.1	1.84
Gaylord	51	−13	21.0	3.25
Grand Rapids	54	6	30.2	3.08
Grape	55	− 4	31.6	0.76
Grayling	46	−18	19.5	1.60
Hammonds Bay *[9]	50	0	22.6	.....

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
Michigan—Cont'd.	°	°	°	*Ins.*
Hanover	53	− 5	30.8	1.36
Harbor Springs	48	− 4	23.6	3.82
Harrison	49	−11	23.4	2.53
Harrisville	48	−10	23.2	2.93
Hart	55	5	34.2	.....
Hayes	52	0	27.1	1.14
Howell	52	−14	26.4	1.15
Jeddo	49	− 5	26.2	0.93
Kalamazoo	52	− 4	28.8	1.57
Lake City	.....	− 6	.....	1.70
Lansing	53	− 4	27.2	1.75
Lathrop *[1]	44	−16	15.2	1.65
Lewiston	48	− 3	21.8	1.83
Lodi	47	− 5	22.2	2.23
Madison	53	− 6	29.0	1.04
Mayville	53	− 4	25.2	2.24
Mio	44	− 7	21.4	.....
Mottville	54	−18	29.0	1.73
North Marshall	57	−10	26.4	1.50
Olivet	52	− 7	27.8	1.00
Ovid	53	− 5	27.0	1.80
Paris	58	−11	23.8	3.37
Parkville	.....	.....	.....	1.83
Rawsonville *[1]	52	− 5	30.4	1.12
Rockland	57[d]	−21[d]	16.5[d]	0.80
Saint Ignace	42	− 7	19.0	3.14
Sand Beach	52	− 3	26.0	.....
Stanton	52	− 2	25.8	2.51
Thornville	54	0	29.4	0.99
Vandalia	51	−15	29.0	2.75
Williamston *[1]	51	− 4	30.6	1.40
Ypsilanti	53	−11	28.5	1.22
Minnesota.				
Ada †	48	−35	1.4	0.26
Alexandria *a* †	.....	.....	.....	0.45
Alexandria *b*	44	−33	1.8	0.70
Barrett *[1]	40	−34	6.6	0.70
Beardsley †	50	−31	6.8	0.56
Belle Plaine *[1]	37	−32	7.6	0.58
Bingham Lake †	37	−29	8.0	.....
Bird Island	37	−27	6.7	0.52
Blooming Prairie *[1]	48	−30	9.2	0.65
Bonniwells Mills †	40	−27	10.8	0.75
Caledonia †	50	−24	15.6	1.42
Cambridge †	42	−38	9.2	0.98
Camden †	44	−28	8.7	0.66
Clear Lake *†[1]	42	−35	7.0	0.67
Clearwater *[1]	39	−29	10.9	0.94
Collegeville	46	−28	13.0	0.66
Cromwell *[1]	34	−30	−0.7	0.49
Crookston †	39	−31	−1.3	0.48
Dassel *[1]	38	−32	8.9	.....
Dawson *[1]	38	−31	4.2	1.37
Excel *[6]	.....	−44	−2.4	.....
Farmington †	44	−30	8.8	1.22
Fergus Falls †	43	−31	4.2	0.55
Fort Ripley †	.....	.....	.....	0.84
Grand Meadow †	49	−25	10.2	0.55
Granite Falls	47	−33	5.0	0.41
Hastings	43	−29	10.0	1.25
Hutchinson *[1]	36	−28	7.5	0.60
L Winnibigoshish *[1]	44	−36	3.8	0.86
Leech Lake *[1]	40	−49	7.0	0.98
Maple Plain	40	−31	9.1	1.50
Marfield †	48	−41	4.9	1.35
Mazeppa[1]	50*	−24	11.8	1.10
Medford †	45	−26	9.2	0.84
Milan †	39	−34	3.3	0.72
Minneapolis *a* †	41	−28	10.1	1.37
Minneapolis *b*[1]	42*	−27	10.8	1.43
Minnesota City †	54	−20	15.7	0.99
Montevideo †	38	−31	4.2	0.71
Morris	38	−31	3.6	0.55
New London	40	−30	6.9	0.63
New Richland *†[4]	42	−22	11.9	.....
New Ulm	44	−32	10.7	0.20
North Branch *[5]	42[e]	−40[e]	10.8[e]	.....
Ortonville †	.....	.....	.....	0.40
Park Rapids †	43	−41	3.4	0.67
Pine River *[1]	48	−40	5.9	0.77
Pokegama Falls[1]	54*	−47	1.8	1.11
Red Lake †	46	−46	1.7	0.39
Red Wing †	.....	.....	.....	0.90
Redwood Falls †	.....	.....	.....	0.30
Rochester	50	−23	12.6	0.95
Rolling Green †	44	−27	9.8	1.70
Saint Charles †	50	−23	13.0	1.04
Saint Cloud *[1]	37	−40	8.9	0.81
Saint Oloff	41[d]	−26[d]	5.9[d]	0.70
Saint Peter †	44	−28	11.0	0.91
Sandy Lake Dam *[1]	46	−40	6.3	1.22
Sauk Center	38	−45	5.3	0.57
Starbuck	37	−32	3.5	0.97
Wabasha *[1]	48	−20	14.0	1.09
Warren †	40	−37	−3.0	1.19
Willmar †	35	−29	5.0	0.73
Winona	51	−17	15.0	1.14
Worthington	40	−28	7.8	0.98
Mississippi.				
Aberdeen †	.....	.....	.....	7.83
Agricult'ral Col'ge	70	8	48.2	[illegible]
Batesville †	69	5	46.6	[illegible]
Biloxi †	74	26	[illegible]	[illegible]
Briers	78	18	[illegible]	[illegible]
Brookhaven †	75	14	[illegible]	5.32

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
Mississippi—Cont'd.	°	°	°	*Ins.*
Canton†	78	15	50.7	5.22
Clarksdale†	70[1]	8[1]	49.9[1]	6.19
Columbus *a*†				4.75
Corinth†				[f]4.71
Crystal Springs†	79	15	52.4	7.05
Edwards	73	16	50.5	5.64
French Camps†	70	9	45.6	7.46
Greenville *a*	68	12	47.0	7.23
Greenville *b*†	76	12	49.8	7.37
Hattiesburg†	82	22	55.4	3.14
Hernando†	70	0	46.6	2.94
Itta Bena*†[1c]	74	10	50.2	7.09
Jackson†	74	15	51.8	4.47
Kosciusko†	73	10	49.2	4.37
Lake†	70	14	49.2	6.49
Leakesville†[d]	82	22	56.4	0.93
Logtown†	75	25	54.8	1.79
Louisville†	74	6	48.0	5.15
Macon†	69	9	47.2	7.11
Moss Point *f*	76	26	56.2	
Natchez†	80	17	53.0	5.27
Okolona†				6.48
Palo Alto†	71	8	48.2	7.25
Pontotoc†	71	8	48.6	5.85
Port Gibson†	79	13	51.0	6.05
Stonington*[1]	76	18	54.7	
Thornton*†[4]	74	18	52.6	5.60
Topton*[3]	70	14	48.2	4.90
Vaiden†	82	11	49.6	4.61
Water Valley*[1]	72	5	47.4	6.27
Waynesboro *a*†	73	17	48.2	3.90
Woodville	78	16	54.0	7.46
Yazoo City†	80	15	52.1	6.44
Missouri.				
Akron				0.95
Appleton City†	71	—14	32.7	3.55
Arlington†				2.48
Arthur*[3]		—14	26.0	2.92
Bethany	61	—20	25.4	1.22
Big Piney				2.30
Birch Tree	70	—14	37.8	2.27
Bluffton*[1]	72	—16	34.0	2.55
Boonville†				2.04
Brunswick	70	—19	29.0	3.20
Carrollton†	69	—14	30.8	2.40
Conception	50	—20	19.8	0.70
Cowgill				0.20
Darksville†	66	—16	31.8	2.95
Downing				2.05
East Lynne*[3]		—16	28.8	3.09
Edge Hill*[3]		— 8	37.0	2.94
Eight Mile*[1]	69	—16	29.8	3.06
Eldon*[1]	72	—14	34.7	3.15
Emma*[3]		—12	29.8	2.85
Fairport				1.47
Fayette	74	—17	31.2	2.87
Fox Creek*[1]	72	—12	34.6	2.82
Fulton				2.75
Gallatin*[1]	65	—18	27.9	1.51
Gayoso*[3]		— 2	39.9	2.85
Glasgow	73	—16	31.1	2.85
Gordonville*†[3]		— 8	37.0	2.46
Gorin*[3]	56	—10	26.6	1.76
Grove Dale	75	—35	35.6	2.74
Half Way				3.07
Harrisonville†	70	—16	27.4	2.70
Hastain	66	—17	32.0	3.00
Hermann†				3.00
Houston	66	—21	34.8	1.58
Ironton*[1]	68	—10	35.2	2.43
Jefferson City†	71	—15	31.0	2.60
Kidder	65	—19	27.1	1.40
Lamar†	70	—14	33.9	2.77
Lamonte†				3.19
La Plata*[1]	64	—14	27.6	2.42
Lebanon	72	—18	35.6	2.29
Lexington†	71	—17	30.7	2.95
Liberty	67	—13	30.0	1.57
Linn Creek	74	—27	31.2	1.20
Louisiana Bridge†				1.69
McCune*[1]	69	—22	29.4	2.25
Marceline				1.48
Marshall†	72	—16	29.2	2.72
Mexico†	72	—15	29.0	2.10
Mine La Motte†	71	—11	36.8	2.16
Neosho	77	—27	33.8	5.36
New Boston	66	—15	24.6	2.35
New Hartford*[1]	73	—22	30.7	2.15
New Haven*[1]	72	—13	32.6	3.17
New Madrid	69	— 8	41.6	3.25
New Palestine				2.39
Oakfield†	73	—13	35.2	2.73
Oak Ridge*[4]		— 7	36.4	3.12
Olden†	67	—11	39.0	2.41
Oregon *a*	65	—19	26.0	1.21
Oregon *b*†	62	—15	25.2	1.17
Palmyra				2.35
Panacea	73	—24	34.8	2.66
Phillipsburg*†[1]	68	—22	34.7	2.24
Pickering*[3]		—22	23.9	0.90
Platte River*[3]	64	—12	25.6	1.15
Poplar Bluff	70	— 9	39.0	2.97
Potosi	67	—15	32.4	2.43
Princeton*[1]	64	—20	25.6	1.50
Round Springs				2.57

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
Missouri—Cont'd.	°	°	°	*Ins.*
Saint Charles	73	—17	33.4	2.86
Saint Joseph†				0.72
Saint Louis	71	—10	33.8	2.70
Sarcoxie*[3]		—16	32.4	3.99
Sedalia	72	—19	30.9	2.86
Steffenville				2.29
Stellada†	73	—24	33.2	3.20
Unionville	62	—22	25.2	1.09
Vermont*†[1]	55[d]	—15	29.0[d]	2.70
Vilas				0.71
Virgil City				2.65
Warrensburg*[1]	70	—13	31.6	2.85
Warrenton	70	—15	33.8	3.39
Wheatland				3.22
Montana.				
Boulder†	48	—29	18.6	0.77
Choteau†	56	—26	19.2	1.22
Cokedale*[1]	44	—29	16.2	2.20
Deer Lodge City†..	48	—32	22.0	0.83
Dry Fork†				0.55
Fort Custer†	56	—22	19.4	0.93
Fort Keogh	48	—31	7.0	0.50
Fort Logan†	45	—31	15.8	1.30
Fort Missoula	58	—15	20.0	1.96
Glasgow†	53	—32	6.6	0.30
Glendive†	50	—30	9.4	0.50
Great Falls†	54	—28	17.4	0.84
Hogan†	47	—32	17.7	1.81
Martinsdale†	45	—28	17.3	2.36
Mingusville†	63	—38	11.8	1.14
Musselshell†	52	—34	14.5	1.70
Red Rock*†[1d]	45	—16	17.4	0.47
Virginia City†	46	—16	21.2	0.45
Nebraska.				
Agee*[1]	48	—31	12.6	0.73
Arborville*[1]	52	—27	20.7	0.40
Ashland†	63	—22	21.0	0.20
Ashton*[1]	56	—28	16.8	0.28
Bassett*[1]	50	—25	14.2	1.75
Beatrice†	64	—17	23.8	0.32
Beaver City	63	—24	24.2	0.25
Belvidere	68	—22	23.4	0.51
Bratton*[1]	60	—19	23.2	0.41
Burwell*[1]	46	—32	16.0	1.00
Callaway†	59	—30	21.9	0.20
Columbus†	52	—28	17.0	0.65
Cornlea				0.14
Creighton*†[1]	51	—28	12.6	0.60
Crete	58	—20	22.2	0.07
Culbertson				0.10
David City*†[3]	60	—22	15.8	0.60
Ericson*†[1]	51	—31	16.8	0.70
Ewing†				0.69
Fairbury*[5]	67	—16	27.0	0.15
Fort Robinson	55	—26	20.4	0.01
Fort Sidney	57	—23	24.8	0.20
Franklin†	62	—24	23.8	
Geneva†	61	—21	23.2	0.80
Genoa†	56	—27	17.9	0.59
Gering†	62	—24	21.7	0.29
Glenwood[3]	56	—31	11.2	0.90
Haigler*[1]	75	—21	22.4	0.40
Hartington†	47	—29	12.5	0.70
Harvard*[1]	61	—24	19.8	0.63
Hay Springs†	48	—34	14.1	0.71
Hebron†	71	—20	23.9	0.19
Holdrege*[3]		—25[e]	17.2[f]	1.05
Indianola*[5]	72	—26	24.1	0.30
Kennedy*†[1]	59	—20	17.7	0.60
Kimball†[1]	62	—20	25.8	1.10
Lexington†	70	—27	24.3	1.80
Lincoln	66	—19	22.5	0.38
Lynch*†[1]	48	—32	12.0	0.40
Madrid*†[5]	54	—29	20.8	0.70
Marquette*	57	—24		0.80
Minden[1]	60	—25	21.6	0.73
Mullen*†[1]	60	—28	19.6	1.30
Nebraska City*†[1]	55	—17	20.0	0.20
Nesbit†	55	—32	20.4	0.60
Norfolk†	60	—27	17.0	0.20
North Loup†[1]	54*	—28	19.0	0.28
Ogallala†	56[d]	—27[e]	20.2[e]	
O'Neill*[1]	56	—31	13.5	0.65
Ough†				0.20
Plattsmouth†				0.70
Ravenna	62	—25	21.5	0.73
Red Cloud				0.20
Santee Agency†	51	—30	13.3	0.48
Seward*[3]	60	—15	22.4	0.30
Springview	48	—31	15.2	0.47
Stanton*[1]	47	—27	15.0	0.40
State Farm	69	—20	22.4	0.48
Superior*[5]	55	—23	24.4	0.16
Sutton	58	—21	21.8	0.74
Table Rock*†[1]	65	—21	24.9	0.46
Tecumseh†	61[e]	—19[e]	22.3[e]	0.60
Wallace*[1]	62	—26	21.9	0.45
Weeping Water*[1]	60	—24	17.5	0.68
West Point*†[3]	59	—27	24.6	0.17
Whitman*[1]	48	—25	15.1	0.90
Wilcox				0.14
York*[1]	64	— 7	23.4	0.16
Nevada.				
Austin	47	— 7	26.4	1.39
Battle Mountain*[1]	49	0	35.0	0.38

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
Nevada—Cont'd.	°	°	°	*Ins.*
Belleville*[3]	70	0	27.4	0.30
Belmont	44	—12	20.8	1.04
Beowawe*[3]	48	—11	26.3	0.65
Candelaria	65	— 5	31.0	0.41
Carlin*[3]	38	—25	21.2	1.98
Carson City[1]	57	— 7	32.0	2.33
Cranes Ranch				1.07
Downeyville	66	— 6	34.7	0.39
Edgewood	49	— 5	26.4	2.38
Elko*[3]	45	—24	24.3	1.10
Ely	66	—17	24.0	0.65
Empire Ranch†	38	—20	15.8	1.05
Eureka				1.39
Fenelon*[3]	45	— 5	25.6	0.30
Genoa	56	5	32.2	2.90
Golconda*[1]	58	4	33.1	0.78
Gold Hill	67	4	35.8	1.89
Halleck*[1]	48	—30	20.3	1.50
Hawthorne *a*[3]	59	4	33.0	0.70
Hawthorne b	63	— 5	32.6	0.57
Hot Springs*[1]	55	— 2	30.2	0.25
Humboldt*[3]	50	3	28.4	1.90
Lewers Ranch	55	— 2	32.7	5.53
Lovelock*[3]	56	4	30.7	0.00
Mill City*[1]	48	0	30.7	
Monitors Ranch	45	—18	22.5	0.96
Palisade*[1]	60	—14	24.6	2.20
Palmetto	53	—17	25.4	1.10
Reno*[3]	61	— 2	34.0	0.90
Reno State Univ'ty.	55	— 7	30.9	0.89
Saint Clair	59	— 5	33.0	0.09
South Camp†	54	— 3	28.2	2.70
Stofiel	59	—27	21.7	3.81
Sunnyside	60	—20	19.4	0.55
Tecoma*[3]	36	0	20.1	0.78
Toano*[1]	42	— 6	23.6	0.80
Tybo	52	—10	26.7	0.47
Verdi*[3]	58	0	32.4	3.50
Virginia City	50	4	31.4	3.54
Wadsworth*[3]	61	— 4	32.1	0.40
Wells*[3]	48	—22	20.8	1.05
Winnemucca*[3]	53	— 4	29.3	0.63
New Hampshire.				
Alstead*[4]	38	— 5	19.8	2.11
Antrim				2.50
Belmont				2.34
Berlin	49	—18	15.8	
Berlin Mills	50	—18	17.0	2.85
Bethlehem	46	—13	18.6	2.71
Brookline*[1]	49	— 2	26.0	2.76
Concord	45	— 8	19.8	2.67
Dublin	50	— 7	23.0	2.40
Durham	52	— 4	23.1	2.17
East Canterbury	47	—10	20.6	2.58
Grafton	45	— 5	20.2	2.29
Hanover	46	— 4	20.3	2.16
Keene	47	— 2	22.9	1.91
Lakeport				3.55
Lancaster	49	—14	19.7	2.13
Littleton	48	—12	17.2	2.76
Nashua	53	— 3	24.5	2.84
Newton	55	— 8	24.2	2.07
North Conway	51	—12	18.6	1.20
Peterboro	48	— 6	23.0	2.58
Plymouth	45	—12	17.0	2.01
Sanbornton†	45	— 8	20.4	1.82
Stratford	46	—18	17.8	2.56
Wiers Bridge				3.19
West Milan	47	—24	14.8	3.35
Wolfboro				2.02
New Jersey.				
Allaire	59	10	34.8	
Asbury Park	55	17	35.6	1.76
Barnegat	60	21	39.4	2.55
Bayonne	60	15	33.6	2.36
Belvidere	56	7	32.3	2.40
Beverly†	59	12	35.2	2.27
Billingsport*[1]	56	16	34.8	2.24
Blairstown	53	5	31.4	1.18
Boonton	58	11	33.1	2.54
Bridgeton	57	20	38.8	3.08
Camden	58	16	34.9	1.98
Cape May C. H.	57	23	38.8	2.52
Cape May	53	19	39.1	2.12
Charlotteburg	57	3	29.7	2.16
Chester	56	9	30.5	2.47
Deckertown	55	9	29.4	2.63
Dover	58	8	30.9	2.49
Egg Harbor City	57	16	35.0	2.92
Elizabeth†	61	13	33.8	2.23
Franklin Furnace[c]	57	7	29.2	2.09
Franklinville	57	8	35.2	2.67
Freehold	60	16	35.2	2.53
Friesburg				2.51
Gillette	60	9	31.5	2.32
Hanover	51	7	32.0	2.04
Highland Park†	59	10	32.2	2.22
Hightstown	58	17	35.6	2.97
Imlaystown	58	17	36.2	2.19
Junction				1.96
Lambertville	58	9	33.2	1.58
Millville	57	16	37.6	2.55
Moorestown	58	15	35.0	2.32
Newark *a*	57	15	32.6	2.19
Newark *b*†	58	15	33.2	1.92

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
New Jersey—Cont'd.	°	°	°	*Ins.*
New Brunswick *a*..	56	11	33.4	2.06
New Brunswick *b*..	58	10	33.0	2.22
Newton	56	10	30.5	2.15
Ocean City	55	21	37.0	2.77
Oceanic	58	18	36.8	2.24
Paterson	60	14	33.8	2.78
Pensauken				1.58
Perth Amboy	58	11	33.3	2.04
Plainfield	59	8	32.8	2.44
Rancocas*	58	17		1.98
Readington*[5]	60	18	36.4	
River Vale	52	— 4	30.6	2.00
Salem	54	15	34.8	2.53
Somerville	59	3	33.2	2.09
South Orange	58	12	32.5	2.11
Tenafly	55	8	31.2	3.80
Toms River	59	14	36.0	3.30
Trenton	58	15	36.9	1.75
Vineland	59	14	36.4	2.43
Whiting	60	12	37.1	2.68
Woodbine	58	15	35.8	3.03
New Mexico.				
Albert†	67	5	38.3	0.00
Albuquerque†	55	0	31.0	0.01
Bloomfield†	57	— 4	25.0	0.15
Chama†	58	—18	22.1	1.60
Coolidge†	51	10	35.0	0.30
Deming*[8]	73	8	44.9	0.05
East Las Vegas†	63	0	33.0	0.10
Estalina Springs†	56	—10	29.0	0.44
Folsom†[c]	68	— 4	31.6	0.00
Fort Stanton†	67	— 1	35.1	0.00
Fort Wingate	72	— 8	31.2	0.55
Galisteo†	52	5	30.5	0.30
Gallinas Spring†	68	3	35.7	0.10
Halls Peak†	61	— 5	29.6	T.
La Luz†	65	15	40.4	0.15
Las Cruces†	71	2	37.1	0.08
Lordsburg*[8]	53	6	39.6	0.70
Los Lunas†	52	7	29.0	0.00
Monero†	50	—19	16.7	0.94
Olio†	49	— 1	26.9	0.00
Socorro†	62	4	36.0	0.14
Taos†	52	—18	23.5	0.78
New York.				
Addison	57	3	31.1	1.94
Alfred Center	51	— 4	27.5	3.02
Angelica†	53	— 8	28.4	3.02
Arcade	51	2	27.2	3.12
Atlanta				2.10
Baldwinsville	55	— 1	26.6	3.07
Bedford				3.35
Binghamton†	54	5	29.0	2.18
Bolivar				3.68
Boonville				3.73
Bovina Center				5.48
Brentwood	55	3	32.1	3.91
Brookfield	48	— 6	24.8	3.69
Cherry Creek				4.15
Constableville†	46	— 6	22.3	
Cooperstown†	50	— 4	25.5	2.84
Cortland				2.75
De Kalb Junction				2.95
Demster				3.55
Deposit				1.35
Eden Center	50	5	26.1	4.65
Ellis				2.15
Elmira*†[1]	56	7	32.6	2.73
Factoryville†	60	7	30.4	2.39
Fleming	54	10	29.9	1.80
Fort Niagara†	51	16	33.2	1.70
Friendship	54	— 9	29.2	4.26
Glens Falls	44[g]	3[g]	22.8[g]	
Gloversville	47	— 2	23.2	3.27
Hess Road St'n†[2]		14	30.0	1.72
Honeymead Brook†	49*	2	26.9	2.23
Humphrey†	57	3	30.0	4.41
Ithaca	58	5	30.2	2.78
Jamestown*[6]	51	7	31.9	
Kings Station				3.06
Lebanon Springs	52	— 4	24.1	3.43
Le Roy	53	5	28.1	4.91
Lockport	50	0	28.9	3.13
Lowville	47	— 6	23.1	3.51
Lyons	56	12	31.0	2.45
Madison Barracks†	49	0	24.8	3.16
Malone	48	— 6	20.1	2.48
Middletown	54	10	28.9	2.08
Minnewaska	50	5	26.9	1.96
Mount Morris	57	1	29.7	2.58
Newark Valley				2.45
New Lisbon	52	— 6	25.8	2.13
North Hammond†	52	— 2	24.0	2.80
Number Four†	44	—11	21.5	3.87
Ogdensburg	51	— 4	20.5	5.65
Oxford	52	1	27.4	2.85
Palermo†	54	— 4	25.3	3.40
Perry City	55	7	27.5	3.13
Phœnix				2.31
Pine City				2.19
Plattsburg B'ks	50	— 8	19.2	2.04
Port Jervis	52	3	28.8	2.47
Poughkeepsie	57	— 2	27.8	2.38
Rome	50	— 5	25.4	3.77
Romulus	57	10	30.0	1.94

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
New York—Cont'd.	°	°	°	Ins.
Rondout †				1.50
Saranac Lake	44	−13	19.9	2.77
Setauket †	56	16	33.6	3.03
South Canisteo	47	− 3	28.6	3.41
South Kortright †	51	− 7	25.6	2.28
Stillwater	50	− 4	23.5	3.23
Turin	46	− 5	22.1	3.81
Varysburg	59	4	30.0	3.19
Wappingers Falls	56	3	28.5	2.45
Warwick				3.79
Watertown	51	− 3	25.3	3.92
Wedgwood	57	2	28.3	3.10
West Chazy				3.66
West Point †	57	9	30.5	3.15
Willets Point	50	13	32.2	3.03
North Carolina.				
Asheville †	65	17	42.4	2.44
Auburn *[1]	72	27	44.5	4.28
Bailey *[1]	63[1]	22[1]	42.9[m]	2.86
Bakersville †	66	13	39.0	3.57
Blowing Rock † *	60	11	35.6	3.81
Bryson City †				3.70
Chapel Hill †	68	24	42.6	4.30
Columbus	65	11	41.4	3.10
Currituck Inlet †				5.86
Experiment'l Farm	67	25	44.4	4.52
Fair Bluff †				3.75
Falkland *[1]	69	27	46.8	4.56
Fayetteville †				4.58
Flat Rock	65	16	40.3	3.96
Forest Hill *[1]	61	20	41.3	1.45
Greenville †				4.13
Henderson †	67	21	42.8	4.15
Highlands	59	16	38.4	5.70
Horse Cove †	62	21	41.7	6.00
Lenoir * † [1]	62	20	41.3	2.61
Lillington †				3.66
Littleton †	67	23	41.6	4.12
Louisburg †	65	24	42.0	3.55
Marion	64	19	43.2	2.33
May *[1]	66	27	46.1	4.07
Mocksville †	68	19	44.8	2.87
Morganton * † [1]	66	19	42.8	3.71
Mount Airy †	61[f]	15[f]	41.3[f]	2.78
Mount Pleasant	64	22	44.4	3.67
Murphy †				4.05
Newbern †	74	26	46.4	3.93
Oak Ridge †	65	22	41.3	3.10
Pittsboro	65	19	41.2	4.95
Raleigh * † [1]	65	25	45.2	4.45
Rockingham †	70	23	45.1	3.42
Roxboro †	65	18	42.2	4.39
Rutherford Col * [1]	68	18	36.6	3.59
Salisbury *a*	63	25	45.0	3.65
Salisburg *b* †				2.94
Saxon †	66	15	40.4	3.34
Shelby †	65	20	42.3	4.62
Sloan	75	24	48.6	4.79
Smithfield [1]	62	26	43.0	2.20
Soapstone M't †	66	18	42.4	3.90
Southern Pines †	70	26	45.7	3.33
Tarboro	72	23	45.6	4.93
Washington †	73	24	46.7	3.72
Weldon †	67	24	42.8	4.05
Willeyton	68	23	43.7	4.39
North Dakota.				
Ashley	40	−39	1.0	0.80
Berlin †	48	−36	0.4	0.45
Bottineau	40	−37	−2.7	0.11
Churchs Ferry	38	−34	−2.8	0.42
Dickinson †	52	−29	5.0	0.12
Fargo †	38	−38	−2.6	0.09
Forman †	40	−35	3.1	0.58
Fort Berthold	51	−41	5.4	0.30
Fort Stevenson †	44	−39	1.6	0.30
Fort Yatest	42	−31	4.3	0.48
Gallatin †	43	−42	2.6	0.06
Grafton †	43	−34	−2.8	0.65
Grand Forks †	41	−30	−0.2	0.61
Jamestown †	42	−30	3.4	0.34
Kelso †	45	−34	0.6	0.35
Larimore	42[e]	−36[e]	0.9[e]	0.20
Lemert †	46	−36	−1.2	0.25
McKinney	41	−38	−1.4	0.70
Milton †	40[e]	−39[e]	−8.0[e]	1.30
Minto †	42	−35	−1.5	0.25
Napoleon †	37	−33	1.9	0.79
New Salem	60	−35	9.0	.....
Oakdale †	52[d]	−31[d]	13.5[d]	0.15
Portal	49	−36	−0.5	0.51
Power †	37[e]	−33[e]	−2.8[e]	0.60
Saint Johns †	48	−34	−0.7	1.19
Sheyenne	40	−38	−0.9	0.20
Valley City †	40	−38	0.4	0.10
Wahpeton †	48	−30	5.9	0.35
Washburn	49	−36	3.1	0.09
Wild Rice † [2]			−1.1	0.40
Williamsport	41	−39	1.6	.....
Willow City †	47	−47	−3.5	.....
Woodbridge †	40	−38	−4.5	0.34
Ohio.				
Akron	54	4	33.2	2.30
Annapolis	66	7	32.4	1.84
Arcanum				1.41
Ashland * [1]	58	− 2	32.2	2.43

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
Ohio—Cont'd.	°	°	°	Ins.
Athens	61	− 1	37.2	2.70
Auburn	54	− 3	30.2	2.43
Bangorville	56	− 9	31.7	2.69
Batavia				2.52
Bellefontaine †	56	−10	31.6	0.94
Bement	52	0	29.3	3.33
Benton Ridge	59	− 8	33.1	2.07
Bethany	58	− 7	34.6	2.57
Big Prairie	56	− 2	33.2	2.37
Binola	55	3	34.3	2.68
Bissells	53	6	30.5	2.67
Bladensburg	57	− 4	32.4	2.52
Bloomingburg	59	− 7	35.7	2.29
Bloomington				2.10
Bowling Green	57	− 6	30.8	1.66
Bucyrus	60	− 6	31.6	1.60
Caledonia †				2.02
Cambridge	57	3	33.2	2.20
Canal Dover	56	2	32.3	2.29
Cardington	57	− 7	32.5	1.99
Carrollton	55	4	34.0	3.00
Celina	65	− 4	37.6	1.51
Cherry Fork	60	0	35.7	2.46
Chicago	50	− 4	28.0	1.85
Circleville †				1.99
Clarksville	59	− 9	35.2	2.87
Cleveland	54	5	33.8	2.83
Coalton	60	− 4	35.9	2.12
Colebrook		2		2.55
Cynthiana	61	0	37.1	1.40
Dayton *a*	59	− 6	35.8	2.27
Dayton *b* †				2.33
Defiance	59	− 5	32.7	1.77
Demos	56	3	34.9	2.22
Dupont	59	− 5	32.7	1.55
Ellsworth	56	4	30.7	2.38
Elyria	54	2	33.4	2.71
Findlay	55	− 6	31.9	1.87
Fostoria	56	− 6	32.6	2.17
Frankfort	61	− 2	36.0	2.40
Garrettsville	55	− 3	30.4	2.49
Georgetown	63	− 6	37.5	2.96
Granville	57	− 5	32.7	2.62
Gratiot	58	− 1	34.7	2.27
Greenfield	60	4	37.5	3.60
Green Hill	56	0	31.4	2.06
Greenville	55	− 8	33.1	1.66
Guysville	62	− 3	36.2	2.19
Hackney	59	1	34.4	1.82
Hanging Rock	63	− 4	37.2	2.87
Harbor	54	7	32.5	2.15
Hedges	58	− 7	31.2	2.56
Hillhouse	53	− 5	30.5	2.31
Hillsboro	63	− 8	37.0	2.05
Hiram	54	2	30.2	2.70
Jacksonboro *[3]	57	− 8	30.6	1.45
Kenton †	58	− 8	33.7	2.07
Kilbourne	57	− 4	32.4	1.37
Killbuck	55	− 2	32.5	2.09
Levering	63	− 7	31.8	2.05
Logan	60	1	36.4	2.29
Lordstown	54	6	31.5	2.24
Lowell	64	1	36.1	2.07
McArthur	58	− 2	35.8	1.37
McConnelsville	59	1	35.6	2.19
Mansfield †				2.78
Marietta *a* †				2.44
Marietta *b*	62	7	39.5	2.70
Marion	58	− 9	33.0	2.35
Milfordton	56	3	31.1	1.91
Milligan	59	0	34.9	2.04
Millport	55	9	33.3	2.37
Montpelier	53	− 6	29.7	1.36
Napoleon	56	− 4	31.0	2.05
Nelsonville	62	5	39.8	2.13
New Alexandria	55	4	34.0	2.22
New Berlin	51	2	31.2	1.62
New Bremen	57	− 9	32.3	1.77
New Comerstown	56	3	33.3	2.35
New Holland	62	− 8	34.2	2.31
New Paris *[1]	57	−11	33.4	1.81
North Lewisburg	58	− 9	32.4	2.05
North Royalton				2.63
Northwood	60	− 9	34.5	1.98
Oberlin	54	− 3	32.6	2.08
O. S. University	63	− 6	33.8	2.50
Orangeville	56	1	31.2	2.20
Pataskala	58	− 7	33.4	2.58
Plattsburg	57	− 8	33.7	2.00
Pomeroy	62	2	36.2	0.69
Portsmouth *a* †				1.85
Portsmouth *b*	65	1	40.4	1.91
Ridge	54	2	34.3	1.80
Ridg'v'le Corners	57	− 5	31.1	0.99
Ripley	62	− 5	36.7	1.46
Rittman	53	0	31.3	2.20
Rush Creek				1.96
Sharon Center	55	9	34.3	2.15
Shenandoah	55	− 8	31.9	2.19
Sidney †				1.83
Springboro				1.92
Spring Valley	50	−16	27.1	1.74
Stoutsville				2.45
Sylvania	55	2	29.5	0.74
Thurman	64	− 4	37.4	1.63

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
Ohio—Cont'd.	°	°	°	Ins.
Tiffin †	56	− 2	33.4	2.12
Upper Sandusky	55	− 4	32.7	1.81
Vanceburg	64	− 3	38.2	2.27
Van Wert	54	− 7	31.1	1.54
Vermillion	53	− 1	31.7	2.33
Vickery	56	− 1	32.3	1.81
Walnut				2.38
Warren	58	4	32.7	2.65
Wauseon	56	− 6	30.5	2.27
Waverly	62	− 3	36.4	1.85
Waynesville				2.68
Wellington	54	− 1	32.7	2.53
Westerville	57	− 4	34.3	2.34
Weymouth	59	0	31.9	1.86
Wheeler †				3.20
Wooster *a*	56	1	32.8	2.19
Wooster *b* †				1.99
Youngstown	53	4	31.2	1.54
Zanesville †				1.81
Oklahoma Ter.				
Anadarko †	77	− 6	38.6	1.86
Arapaho † [j]	72	− 6	36.4	0.78
Buffalo †	80	− 6	44.8	.....
Burnett †	78	−12	37.9	3.91
Clifton † [d]	78	−15	35.2	3.35
Fort Reno †				1.51
Fort Sill	76	− 5	37.7	1.70
Fort Supply † [1]	75*	− 9	30.2	0.25
Guthrie †	74	− 8	37.2	2.20
Keokuk Falls †	74	− 8	37.1	3.08
Mangum †	72			1.01
Ponca † [d]	75	0	34.2	2.15
Pond Creek †	74	− 8	33.1	1.74
Winnview † [b]	72	− 8	37.8	1.40
Oregon.				
Albany *a* †	58	20	42.0	12.15
Albany *b* *[8]	60	22	42.9	10.79
Arlington †	62	14	34.4	3.11
Ashland *a* *[8]	48	21	38.6	6.39
Ashland *b*	54	20	38.0	4.88
Aurora *[8]	55	21	42.9	12.42
Bandon	55	27	46.0	23.07
Beulah †	50	0	26.7	1.88
Brownsville *[8]	60	18	42.4	10.93
Burns †	45	−17	18.8	1.90
Canyon City †	57	0	32.2	8.75
Comstock *[8]	58	20	42.8	11.81
Cornelius	55	19	37.9	14.46
Corvallis *a*	55	20	40.5	12.38
Corvallis *b* *[8]	56	17	38.2	11.41
Corvallis (near)	54	18	40.1	15.44
Crook	56	0	29.7	2.91
East Portland *	56	27	.....	9.12
Eugene				7.53
Gardiner	58	27	45.2	21.33
Glenora		15		24.65
Grants Pass *a* †	58	17	39.2	9.22
Grants Pass *b* *[8]	54	26	40.6	8.79
Heppner †	56	10	34.2	2.84
Hood River (near)	50	14	34.8	11.72
Hubbard	57	22	40.4	10.11
Jacksonville	52	18	37.6	6.58
Joseph †	49	− 5	23.5	4.40
Junction City *[8]	60	22	43.0	7.68
Lafayette *[8]	56	18	40.3	12.58
Langlois	61	27	47.3	26.78
McMinnville *a* †	54	18	39.4	13.68
McMinnville *b* *[8]	52	20	39.5	13.10
Merlin *[8]	62	20	41.3	11.11
Monmouth *[8]	55	20	41.4	8.88
Mount Angel †	59	21	41.3	11.55
Newbridge	56	1	34.6	2.52
Newport		24		16.15
Oregon City	52	22	39.5	14.47
Pendleton	59	7	33.8	3.62
Portland *[8]	59	20	41.1	12.60
Riddles *[8]	63	22	40.7	19.34
Roseburg *[8]	59	27	45.2	8.74
Salem *a* *[8]	58	22	44.7	10.41
Salem *b* †	56	20	41.5	11.09
Sheridan *[8]	60	21	41.7	12.35
Silverton *[8]	56	22	40.9	12.55
Siskiyou *[8]	48	15	34.6	8.60
Sparta	42	0	23.8	7.48
Springbrook	55	21	39.8	12.82
Springfield *[8]	56	20	40.6	11.23
The Dalles †	54	16	36.4	4.84
Toledo	57	27	44.8	21.69
Umatilla †				2.33
Vale	51	1	30.8	1.12
West Fork *[8]	58	24	42.4	13.91
Weston	55	8	31.8	5.33
Williams	57	17	39.6	11.10
Pennsylvania.				
Altoona	62	18	40.6	0.99
Aqueduct	60	14	35.0	1.55
Beaver Dam †				0.96
Blooming Grove *[1]	56	5	30.2	2.50
Bloomsburg	57	13	32.9	1.89
Blue Knob	52	3	29.5	2.46
Brookville †				2.77
Browers Lock				1.85
Carlisle *a*	56	15	33.8	1.79
Carlisle *b* [1]	54	15	33.6	.....
Chambersburg †	60	16	34.4	1.33

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
Pennsylvania—Con.	°	°	°	Ins.
Clarion †				4.19
Coatesville	55	6	33.2	2.25
Confluence †				3.15
Coopersburg	58	13	34.0	1.69
Davis Island Dam †				1.58
Doylestown				1.72
Drifton	60[d]	3[d]	30.3[d]	2.68
Du Bois †				3.52
Dyberry †	53	2	26.6	1.95
East Mauch Chunk	56	10	31.2	2.17
Easton	55	13	32.6	1.88
Edinboro *[1]	50	4	29.5	.....
Elwood Junction †				2.24
Emporium	57	3	32.1	3.85
F'ks of Neshami'y [1]			35.8	1.82
Frederick				1.52
Freeport †				3.12
Gettysburg †				1.56
Girardville	53	12	33.4	2.72
Grampian *[1]	54	4	30.2	3.15
Greensboro †				2.33
Hamburg	53	12	33.2	2.22
Hollidaysburg	61	9	34.4	2.07
Honesdale	54	6	29.4	2.01
Huntingdon †	62	11	33.6	1.82
Johnstown †	59	8	34.4	3.00
Kane	50	4	29.2	4.71
Kennett Square	57	8	34.8	1.78
Kilmer *[1]	56	18	36.2	1.60
Lancaster [i]	55	15	33.9	1.57
Lansdale				1.59
Lebanon	54	10	32.6	2.17
Le Roy †	55	5	28.3	2.43
Lewisburg	59	11	32.2	2.84
Ligonier [1]	60	2	32.5	1.84
Lock Haven †	60	9	32.4	1.77
Lock No. 4 †				2.34
Lycippus	58	7	34.1	2.56
Mahoning †				3.03
Meadville	55	− 2	30.2	2.88
Newcastle †	56	3	32.2	1.61
Oil City †				3.48
Ottsville				1.78
Parker †				3.16
Philadelphia *a*				1.79
Philadelphia *b*	57	17	37.0	1.85
Philadelphia *c*	56	17	35.9	2.11
Phœnixville	56	10	34.2	1.83
Pottstown *[1]	55	9	33.0	2.14
Quakertown	56	11	32.0	1.87
Reading † [2]			31.6	1.61
Ridgway †				3.44
Saegerstown	54	− 5	31.0	2.57
Salem Corners	52	4	28.7	2.78
Saltsburg †				2.55
Seisholtzville				2.03
Selins Grove	48	13	32.0	1.22
Shinglehouse	53	− 9	29.4	4.64
Smethport	55	− 8	29.4	4.20
Smiths Corners				1.79
Somerset	65	3	31.3	3.19
South Eaton	55	9	31.2	1.65
State College	58	11	32.2	1.75
Stoyestown †				4.12
Swarthmore	55	11	35.6	2.00
Uniontown	62	5	37.7	2.88
Warren †				3.03
Wellsboro * † [1]	60	4	28.6	2.25
West Chester	56	13	34.2	1.60
West Newton †				2.39
Westtown [k]	57	12	33.8	1.39
Wilkesbarre †	56	11	32.8	1.63
York †	55	12	33.4	1.34
Rhode Island.				
Bristol	50	6	31.0	3.58
Kingston	52	4	29.5	4.63
Lonsdale				3.73
Newport	52	7	33.8	.....
Pawtucket	55	5	29.7	3.49
Providence *c*	56	2	29.6	3.99
South Carolina.				
Aiken	70	26	48.4	2.02
Anderson †				5.33
Blacksburg	64[g]	24[g]	44.7[g]	3.93
Blenheim *[3]		27	43.2	.....
Brewer Mine †	74	19	48.9	3.85
Camden †				2.41
Central [2]			43.7	5.35
Cheraw *a* †	74	22	47.3	3.27
Cheraw *b* †				2.74
Clemson College †				5.73
Conway †				3.44
Coronaco †				3.78
Cross Hill *[1]	64	24	46.2	4.59
Edisto †				1.48
Effingham †				3.81
Flint Hill †	72	25	45.6	2.64
Gaffney †				3.59
Georgetown †	75	32	52.9	2.32
Greenville †				4.95
Greenwood †				1.64
Hollands Store †	66[e]	21[e]	46.4[e]	5.94
Kingstree † [b]				1.85
Little Mountain *[1]	72	27	48.4	3.12
Longshore †	69	22	45.7	3.87

Meteorological record of voluntary observers, &c.—Continued.

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
	°	°	°	Ins.
S. Carolina—Cont'd.				
McCormick *†[1]	69	26	48.1	4.36
Martins	.....	.....	.....	1.23
Mount Carmel †	.....	.....	.....	3.44
Pinopolis *[1]	70	32	49.7	1.87
Port Royal †	73	30	53.5	1.19
Saint Stephens †	.....	.....	.....	2.07
Santuck *[1]	67	26	46.8	3.77
Simpsonville †	60	26	46.0	4.76
Society Hill †	74	27	47.3	2.50
Statesburg †	74	29	49.2	2.27
Tatum Station *[2]	.....	27	43.1	2.37
Timmonsville *[1 d]	77	35	53.6	.....
Trenton *[1]	72	28	48.4	2.37
Trial	80	29	54.5	2.02
Watts *[5]	64	22	47.1	3.82
Yorkville	67	26	46.8	2.84
South Dakota.				
Alexandria †	52	—34	8.2	1.02
Ashcroft †	50	—30	11.8	0.85
Bowdle *†[1]	45	—31	4.9	0.40
Britton †	41	—36	1.6	0.50
Brookings †[1]	49	—33*	5.8	0.11
Castlewood †	39	—30	3.4	0.63
Clark †	48	—33	6.9	.....
Cross †	57	—31	18.8	0.39
De Smet †	50	—35	5.6	1.10
Faulkton †	43	—35	3.0	0.30
Flandreau †	42	—33	7.2	0.51
Forestburg †	41	—39	6.1	1.27
Fort Meade	60	—24	19.6	0.55
Fort Sully	53	—26	13.5	0.75
Frankfort †	41	—39	3.2	0.70
Gary †	43	—28	6.0	0.40
Greenwood	50	—27	14.0	0.69
Highmore †	43	—32	7.4	0.45
Hotch City †	45	—38	9.0	0.42
Howard †	39	—36	4.9	0.90
Kimball †	45	—32	9.1	0.68
Millbank †	51	—29	6.8	0.65
Northville *[6]	40	—35	3.4	0.57
Oelrichs †	48	—22	16.0	1.70
Parker †	39	—34	6.4	0.45
Parkston †	42	—38	5.8	0.44
Piedmont	.....	.....	.....	0.36
Rosebud †	56	—33	17.8	1.50
Shiloh †	47	—33	8.5	.....
Sioux Falls †	40	—32	8.4	1.09
Spearfish †	61	—22	21.1	1.62
Tyndall †	53	—28	11.4	1.10
Vermillion † [d]	54	—33	8.8	0.13
Watertown †	40	—33	6.0	1.23
Webster †	46	—36	6.3	1.92
Wentworth †	41	—35	3.4	0.35
Wessington Sp'gs †	43	—28	8.4	1.38
Tennessee.				
Andersonville *[1]	59	8	39.0	2.69
Ashwood *†[1]	65	0	44.3	5.54
Byrdstown *†[3]	67	— 1	42.6	3.55
Carthage †	.....	.....	.....	4.36
Charleston †	.....	.....	.....	5.21
Clarksville	69	— 6	41.3	3.51
Clinton †	.....	.....	.....	4.21
Columbia †	.....	.....	.....	5.24
Covington *a* †	69	0	43.0	4.08
Florence Station *[1]	66	1	43.4	5.04
Franklin †	69	— 3	42.3	4.76
Greeneville †	63	16	42.2	3.21
Hohenwald	68	— 4	43.0	5.58
Jacksboro *[4]	.....	8	38.8	3.25
Jackson *[1]	68	— 3	42.3	3.35
Johnson City †	65	16	41.6	3.06
Johnsonville †	.....	.....	.....	3.36
Kingston †	.....	.....	.....	4.19
Loudon †	.....	.....	.....	4.80
Lynnville *[1]	66	2	43.0	7.12
Missionary Ridge *[3]	.....	13	43.1	.....
Newport *[3]	68	19	38.6	4.62
Nunnelly *[1]	68	— 4	43.2	4.49
Palmetto †	.....	.....	.....	5.90
Parksville *[1]	65	18	45.6	4.06
Pikeville *[1]	65	16	45.6	4.38
Riddleton †	65	0	39.4	3.07
Rockwood †	.....	.....	.....	4.54
Rogersville *[1]	60	17	40.0	2.92
Rugby *[1]	62	4	39.6	4.20
Savannah *[1]	71	1	45.9	4.57
Springdale *[1]	66	12	42.6	2.95
Strawberry Plains †	.....	.....	.....	1.83
Trenton	69	— 3	41.2	3.99
Waynesboro *[1]	66	0	42.1	7.20
Wier *†[1]	66	— 2	41.7	4.67
Texas.				
Arlington †	81	3	47.5	1.98
Arthur City †	.....	.....	.....	0.73
Aurora *[1]	83	2	47.5	0.49
Austin *a* †	79	15	53.1	1.45
Austin *b* *[5]	78	14	52.9	.....
Belton	79	9	52.0	2.05
Boerne *†[3]	75	— 9	49.4	1.68
Brady †	82	5	49.2	0.49
Brazoria †	80	20	57.8	2.51
Brenham †	78	12	55.0	4.86
Brownwood †	80	5	46.7	0.27
Burnet *†[1]	73	4	51.3	1.42
Camp Eagle Pass	87	20	52.4	0.39
Texas—Cont'd.				
Childress †	82	— 1	41.0	0.38
Coldwater † [f]	74	—10	31.5	0.13
College Station	77	10	52.9	3.54
Columbia †	79	19	57.5	0.79
Corsicana *b* †	75	— 2	47.5	1.90
Cuero †	80	18	57.4	4.18
Dallas *b* †	79	2	45.9	1.79
Devine	79	16	52.2	0.01
Duval *[1]	82	13	54.1	1.20
Eagle Pass †	.....	.....	.....	0.40
Eastland *†[1]	79	4	47.1	0.50
Flower Bluff †	70	27	60.8	1.39
Forestburg †	78	0	45.3	1.41
Fort Brown †	83	31	61.0	1.64
Fort Clark	78	20	54.6	1.32
Fort Hancock	75	4	37.2	0.00
Fort McIntosh	84	15	59.6	0.72
Fort Ringgold †	86	32	62.4	1.00
Fredericksburg *†[1]	79[i]	11	49.5	2.50
Gainesville †	81	0	43.4	2.19
Graham †	80	3	43.3	1.81
Grape Vine †	80	2	46.6	1.30
Hallettsville †	79	18	54.8	5.30
Haskell †	83	5	43.6	0.78
Highland	90	5	48.5	0.30
Houston †	79	18	54.1	3.59
Kyle *†[1]	74[h]	18	54.5	2.56
Laredo †	.....	.....	.....	0.16
Llano *†[3]	80	10	50.3	0.09
Longview †	78	7	50.8	4.44
Luling †	78	16	55.6	1.94
McGregor †	65	7	35.6	1.15
Marshall †	76	8	51.6	4.30
Menardville *†[1]	80	7	47.9	0.31
Mountain Spring †	80	0	46.8	1.17
New Braunfels †	78	16	53.1	0.93
Orange †	76	22	56.4	3.69
Panter *†[1]	80	5	48.3	1.42
Rio Grande City †	.....	.....	.....	0.39
Roby †	78	2	45.1	0.42
Rockport *[1]	76	24	56.1	.....
Round Rock †	82	12	52.7	2.02
San Antonio	79	16	54.7	1.25
San Marcos †	.....	.....	.....	1.41
Silver Falls †	80	4	41.6	0.05
Sulphur Springs †	80	2	47.0	2.39
Temple †	78	5	47.2	1.71
Victoria *†[1]	80[l]	18[l]	58.0[l]	3.00[l]
Waco †	79	6	49.6	2.00
Weatherford †	79	2	46.0	0.93
Wichita Falls †	86	—10	44.4	1.38
Utah.				
Blue Creek *[8]	45	—10	23.6	0.70
Castle Gate †	40	— 5	19.2	0.67
Cisco †	48	—10	22.3	0.30
Corinne *[8]	48	3	27.4	1.15
Deseret †	46	— 7	23.8	0.35
Fillmore †	58	—10	25.4	0.70
Fort Du Chesne †	31	—24	8.1	0.08
Grouse Creek *†[1]	43	— 7	21.1	2.87
Heber †	50	—21	17.2	3.65
Kelton *[8]	50	— 1	27.6	1.70
Koosharem	41	—16	13.1	0.17
Lake Park	48	— 8	26.2	0.91
Levan †[2]	.....	.....	22.8	1.70
Loa †	48	—17	20.0	0.13
Logan †	45	— 4[e]	24.3	1.80
Lorsee †	44	—15	19.8	0.30
Manti †	50	—10	23.2	1.20
Moab †	58	— 1	28.0	0.33
Ogden *a* *[8]	43	2	28.6	3.08
Ogden *b* *†[1]	49	5	29.4	2.48
Parowan †	50	— 7	25.1	1.65
Promontory *[8]	52	—15	23.5	0.75
Provo City †[2]	.....	.....	22.8	2.35
Randolph †	44	— 8	17.4	0.20
Richfield *†[1]	48*	— 3	24.4	0.95
Saint George †	63	8	33.6	0.21
Silver Lake *[1 e]	40	—14	15.2	6.60
Singletree *†[1]	46	— 5	22.8	T.
Snowville †	42	—15	23.0	2.20
Soldier Summit	30	—15	11.1	3.55
Terrace *[8]	46	8	28.9	0.85
Thistle †	48	—12	22.0	1.60
Vermont.				
Brattleboro	47	— 1	24.6	1.85
Burlington †	46	— 3	22.7	1.30
Cornwall	47	—12	20.4	2.53
Enosburg Falls †	47	—13	19.7	2.45
Hartland †	47	— 7	19.4	2.57
Irasburg †	46	—14	16.0	4.10
Jacksonville	44	— 8	17.9	2.87
Norwich *[6]	46	— 6	20.1[e]	2.49
Simonsville	42	—10	17.4	.....
Strafford *†[1]	42	—10	25.1	3.45
Vernon *[3]	44	— 5	21.6	2.08
Wells	54	—10	21.5	1.96
Woodstock	49	—10	19.8	2.71
Virginia.				
Abingdon †	.....	.....	.....	3.25
Alexandria	57	19	38.2	2.02
Ashland †	63	18	42.0	2.43
Avon †	73	11	41.2	1.76
Bedford City † [e]	63	18	40.8	2.73
Big Stone Gap †	64	8	37.8	2.41
Virginia—Cont'd.				
Birdsnest *†[1]	62	27	42.3	3.86
Blacksburg	62	13	36.6	1.69
Buchanan †	.....	.....	.....	1.57
Cape Charles †[1]	58[c]	25[c]	42.4[d]	3.03
Christiansburg †	.....	.....	.....	1.63
Clarksville †	.....	.....	.....	2.96
Dale Enterprise †	62	10	36.4	1.16
Danville †	.....	.....	.....	2.61
Falls Church †	.....	.....	.....	1.88
Fredericksburg †	62	18	39.7	1.17
Hampton	63	26	43.2	3.06
Hot Springs	61	10	35.6	1.10
Irwin †	61	18	40.0	2.52
Lexington †	64	12	37.0	1.55
Marion †	64	15	38.2	2.85
Nottoway	67	18	41.2	3.22
Petersburg †	68	22	42.9	3.06
Richmond *a* †	64	19	40.0	3.42
Richmond *b* †	.....	.....	.....	3.30
Riverton †	.....	.....	.....	1.16
Salem †	65	22	42.1	1.61
Saluda †	66	18	42.8	2.02
Spottsville †	63	20	41.0	2.99
Stanardsville †	63	18	38.8	2.79
Staunton †	66	14	39.8	1.21
Stephens City †	64	12	38.0	0.94
Warsaw †	63[c]	18[c]	39.4[c]	1.98
Woodstock †	.....	.....	.....	1.17
Wytheville †	59	13	36.9	2.03
Washington.				
Aberdeen †[1]	59*	27	40.8	17.17
Anacortes	.....	.....	.....	5.82
Blaine †	54	12	33.8	5.77
Bridgeport †	56	4	27.6	0.12
Chehalis †	58	17	38.0	8.27
Colfax †	48	— 1	28.3	5.70
Connell †	58	— 1	32.4	1.38
Crystal Springs *[1]	62	28	43.6	.....
Dayton †	58	5	33.4	5.49
East Sound †	58	23	37.8	5.23
Elbe	.....	.....	.....	13.37
Ellensburg †	45	0	25.0	1.21
Ferry †	54	18	37.6	9.81
Fort Simcoe	49	9	29.2	1.45
Fort Spokane	51	— 3	24.2	2.74
Fort Townsend	55	20	37.7	4.53
Hunters *†[1]	41	—10	19.8	3.37
Lakeside †	50	5	24.6	1.08
Lapush †	67	22	42.4	13.22
Madrone *†[1]	58	19	38.9	6.41
Moxee Valley †	59	0	30.8	1.10
Olga †	54	23	38.8	4.34
Pine Hill *[1]	53	19	35.2	6.66
Pomeroy †	52	10	33.4	5.06
Pullman †	44	0	26.2	3.33
Rosalia †	46	—14	25.1	4.22
Silver Creek *[1]	55	18	38.8	10.52
Stillaquamish †	.....	.....	.....	5.68
Tacoma †	57	19	38.4	7.00
Union City *†[1]	52	20	37.3	13.45
Vashon † [b]	53	12	33.6	9.70
Waterville †	48	— 6	20.0	1.48
West Ferndale	54	17	35.0	6.84
West Virginia.				
Beverly †	62	8	39.0	4.23
Bloomery †	58	8	33.4	1.15
Bluefield †	62	8	35.7	2.69
Buckhannon *a* †	.....	.....	.....	3.28
Buckhannon *b* † [m]	63	5	34.1	.....
Burlington †	65	8	36.5	1.20
Central Station †	64	4	37.5	4.09
Charleston †	.....	.....	.....	2.35
Davis †	70	4	34.7	3.37
Elkhorn †	65	12	40.4	2.62
Ella †	56	4	34.7	2.49
Fairmont †	.....	.....	.....	2.03
Glenville †	61	6	36.4	2.48
Grafton †	62	9	37.0	2.51
Harpers Ferry †	.....	.....	.....	0.78
Hinton †	.....	.....	.....	1.82
Huntington †	63	1	37.8	.....
Marlinton †	61	6	33.1	1.81
Martinsburg †	65	16	37.1	0.87
Monarch *[1]	60[d]	12[d]	39.3[d]	2.16
Morgantown *a* †	.....	.....	.....	2.45
Morgantown *b* †	65	10	34.8	.....
New Martinsv'le †	66	7	37.9	2.48
Parkersburg †	63	4	37.0	1.33
Philippi †	.....	.....	.....	1.90
Pleasant Hill *[1]	58	0	32.6	5.71
Point Pleasant †	66	2	39.1	1.32
W. Virginia—Cont'd.				
Raleigh †	61	3	35.4	0.83
Rowlesburg †	.....	.....	.....	2.63
Sandyville *†[1]	62	— 4	35.6	2.28
Spencer †	65	— 2	39.2	2.46
Tannery *[1]	60	10	35.8	.....
Weston *a* †	.....	.....	.....	2.60
Weston *b* *[1]	60	10	38.6	.....
Wheeling *a* †	.....	.....	.....	1.43
Wheeling *b* †	63	12	39.4	1.93
Wisconsin.				
Amherst	44	—22	15.6	1.22
Ashland † [b]	56	—30	19.6	0.90
Baraboo †	56	—23	21.0	1.77
Barron †	43	—42	8.8	1.68
Bayfield	45	—22	14.8	1.28
Beaver Dam	55	—19	21.7	1.47
Belleville	57	—27	20.2	1.10
Beloit	58	—21	23.5	1.82
Black River Falls †	48	—29	13.9	1.02
Butternut †	43	—41	7.4	0.77
Cadiz *[3]	.....	—28	20.5	2.45
Centralia	47	—26	16.8	1.92
Chilton	51	—19	20.0	2.35
Chippewa Falls †	.....	.....	.....	1.22
City Point	45	—34	13.9	1.56
Columbus	55	—20	20.0	1.65
Crandon †	47	—33	13.4	2.80
Delavan (near) †	55	—23	23.4	1.09
Eau Claire	41	—30	11.4	1.30
Estella †	44	—36	10.8	1.73
Florence †	55	—24	14.8	1.50
Fond du Lac †	53	—21	19.4	1.61
Grantsburg †	46	—36	11.2	1.40
Hartford *†[3]	.....	0	21.8	2.31
Harvey †	57	—21	20.8	1.32
Hayward †	43	—41	7.5	1.30
Hillsboro	55	—20	17.4	1.57
Janesville	56	— 4	23.0	1.30
Juneau †	54	—20	21.8	1.81
Koepenick *†[1]	64	—24	16.1	1.00
Lancaster †	55	—24	17.8	0.87
Lincoln †[2]	.....	.....	20.9	1.52
Madison †	54	—18	20.6	0.92
Manitowoc †	46	—13	21.3	1.55
Meadow Valley †	48	—28	15.8	1.24
Medford *a* †	.....	.....	.....	3.00
Medford *b* †	48	—38	11.4	1.10
Menomonie	46	—40	6.4	1.25
Neillsville †	46	—30	13.3	1.87
New Holstein †	44	—18	18.8	1.68
Oconomowoc †	56	—19	22.2	1.52
Oconto	46	—15	18.8	2.32
Osceola †	44	—42	7.8	1.07
Oshkosh †	49	—17	20.6	1.10
Pepin	44	—29	11.7	0.78
Portage †	.....	.....	.....	1.43
Port Washington	54	—15	22.8	1.85
Prairie du Chien	59	—25	20.0	0.79
Raymond	50	—16	23.7	1.86
Reedsburg †	56	—22	20.7	1.05
Sharon †	56	—19	22.9	1.97
Shawano	47	—24	18.0	2.04
Stevens Point †	43	—32	15.6	0.89
Valley Junction †	53	—30	16.4	0.97
Viroqua	52	—22	16.6	1.23
Waukesha * †	.....	—19	.....	1.34
Westfield †	51	—21	18.0	2.10
Weston *†[3]	.....	—27	10.1	2.32
Whitehall †	48	—38	12.2	.....
Wyoming.				
Big Horn Ranch †	50	—28	20.2	0.28
Camp Pilot Butte	44	—10	17.6	0.16
Fort McKinney	56	—26	20.6	0.30
Fort Washakie	52	—20	20.6	0.09
Fort Yellowstone †	43	—25	17.2	1.82
Lander	50	—15	21.4	0.40
Laramie	54	—25	19.9	0.03
Saratoga †	52	—20	18.2	0.60
Sheridan	50	—36	12.4	0.70
Sundance	46	—28	13.0	1.10
Wheatland †	68	—22	25.8	0.50
Canada.				
Fort Francis, Ont.	50	—46	0.6	0.72
Mexico.				
Ciudad Porfirio Diaz	83	26	57.1	0.36
Mazatlan	74	55	64.2	0.15
Topolobampo *[3]	76	50	57.8	0.26
New Brunswick.				
St. Johns	45	—10	18.3	3.15
West Indies.				
Grand Turk Island	.....	.....	.....	0.79
Hamilton, Bermuda	72	53	64.2	5.94

Reports received too late to be used in general discussion of weather for January, 1894.

California				
Covelo	.....	.....	.....	15.53
Kansas.				
Collyer *[3]	68	— 9	21.9	0.10
Ellis *[5]	64	—15	30.5	.....
Grainfield *[6]	74	—13	30.7	0.20
Grinnell *[8]	73	—14	21.2	0.37
Kansas—Cont'd.				
Ionia †	69	—22	23.4	0.27
Monument *[1]	72	—20	26.7	0.28
Olathe †	68	—17	29.8	1.79
Pauline *	71	— 9	31.7	0.06
Quinter *[3]	61	—20	17.4	0.07
Sharon Springs *[1]	78	—10	30.1	0.25

Reports received too late, &c.—Continued.

Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.	Stations.	Temperature. (Fahrenheit.) Max.	Min.	Mean	Precip'n.
Kansas—Cont'd.	°	°	°	*Ins.*	*Oregon.*	°	°	°	*Ins.*
Wa Keeney *[1]	64	—12	29.8	T.	Aurora (near)	58	19	39.8	14.90
Wallace *[6]	70	.....	28.8	0.20	Forest Grove	59	19	37.4	11.63
Winona *[3]	70	—12	23.9	0.16	Happy Valley †	51	— 1	30.1	1.72
Mississippi.					La Grande †	50	8	30.6	3.34
Enterprise †	74	13	49.6	3.42	Lakeview †	51	1	24.9	4.66
University † [b]	71	4	48.6	4.67	Vernonia *[1]	52	16	38.1	13.98
New York.					*Wisconsin.*				
Potsdam	47	— 8	18.4	2.16	Sheboygan *[9]	48	—21	20.7	.....
Oklahoma Territory.									
Stillwater †	81	— 8	35.8	4.01					

Received too late for publication in December, 1893.

California.					*Iowa*—Cont'd.				
Covelo	.....	.....	.....	6.52	Spirit Lake †	47	—21	16.6	1.44
Guinda	.....	.....	.....	1.00	*Kansas.*				
Jolon	.....	.....	.....	2.31	Topeka [g]	68	2	34.4	0.35
Mountain View	.....	.....	.....	1.48	*New Mexico.*				
Point George	.....	.....	.....	3.07	Lordsburg *[8]	65	21	46.3	0.05
Colorado.					*Texas.*				
Kirk	.....	.....	.....	0.10	Corsicana *a* †	76	23[d]	53.3[d]	0.20
Manhattan	.....	.....	.....	1.36	San Antonio	82	29	57.8	0.77
Georgia.					*Utah.*				
Thomasville †	76	29	56.5	7.02	Fort Du Chesne †	55	— 6	30.4	0.49
Iowa.					Logan	54	11	33.6	1.44
Cedar Falls †	52	—12	19.2	1.00	Soldiers Summit †	45	—16	21.2	1.19
Council Bluffs	58	— 4	26.1	0.22	*Mexico.*				
Knoxville	58	— 8	21.7	1.90	Vera Cruz	81	61	70.7	2.95

* Extremes of temperature from observed readings of dry thermometer.
† Weather Bureau instruments.
A numeral following the name of a station indicates the hours of observation from which the mean temperature was obtained, thus:
[1] Mean of 7 a. m. + 2 p. m. + 9 p. m. + 9 p. m. ÷ 4.
[2] Mean of 8 a. m. + 8 p. m. ÷ 2.
[3] Mean of 7 a. m. + 7 p. m. ÷ 2.
[4] Mean of 6 a. m. + 6 p. m. ÷ 2.
[5] Mean of 7 a. m. + 2 p. m. ÷ 2.
[6] Mean from readings at various hours reduced to true daily mean by special tables.
[7] Mean from hourly readings of thermograph.
[8] Mean of 7 a. m. + 2 p. m. + 9 p. m. ÷ 3.
[9] Mean of sunrise and noon.
The absence of a numeral indicates that the mean temperature has been obtained from daily readings of the maximum and minimum thermometers.
An Italic letter following the name of a station, as "Livingston *a*," "Livingston *b*," indicates that two or more observers, as the case may be, are reporting from the same station. A small Roman letter following the name of a station, or in figure columns, indicates the number of days missing from the record; for instance, "[a]" denotes 14 days missing.
No note is made of breaks in the continuity of temperature records when the same do not exceed two days. All known breaks, of whatever duration, in the precipitation record receive appropriate notice.

Corrections: California, Florence, strike out all precipitation data from May to November, inclusive, 1893; Spadra, strike out all precipitation data from May, 1892, to December, 1893, inclusive; Byron, June, 1893, make mean temperature 71.7 instead of 68.3. Kansas, Washington, December, 1893, add mean temperature 32.0.

TABLE III—*Data from Canadian stations for the month of January*, 1894.

Station.	Pressure. Mean not reduced.	Mean reduced.	Departure from normal.	Temperature. Mean.	Departure from normal.	Precipitation. Total.	Departure from normal.	Prevailing direction of wind.
	Inches.	*Inches.*	*Inches.*	°	°	*Inches.*	*Inches.*	
Saint Johns, N. F	.....	.....	.....	.....	.....	.....	.....	.....
Sydney, N. S	29.92	29.98	+ .08	20.5	+ 1.0	2.32	— 2.49	nw.
Grindstone, G. S. L	.....	.....	.....	.....	.....	.....	.....	.....
Sandy Point, N. F	.....	.....	.....	.....	.....	.....	.....	.....
Halifax, N. S	29.92	30.06	+ .10	22.0	+ 1.0	7.32	+ 1.63	n.
Grand Manan, N. B	30.02	30.07	.....	23.7	.....	3.01	— 2.36	w.
Yarmouth, N. S	29.99	30.07	+ .05	25.3	— 0.2	3.84	— 1.38	n.
Saint Andrews, N. B	30.00	30.05	.....	18.4	.....	3.82	+ 0.52	nw.
Charlottetown, P. E. I	29.99	30.03	.....	16.8	.....	3.86	+ 0.45	w.
Chatham, N. B	30.05	30.07	+ .05	6.4	+ 0.4	2.38	— 0.90	w.
Father Point, Que	30.08	30.11	+ .09	5.7	— 0.3	2.73	+ 0.03	n.
Quebec, Que	29.76	30.12	+ .06	9.6	+ 2.6	3.92	+ 0.25	w.
Montreal, Que	29.90	30.13	+ .05	12.6	+ 2.6	2.81	— 0.47	sw.
Rockliffe, Ont	29.54	30.09	+ .03	6.6	+ 3.1	3.40	+ 1.39	se.
Kingston, Ont	29.77	30.11	+ .03	21.0	+ 6.0	3.91	+ 0.65	w.
Toronto, Ont	29.70	30.10	+ .01	27.5	+ 8.5	1.67	— 0.84	sw.
White River, Ont	28.64	30.12	.....	— 1.1	+ 0.1	1.42	+ 0.38	w.
Port Stanley, Ont	29.44	30.11	+ .01	27.4	.....	1.60	— 1.08	w.
Saugeen, Ont	29.32	30.07	+ .01	25.7	+ 7.2	2.79	— 0.67	s.
Parry Sound, Ont	29.33	30.07	— .01	18.2	+ 6.7	4.24	+ 1.09	e.
Port Arthur, Ont	29.30	30.06	— .04	4.0	+ 3.5	0.93	+ 0.12	nw.
Winnipeg, Man	29.19	30.12	— .06	— 8.8	+ 2.2	1.16	+ 0.50	nw.
Minnedosa, Man	28.08	30.09	— .07	— 9.3	+ 2.2	1.83	+ 1.20	w.
Qu'Appelle, Assiniboia	27.60	30.09	— .07	— 5.8	+ 2.2	0.34	— 0.04	nw.
Medicine Hat, Assiniboia	27.57	30.05	— .13	7.8	+ 6.3	0.58	+ 0.25	nw.
Swift Current, Assiniboia	27.30	30.10	— .08	2.8	+ 4.8	0.40	— 0.21	sw.
Calgary, Alberta	26.22	30.00	— .18	8.6	+ 5.1	0.41	— 0.16	nw.
Prince Albert, Sask	28.39	30.09	.....	—13.1	.....	0.81	.....	e.
Edmonton, Alberta	27.50	30.07	— .05	— 3.8	+ 5.0	0.60	— 0.13	nw.
Battleford, Saskatchew'n	28.14	30.07	.....	—10.6	.....	1.37	.....	se.
Spences Bridge, B. C	29.12	29.99	.....	24.4	.....	2.28	.....	e.
Sable Island	.....	.....	.....	.....	.....	.....	.....	.....
Hamilton, Bermuda [7]	29.96	30.12	— .01	63.2	.....	5.81	.....	n.

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Saint Johns, N. F	29.72	29.87	+ .03	28.1	— 2.3	6.37	.....	n.
Montreal, Que	29.84	30.07	+ .04	12.0	— 7.5	4.60	+ 1.04	w.

TABLE IV.—*Hourly sunshine as deduced from sunshine recorders, January, 1894.*

Stations.	Instrument.	Percentage recorded during the hour of local mean time ending with the respective hour.																Monthly summary.			
		A. M.								P. M.								Instrumental record.			Personal estimate.
		5	6	7	8	9	10	11	Noon.	1	2	3	4	5	6	7	8	Actual.	Possible.	Per cent of possible.	
																		Hours.	*Hours.*	*Hours.*	
Baltimore, Md	T.	.....	.....	.....	13	36	61	70	73	68	65	67	64	59	35	.....	.....	178.2	302.9	59	48
Boston, Mass	T.	.....	.....	.....	31	38	48	50	55	61	52	47	36	33	.....	.....	.....	135.0	294.2	46	43
Buffalo, N. Y	T.	.....	.....	.....	9	12	28	47	56	59	55	42	23	18	.....	.....	.....	105.8	294.0	36	32
Chicago, Ill	T.	.....	.....	.....	40	42	50	58	65	69	70	66	56	53	.....	.....	.....	169.2	295.8	57	42
Cincinnati, Ohio	P.	.....	.....	.....	40	45	60	64	67	72	71	68	56	51	41	.....	.....	182.0	304.8	60	43
Cleveland, Ohio	P.	.....	.....	.....	18	26	34	35	40	38	35	33	36	31	.....	.....	.....	98.7	297.2	33	35
Colorado Springs, Colo.*	T.	.....	.....	.....	47	61	80	83	84	83	92	80	63	59	.....	.....	.....	165.8	222.8	75	66
Columbus, Ohio	T.	.....	.....	.....	17	23	49	63	67	66	65	66	63	55	43	.....	.....	165.2	302.1	55	38
Denver, Colo	P.	.....	.....	.....	63	75	87	89	85	80	82	80	70	51	43	.....	.....	233.9	303.1	77	56
Des Moines, Iowa	T.	.....	.....	.....	40	44	45	47	51	56	54	52	47	43	.....	.....	.....	142.1	296.1	48	47
Detroit, Mich	T.	.....	.....	.....	31	38	37	43	46	51	49	49	50	41	.....	.....	.....	129.9	294.1	44	38
Dodge City, Kans	P.	.....	.....	.....	42	59	70	75	73	74	74	76	77	64	47	.....	.....	210.9	309.3	68	64
Eastport, Me	P.	.....	.....	.....	42	47	49	60	56	47	49	47	45	40	.....	.....	.....	140.0	286.7	49	39
Galveston, Tex.†	P.	.....	.....	18	24	45	53	42	42	41	40	48	44	42	27	.....	.....	130.2	325.9	40	40
Kansas City, Mo	P.	.....	.....	.....	48	54	64	60	60	65	65	64	47	41	36	.....	.....	173.2	303.1	57	48
Key West, Fla	T.	.....	.....	38	47	56	63	73	82	80	75	65	59	56	39	.....	.....	212.9	333.6	64	45
Louisville, Ky	T.	.....	.....	.....	43	46	56	62	65	74	58	40	35	29	28	.....	.....	156.4	304.2	51	45
Memphis, Tenn	P.	.....	.....	.....	37	43	52	50	43	58	55	53	47	44	43	.....	.....	151.5	312.4	49	54
New Haven, Conn	T.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	45
New Orleans, La	T.	.....	.....	13	18	24	29	52	65	77	70	62	56	47	32	.....	.....	159.5	326.0	49	48
New York, N. Y.‡	T.	.....	.....	.....	21	29	50	57	69	72	70	59	50	39	.....	.....	.....	151.5	288.6	53	41
Philadelphia, Pa	T.	.....	.....	.....	36	38	44	56	58	54	53	49	14	41	30	.....	.....	145.1	300.9	48	38
Portland, Me	T.	.....	.....	.....	37	51	63	71	72	74	77	78	53	43	.....	.....	.....	185.6	289.6	64	51
Portland, Oreg	P.	.....	.....	.....	0	15	19	17	23	24	26	22	23	7	.....	.....	.....	54.0	287.3	19	18
Rochester, N. Y	T.	.....	.....	.....	13	23	30	47	46	40	43	38	30	22	.....	.....	.....	100.1	293.3	34	40
Saint Louis, Mo	T.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	68
Salt Lake City, Utah	T.	.....	.....	.....	15	26	31	40	54	55	55	54	38	30	.....	.....	.....	121.3	296.9	41	37
San Diego, Cal	P.	.....	.....	.....	73	78	90	87	89	89	91	88	84	81	55	.....	.....	265.8	318.2	84	64
San Francisco, Cal	P.	.....	.....	.....	21	35	50	45	48	60	65	66	64	46	43	.....	.....	155.2	306.4	51	44
Santa Fe, N. Mex	P.	.....	.....	.....	65	75	82	83	85	82	79	83	83	73	57	.....	.....	246.9	312.7	79	71
Savannah, Ga	P.	.....	.....	.....	38	47	56	56	55	54	59	60	54	45	39	.....	.....	165.7	318.4	52	45
Tucson, Ariz	P.	.....	.....	.....	77	82	82	84	75	81	83	78	75	68	56	.....	.....	247.1	319.8	77	66
Washington, D. C	P.	.....	.....	.....	28	38	46	46	42	43	45	48	52	48	43	.....	.....	134.0	303.8	44	43
Wilmington, N. C	T.	.....	.....	.....	17	25	42	55	57	57	58	53	42	35	29	.....	.....	136.5	313.4	43	45

* For 23 days. † For 25 days. ‡ For 30 days.

TABLE V.—*Mean temperature for each hour of seventy-fifth meridian time, January*, 1894.

Stations.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.
Abilene, Tex	41.1	40.3	39.5	39.2	38.5	38.3	37.6	37.5	37.0	38.4	41.7	44.8	47.8	50.5	51.7	52.9	53.5	53.3	51.3	48.5	46.0	44.2	42.7	42.3	44.1
Albany, N. Y	25.1	25.1	24.4	24.4	24.0	23.8	23.7	23.7	24.5	26.0	27.7	28.9	29.6	30.3	30.3	30.2	29.5	28.8	28.0	27.6	27.5	27.0	26.3	26.0	26.8
Amarillo, Tex	31.9	31.1	30.0	29.6	28.4	28.2	27.5	27.2	26.7	28.0	32.0	36.3	40.4	43.0	44.8	46.6	47.1	46.7	43.5	40.7	37.8	35.6	34.0	32.5	35.4
Atlanta, Ga	44.5	44.1	43.6	43.2	42.7	42.3	42.2	41.9	42.0	43.5	45.5	47.6	49.7	51.3	52.5	52.8	52.5	51.1	49.7	48.3	47.5	46.8	46.1	45.5	46.5
Augusta, Ga	47.3	46.8	46.1	45.5	45.1	44.8	44.4	43.7	45.0	47.3	49.9	52.3	54.1	55.4	56.1	56.7	56.8	55.8	54.1	52.2	51.1	50.0	49.0	48.1	49.9
Baker City, Oreg	24.5	24.3	24.2	23.6	23.4	23.2	22.9	23.3	23.2	23.3	24.2	25.2	26.7	27.6	29.1	29.7	29.7	29.3	28.5	27.0	26.3	25.5	25.0	24.4	25.6
Baltimore, Md	35.1	34.8	34.3	33.9	33.8	33.4	33.1	33.8	34.8	36.3	37.7	39.3	40.3	41.1	41.5	41.5	40.9	40.0	39.4	38.8	37.8	37.0	36.3	35.8	37.1
Boston, Mass	28.9	28.1	27.8	27.4	27.1	26.9	26.7	27.1	27.9	29.7	31.5	33.0	33.6	34.1	34.0	33.7	33.1	32.5	31.6	31.0	30.6	30.2	29.6	29.7	30.2
Buffalo, N. Y	30.0	29.9	29.9	30.1	29.8	29.7	30.1	30.2	30.4	30.7	31.6	32.6	32.9	32.8	32.6	32.5	32.2	31.9	31.3	31.1	30.8	30.5	30.0	29.8	31.0
Charleston, S. C	49.9	49.5	49.0	48.6	48.4	48.0	47.9	48.1	49.5	51.7	54.0	56.0	57.1	58.0	58.2	57.0	55.7	54.1	53.5	52.2	51.8	51.5	51.1	50.5	52.1
Charlotte, N. C	42.6	41.9	41.3	40.9	40.5	39.7	39.4	39.1	39.7	41.1	42.9	44.9	46.7	48.4	48.9	49.2	49.0	48.3	47.2	46.5	46.0	45.1	44.2	43.5	44.0
Cheyenne, Wyo	22.8	22.4	22.4	22.0	22.4	22.1	21.6	22.2	23.0	23.0	25.4	28.6	30.7	32.1	32.8	33.2	32.9	31.4	28.6	26.4	24.9	23.9	23.4	22.5	25.9
Chicago, Ill	27.4	27.1	26.6	26.3	25.7	25.3	25.1	25.2	25.3	26.0	27.1	28.6	29.6	30.2	30.9	31.1	31.2	31.1	30.6	30.3	29.8	29.1	28.5	27.9	28.2
Cincinnati, Ohio	36.3	35.7	35.2	34.9	34.5	34.2	34.1	34.1	34.5	35.2	36.5	38.4	40.0	41.2	42.2	42.5	42.2	41.6	40.7	39.7	38.8	38.0	37.4	37.0	37.8
Cleveland, Ohio	31.1	30.9	31.0	31.1	30.9	30.5	30.4	30.7	30.5	31.4	32.5	32.8	33.2	34.1	34.5	35.0	34.5	33.8	33.4	32.4	31.9	32.0	31.6	31.1	32.1
Colorado Sp'ngs, Colo	24.8	23.3	22.3	22.0	22.0	21.7	20.8	21.0	20.3	21.9	27.3	32.2	35.5	37.3	38.4	39.3	39.2	38.2	35.5	32.7	29.9	28.0	26.3	26.3	28.6
Columbus, Ohio	32.4	31.8	31.5	31.4	31.1	31.0	30.8	31.0	31.6	33.0	34.6	36.3	37.8	38.7	39.5	39.4	39.1	38.1	37.0	35.9	35.1	34.3	33.8	33.1	34.5
Davenport, Iowa	23.2	22.8	22.1	21.6	21.4	20.7	20.5	20.3	20.6	21.3	23.3	25.1	26.6	28.0	29.1	29.5	29.4	28.4	27.4	26.5	25.6	24.8	24.0	23.3	24.4
Denver, Colo	28.4	28.4	27.6	26.8	25.8	25.7	24.9	25.3	25.1	25.2	28.7	34.6	37.6	39.5	40.7	41.7	41.9	40.7	39.1	36.4	34.3	32.4	30.8	29.3	32.1
Des Moines, Iowa	19.5	19.0	18.2	17.9	17.5	17.0	16.6	15.9	16.0	17.2	19.4	22.1	24.2	25.7	27.3	28.1	27.7	26.8	25.4	23.6	22.3	21.4	20.5	19.4	21.2
Detroit, Mich	29.1	28.8	28.4	28.2	27.7	27.4	27.3	27.2	27.3	28.0	29.0	30.2	31.0	31.7	32.4	32.5	32.3	31.6	31.2	31.1	30.6	30.1	29.5	29.1	29.7
Dodge City, Kans	25.6	24.4	23.5	22.5	21.9	21.0	19.9	19.0	19.1	21.1	27.4	31.6	35.4	38.5	40.8	41.8	42.5	41.2	37.1	32.1	29.8	28.4	27.2	25.9	29.1
Duluth, Minn	11.5	11.0	10.3	9.8	9.2	8.7	8.3	8.0	7.7	8.1	9.3	11.1	13.3	14.7	16.3	17.0	17.1	16.5	15.7	15.2	14.4	13.5	12.9	12.3	12.2
Eastport, Me	21.2	20.9	20.7	20.4	20.0	19.4	19.1	19.0	19.6	20.6	21.7	22.7	23.5	24.4	24.5	24.5	24.1	23.7	23.2	22.7	22.3	21.7	21.2	21.0	21.8
El Paso, Tex	40.3	38.8	37.5	36.0	35.0	34.5	33.2	32.4	31.1	32.1	36.0	40.7	44.7	48.4	50.8	52.6	54.1	54.3	53.6	50.5	48.4	46.5	44.4	42.5	42.4
Fort Smith, Ark	39.3	38.2	37.8	37.1	35.9	35.6	35.2	34.8	34.9	36.2	39.2	43.0	45.8	48.1	49.5	50.4	50.7	49.5	47.6	45.6	43.7	42.2	40.6	40.0	41.7
Galveston, Tex	57.9	57.6	57.1	57.1	56.8	56.7	56.6	56.3	55.9	57.0	58.1	58.8	59.6	60.1	60.6	60.7	60.7	60.2	59.6	59.3	59.2	58.9	58.8	58.7	58.4
Grand Haven, Mich	28.8	28.3	27.8	27.6	27.2	27.1	26.7	26.4	26.4	27.5	28.2	28.9	29.7	30.4	30.9	31.1	31.1	30.9	30.5	29.8	29.7	29.9	29.7	29.2	28.9
Havre, Mont	10.3	10.9	10.8	10.3	11.5	11.2	9.8	9.0	8.7	8.8	10.2	11.7	13.1	15.2	16.6	17.5	17.8	17.0	14.5	13.3	12.2	11.4	10.8	10.8	12.2
Helena, Mont	18.8	19.1	18.9	18.6	18.6	18.4	18.2	18.2	17.8	17.3	18.1	18.9	20.8	21.0	21.6	22.4	22.1	21.9	20.9	20.0	19.0	18.7	18.1	18.0	19.4
Huron, S. Dak	3.2	3.1	2.5	2.0	1.1	0.4	—0.3	—0.2	—0.8	—0.5	0.9	3.2	5.5	7.0	8.8	9.9	9.8	8.8	7.3	6.5	5.5	4.6	3.7	3.1	4.0
Indianapolis, Ind	33.8	33.3	33.0	32.6	32.1	31.3	31.0	30.8	31.0	32.5	34.8	36.0	37.6	38.9	39.5	39.7	39.3	38.4	37.4	36.2	35.6	34.9	34.5	34.1	34.9
Jacksonville, Fla	54.7	54.5	53.8	53.3	53.1	52.8	52.4	52.6	53.9	56.4	58.9	61.5	62.9	64.3	65.0	64.5	63.4	61.3	59.7	58.3	57.5	56.7	56.2	55.5	57.6
Kansas City, Mo	28.1	27.2	26.6	26.2	25.4	24.9	24.5	24.3	24.2	25.0	26.8	29.0	31.4	33.3	34.6	35.4	35.2	34.5	33.2	32.1	31.3	30.3	29.2	28.5	29.2
Key West, Fla	69.5	69.5	69.6	69.3	69.2	69.2	69.0	69.4	70.8	72.2	73.3	73.6	74.1	73.9	73.5	73.2	72.4	71.1	70.4	70.3	69.9	69.9	69.7	69.6	70.9
Knoxville, Tenn	41.0	40.0	39.5	39.1	38.9	37.9	37.5	37.4	38.0	40.2	42.5	44.9	46.7	47.8	48.9	49.3	49.0	48.2	47.2	46.3	44.9	43.8	42.9	42.4	43.1
Lander, Wyo	14.0	13.2	12.3	11.7	11.1	10.5	10.1	9.7	8.1	9.9	13.7	18.5	22.9	26.2	28.4	29.6	29.5	27.6	23.5	20.8	18.6	17.3	15.6	14.9	17.4
Little Rock, Ark	42.9	41.9	41.2	40.5	39.6	38.9	38.5	37.8	37.9	39.3	41.6	44.3	46.5	48.6	49.8	51.0	51.5	51.2	49.8	48.7	47.5	46.0	45.4	44.3	44.4
Louisville, Ky	38.0	37.6	36.8	36.3	35.7	35.1	34.8	34.8	35.5	37.2	39.2	41.9	44.0	45.2	46.2	46.1	45.5	44.4	43.1	42.1	41.0	40.3	39.7	38.9	40.0
Lynchburg, Va	37.5	37.0	36.5	36.1	35.6	35.4	35.0	35.1	36.5	38.6	41.5	43.3	45.2	46.5	47.7	47.8	47.1	45.7	44.2	42.6	41.6	40.2	38.9	38.1	40.6
Marquette, Mich	18.0	18.0	17.9	17.7	17.6	17.4	17.2	16.9	16.7	17.3	18.4	19.5	20.5	20.9	21.7	21.8	21.7	20.7	19.6	19.2	18.5	18.2	18.4	18.2	18.8
Memphis, Tenn	43.8	42.9	42.0	41.4	40.9	40.3	39.7	39.3	39.5	41.3	44.0	46.8	48.7	49.8	50.8	51.4	51.2	50.2	49.2	48.1	47.1	46.4	45.7	45.0	45.2
Milwaukee, Wis	23.5	23.2	22.7	22.3	22.1	21.8	21.8	21.5	21.6	22.8	24.2	26.3	27.5	28.2	28.9	29.1	28.5	27.5	26.9	26.2	25.7	25.2	24.4	23.9	24.8
Montgomery, Ala	48.1	47.5	46.8	46.6	45.8	45.6	45.0	45.3	47.2	49.4	52.5	54.7	56.9	58.0	58.8	58.6	58.5	57.4	55.5	54.6	52.9	51.9	51.2	50.0	51.6
Moorhead, Minn	—0.2	—0.6	—1.1	—1.6	—1.9	—2.2	—2.4	—2.9	—3.5	—3.2	—2.1	—0.4	1.2	2.8	4.2	5.1	5.5	4.8	3.8	2.8	2.2	1.5	0.6	—0.3	0.5
Nantucket, Mass	33.5	33.5	33.4	33.0	32.6	32.6	32.9	33.4	33.9	34.5	34.7	35.0	35.1	35.2	34.9	34.5	34.0	33.9	33.7	33.9	33.9	33.7	33.7	33.6	33.9
Nashville, Tenn	41.4	40.6	40.2	39.7	39.0	38.4	38.0	37.9	38.1	39.2	41.8	44.3	46.3	47.9	48.6	49.2	49.3	48.3	47.0	46.0	45.0	44.4	43.7	42.8	43.2
New Haven, Conn	28.7	28.2	27.7	27.3	26.8	26.5	26.5	27.0	28.4	30.3	31.9	33.2	34.2	34.4	35.0	35.1	34.2	33.5	32.7	32.0	31.1	30.7	30.4	29.7	30.6
New Orleans, La	55.3	54.9	54.4	54.1	53.6	53.2	52.9	53.1	53.4	54.7	56.7	58.5	60.2	61.8	62.7	62.9	62.7	61.7	59.8	58.7	57.8	57.0	56.5	56.0	57.2
New York, N. Y	33.5	32.9	32.6	32.0	31.7	31.5	31.5	31.9	32.4	33.3	34.2	35.1	36.2	36.9	37.8	38.0	38.2	37.3	36.5	36.1	35.9	35.2	34.7	34.2	34.6
Norfolk, Va	41.9	41.5	41.4	41.0	40.7	40.5	40.6	40.8	42.0	43.7	45.1	46.2	47.5	48.0	48.2	48.1	47.1	46.1	45.4	44.8	44.0	43.6	43.1	42.8	43.9
North Platte, Nebr	16.6	15.9	16.0	15.2	14.3	13.5	12.5	12.0	11.4	12.4	15.4	19.1	22.8	26.1	28.5	30.2	30.2	28.5	24.7	22.2	20.4	19.1	17.4	16.9	19.2
Olympia, Wash	38.5	38.4	38.1	37.7	37.5	37.5	37.1	37.2	37.1	37.2	37.4	37.7	38.4	39.4	40.1	40.6	41.3	41.3	40.7	40.3	39.6	39.0	38.7	38.4	38.7
Omaha, Nebr	19.5	18.9	17.8	17.6	17.0	16.7	16.5	15.7	15.6	16.1	17.6	19.7	21.9	23.3	25.2	26.1	26.3	25.7	24.4	23.6	22.2	21.4	20.8	19.8	20.4
Philadelphia, Pa	34.6	33.9	33.6	33.2	32.8	32.6	32.5	32.8	33.2	34.3	35.6	37.2	38.4	39.2	39.8	39.9	39.4	38.8	38.1	38.0	37.3	36.8	35.9	35.4	36.0
Pikes Peak, Colo	0.1	0.0	—0.3	—0.1	0.1	—0.3	—0.1	—0.4	—0.2	0.1	0.7	1.5	2.0	2.6	3.0	3.4	3.1	2.7	1.8	0.8	0.5	0.2	0.2	0.0	0.9
Pittsburg, Pa	35.3	34.7	34.6	34.1	33.9	33.7	33.9	34.2	34.8	36.4	38.5	40.1	41.2	41.7	42.1	41.7	40.9	40.2	39.2	38.5	37.8	37.2	36.4	35.7	37.4
Rapid City, S. Dak	15.5	15.0	14.8	14.5	14.7	15.1	15.0	14.8	14.9	16.6	18.1	20.9	22.9	24.7	25.3	25.7	21.6	23.2	20.3	18.7	17.3	16.4	15.4	15.0	18.3
Red Bluff, Cal	40.7	40.4	40.1	39.6	39.1	38.9	38.6	38.8	38.2	38.2	38.0	39.1	40.5	42.3	44.4	45.8	47.0	47.7	47.7	46.9	45.3	43.8	42.5	41.5	41.9
Rochester, N. Y	29.3	29.2	29.5	29.3	29.3	29.3	29.0	29.2	29.6	31.0	32.4	33.2	33.5	33.6	33.5	32.3	31.5	30.8	30.3	30.3	29.8	29.8	29.6	29.4	30.6
St. Louis, Mo	35.0	34.2	33.4	32.8	32.4	31.7	31.1	30.3	30.5	31.6	33.7	35.6	37.2	39.0	40.2	41.1	40.9	40.3	39.1	38.2	37.9	37.3	36.3	35.6	32.9
St. Paul, Minn	10.3	10.1	9.6	9.2	8.7	8.2	7.5	7.7	7.6	7.8	8.5	10.4	12.2	13.5	14.7	15.5	15.4	14.7	13.9	13.4	13.0	12.2	11.4	10.7	11.1
Salt Lake City, Utah	27.2	27.2	27.1	26.8	26.7	26.5	26.3	26.5	26.6	26.1	26.9	28.1	30.6	32.2	32.5	32.7	33.1	32.9	31.7	30.4	29.1	28.5	27.8	27.4	28.8
San Diego, Cal	47.1	46.6	45.8	45.2	44.9	44.6	44.3	43.7	43.5	43.5	46.5	50.3	53.3	54.9	55.7	56.3	56.1	55.6	54.4	52.7	51.1	49.6	48.1	47.5	49.2
San Francisco, Cal	47.8	47.5	47.0	47.0	46.8	46.4	46.1	45.4	45.3	45.4	45.7	46.1	47.2	48.1	49.0	50.2	50.7	51.2	50.9	49.9	49.4	49.1	48.6	48.2	47.9
Santa Fe, N. Mex	25.1	24.8	23.9	23.4	22.7	21.9	21.6	22.1	21.2	22.0	25.8	28.7	30.5	32.3	33.6	34.8	35.4	35.3	33.6	30.9	29.0	27.8	27.0	26.3	27.5
Sault Ste. Marie, Mich	15.2	14.8	14.5	14.3	13.6	13.4	12.9	12.7	12.7	13.6	14.6	16.4	17.5	18.4	18.9	18.9	18.8	18.5	17.7	17.6	16.8	16.5	16.0	15.3	15.8
Savannah, Ga	50.9	50.5	49.8	49.3	48.9	48.5	48.2	48.5	50.3	53.2	56.1	58.1	59.3	60.3	60.6	60.4	58.8	56.7	54.9	53.8	53.1	52.5	51.8	51.4	53.6
Shreveport, La	49.8	48.7	47.8	47.0	46.0	45.4	44.8	43.9	43.5	45.2	48.1	50.8	53.3	55.0	56.3	57.4	58.0	57.6	56.5	55.3	54.5	53.5	52.6	51.5	50.9
Spokane, Wash	26.4	26.1	25.6	25.4	25.2	25.0	24.8	24.7	23.9	23.8	23.8	24.7	25.7	26.9	28.0	28.9	29.6	30.2	29.5	28.8	27.7	27.6	27.0	26.3	26.5
Titusville, Fla*	60.3	60.0	59.5	59.0	58.6	58.0	57.7	58.2	61.9	64.3	66.9	68.0	68.8	69.1	69.0	68.7	67.4	65.7	64.3	63.6	63.0	62.2	61.3	60.4	63.1
Toledo, Ohio	30.5	30.3	29.9	29.9	29.6	29.2	29.2	29.1	29.0	30.2	31.7	33.2	34.4	35.2	35.9	35.8	35.5	34.0	33.1	32.7	32.0	31.5	31.3	30.8	31.8
Tucson, Ariz	40.9	39.2	36.9	35.8	34.9	34.2	33.8	32.7	32.8	33.4	39.5	46.8	51.8	55.5	57.4	58.7	59.1	59.0	57.8	54.3	51.0	48.7	45.8	43.5	45.1
Vicksburg, Miss	50.7	49.7	49.0	48.1	47.4	46.7	46.5	46.1	46.4	48.3	51.4	54.3	56.5	57.5	58.9	59.8	59.8	59.5	57.8	55.7	55.0	54.0	53.6	52.6	52.7
Washington, D. C	34.9	34.6	34.2	33.7	33.3	33.0	33.0	33.2	34.2	36.5	38.4	40.2	41.1	42.0	42.6	42.8	42.6	41.5	40.4	39.1	38.2	37.3	36.6	35.8	37.5
Wilmington, N. C	46.3	46.1	45.5	45.2	45.0	44.6	44.5	44.5	46.4	48.2	50.5	52.2	53.6	54.3	54.5	54.1	52.8	51.2	49.8	49.3	48.4	47.9	47.4	47.0	48.7
Winnemucca, Nev	29.2	28.3	27.9	27.3	26.7	25.8	24.8	25.1	24.6	24.4	24.7	26.9	30.2	32.9	34.8	35.8	36.6	36.9	36.1	34.1	32.6	31.4	30.2	29.7	29.9
Yuma, Ariz	47.4	46.1	45.2	44.2	43.7	43.2	42.8	42.2	42.2	41.9	46.6	52.4	56.7	59.4	61.5	62.8	63.8	63.8	62.6	59.2	55.6	52.8	50.5	48.5	51.5

* Five days missing.

TABLE VI.—*Mean pressure for each hour of seventy-fifth meridian time, January, 1894.*

Stations.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.
Abilene, Tex	28.277	.274	.275	.267	.266	.262	.264	.272	.282	.293	.305	.305	.285	.260	.232	.223	.222	.224	.229	.241	.255	.265	.273	.277	.264
Albany, N. Y	30.065	.067	.069	.068	.067	.070	.076	.089	.101	.107	.094	.065	.046	.039	.041	.042	.046	.049	.056	.062	.066	.067	.065	.061	.066
Alpena, Mich	29.360	.357	.362	.357	.356	.357	.366	.375	.382	.388	.387	.376	.355	.341	.342	.347	.354	.356	.358	.359	.364	.367	.370	.365	.363
Atlanta, Ga	28.985	.983	.985	.986	.986	.990	.001	.014	.030	.045	.050	.034	.003	.985	.977	.975	.982	.991	.997	.002	.004	.003	.996	.988	.000
Augusta, Ga	30.011	.012	.011	.007	.006	.012	.020	.026	.035	.051	.050	.031	.010	.986	.975	.976	.979	.985	.997	.003	.009	.018	.019	.016	.010
Baltimore, Md	29.968	.970	.974	.970	.975	.984	.995	.002	.017	.020	.009	.988	.962	.946	.941	.942	.946	.955	.964	.964	.970	.972	.970	.964	.974
Bismarck, N. Dak	27.276	.171	.170	.175	.176	.174	.170	.178	.183	.187	.189	.191	.190	.167	.154	.151	.158	.168	.175	.181	.183	.184	.187	.189	.176
Boston, Mass	29.980	.982	.978	.977	.978	.983	.990	.999	.006	.010	.999	.976	.961	.961	.968	.977	.984	.989	.995	.994	.992	.990	.984	.974	.984
Buffalo, N. Y	29.325	.327	.334	.330	.326	.330	.337	.342	.354	.359	.359	.342	.319	.311	.314	.319	.325	.330	.338	.338	.336	.336	.336	.329	.333
Chicago, Ill	29.155	.152	.158	.157	.154	.158	.164	.171	.180	.190	.193	.186	.160	.139	.136	.144	.148	.153	.159	.161	.160	.163	.160	.154	.161
Cincinnati, Ohio	29.466	.465	.468	.466	.463	.467	.475	.480	.494	.504	.514	.505	.476	.457	.443	.446	.451	.453	.457	.458	.458	.464	.465	.463	.469
Cleveland, Ohio	29.293	.294	.299	.301	.298	.300	.302	.301	.310	.319	.323	.310	.293	.276	.274	.276	.284	.294	.300	.305	.300	.292	.290	.290	.297
Colorado Sp'gs, Colo	23.900	.898	.896	.896	.900	.896	.899	.902	.905	.909	.912	.914	.906	.876	.858	.845	.844	.850	.862	.878	.888	.895	.901	.902	.889
Columbus, Ohio	29.197	.198	.202	.199	.196	.201	.207	.213	.220	.223	.229	.216	.194	.179	.175	.178	.184	.189	.194	.197	.196	.197	.197	.194	.199
Davenport, Iowa	29.422	.423	.431	.436	.433	.428	.430	.435	.439	.442	.444	.436	.408	.392	.384	.384	.390	.395	.403	.408	.411	.417	.423	.423	.418
Denver, Colo	24.657	.644	.645	.645	.645	.637	.633	.632	.633	.639	.650	.658	.656	.637	.613	.599	.598	.604	.614	.625	.637	.648	.652	.659	.636
Des Moines, Iowa	29.153	.149	.149	.151	.147	.142	.144	.145	.143	.154	.159	.155	.139	.118	.105	.103	.108	.115	.125	.135	.138	.145	.151	.153	.139
Detroit, Mich	29.287	.286	.289	.283	.281	.282	.290	.295	.308	.315	.310	.309	.291	.274	.270	.273	.280	.288	.293	.294	.291	.291	.290	.287	.290
Dodge City, Kans	27.359	.384	.379	.381	.380	.377	.377	.385	.395	.406	.421	.427	.405	.375	.351	.343	.347	.351	.360	.374	.382	.388	.391	.393	.382
Duluth, Minn	29.294	.297	.304	.312	.310	.312	.314	.316	.315	.314	.312	.305	.275	.256	.251	.256	.267	.275	.281	.286	.287	.286	.288	.293	.292
Eastport, Me	29.969	.968	.964	.960	.966	.975	.991	.005	.016	.008	.986	.967	.956	.954	.955	.957	.963	.968	.974	.980	.982	.980	.973	.967	.974
El Paso, Tex	26.260	.259	.258	.260	.263	.263	.264	.269	.282	.293	.303	.311	.302	.273	.211	.220	.209	.206	.206	.215	.223	.233	.239	.247	.254
Galveston, Tex	30.119	.113	.109	.107	.104	.105	.114	.121	.133	.153	.162	.155	.128	.098	.078	.071	.072	.078	.083	.090	.101	.109	.114	.112	.110
Grand Haven, Mich.	29.340	.348	.352	.354	.353	.352	.350	.360	.367	.374	.380	.374	.357	.337	.329	.330	.336	.340	.347	.348	.344	.343	.341	.341	.350
Havre, Mont	27.286	.284	.277	.271	.273	.270	.264	.266	.268	.284	.303	.315	.324	.317	.293	.277	.274	.279	.279	.278	.287	.290	.294	.297	.285
Helena, Mont	25.677	.679	.674	.671	.678	.676	.674	.668	.665	.669	.681	.683	.684	.674	.656	.643	.644	.653	.661	.663	.669	.675	.678	.680	.670
Huron, S. Dak	28.647	.645	.643	.646	.643	.637	.639	.639	.640	.647	.653	.657	.647	.629	.614	.614	.621	.626	.635	.643	.646	.649	.652	.656	.640
Indianapolis, Ind	29.275	.273	.279	.286	.283	.290	.300	.308	.315	.325	.325	.316	.293	.271	.257	.255	.255	.262	.268	.270	.269	.273	.271	.207	.283
Jacksonville, Fla	30.146	.142	.138	.137	.135	.144	.157	.172	.184	.192	.196	.172	.140	.119	.110	.111	.116	.131	.142	.153	.157	.163	.162	.155	.149
Kansas City, Mo	29.064	.055	.057	.057	.053	.053	.057	.059	.065	.075	.090	.090	.062	.039	.024	.019	.025	.029	.035	.049	.058	.065	.069	.070	.055
Keeler, Cal	26.376	.373	.367	.361	.359	.356	.354	.360	.386	.411	.424	.438	.437	.420	.390	.361	.344	.334	.327	.329	.340	.351	.358	.366	.372
Key West, Fla	30.145	.136	.128	.125	.125	.130	.142	.158	.177	.186	.181	.165	.141	.119	.110	.109	.114	.121	.131	.144	.151	.158	.159	.154	.142
Knoxville, Tenn	29.125	.127	.130	.133	.134	.141	.150	.160	.165	.173	.177	.162	.135	.116	.106	.109	.115	.116	.124	.125	.127	.130	.129	.123	.135
Little Rock, Ark	29.826	.822	.823	.825	.824	.827	.833	.843	.851	.870	.882	.875	.844	.809	.785	.774	.777	.778	.783	.791	.798	.805	.812	.817	.820
Louisville, Ky	29.575	.575	.575	.578	.577	.578	.586	.597	.613	.619	.624	.617	.588	.566	.558	.558	.562	.563	.564	.565	.570	.573	.573	.570	.580
Lynchburg, Va	29.449	.451	.454	.453	.456	.459	.470	.478	.489	.492	.483	.462	.430	.413	.406	.408	.415	.421	.432	.442	.448	.446	.445	.443	.448
Marquette, Mich	29.188	.187	.192	.191	.190	.187	.191	.194	.193	.197	.203	.201	.182	.164	.161	.169	.176	.179	.185	.186	.188	.187	.187	.186	.186
Memphis, Tenn	29.804	.804	.808	.812	.810	.816	.826	.836	.846	.860	.863	.850	.824	.797	.782	.778	.777	.779	.784	.789	.791	.797	.798	.799	.810
Milwaukee, Wis	29.308	.309	.319	.324	.329	.332	.334	.332	.337	.343	.346	.339	.318	.299	.292	.294	.298	.302	.305	.305	.302	.301	.300	.300	.329
Moorhead, Minn	29.022	.018	.019	.022	.020	.017	.020	.021	.023	.030	.036	.042	.026	.010	.002	.005	.015	.021	.026	.030	.032	.029	.028	.026	.023
Nantucket, Mass	30.090	.092	.097	.092	.094	.097	.102	.109	.115	.119	.116	.096	.084	.081	.086	.094	.098	.105	.112	.116	.115	.108	.104	.096	.101
Nashville, Tenn	29.559	.561	.562	.562	.564	.566	.577	.585	.597	.606	.605	.590	.554	.539	.532	.531	.536	.535	.546	.547	.548	.555	.554	.554	.561
New Haven, Conn	30.011	.018	.017	.010	.008	.018	.025	.036	.046	.055	.043	.021	.002	.994	.996	.997	.002	.008	.016	.020	.018	.017	.015	.007	.017
New Orleans, La	30.107	.102	.097	.095	.094	.096	.106	.118	.132	.143	.147	.137	.113	.087	.070	.063	.067	.075	.085	.098	.102	.105	.108	.106	.102
New York, N. Y	29.948	.949	.950	.948	.949	.952	.962	.977	.989	.995	.983	.964	.942	.930	.928	.928	.932	.937	.943	.943	.943	.945	.945	.945	.951
Norfolk, Va	30.118	.118	.118	.118	.118	.127	.136	.145	.162	.167	.162	.138	.108	.095	.092	.097	.103	.111	.118	.123	.125	.126	.120	.114	.123
Olympia, Wash	29.911	.915	.918	.915	.916	.921	.918	.913	.909	.909	.919	.915	.922	.924	.914	.903	.894	.896	.905	.908	.914	.917	.921	.924	.913
Omaha, Neb	28.887	.883	.883	.886	.879	.879	.878	.880	.884	.892	.901	.904	.892	.870	.849	.845	.852	.860	.871	.880	.886	.888	.890	.893	.886
Philadelphia, Pa	30.035	.040	.044	.040	.043	.048	.062	.072	.085	.092	.081	.054	.033	.024	.018	.022	.025	.031	.035	.037	.039	.040	.039	.036	.045
Pikes Peak, Colo	17.462	.454	.443	.438	.437	.430	.423	.427	.441	.456	.473	.481	.482	.472	.461	.461	.462	.464	.468	.467	.468	.467	.465	.464	.457
Pittsburg, Pa	29.243	.244	.246	.248	.245	.247	.252	.255	.257	.263	.264	.249	.225	.213	.207	.214	.221	.228	.238	.243	.242	.242	.240	.236	.240
Portland, Oreg	29.855	.861	.859	.854	.860	.863	.854	.849	.848	.851	.855	.866	.876	.877	.858	.843	.837	.840	.844	.846	.850	.857	.860	.864	.855
Rochester, N. Y	29.545	.543	.544	.544	.543	.546	.553	.562	.573	.578	.575	.562	.534	.525	.527	.535	.544	.549	.553	.555	.554	.555	.552	.546	.550
Roseburg, Oreg	29.531	.535	.536	.533	.529	.529	.525	.515	.513	.515	.519	.529	.539	.539	.528	.515	.504	.505	.508	.515	.520	.525	.535	.542	.524
St. Louis, Mo	29.495	.490	.492	.493	.495	.499	.510	.517	.523	.526	.537	.533	.504	.474	.458	.457	.459	.466	.471	.474	.479	.488	.492	.491	.493
St. Paul, Minn	29.139	.136	.139	.138	.135	.131	.128	.129	.131	.144	.154	.156	.134	.118	.106	.110	.118	.125	.130	.133	.137	.139	.142	.143	.133
Salt Lake City, Utah	25.704	.701	.693	.693	.695	.689	.684	.685	.688	.696	.707	.719	.722	.706	.686	.676	.676	.678	.683	.686	.693	.697	.702	.703	.694
San Diego, Cal	30.066	.065	.062	.055	.055	.052	.046	.047	.055	.062	.070	.085	.095	.083	.060	.038	.028	.025	.028	.031	.036	.044	.051	.058	.054
San Francisco, Cal	30.046	.050	.046	.043	.042	.041	.033	.032	.033	.039	.048	.061	.073	.073	.052	.029	.016	.014	.017	.016	.022	.028	.032	.038	.039
Santa Fe, N. Mex	23.211	.208	.203	.202	.200	.198	.196	.198	.202	.214	.224	.236	.235	.221	.197	.184	.178	.178	.178	.184	.190	.195	.201	.206	.202
S'lt Ste. Marie, Mich	29.272	.274	.280	.280	.279	.285	.293	.298	.304	.309	.309	.297	.278	.265	.263	.269	.269	.274	.276	.278	.276	.277	.279	.275	.282
Savannah, Ga	30.095	.095	.093	.094	.094	.102	.114	.122	.134	.142	.140	.119	.090	.071	.063	.064	.072	.085	.091	.099	.105	.110	.107	.101	.100
Spokane, Wash	27.919	.921	.920	.920	.928	.926	.923	.924	.922	.933	.938	.947	.952	.943	.928	.919	.913	.920	.923	.925	.926	.927	.927	.931	.927
Toledo, Ohio	29.357	.354	.356	.353	.351	.352	.360	.370	.385	.397	.402	.385	.363	.345	.343	.348	.356	.362	.368	.368	.366	.364	.362	.355	.363
Vicksburg, Miss	29.875	.872	.877	.874	.873	.874	.886	.896	.906	.921	.928	.923	.896	.870	.850	.844	.842	.844	.847	.851	.856	.864	.867	.868	.875
Washington, D. C	30.062	.062	.065	.060	.061	.071	.080	.090	.103	.111	.104	.080	.056	.041	.035	.035	.039	.045	.055	.062	.067	.071	.069	.061	.066
Wilmington, N. C	30.111	.111	.106	.104	.106	.114	.124	.130	.143	.151	.131	.110	.085	.079	.080	.085	.094	.103	.111	.118	.122	.124	.119	.113	.111
Yuma, Ariz	29.982	.982	.983	.983	.983	.983	.982	.982	.988	.995	.008	.018	.016	.997	.966	.940	.924	.919	.920	.929	.934	.943	.955	.964	.970

TABLE VII.—*Average wind movement for each hour of seventy-fifth meridian time, January*, 1894.

Stations.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.
Abilene, Tex	10.1	9.3	9.0	8.8	8.4	9.3	8.8	8.5	8.4	9.2	10.9	11.5	11.7	11.7	12.3	12.4	12.3	11.6	10.4	8.5	8.0	8.1	8.2	8.7	9.8
Albany, N. Y	7.3	7.3	7.1	6.7	6.8	7.0	7.1	6.9	7.5	8.7	10.0	10.4	10.8	10.4	10.6	10.1	9.2	8.9	8.1	7.4	7.9	7.3	7.6	7.6	8.3
Alpena, Mich	10.1	9.9	9.5	9.3	9.6	9.6	9.7	9.3	9.5	10.6	11.4	11.7	12.0	12.0	11.8	11.7	11.1	11.1	10.2	10.1	10.5	10.5	9.9	9.5	10.4
Amarillo, Tex	17.3	16.2	17.2	16.8	17.3	17.6	17.8	17.6	17.4	15.9	16.9	18.5	19.7	21.5	21.6	20.9	20.9	18.6	14.8	13.4	14.1	15.4	16.5	16.8	17.5
Atlanta, Ga	11.2	10.9	10.6	10.7	10.4	10.5	10.4	10.0	9.5	9.9	10.3	9.7	9.9	10.3	10.1	9.8	10.0	9.9	9.8	9.6	9.4	10.5	11.1	11.1	10.2
Atlantic City, N. J	10.5	11.2	11.3	11.5	11.2	10.8	10.8	10.6	11.4	12.6	14.3	13.8	14.2	13.6	13.0	13.1	12.3	10.9	10.4	11.2	10.4	10.6	10.5	10.8	11.7
Augusta, Ga	5.3	5.2	4.7	4.8	4.9	5.0	5.5	5.1	5.5	6.1	7.0	7.3	8.2	8.0	8.1	8.2	7.9	6.5	6.1	5.5	5.6	5.4	5.4	5.6	6.1
Baker City, Oreg	6.4	5.8	6.1	6.1	6.1	5.9	5.5	5.2	5.7	5.6	5.7	5.6	6.1	6.5	6.2	6.3	6.0	5.8	5.4	5.4	6.4	6.1	5.5	5.3	5.9
Baltimore, Md	7.0	6.5	6.0	6.0	5.9	5.8	5.7	6.3	7.2	8.3	9.3	9.5	9.8	9.6	9.2	8.7	7.6	6.7	6.5	6.2	6.5	6.7	6.8	6.8	7.3
Bismarck, N. Dak	7.9	8.4	8.7	8.9	8.0	7.8	7.9	7.5	7.7	7.6	7.7	8.6	9.5	10.3	10.4	10.4	10.2	9.4	8.1	7.6	7.2	7.3	7.9	7.1	8.4
Block Island, R. I	18.8	18.1	18.4	17.9	18.7	17.8	17.1	17.2	18.0	18.5	18.4	17.3	17.6	18.3	17.8	17.9	17.2	18.1	19.0	19.1	18.7	19.6	19.0	18.6	18.2
Boston, Mass	11.9	11.9	11.5	11.4	11.3	10.8	11.0	11.2	12.1	12.4	12.7	13.6	13.8	13.3	13.5	13.1	13.1	12.6	12.5	12.5	11.8	11.7	12.1	12.3	12.3
Buffalo, N. Y	15.0	13.7	14.3	14.3	13.5	12.9	13.0	13.2	13.2	13.5	13.8	13.9	13.8	13.7	14.3	14.0	14.2	14.0	13.0	12.1	13.1	13.4	12.9	13.6	13.6
Cairo, Ill	8.8	8.9	8.4	8.8	8.5	8.2	8.4	8.4	8.2	8.9	9.6	10.2	10.9	10.6	10.6	9.7	9.5	9.1	9.4	10.1	10.8	10.6	10.0	9.0	9.4
Cape Henry, Va	12.9	13.6	14.2	14.6	14.7	15.2	15.5	15.3	15.5	16.3	17.1	16.1	14.4	13.4	13.5	13.0	11.4	10.7	10.5	11.0	11.5	12.7	12.7	12.5	13.7
Charleston, S. C	8.0	8.1	7.8	7.5	7.5	7.0	7.6	7.2	7.1	7.9	9.2	9.7	10.0	10.0	10.4	10.6	9.7	8.7	7.8	8.3	7.8	7.6	7.5	7.4	8.4
Charlotte, N. C	6.9	6.6	6.7	6.4	6.5	6.5	6.5	6.3	6.6	6.9	7.6	7.8	8.6	8.8	8.7	8.1	7.6	6.5	6.1	6.3	6.3	7.2	7.2	6.8	7.1
Chattanooga, Tenn	5.8	6.2	6.2	5.8	6.0	5.2	4.5	4.9	5.5	6.0	6.5	6.8	6.7	7.8	9.5	9.5	8.5	8.5	7.3	7.2	6.8	6.6	7.0	6.3	6.7
Cheyenne, Wyo	11.3	11.0	12.4	11.5	12.2	12.7	14.0	14.0	14.5	14.8	15.8	17.3	18.3	20.0	20.1	19.6	18.8	16.7	13.3	11.7	11.7	12.2	12.1	11.3	14.5
Chicago, Ill	20.0	19.2	18.5	18.4	18.5	17.9	18.0	16.9	17.6	18.1	18.6	19.2	20.2	19.5	20.5	20.7	19.9	18.7	18.3	18.4	18.8	19.7	20.4	20.3	19.0
Cincinnati, Ohio	7.3	7.2	6.6	6.6	6.1	6.4	6.2	6.4	6.8	7.7	8.5	8.2	9.4	9.6	9.6	9.7	9.2	8.4	7.8	7.2	7.5	7.1	7.1	7.3	7.7
Cleveland, Ohio	15.5	14.4	14.9	14.7	15.3	15.6	14.8	14.3	14.8	14.5	14.8	15.6	15.1	14.2	14.6	14.8	13.5	12.6	12.9	13.6	14.3	15.1	15.0	15.5	14.6
Colorado Spr'gs, Colo.	9.5	9.6	10.1	10.1	9.3	8.9	10.3	10.3	10.3	10.3	10.3	10.8	13.0	14.0	14.7	14.7	14.4	14.3	13.6	11.4	11.5	10.4	9.5	8.4	11.2
Columbia, Mo	6.7	6.4	6.4	6.0	5.9	6.0	6.7	6.3	6.6	7.3	8.4	9.2	9.3	9.7	9.4	9.5	8.8	7.7	6.5	6.3	6.6	7.1	7.3	7.0	7.4
Columbus, Ohio	10.2	9.8	9.5	9.5	9.2	9.4	9.0	8.5	9.0	9.2	10.0	11.1	11.7	11.6	12.2	12.0	11.4	10.6	10.8	11.3	11.1	10.7	10.4	10.3	10.4
Concordia, Kans	6.5	7.0	6.7	6.4	6.1	5.8	5.4	6.3	6.0	6.1	6.7	7.7	8.2	9.5	10.3	10.3	9.8	8.2	6.5	5.7	6.0	6.4	6.8	7.5	7.2
Corpus Christi, Tex	9.9	9.3	9.6	10.3	9.8	9.3	9.1	9.3	9.4	8.8	9.7	10.4	12.3	12.3	12.9	12.9	13.5	13.0	11.9	10.9	10.3	10.2	9.9	9.6	10.6
Davenport, Iowa	9.0	9.4	9.1	8.2	8.6	8.5	8.6	8.2	8.9	9.4	10.2	10.8	11.1	11.4	11.8	11.3	10.6	9.8	8.8	8.3	8.8	9.0	9.3	9.3	9.5
Denver, Colo	7.1	6.9	7.8	8.8	8.2	7.2	7.3	7.7	8.1	7.7	7.6	7.5	9.5	11.0	11.1	12.2	12.9	12.6	11.3	9.6	9.0	8.3	7.4	7.2	8.9
Des Moines, Iowa	7.6	7.6	7.6	7.1	6.9	6.7	6.9	6.5	6.8	7.8	8.4	8.8	9.4	9.9	9.8	10.2	10.2	9.3	7.8	7.5	8.0	7.8	7.1	7.5	8.0
Detroit, Mich	12.4	11.8	12.0	11.8	11.3	10.7	11.2	11.4	11.9	12.3	12.4	12.4	12.4	13.0	12.4	12.3	12.0	11.1	11.5	11.6	12.0	11.9	12.5	12.0	11.9
Dodge City, Kans	8.2	8.5	9.3	9.2	8.8	8.8	8.9	8.3	7.6	8.2	9.5	11.1	11.8	12.7	13.0	12.3	11.6	11.6	9.2	7.5	7.0	7.8	8.5	8.3	9.5
Dubuque, Iowa	5.5	5.2	5.3	5.3	4.9	5.0	5.0	4.5	4.8	5.2	5.5	6.3	6.6	7.1	6.8	6.5	6.6	5.8	4.9	4.9	5.0	5.3	5.4	5.8	5.6
Duluth, Minn	6.2	6.0	6.4	6.5	6.4	6.7	6.8	6.4	6.1	5.8	6.0	5.8	5.5	5.6	5.5	5.7	5.6	5.5	6.3	6.4	6.9	6.5	7.4	7.1	6.2
Eastport, Me	14.5	14.6	14.9	14.6	14.1	14.7	14.3	13.7	13.9	14.2	14.9	15.6	14.9	14.5	14.4	13.5	13.2	14.4	15.1	15.8	15.4	15.0	14.4	15.3	14.6
El Paso, Tex	8.6	7.9	8.2	7.6	7.5	7.6	8.0	7.6	7.8	9.1	9.2	9.8	10.8	12.0	12.9	13.6	13.1	12.0	11.1	9.7	9.3	9.5	9.1	8.9	9.6
Erie, Pa	13.8	13.3	13.2	13.3	12.9	13.9	14.1	13.7	14.8	13.6	14.0	13.5	13.5	13.4	13.2	11.9	11.7	11.2	11.1	12.0	13.4	13.7	13.3	13.3	13.2
Eureka, Cal	6.6	6.8	6.5	6.4	6.3	5.5	5.5	5.9	6.1	6.0	6.6	5.8	6.1	7.0	8.0	9.1	8.6	8.3	8.8	8.6	8.3	8.1	7.3	6.8	7.0
Fort Canby, Wash	19.0	18.6	17.6	18.0	16.7	17.3	17.1	16.4	17.4	16.6	17.8	18.3	19.1	19.8	20.3	19.6	19.1	18.0	17.7	17.8	18.6	18.6	19.3	19.2	18.3
Fort Smith, Ark	6.6	7.2	6.8	7.3	7.6	6.6	6.6	7.4	7.1	7.3	7.3	7.5	8.0	8.7	8.5	8.4	8.2	8.1	7.2	7.6	7.0	6.9	6.7	6.6	7.4
Fresno, Cal	3.9	4.5	4.1	4.0	3.7	3.8	3.9	3.4	3.6	3.3	3.5	3.6	4.3	4.7	5.3	5.3	5.5	5.5	5.4	5.1	4.3	4.1	4.5	4.7	4.3
Galveston, Tex	9.7	10.6	10.8	11.1	11.2	10.7	10.5	10.4	10.9	11.8	11.7	11.8	11.5	11.6	11.7	11.5	11.3	10.3	10.3	9.8	9.6	9.9	10.2	10.0	10.8
Grand Haven, Mich	13.3	12.8	12.6	12.5	12.1	12.4	11.9	11.7	11.9	12.1	12.4	12.3	12.9	12.7	12.7	12.8	12.8	13.1	11.9	11.6	12.0	12.4	12.7	13.2	12.4
Green Bay, Wis	7.1	7.8	8.2	8.3	8.5	8.3	8.5	8.5	7.9	8.2	8.8	9.3	9.0	9.1	9.3	9.4	9.1	8.5	7.9	8.0	7.6	8.2	8.4	8.7	8.4
Hannibal, Mo	8.7	8.8	7.7	7.4	7.3	7.4	7.5	8.1	8.1	8.9	9.7	11.4	11.5	11.3	11.4	11.1	10.3	9.5	8.4	9.0	9.3	9.5	9.5	8.7	9.2
Harrisburg, Pa	6.4	6.4	6.9	6.8	6.4	6.2	6.9	6.8	7.4	7.6	7.5	7.6	8.3	8.6	8.9	8.7	8.1	7.7	7.1	6.6	7.0	6.7	6.8	6.4	7.2
Hatteras, N. C	14.2	14.5	14.5	15.7	15.9	16.0	16.6	16.6	16.1	16.0	16.4	16.4	16.6	17.2	16.6	16.1	15.5	15.1	14.9	15.2	15.0	14.7	14.2	14.0	15.6
Havre, Mont	9.6	9.2	9.8	10.2	9.6	10.4	10.3	9.9	9.4	10.4	11.8	12.4	13.2	12.5	13.5	13.2	13.2	11.9	10.5	9.3	9.4	9.8	9.6	10.2	10.8
Helena, Mont	6.6	6.1	6.3	6.0	6.0	6.5	5.6	6.2	6.6	7.1	6.2	6.9	7.1	7.3	8.3	7.3	6.8	6.0	6.0	6.1	6.5	6.0	6.9	5.8	6.5
Huron, S. Dak	11.3	10.8	10.5	10.3	10.2	10.4	10.4	9.8	9.9	9.7	10.5	11.4	12.7	13.6	12.2	12.8	12.8	12.3	12.4	11.5	11.2	11.0	10.9	10.7	11.2
Idaho Falls, Idaho	9.2	9.0	9.0	9.4	9.6	9.5	9.6	9.3	8.9	8.8	8.5	8.6	9.4	9.7	10.0	10.2	10.7	10.6	10.3	9.3	8.9	9.1	10.5	10.1	9.5
Indianapolis, Ind	6.8	7.3	6.7	6.2	6.1	6.7	6.7	6.4	6.4	6.8	7.5	7.6	8.5	8.8	9.1	9.1	8.5	8.0	7.9	8.0	7.5	7.7	7.2	7.2	7.4
Jacksonville, Fla	5.1	5.3	4.8	4.8	4.9	5.5	5.4	5.7	5.9	7.2	7.3	7.6	8.1	7.9	8.4	8.7	8.1	7.0	6.3	5.7	5.5	5.2	4.8	4.9	6.3
Jupiter, Fla	8.1	8.9	8.5	8.4	7.9	7.8	7.8	8.2	8.4	9.4	10.1	11.5	12.0	12.0	11.9	11.8	10.9	9.4	8.6	8.8	8.8	9.2	8.6	8.6	9.4
Kansas City, Mo	9.4	8.8	8.8	9.1	8.8	8.8	8.3	8.6	9.1	9.5	10.0	10.8	10.4	10.7	10.5	10.3	10.0	9.6	9.6	9.2	9.2	9.2	9.3	9.4	9.5
Kearney, Nebr	11.7	12.7	12.3	11.7	11.6	11.3	11.9	12.5	12.3	12.1	12.4	12.1	12.7	12.9	12.0	12.8	13.0	12.6	11.5	11.1	11.9	12.0	11.5	11.5	12.1
Keeler, Cal	5.9	5.0	4.9	4.7	5.4	5.1	4.5	4.1	4.3	4.7	4.7	4.0	5.3	7.2	7.6	7.0	7.1	6.3	5.5	5.5	5.2	6.4	5.8	5.6	5.5
Keokuk, Iowa	7.8	8.0	7.5	6.8	6.5	6.6	6.8	7.9	7.1	8.3	8.7	8.9	9.0	9.4	9.0	9.7	9.0	8.3	7.8	8.5	8.1	7.9	8.1	8.3	8.1
Key West, Fla	10.3	9.9	9.6	8.9	9.4	9.3	9.4	9.3	9.7	10.0	11.1	11.8	12.1	11.9	11.5	11.5	11.2	10.5	9.6	10.5	10.1	10.2	10.4	10.6	10.4
Kittyhawk, N. C	13.4	13.5	14.0	15.0	15.9	16.1	15.8	15.9	16.5	16.9	17.6	17.7	17.9	17.4	17.5	16.8	15.2	14.4	13.8	14.8	15.6	15.3	15.0	13.8	15.6
Knoxville, Tenn	3.9	3.8	3.8	4.2	3.8	4.4	3.6	3.5	3.6	4.0	4.6	5.2	5.8	6.3	5.5	6.2	5.8	4.9	4.3	4.0	3.8	3.9	3.6	4.1	4.4
La Crosse, Wis	6.7	6.5	6.5	6.8	6.5	7.0	6.9	6.6	6.8	7.-	6.9	7.3	8.2	8.0	8.0	7.8	7.7	7.4	6.9	6.5	6.5	6.5	6.6	6.7	7.0
Lander, Wyo	3.9	3.9	3.6	3.5	3.9	4.1	4.2	4.2	3.8	3.4	3.4	4.1	4.1	4.2	4.2	4.9	5.3	4.7	3.9	3.9	3.7	3.9	4.4	4.2	4.1
Lexington, Ky	14.2	13.6	13.9	13.5	13.0	12.3	12.2	11.5	11.7	12.2	13.5	14.0	14.3	14.0	15.2	14.6	13.1	12.8	12.6	12.7	13.3	15.0	14.5	15.1	13.4
Little Rock, Ark	6.4	6.6	6.2	6.7	6.3	7.0	6.3	6.1	6.0	6.5	7.3	7.5	8.5	8.2	8.3	8.5	8.9	8.5	7.3	7.2	6.7	7.0	7.4	7.1	7.2
Los Angeles, Cal	3.2	2.9	2.9	3.2	3.1	3.0	3.1	2.9	2.8	3.0	2.8	3.0	3.6	3.5	3.4	3.9	4.4	5.1	5.2	4.5	3.2	3.1	2.5	2.7	3.4
Louisville, Ky	9.0	8.7	8.2	7.6	7.4	7.4	7.4	7.4	7.3	7.9	8.7	9.5	10.0	9.4	9.9	9.6	9.7	9.0	9.5	9.7	9.0	9.2	9.3	9.6	8.8
Lynchburg, Va	3.5	4.1	4.0	3.9	4.0	3.7	3.4	3.3	3.5	4.0	5.0	4.9	6.0	5.5	5.3	5.5	4.7	3.9	3.5	3.8	3.9	4.2	3.7	3.8	4.2
Marquette, Mich	9.2	9.6	10.0	10.5	10.8	11.1	10.7	10.3	11.2	11.0	10.4	11.1	10.5	10.6	10.4	9.7	9.0	9.3	9.6	9.7	10.8	10.3	9.8	9.5	10.2
Memphis, Tenn	7.1	7.3	7.6	6.9	6.8	7.1	7.1	7.2	7.5	8.1	8.5	8.9	8.7	8.3	7.9	7.8	7.8	7.9	7.8	7.6	8.6	8.2	8.0	7.0	7.7
Meridian, Miss	5.2	5.0	4.9	4.8	4.9	4.5	4.3	4.1	4.3	5.3	6.0	6.8	7.0	7.0	7.6	7.5	7.5	7.1	5.5	6.0	5.5	5.3	5.4	5.7	5.7
Miles City, Mont	4.1	3.9	4.2	4.4	4.3	4.6	4.4	4.0	4.2	4.3	4.2	4.4	4.8	4.9	4.3	3.9	4.1	4.2	4.2	4.3	4.0	4.1	4.1	4.3	4.3
Milwaukee, Wis	10.8	10.8	10.6	10.9	10.9	10.7	10.5	10.5	10.7	10.6	11.2	11.6	12.5	12.1	12.5	11.6	11.2	10.5	10.4	10.3	10.8	11.4	10.8	11.5	11.1
Mobile, Ala	7.3	7.1	6.6	6.7	7.2	7.2	6.3	6.2	6.5	7.3	7.4	7.9	8.3	9.2	9.5	9.7	9.4	8.9	8.0	8.0	7.5	7.0	7.0	7.5	7.7
Montgomery, Ala	5.2	4.7	4.5	4.3	4.0	3.9	3.9	4.1	4.4	5.2	5.6	6.1	6.5	6.5	6.6	7.0	6.9	6.1	5.3	5.4	5.6	5.7	5.5	5.2	5.3
Moorhead, Minn	10.9	10.6	10.4	10.1	9.7	9.9	9.4	9.3	9.9	9.9	10.1	11.0	11.7	12.4	12.1	11.5	11.5	10.8	10.0	10.6	9.9	10.5	11.1	10.9	10.6
Nantucket, Mass	12.6	12.6	12.8	12.5	12.8	13.1	13.2	13.0	13.2	14.4	14.6	14.7	15.4	14.3	14.1	13.7	12.9	13.5	14.1	13.2	12.9	13.2	13.4	13.8	13.5
Nashville, Tenn	5.7	5.3	4.7	4.8	4.5	4.3	4.9	5.3	5.2	6.1	6.7	7.1	7.3	7.6	7.7	7.1	7.4	7.2	6.2	5.6	5.5	5.3	5.8	6.1	6.0
New Haven, Conn	9.3	8.6	8.1	8.6	8.9	8.6	8.6	8.4	8.9	9.6	10.4	10.3	10.5	10.5	9.9	9.7	8.4	8.2	8.0	7.7	8.4	8.5	8.2	8.6	9.0
New London, Conn	6.5	7.1	7.1	6.7	7.7	7.0	6.1	7.1	7.4	7.5	8.5	9.1	9.1	9.6	9.3	8.5	8.3	7.3	7.3	7.4	6.9	6.9	7.2	6.8	7.6
New Orleans, La	8.2	8.2	7.9	7.9	7.5	8.0	7.4	7.0	7.8	8.8	9.2	9.9	11.0	11.1	11.7	11.4	11.7	10.4	8.9	8.5	8.4	9.1	8.8	8.3	9.0
New York, N. Y	9.9	9.8	10.4	10.4	10.1	10.2	10.5	10.6	11.4	11.6	12.2	12.4	11.8	11.2	11.5	11.9	11.0	10.7	10.5	10.4	9.7	9.9	10.1	10.0	10.8
Norfolk, Va	7.6	6.9	7.0	7.0	7.2	8.1	8.3	7.3	7.7	8.9	9.5	9.9	9.7	9.5	9.7	9.2	7.6	6.8	6.3	6.3	6.6	6.5	6.9	7.6	7.8
Northfield, Vt	8.7	8.2	8.1	7.8	7.5	8.3	8.5	8.3	8.5	9.8	11.0	11.8	12.4	12.2	12.7	12.2	10.5	10.2	8.9	8.6	8.9	8.3	9.2	9.7	9.6
North Platte, Nebr	7.6	7.0	6.9	7.4	7.1	7.1	7.1	6.9	6.8	7.2	7.8	8.8	9.3	10.0	10.5	11.2	11.0	9.8	8.1	8.0	7.4	7.2	7.9	7.3	8.1

TABLE VII.—*Average wind movement, etc.*—Continued.

Stations.	1 a. m.	2 a. m.	3 a. m.	4 a. m.	5 a. m.	6 a. m.	7 a. m.	8 a. m.	9 a. m.	10 a. m.	11 a. m.	Noon.	1 p. m.	2 p. m.	3 p. m.	4 p. m.	5 p. m.	6 p. m.	7 p. m.	8 p. m.	9 p. m.	10 p. m.	11 p. m.	Midnight.	Mean.
Oklahoma, Okla	8.5	8.1	8.0	7.9	8.2	8.9	9.1	9.6	9.4	9.7	11.3	11.5	11.6	11.4	11.7	11.7	11.5	10.4	8.0	7.6	7.8	8.5	8.7	9.0	9.5
Olympia, Wash	6.3	5.8	5.7	5.9	5.8	5.6	5.4	4.4	4.9	4.2	5.5	4.6	5.8	6.2	6.5	6.8	6.7	6.6	6.7	5.9	4.9	5.0	5.5	5.8	5.7
Omaha, Nebr	7.0	6.6	6.4	6.4	6.5	6.8	6.9	6.8	6.9	7.4	8.4	8.5	8.0	8.5	8.8	8.7	8.9	8.3	7.7	7.6	7.3	7.4	7.2	7.4	7.5
Oswego, N. Y	13.3	13.9	13.9	14.5	14.5	14.5	13.9	15.1	16.1	16.5	16.5	15.8	15.4	15.1	14.6	14.5	14.5	14.0	13.7	14.7	14.6	14.4	13.8	13.2	14.6
Palestine, Tex	6.2	6.2	5.8	5.9	5.3	5.4	5.8	5.5	5.5	6.1	6.7	7.4	8.2	8.0	8.5	8.4	7.7	6.9	5.6	5.0	5.3	5.6	6.0	5.8	6.4
Parkersburg, W. Va	6.8	6.1	5.7	5.5	5.6	5.8	5.0	5.0	5.6	5.8	6.0	6.6	7.4	8.1	8.2	7.1	6.9	5.8	5.5	5.4	5.9	5.8	6.3	7.0	6.2
Pensacola, Fla	9.2	9.3	9.6	9.5	9.0	8.8	8.5	8.9	8.9	9.5	10.3	10.3	10.1	10.7	10.2	9.7	9.2	8.5	7.6	8.2	8.3	8.2	8.3	8.4	9.1
Philadelphia, Pa	9.9	10.2	9.9	9.3	9.2	9.4	9.5	9.6	9.9	10.6	11.1	11.1	11.6	11.9	11.6	11.5	10.9	11.2	10.9	10.5	9.3	9.1	9.3	9.3	10.3
Pierre, S. Dak	5.8	5.9	5.9	6.5	7.2	7.2	6.1	6.7	7.1	6.6	6.5	7.0	7.7	7.8	8.1	8.2	8.1	8.4	8.4	7.4	6.3	6.0	6.0	5.8	6.9
Pikes Peak, Colo	33.4	35.0	35.9	36.4	33.6	33.4	34.8	33.4	32.8	32.3	30.5	28.7	29.2	29.0	29.4	29.3	28.9	32.3	33.0	34.1	35.6	34.6	34.0	32.8	32.6
Pittsburg, Pa	6.3	6.4	6.2	6.4	6.7	6.5	7.1	7.2	7.8	7.8	8.4	8.8	9.0	8.9	9.1	8.9	7.7	6.8	6.5	7.3	6.9	6.9	6.8	6.4	7.4
Port Angeles, Wash	5.5	5.3	4.6	5.8	5.2	5.3	4.6	5.3	5.1	5.3	4.5	4.9	5.6	5.1	4.8	5.6	4.9	5.4	4.5	4.4	4.5	5.1	4.7	5.3	5.1
Port Huron, Mich	11.6	11.6	11.2	11.8	11.8	11.6	11.5	11.6	11.5	12.5	13.4	13.6	13.7	13.5	13.9	13.0	12.3	11.5	11.2	11.5	11.5	11.8	11.5	11.7	12.1
Portland, Me	7.5	7.5	7.1	6.9	7.0	6.9	6.7	7.6	8.0	8.2	8.8	8.7	9.4	9.1	9.6	8.5	8.0	8.0	8.1	7.5	7.7	7.6	7.4	7.8	7.9
Portland, Oreg	9.8	9.9	10.2	9.6	9.6	9.6	10.9	10.8	11.2	10.8	10.3	10.9	10.6	11.2	12.3	13.8	13.3	11.8	11.6	11.2	10.1	10.3	10.2	11.0	10.9
Pueblo, Colo	7.7	8.2	6.6	7.1	7.4	7.0	6.8	7.3	7.4	6.7	7.2	8.9	12.0	12.5	12.4	12.6	12.4	12.0	12.4	10.3	9.2	9.0	8.2	8.6	9.2
Raleigh, N. C	6.0	5.8	5.7	5.7	5.5	5.9	6.0	5.3	6.1	6.5	7.3	8.2	9.2	8.3	8.1	8.3	7.1	6.3	5.4	5.6	5.3	5.2	5.5	5.9	6.4
Rapid City, S. Dak	6.5	7.6	7.7	7.8	7.8	8.8	7.9	8.0	8.6	8.5	8.4	8.4	8.1	8.7	9.2	9.2	9.4	8.5	6.5	6.0	5.7	5.9	6.3	6.4	7.7
Red Bluff, Cal	6.6	7.0	6.3	5.8	5.8	6.1	6.2	6.5	6.2	6.0	6.3	6.4	6.7	7.4	7.5	8.5	8.7	8.8	9.0	8.4	6.8	6.7	6.6	6.9	7.0
Rochester, N. Y	8.9	9.0	8.9	9.0	8.7	8.5	9.5	9.2	9.5	10.2	10.5	10.7	11.7	11.0	10.8	10.1	9.0	8.5	9.0	9.0	8.9	8.9	8.8	8.6	9.5
Roseburg, Oreg	3.4	2.8	3.1	3.2	2.7	3.4	3.7	3.9	3.5	3.7	3.7	3.5	2.9	3.4	4.3	4.6	4.5	5.3	4.6	3.8	3.1	3.1	2.9	3.1	3.6
Sacramento, Cal	6.8	6.4	6.3	6.3	6.5	5.9	5.8	6.3	6.4	6.2	6.3	6.7	7.5	8.0	8.9	8.7	8.5	7.8	7.9	6.9	6.5	6.9	6.7	6.2	6.9
St. Louis, Mo	11.3	11.3	10.8	10.3	10.4	10.9	11.1	10.4	10.7	11.3	11.7	12.3	12.7	13.3	13.5	13.2	13.7	12.5	12.4	11.9	11.9	12.0	11.9	12.1	11.8
St. Paul, Minn	8.3	7.1	6.6	6.3	6.5	6.3	7.4	6.5	6.1	6.2	6.7	7.1	7.4	7.6	7.3	7.5	7.3	7.3	6.8	6.7	5.9	6.6	7.2	8.2	6.9
St. Vincent, Minn	8.6	8.4	8.2	8.5	8.6	8.9	9.3	9.0	9.4	9.4	9.0	9.4	10.2	10.8	11.4	11.7	11.1	10.1	9.6	9.2	9.0	9.0	8.8	8.8	9.4
Salt Lake City, Utah	4.8	4.9	4.5	4.6	5.1	4.6	4.8	4.7	5.2	5.4	5.7	6.3	6.7	6.8	6.9	7.1	7.1	7.0	6.0	5.1	5.1	4.9	4.8	5.3	5.6
San Antonio, Tex	6.8	6.1	5.7	5.5	5.3	5.8	5.2	5.1	5.3	5.0	5.3	6.8	8.0	7.9	8.0	7.8	7.7	7.9	7.3	6.5	6.3	7.1	7.0	6.8	6.5
San Diego, Cal	3.8	4.2	3.8	4.1	4.1	4.1	3.8	3.7	3.8	4.0	3.7	3.3	3.9	5.2	6.9	7.8	8.8	9.1	8.1	6.9	4.7	4.0	4.5	4.4	5.0
Sandusky, Ohio	9.0	8.5	8.6	9.2	9.2	7.5	8.6	8.0	7.8	8.7	9.1	8.5	8.9	8.9	8.9	8.8	8.5	7.9	8.1	8.0	8.9	9.2	9.0	8.5	8.6
San Francisco, Cal	6.6	7.1	7.0	6.4	6.9	7.0	6.7	6.9	7.0	6.8	7.4	7.3	7.8	8.5	9.2	9.9	10.4	10.8	10.3	9.4	8.6	8.4	7.7	7.7	8.0
Santa Fe, N. Mex	5.5	5.7	6.2	5.7	5.6	5.3	4.8	5.1	6.3	6.8	7.0	8.6	8.9	10.3	10.5	10.2	10.3	9.9	8.5	6.2	5.7	5.0	5.3	4.8	7.0
Sault Ste. Marie, Mich	9.0	8.3	8.8	8.9	8.1	7.7	7.5	7.1	7.7	8.4	8.6	8.8	10.3	10.4	10.8	10.9	10.3	10.8	10.3	10.3	9.8	9.6	9.2	9.4	9.2
Savannah, Ga	7.9	7.6	8.0	7.5	7.1	7.4	8.0	7.4	7.6	8.7	9.1	9.6	10.0	10.0	9.8	9.5	9.0	8.3	7.9	7.7	7.6	7.5	7.8	8.1	8.3
Seattle, Wash	8.4	7.9	7.7	8.4	8.3	8.2	7.8	7.5	7.4	7.3	7.6	7.2	7.8	7.7	8.9	9.5	9.5	9.0	8.9	8.5	7.7	7.7	8.3	8.3	8.1
Shreveport, La	7.5	7.7	7.2	6.7	6.9	6.8	6.8	6.9	6.9	7.5	7.1	6.9	6.5	7.3	7.6	8.3	8.1	7.7	6.9	6.5	6.7	7.1	7.8	7.5	7.2
Sioux City, Iowa	9.4	9.4	9.5	9.6	8.8	8.7	8.6	9.2	9.6	10.1	10.5	11.1	10.5	10.7	11.3	12.0	11.2	10.6	10.0	10.3	10.1	10.0	10.1	9.7	10.0
Southport, N. C	8.7	9.1	9.1	9.1	9.2	8.7	8.5	9.4	9.7	11.4	12.9	12.6	12.4	11.7	12.2	11.4	11.1	9.8	9.2	9.4	9.2	9.4	9.3	9.3	10.1
Spokane, Wash	6.3	6.0	6.0	5.4	5.4	5.5	6.3	5.8	5.1	5.2	5.3	5.3	5.8	5.5	5.9	6.7	7.1	6.3	5.8	5.5	5.8	5.8	6.2	5.5	5.8
Springfield, Ill	9.5	9.1	8.7	8.5	8.6	8.0	9.5	9.3	8.6	9.5	10.4	10.7	10.9	12.0	11.6	11.3	11.0	9.9	9.6	9.4	9.8	10.4	9.7	9.6	9.8
Springfield, Mo	9.5	9.7	9.2	8.6	8.5	8.5	8.8	9.1	9.3	10.0	11.0	10.0	10.9	11.1	10.9	11.4	10.8	9.8	9.1	9.4	9.5	9.7	10.0	10.3	9.8
Tampa, Fla	4.7	5.0	5.1	4.7	4.7	5.1	4.8	4.5	4.8	5.2	6.0	6.4	7.5	7.3	7.2	7.3	6.9	6.2	4.6	4.4	4.1	3.9	4.0	4.0	5.3
Tatoosh Island, Wash	18.0	17.5	17.3	16.8	17.8	17.2	16.9	18.7	18.9	18.2	19.5	20.2	20.2	21.5	20.3	20.2	19.5	18.7	17.1	16.5	16.4	17.5	18.1	18.3	18.4
Titusville, Fla	8.1	8.2	9.1	8.7	8.3	7.9	8.9	7.7	7.5	8.8	10.3	11.2	12.8	12.9	13.9	14.3	14.1	12.5	12.0	11.1	10.7	9.4	8.6	7.9	10.2
Toledo, Ohio	10.3	10.0	9.6	9.3	9.7	9.5	9.3	9.3	9.5	9.7	10.7	10.6	11.3	11.6	11.6	12.0	11.7	10.6	9.8	10.5	10.1	11.5	11.7	11.3	10.5
Tucson, Ariz	7.1	6.0	5.8	5.1	5.5	5.3	5.8	4.9	5.7	5.8	4.6	4.8	6.6	6.5	6.8	8.1	9.4	9.4	9.4	8.9	8.7	8.3	7.0	5.9	6.7
Valentine, Nebr	7.3	6.8	6.8	7.7	7.5	8.5	8.3	8.6	8.4	8.6	8.3	9.0	10.5	10.6	11.6	12.5	11.5	10.7	8.9	7.5	6.7	7.8	6.9	7.1	8.7
Vicksburg, Miss	7.8	7.7	7.1	6.5	7.0	7.4	7.7	7.4	8.1	8.3	8.1	7.7	8.2	7.6	7.4	7.6	7.1	6.7	6.6	6.3	6.7	7.4	7.6	7.6	7.4
Vineyard Haven, Mass	10.2	9.5	9.4	9.8	9.6	9.7	9.5	10.1	10.3	11.2	12.0	11.8	11.5	11.8	11.8	11.6	11.0	10.5	9.9	10.2	10.1	10.4	10.8	10.5	10.5
Walla Walla, Wash	7.1	6.8	6.4	6.5	6.0	6.1	5.9	6.0	5.9	6.1	6.8	6.6	6.6	7.5	8.2	8.5	8.3	7.5	6.5	6.5	6.4	6.8	6.7	6.4	6.7
Washington, D. C	5.7	6.2	5.8	5.4	5.6	5.6	5.9	5.3	5.6	7.0	7.9	8.3	8.9	9.0	9.0	8.0	7.0	5.8	5.3	5.9	5.6	5.3	4.8	5.4	6.4
Wichita, Kans	8.3	8.5	8.4	9.5	9.9	9.7	8.9	8.7	9.2	9.1	9.8	11.0	11.6	11.3	11.1	10.9	10.5	9.9	8.7	8.7	8.7	8.6	8.4	8.4	9.5
Williston, N. Dak	7.4	8.0	8.2	8.7	7.5	7.1	7.0	7.0	6.9	6.9	7.3	6.7	8.3	9.6	10.2	10.9	9.9	10.5	9.5	8.7	8.5	7.4	6.7	7.0	8.2
Wilmington, N. C	7.5	8.0	8.7	7.8	7.5	7.4	8.2	7.7	8.7	9.7	10.5	11.0	12.1	11.2	10.9	10.5	9.5	8.6	9.0	8.0	8.0	7.8	7.7	7.5	8.9
Winnemucca, Nev	10.8	10.9	11.1	11.5	11.8	11.2	11.6	10.8	10.2	10.2	9.5	9.8	10.5	12.0	12.7	14.8	14.5	13.6	13.4	12.1	12.3	11.7	10.9	11.0	11.6
Woods Holl, Mass	14.6	15.1	14.9	16.0	15.1	14.2	14.2	15.4	15.3	16.6	17.2	16.5	16.9	17.8	18.0	18.2	17.5	16.4	15.4	15.8	15.7	15.4	15.8	15.3	16.0
Yankton, S. Dak	6.2	6.8	6.6	6.4	6.8	6.4	6.4	7.2	7.0	7.0	7.4	7.6	8.4	9.1	8.8	8.7	8.7	8.3	7.5	7.2	7.7	7.0	7.0	6.4	7.4
Yuma, Ariz	5.4	4.4	5.1	5.0	5.4	5.8	5.7	5.6	6.3	6.3	5.7	8.0	10.2	11.0	11.1	10.8	11.2	11.2	11.0	9.8	7.3	6.3	6.5	5.9	7.5

TABLE VIII.—*Prevailing and resultant winds from self-registers for January, 1894.*

Number.	Station.	Prevailing wind. Direction from.	Prevailing wind. Duration.	Total movement. Monthly.	Total movement. Hourly average.	Resultant direction. Direction from.	Resultant direction. Duration.	Resultant direction. Average hourly velocity.	Resultant movement. Direction from.	Resultant movement. Amount.	Azimuth of movement minus direction.	Ratio of resultant movement to total movement.
	(1)	(2)	(3) Hours.	(4) Miles.	(5) Miles.	(6)	(7) Hours.	(8) Miles.	(9)	(10) Miles.	(11) °	(12)
1	Eastport, Me	nw.	214	10,828	14.6	n. 33 w.	337	13.3	n. 21 w.	4,489	+12	0.415
2	Portland, Me	n.	222	5,883	7.9	n. 44 w.	390	8.3	n. 36 w.	3,255	+ 8	0.553
4	Boston, Mass	w.	218	9,126	12.3	n. 23 w.	342	13.1	n. 65 w.	4,490	−42	0.492
5	Nantucket, Mass	n.	200	10,051	13.5	n. 23 w.	208	16.0	n. 6 e.	3,330	+29	0.331
8	New Haven, Conn	ne.	207	6,671	9.0	n. 17 w.	297	10.0	n. 4 w.	3,166	+13	0.475
10	Albany, N. Y	s.	199	6,159	8.3	n. 53 w.	149	8.4	n. 72 w.	1,259	−19	0.204
11	New York, N. Y	nw.	182	8,004	10.8	n. 57 w.	154	20.0	n. 48 w.	3,085	+ 9	0.385
13	Philadelphia, Pa	nw.	157	7,651	10.3	n. 52 w.	153	18.8	n. 29 w.	2,877	+23	0.376
15	Baltimore, Md	nw.	136	5,413	7.3	n. 29 w.	40	42.0	n. 46 w.	1,681	−17	0.310
16	Washington, D. C	s.	179	4,788	6.4	n. 78 w.	72	25.2	n. 40 w.	1,810	+38	0.379
17	Lynchburg, Va	sw.	172	3,136	4.2	s. 67 w.	117	8.2	n. 72 w.	957	+41	0.305
18	Norfolk, Va	ne.	188	5,839	7.8	n. 18 e.	127	8.7	n. 36 w.	1,110	−54	0.190
24	Wilmington, N. C	ne.	197	6,622	8.9	n. 30 w.	199	9.8	n. 28 w.	1,954	+ 2	0.295
26	Augusta, Ga	ne.	149	4,562	6.1	n. 6 w.	142	5.0	n. 18 w	703	−12	0.154
27	Savannah, Ga	ne.	163	6,173	8.3	n. 41 w.	185	8.0	n. 30 w.	1,475	+11	0.239
28	Jacksonville, Fla	n.	200	4,651	6.3	n. 30 e.	109	9.4	n. 12 e.	1,020	−18	0.219
30	Key West, Fla	e.	320	7,707	10.4	n. 74 e.	568	10.1	n. 67 e.	5,730	− 7	0.744
33	Atlanta, Ga	e.	216	7,614	10.2	n. 1 e.	130	8.7	n. 10 e.	1,134	+ 9	0.149
38	Vicksburg, Miss	se.	240	5,506	7.4	s. 67 e.	212	8.1	s. 49 e.	1,723	+18	0.313
39	New Orleans, La	ne.	129	6,726	9.0	n. 87 e.	183	5.9	n. 88 e.	1,275	+ 1	0.189
44	Galveston, Tex	s.	168	8,030	10.8	s. 50 e.	186	7.0	s. 60 e.	1,526	−10	0.190
48	Knoxville, Tenn	sw.	198	3,304	4.4	n. 74 w.	109	9.6	s. 67 w.	1,048	−39	0.317
49	Memphis, Tenn	se.	163	5,762	7.7	s. 29 e.	134	8.4	s. 26 e.	1,132	+ 3	0.196
50	Nashville, Tenn	se.	189	4,134	6.0	s. 48 e.	106	6.9	s. 23 e.	1,139	+25	0.257
52	Louisville, Ky	s.	183	6,525	8.7	s. 8 w.	216	11.2	s. 19 w.	2,416	+11	0.369
53	Indianapolis, Ind	s. se.	153 155	5,538	8.8	s. 10 w.	170	9.9	s. 18 w.	1,685	+ 8	0.305
54	Cincinnati, Ohio	se.	164	5,701	7.7	s. 1 w.	178	9.4	s. 39 w.	1,669	+38	0.293
55	Columbus, Ohio	s. sw.	145 145	7,705	10.4	s. 21 w.	186	14.1	s. 43 w.	2,620	+22	0.341
56	Pittsburg, Pa	sw.	177	5,477	7.4	s. 42 w.	216	8.7	s. 57 w.	1,884	+15	0.344
58	Buffalo, N. Y	w. nw.	178 179	10,125	14.8	n. 85 w.	230	24.0	s. 80 w.	5,519	− 9	0.543
60	Rochester, N. Y	sw.	274	7,041	9.5	s. 34 w.	257	12.0	s. 50 w.	3,085	+16	0.438
62	Cleveland, Ohio	se.	375	10,862	14.6	s. 2 e.	280	17.5	s. 1 w.	4,908	+ 3	0.450
64	Toledo, Ohio	w.	175	7,816	10.5	s. 67 w.	275	13.8	s. 56 w.	3,789	−11	0.485
65	Detroit, Mich	sw.	208	8,879	11.9	s. 68 w.	211	20.6	s. 63 w.	4,356	− 5	0.490
66	Alpena, Mich	w.	241	7,770	10.4	s. 77 w.	226	9.0	s. 59 w.	2,038	−18	0.262
67	Grand Haven, Mich	sw.	184	9,260	12.4	s. 68 w.	71	37.9	s. 62 w.	2,693	− 6	0.291
68	Marquette, Mich	w.	175	7,625	10.2	n. 88 w.	232	11.9	s. 81 w.	2,772	−11	0.364
70	Sault Ste. Marie, Mich	se.	276	6,851	9.2	s. 61 e.	232	4.7	s. 62 e.	1,095	− 1	0.160
71	Chicago, Ill	sw.	215	14,149	19.0	s. 52 w.	281	21.8	s. 47 w.	6,136	− 5	0.434
72	Milwaukee, Wis	w.	178	8,224	11.1	s. 80 w.	288	12.5	s. 72 w.	3,594	− 8	0.437
74	Duluth, Minn	nw.	160	4,503	6.1	n. 31 w.	178	9.4	n. 17 w.	1,681	+14	0.378
75	Moorhead, Minn	n.	200	7,878	10.6	n. 83 w.	139	9.3	s. 57 w.	1,302	−40	0.165
77	Bismarck, N. Dak	nw.	276	6,269	8.4	n. 32 w.	224	4.7	n. 40 w.	3,286	− 8	0.524
79	Saint Paul, Minn	se.	202	5,164	6.9	s. 36 w.	218	7.9	s. 61 w.	1,724	+25	0.334
81	Davenport, Iowa	w.	159	7,682	9.5	s. 67 w.	220	13.8	s. 73 w.	3,029	+ 6	0.428
82	Des Moines, Iowa	nw. sw.	166 164	5,986	8.0	n. 68 w.	181	10.2	n. 72 w.	1,838	− 4	0.307
88	Saint Louis, Mo	s.	169	8,788	11.8	s. 16 w.	129	15.4	s. 35 w.	1,989	+19	0.226
90	Kansas City, Mo	s.	205	7,043	9.4	s. 18 w.	99	8.1	s. 55 w.	803	+37	0.114
92	Omaha, Nebr	nw.	242	5,587	7.5	n. 79 w.	152	8.9	n. 59 w.	1,355	+20	0.243
96	Huron, S. Dak	nw. se.	286 234	8,308	11.2	n. 42 w.	110	11.0	n. 33 w.	1,212	+ 9	0.146
98	Havre, Mont	sw.	225	8,034	10.8	n. 81 w.	310	1.5	s. 73 w.	480	−25	0.060
100	Helena, Mont	sw.	289	4,840	6.5	s. 19 w.	424	8.6	s. 57 w.	3,637	−12	0.752
105	Colorado Springs, Colo	n.	284	8,354	11.2	n. 23 w.	226	15.3	n. 26 w.	3,405	− 3	0.415
107	Denver, Colo	s.	209	6,632	8.9	s. 49 w.	168	9.8	s. 83 w.	1,648	+34	0.248
108	Pikes Peak, Colo	w.	213	24,252	32.6	n. 71 w.	420	38.4	n. 70 w.	16,107	+ 1	0.638
111	Dodge City, Kans	se.	152	7,057	9.5	n. 58 e.	65	12.9	n. 36 e.	836	−22	0.119
114	Abilene, Tex	sw.	194	7,319	9.8	s. 43 w.	239	10.9	s. 47 w.	2,598	+ 4	0.355
116	El Paso, Tex	nw.	410	7,153	9.6	n. 57 w.	371	12.8	n. 50 w.	4,702	+ 7	0.666
117	Santa Fe, N. Mex	ne.	233	5,208	7.0	n. 26 e.	177	10.6	n. 60 e.	1,889	+34	0.363
119	Yuma, Ariz	n.	261	5,614	7.5	n. 2 w.	379	9.0	n. 15 w.	3,401	−13	0.606
120	Keeler, Cal	e.	171	4,084	5.5	s. 69 e.	134	4.8	s. 11 e.	648	+58	0.159
122	Salt Lake City, Utah	se.	234	4,135	5.6	s. 8 e.	263	6.5	s. 1 e.	1,699	+ 7	0.411
125	Spokane, Wash	s.	221	4,321	5.8	s. 11 w.	132	16.1	s. 8 w.	2,125	− 3	0.492
128	Olympia, Wash	s.	376	4,236	5.7	s.	335	8.3	s. 2 w.	2,780	+ 2	0.656
132	Portland, Oregon	sw.	200	8,092	10.9	s. 51 w.	249	19.2	s. 40 w.	4,778	−11	0.591
133	Roseburg, Oregon	sw.	145	2,672	3.6	s. 5 e.	241	5.1	s. 1 e.	1,227	+ 4	0.459
137	San Francisco, Cal	nw.	224	5,945	8.0	s. 69 w.	223	9.3	s. 36 w.	2,077	−33	0.349
140	San Diego, Cal	nw.	180	3,746	5.0	n. 34 w.	352	6.0	n. 50 w.	2,117	−16	0.565

TABLE IX.—*Resultant winds from observations at 8 a. m. and 8 p. m., daily, during January, 1894.*

Number.	Station.	Component direction from— N.	S.	E.	W.	Resultant. Direction from—	Duration.
		Hours.	Hours.	Hours.	Hours.	°	Hours.
	New England.						
1	Eastport, Me	33	9	9	26	n. 35 w.	29
2	Portland, Me	33	8	6	27	n. 40 w.	33
3	Northfield, Vt	31	26	4	7	n. 31 w.	0
4	Boston, Mass	22	10	6	38	n. 69 w.	34
5	Nantucket, Mass	29	15	12	19	n. 26 w.	10
6	Woods Holl, Mass	.....	.....	.....	.....	.....	.....
7	Block Island, R. I	26	10	18	28	n. 32 w.	19
8	New Haven, Conn	34	8	15	19	n. 9 w.	20
9	New London, Conn	24	10	9	30	n. 56 w.	25
	Middle Atlantic states.						
10	Albany, N. Y	29	20	8	16	n. 42 w.	12
11	New York, N. Y	23	19	16	23	n. 61 w.	8
12	Harrisburg, Pa	15	14	25	21	n. 76 e.	4
13	Philadelphia, Pa	23	14	15	23	n. 42 w.	12
14	Atlantic City, N. J	22	14	10	23	n. 41 w.	10
15	Baltimore, Md	20	14	20	19	n. 10 e.	0
16	Washington, D. C	23	22	11	19	n. 83 w.	8
17	Lynchburg, Va	13	20	17	20	s. 52 w.	11
18	Norfolk, Va	24	14	19	19	n.	10
	South Atlantic states.						
19	Charlotte, Va	11	24	21	20	s. 4 e.	13
20	Hatteras, N. C	34	14	8	19	n. 29 w.	23
21	Kittyhawk, N. C	25	13	22	17	n. 22 e.	13
22	Raleigh, N. C	29	18	9	18	n. 39 w.	14
23	Southport, N. C	30	7	17	23	n. 14 w.	24
24	Wilmington, N. C	25	15	16	26	n. 21 w.	11
25	Charleston, S. C	25	17	13	17	n. 26 w.	9
26	Augusta, Ga	24	10	18	20	n. 8 w.	14
27	Savannah, Ga	25	15	13	25	n. 50 w.	16
28	Jacksonville, Fla	30	18	13	9	n. 18 e.	13
	Florida peninsula.						
29	Jupiter, Fla	14	19	21	19	s. 22 e.	5
30	Key West, Fla	22	5	45	2	n. 68 e.	40
31	Tampa, Fla	25	11	22	14	s. 30 e.	16
32	Titusville, Fla	22	20	21	20	n. 25 e.	2
	Eastern Gulf states.						
33	Atlanta, Ga	25	8	23	27	n. 13 w.	18
34	Pensacola, Fla	20	20	19	12	n. 49 e.	9
35	Mobile, Ala	28	23	7	15	n. 58 w.	9
36	Montgomery, Ala	21	17	25	10	n. 76 e.	16
37	Meridian, Miss	24	17	26	10	n. 67 e.	17
38	Vicksburg, Miss	18	24	29	9	s. 74 e.	21
39	New Orleans, La	20	16	28	8	n. 78 e.	20
	Western Gulf states.						
40	Shreveport, La	30	7	17	23	n. 14 w.	24
41	Fort Smith, Ark	10	11	34	15	s. 87 e.	19
42	Little Rock, Ark	10	25	18	14	s. 21 e.	11
43	Corpus Christi, Tex	23	22	24	9	n. 87 e.	15
44	Galveston, Tex	17	28	22	9	s. 49 e.	17
45	Palestine, Tex	18	23	19	19	s.	5
46	San Antonio, Tex	17	17	28	12	... .. e.	10
	Ohio Valley and Tennessee.						
47	Chattanooga, Tenn	16	26	20	15	s. 26 e.	11
48	Knoxville, Tenn	24	12	18	18	n.	12
49	Memphis, Tenn	14	25	23	10	s. 49 e.	17
50	Nashville, Tenn	16	25	24	9	s. 59 e.	17
51	Lexington, Ky	15	30	14	27	s. 41 w.	20
52	Louisville, Ky	13	32	15	13	s. 6 e.	19
53	Indianapolis, Ind	15	25	18	18	s.	10
54	Cincinnati, Ohio	13	25	21	17	s. 18 e.	13
55	Columbus, Ohio	16	29	15	17	s. 8 w.	13
56	Pittsburg, Pa	12	25	15	24	s. 35 w.	16
57	Parkersburg, W. Va	10	27	20	14	s. 19 e.	18
	Lower Lake region.						
58	Buffalo, N. Y	19	16	13	30	n. 80 w.	17
59	Oswego, N. Y	12	26	19	21	s. 8 w.	14
60	Rochester, N. Y	9	34	16	23	s. 16 w.	20
61	Erie, Pa	8	29	10	28	s. 41 w.	28
62	Cleveland, Ohio	8	30	25	17	s. 20 e.	23
63	Sandusky, Ohio	10	25	10	34	s. 58 w.	29
64	Toledo, Ohio	11	20	10	33	s. 68 w.	25
65	Detroit, Mich	13	21	16	30	s. 60 w.	16
	Upper Lake region.						
66	Alpena, Mich	15	20	12	30	s. 75 w.	19
67	Grand Haven, Mich	15	17	21	23	s. 45 w.	3
68	Marquette, Mich	19	18	9	27	n. 87 w.	18
69	Port Huron, Mich	10	27	12	27	s. 42 w.	23
70	Sault Ste. Marie, Mich	14	25	29	11	s. 58 e.	21
71	Chicago, Ill	15	30	10	25	s. 14 w.	16
72	Milwaukee, Wis	15	18	9	34	s. 83 w.	25
	Upper Lake region—Cont'd.						
73	Green Bay, Wis	21	26	7	22	s. 72 w.	16
74	Duluth, Minn	27	6	16	28	n. 30 w.	24
	Extreme Northwest.						
75	Moorhead, Minn	24	23	6	14	n. 83 w.	8
76	Saint Vincent, Minn	25	19	8	15	n. 49 w.	9
77	Bismarck, N. Dak	27	12	15	24	n. 31 w.	17
78	Williston, N. Dak	15	21	13	24	s. 62 w.	13
	Upper Mississippi Valley.						
79	Saint Paul, Minn	11	25	18	27	s. 33 w.	17
80	La Crosse, Wis	21	24	4	23	s. 81 w.	19
81	Davenport, Iowa	15	21	11	20	s. 68 w.	16
82	Des Moines, Iowa	22	18	10	25	n. 76 w.	16
83	Dubuque, Iowa	14	26	9	25	s. 53 w.	20
84	Keokuk, Iowa	21	21	12	19	... .. w.	7
85	Cairo, Iowa	17	30	13	14	s. 4 w.	13
86	Springfield, Ill	17	31	11	16	s. 19 w.	15
87	Hannibal, Mo	20	20	13	20	... .. w.	7
88	Saint Louis, Mo	18	27	13	17	s. 23 w.	10
	Missouri Valley.						
89	Columbia, Mo	.....	.....	.....	.....	.....	.....
90	Kansas City, Mo	21	26	13	11	s. 22 e.	5
91	Springfield, Mo	17	28	22	10	s. 47 e.	16
92	Omaha, Nebr	24	25	7	19	s. 85 w.	12
93	Valentine, Nebr	24	10	5	37	n. 67 w.	34
94	Sioux City Iowa	29	17	11	17	n. 20 w.	14
95	Pierre, S. Dak	18	18	23	18	.. ... e.	5
96	Huron, S. Dak	28	16	14	25	n. 37 w.	15
97	Yankton, S. Dak	28	13	13	33	n. 53 w.	25
	Northern slope.						
98	Havre, Mont	19	12	10	37	n. 75 w.	28
99	Miles City, Mont	18	20	10	21	s. 55 w.	14
100	Helena, Mont	9	22	2	41	s. 72 w.	41
101	Rapid City, S. Dak	23	11	14	25	n. 43 w.	16
102	Cheyenne, Wyo	23	10	1	42	n. 74 w.	43
103	Lander, Wyo	14	22	19	23	s. 26 w.	9
104	Kearney, Nebr	25	16	10	25	n. 63 w.	20
105	North Platte, Nebr	18	8	11	35	n. 67 w.	26
	Middle slope.						
106	Colorado Springs, Colo	40	11	9	11	n. 4 w.	29
107	Denver, Colo	17	22	12	23	s. 66 w.	12
108	Pikes Peak, Colo	27	9	5	30	n. 60 w.	36
109	Pueblo, Colo	21	8	14	28	n. 47 w.	19
110	Concordia, Kans	22	24	10	19	s. 77 w.	9
111	Dodge City, Kans	20	21	22	16	s. 76 e.	4
112	Wichita, Kans	25	29	8	7	s. 14 e.	4
113	Oklahoma, Okla	25	28	5	11	s. 64 w.	7
	Southern slope.						
114	Abilene, Tex	17	31	10	17	s. 27 w.	16
115	Amarillo, Tex	14	29	5	20	s. 45 w.	21
	Southern plateau.						
116	El Paso, Tex	26	6	13	34	n. 43 w.	31
117	Santa Fe, N. Mex	28	20	24	15	n. 48 e.	12
118	Tucson, Ariz	16	27	12	20	s. 35 w.	14
119	Yuma, Ariz	42	4	13	11	n. 3 e.	38
120	Keeler, Cal	15	18	20	14	s. 34 e.	4
	Middle plateau.						
121	Winnemucca, Nev	12	26	14	29	s. 47 w.	20
122	Salt Lake City, Utah	11	31	22	13	s. 60 e.	22
	Northern plateau.						
123	Baker City, Oreg	12	30	23	19	s. 12 e.	18
124	Idaho Falls, Idaho	16	35	6	19	s. 35 w.	23
125	Spokane, Wash	17	30	13	11	s. 8 e.	13
126	Walla Walla, Wash	9	44	8	11	s. 6 w.	35
	North Pacific coast region.						
127	Fort Canby, Wash	11	23	16	18	s. 9 w.	12
128	Olympia, Wash	14	39	8	8	s.	25
129	Port Angeles, Wash	3	44	13	11	s. 3 e.	41
130	Seattle, Wash	18	33	10	3	s. 41 e.	20
131	Tatoosh, Island, Wash	5	20	33	13	s. 53 e.	25
132	Portland, Oreg	19	32	6	17	s. 41 w.	17
133	Roseburg, Oreg	12	30	18	18	s.	18
	Middle Pacific coast region.						
134	Eureka, Cal	18	31	13	17	s. 17 w.	14
135	Red Bluff, Cal	25	19	13	24	n. 62 w.	13
136	Sacramento, Cal	18	29	17	16	s. 5 e.	11
137	San Francisco, Cal	10	23	13	32	s. 55 w.	23
	South Pacific coast region.						
138	Fresno, Cal	21	13	24	21	n. 21 e.	8
139	Los Angeles, Cal	26	5	16	28	n. 30 w.	24
140	San Diego, Cal	30	4	13	28	n. 30 w.	30

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