CLIMATOLOGICAL DATA FOR JANUARY, 1912.

DISTRICT No. 5, UPPER MISSISSIPPI VALLEY.

GEORGE M. CHAPPEL, District Editor.

GENERAL SUMMARY.

The month will long be memorable in the weather annals of the upper Mississippi Valley. For the district as a whole, it undoubtedly was the coldest month in the history of the Weather Bureau, the records extending back to 1870. Over part of the Minnesota area, most of Wisconsin and Iowa, and northern and central Illinois it was probably the coldest month in the last half century or more. While the records for extreme low temperature for the period referred to were not broken at any station, they were closely approached in several cases. At Des Moines, Iowa, the minimum on the 12th, −29°, was within 1° of the lowest on record. The cold was remarkable no less for its persistency than for its severity. Intensely low temperatures continued throughout the first two decades over much of the district, while in the northern part of it the entire month was a period of unbroken cold.

The nearest rival to the current month in respect to low mean temperature was January, 1875, which still stands as the coldest month on record for the northwestern part of the district. At St. Paul, Minn., that month was slightly colder than the current month, while at Moorhead, Minn., it was considerably colder. Other notably cold months in this district since 1870 are February, 1875, and January, 1886, 1887, and 1888.

Generally speaking, the month was a dry one, and the great bulk of the precipitation was in the form of snow. Days on which the snowfall amounted to only inappreciable quantities were unusually numerous. The snowfall was not heavy, except in southern Illinois, but owing to the low temperature, much of it remained throughout the month and, accumulating on the good covering that was already present at the beginning of the month, resulted in deep snow over much of the district all the month, and at the close the ground was bare only in the extreme southern part of the district.

The intense cold naturally was the cause, directly or indirectly, of much suffering and inconvenience. From a commercial point of view the transportation interests suffered most. Railway traffic was almost paralyzed at times, the low temperature and the drifting of the light, fluffy snow both being contributing factors. Trolley lines suffered equally with the steam railways. In numerous instances locomotives literally became frozen to the rails and thawing had to be resorted to before the trains could proceed. By the 10th the coal situation had become serious in many localities. The unusual consumption, together with the inability of the railroads to move the article from the mines promptly, caused the most serious shortage in many years, and for a time conditions were actually alarming. Happily, a slight moderation from the extreme cold set in on the 13th, and, though the warming up was slight and lasted less than a day, the railroads were enabled to move sufficient coal to afford relief for immediate needs and the crisis was passed.

To some extent the objectionable features attending the unprecedented conditions of the month had their compensations. The deep snow that covered most of the district protected winter grain, the ice harvest was abundant and of excellent quality, and it is believed that there was less sickness than usual owing to the absence of sudden and marked variations from cold to warmth, and vice versa.

The following table presents in condensed form the leading features of climatological interest for the several parts of the district:

Parts of States within District No. 5.	Temperature.				Precipitation.					
	Mean.	Departure.	Highest.	Lowest.	Average.	Departure.	Greatest total.	Least total.	Average snowfall.	Average number rainy days.
North Dakota	−8.0	−11.7	46	−50	0.28	−0.18	0.80	0.07	3.3	3
Minnesota	−6.8	−15.3	37	−53	0.41	−0.33	0.85	0.06	4.9	4
South Dakota	−2.6	−14.8	38	−34	0.21	−0.41	0.21	0.21	1.2	3
Wisconsin	−3.6	−17.6	35	−49	0.70	−0.50	1.69	0.18	8.5	5
Iowa	3.7	−15.1	48	−42	0.56	−0.63	1.90	0.05	5.8	5
Missouri	15.5	−12.9	53	−25	0.52	−1.65	0.92	0.20	4.3	5
Indiana	12.8	−13.6	40	−23	1.41	−0.60	2.07	1.08	10.2	11
Illinois	12.5	−12.6	59	−30	0.86	−1.40	4.13	0.11	6.3	5

TEMPERATURE.

The mean temperature of the district, as derived from the records of 297 stations, was 1.0°, or almost 15° less than the normal. The monthly means were below zero north of a line drawn through northern Iowa and southern Wisconsin, while over a large area in North Dakota and Minnesota they were below −10°. The lowest mean temperature reported was −16.6° at Pembina, N. Dak. The deficiency in the mean temperature appears to have been greatest over northeastern Wisconsin, where it averaged almost 18° daily. From the center of greatest cold the deficiency decreased uniformly in all directions, being about 8° in the North Dakota area and the same in southern Illinois. The deficiency exceeded 10° over probably more than 90 per cent of the district.

The mean temperature was less than 20° throughout the district, save in southern Illinois, where at Cairo, the warmest station, it was 26.6°. At that point the month was the coldest on record with the exception of December, 1876, and January, 1886. Abnormally low temperature was practically continuous from the beginning of the month to the 20th, inclusive, in all parts of the district, but in the north the entire month was an unbroken period of cold weather. At Crookston, Minn., and Pembina, N. Dak., the minimum temperature was below zero every day and even as far south as Dubuque, Iowa, zero temperature or lower was reported during the first 21 days of the month except on the 17th.

The 21st inaugurated, over the southern half of the district, a 4 or 5 day period of milder weather, but this was followed by a return to cold weather, the month closing with the temperature below the normal in all sections. The period of most severe cold covered the 1st–12th, inclusive, when the temperature was continuously below zero in northern Minnesota and part of the North Dakota area, and even as far south as central Iowa it was below zero about one-half that time. At Pembina, N. Dak., the average temperature for the period under discussion was 26° below zero, the highest temperature there during that time being 10° below zero. At Des Moines, Iowa, the mean temperature for the 10-day period beginning on the 3d was −7.8°, which breaks all previous records of that character. A notable feature of the temperature conditions during the period of severest cold was the phenomenally low maximum readings. At some stations in North Dakota and Minnesota the temperature did not rise above −20° on the 5th, 6th, 10th, 11th, and 12th. The maximum at Des Moines, Iowa, on the 12th was −14°, the lowest on record. On that date, as well as on the 7th, the temperature was below zero all day over practically the entire district, except southern Illinois.

Most of the minimum temperatures of the month occurred on the 6th, 7th, 11th, 12th, and 13th. Generally speaking, the coldest day was the 12th, but over much of Illinois the lowest temperatures occurred on the 7th. The lowest temperature reported was −53°, at Pokegama Falls, Minn., on the 6th and 7th, and at Pine River Dam, in the same State, on the 12th. The milder weather that began on the 21st culminated a day or two later in the highest temperatures of the month over much of the district. In the North Dakota area and part of Minnesota, however, the 30th and 31st were the mildest days, while over most of the Indiana area the warmest weather occurred on the 18th. In general the maximum temperatures exceeded 40° only in the southern half of the district, where, at a few stations in southern Illinois, they were above 50°, the extreme, 59°, being reported from Carbondale, Cobden, and Du Quoin, Ill., on the 23d. Over practically all Wisconsin and Minnesota the temperature was below the freezing point all month, Fosston, Minn., and Pembina, N. Dak., reporting the remarkably low maximum of 18°. At the latter station the temperature was continuously below zero till the 22d.

PRECIPITATION.

The average precipitation for the district, 323 stations reporting, was 0.60 inch, or somewhat less than one-half the normal. The month was drier than usual over a very large part of the district, only a few widely scattered areas having an excess of moisture. The deficiency was greatest in the Illinois River Valley and the Missouri area. The heaviest precipitation was in southern Illinois, where, at five stations, it exceeded 2 inches, Cairo reporting the greatest amount, 4.13 inches. Elsewhere the total precipitation was less than 1 inch, save over a few limited areas. In the North Dakota area and in Minnesota the average was less than one-half an inch and only slightly greater amounts were reported from Iowa and Wisconsin. Fourteen stations, most of them in North Dakota and Minnesota, reported falls of less than 0.10 inch.

Over most of the district precipitation was of frequent occurrence but, as might be expected in view of the general deficiency, the amounts as a rule were light. Most of the month's precipitation in the northern part of the district did not occur until after the 24th, but elsewhere the falls were better distributed. Precipitation was most general, perhaps, on the 28th–29th and 31st, but it was fairly general on the 7th–8th, 13th–14th, and 17th–18th.

Snowfall.—Practically all the precipitation, except that that occurred in central and southern Illinois and the Indiana area on the 17th and 18th, and in southern Illinois on the 28th, was in the form of snow, the average fall for the district being 6 inches. The heaviest snowfall occurred in southern Illinois, where it was approximately 20 inches at a few stations. Only a limited number of stations elsewhere reported more than 10 inches.

MISCELLANEOUS.

There was more sunshine than usual in all parts of the district, the excess averaging about 15 per cent. The percentage of the possible amount was about 60. The average number of clear days was 15; partly cloudy, 7; cloudy, 9; with 0.01 inch or more precipitation, 5.

The prevailing wind direction was northwesterly over practically all the district and velocities were probably slightly lower than usual for January. The highest velocity for a five-minute period was at the rate of 42 miles an hour, at St. Paul, Minn., on the 4th.

RIVERS.

The rivers and streams of the northern part of the district were frozen over throughout the month. In the Red River of the North, at Moorhead, Minn., the ice was 32 inches thick at the close of the month. In the Mississippi the thickness at that time ranged from 24 inches, at La Crosse, Wis., to 12 inches, at Hannibal, Mo., and there were gorges and floating ice as far southward as Cairo, Ill.

An extensive ice gorge filled the Illinois River at Marseilles during the early part of the month. The water wheels that furnish power to the industrial plants of the city could not be operated, and as a result business had to be suspended. The closing down of the hydroelectric plant paralyzed the service of the Chicago, Ottawa & Peoria Interurban line.

Mr. W. E. Barron, local forecaster, Cairo, Ill., reports in part as follows relative to conditions in the Cairo, Ill., river district:

The Mississippi River was more or less filled with floating and gorge ice. Navigation closed above Cairo on the 3d. On the 19th the U. S. S. *Minnetonka* broke off a piece of the gorge opposite Bird Point, Mo., and the transfer steamer *Marquand* became entangled therein and was temporarily disabled. By the 22d the *Minnetonka* had succeeded in making an opening to Eliza Point and in rescuing the United States Engineer's fleet, which had been stationed there for several months. The ice began to move out from back of town at 4 a. m. on the 26th and navigation between Cairo and Bird Point, Mo., was temporarily suspended. At Chester, Ill., although the ice moved short distances once or twice, the river continued frozen from the 9th to the end of the month. During the dense fog on the afternoon of the 28th several boats attempted to cross the Mississippi from Bird Point, Mo., to Cairo Point. All but one of them passed over safely, the one that did not encountering an ice floe, which forced the boat to float downstream till a landing could be effected. This occurrence gave rise to a newspaper report that 11 men had been drowned, which was not true.

TABLE 1.—*Climatological data for January, 1912. District No. 5, Upper Mississippi Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Precipitation, in inches. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
North Dakota.																				
Amenia	Cass	954	15	−10.2	−16.6	35[a]	23	− 41	12	45[a]	0.20	− 0.30	0.20	2.0	1	18	3	10	nw.	C. E. Wood.
Bottineau	Bottineau	1,638	17	− 9.8	−10.0	28	30†	− 45	11	42	0.59	+ 0.10	0.25	9.5	7	14	4	13	nw.	W. M. Mills.
Cando	Towner	1,488	11	−12.0	−11.0	31	31	− 46[d]	11	39[d]	0.22	− 0.24	0.22	.....	1	25	4	2	n.	E. T. Judd.
Crosby	Divide	.....	6	− 4.0	.....	36	30	− 45	12	42	0.34	.....	0.11	2.0	5	18	6	7	nw.	H. C. Kaschau.
Devils Lake	Ramsey	1,482	7	− 8.3	− 8.6	33	30	− 41	11	40	0.31	− 0.29	0.25	4.0	5	15	9	7	nw.	U. S. Weather Bureau.
Donnybrook	Ward	1,760	13	− 2.8	− 4.7	46	30	− 38	12	36	0.20	− 0.24	0.10	2.0	4	11	8	12	nw.	C. J. De Vore.
Dunseith	Rolette	.....	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. E. Goodsell.
Edmore	Ramsey	1,524	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. R. Aslakson.
Fessenden	Wells	1,610	.....	− 7.2	.....	34[a]	30	− 42	11	44[a]	0.24	.....	0.11	2.8	3	21	5	5	nw.	G. T. Seymour.
Forman	Sargent	1,249	18	− 3.7	−11.2	34	22	− 45	12	39	0.20	− 0.40	0.20	2.0	1	10	12	9	nw.	A. Maltby.
Grafton	Walsh	827	21	−10.8	−12.2	28	31	− 44	11	40	0.12	− 0.48	0.10	1.9	2	17	8	6	nw.	A. R. T. Wylie.
Granville	McHenry	1,504	6	− 5.4	.....	38	30	− 42	11	49	0.20	.....	0.10	2.0	3	14	10	7	nw.	W. A. Christianson.
Hannah	Cavalier	1,568	7	−13.8	.....	25	31	− 50	11	35	0.22	.....	0.20	2.2	2	23	5	3	nw.	J. Moffatt.
Hansboro	Towner	.....	4	− 9.7	.....	29	31	− 41	11	31	0.16	.....	0.13	2.0	2	24	3	4	nw.	Geo. Dale.
Hillsboro	Traill	901	7	− 7.6	.....	26	31	− 39	11	31	0.70	.....	0.30	7.0	3	15	10	6	nw.	F. E. Mayall.
Lakota	Nelson	1,579	6	−10.0	.....	30	31	− 45	11	34	0.22	.....	0.09	5.2	4	15	14	2	nw.	C. R. Pettes.
Langdon	Cavalier	1,615	17	−12.6	.....	22	23	− 46	11	40	0.17	.....	0.06	1.7	5	15	5	11	.....	J. Woolner.
Larimore	Grand Forks	1,134	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. M. Freeman.
Lisbon	Ransom	1,091	8	− 5.4	−12.6	32	30	− 40	11	47	0.30	− 0.21	0.20	3.0	2	13	4	14	nw.	H. K. Adams.
McKinney	Renville	1,640	18	− 4.5	− 8.0	38	30	− 42	11	35	0.25	− 0.08	0.20	2.5	2	7	15	9	nw.	N. P. Swenson.
Manfred	Wells	1,605	11	− 4.2	.....	34	31	− 42	11	44	0.32	.....	0.10	4.5	6	11	12	8	nw.	P. B. Anderson.
Mayville	Traill	975	16	− 7.0	−15.2	28	31	− 41	11	36	0.36	+ 0.07	0.30	.....	3	26	2	3	nw.	W. C. Gould.
Minot	Ward	1,557	14	− 2.8	− 9.1	40[a]	30	− 41	11†	46[a]	0.55	+ 0.15	0.16	5.5	7	19	4	8	w.	W. J. Ellison.
Minto	Walsh	820	19	−11.6	−13.5	26[a]	31	− 43[a]	11	32[a]	0.47	− 0.05	0.32	.....	4	21	4	6	nw.	S. S. Marsh.
Oriska	Barnes	1,270	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. J. Taylor.
Park River	Walsh	998	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	P. J. Prochaska.
Pembina	Pembina	789	14	−16.2	−16.6	18	29	− 44	11	28	0.07	− 0.72	0.05	0.7	2	19	8	4	e.	C. W. Shumaker.
Power	Richland	1,020	20	− 6.5	−11.7	31	22	− 40	12	36	0.80	+ 0.26	0.20	8.0	6	14	9	8	w.	J. A. Power.
Pratt	McHenry	.....	7	− 7.6	.....	38	31	− 47	11	37	0.13	.....	0.08	1.3	2	28	0	3	nw.	W. B. Ahern.
Towner	do	.....	4	− 5.9	.....	35	31	− 42	11	35	0.22	.....	0.10	2.2	3	14	4	13	nw.	B. Bagley.
University	Grand Forks	830	20	− 9.2	−13.7	25	31	− 43	11	34	0.36	− 0.18	0.25	7.1	3	25	2	4	nw.	U. S. Weather Bureau.
Wahpeton	Richland	962	20	− 6.0	−14.5	28	22	− 38	12	33	0.14	− 0.26	0.06	1.6	3	14	10	7	nw.	E. G. Burch.
Walhalla	Pembina	966	8	− 8.7	.....	28	30	− 41	11	32	0.20	.....	0.20	2.0	1	16	10	5	n.	Ivanhoe Lee.
Westhope	Bottineau	.....	6	− 7.7	.....	33	30	− 43	11	40	0.20	.....	0.20	2.0	1	1	25	5	nw.	W. A. Meddaugh.
Willow City	do	1,471	19	− 9.2	−10.3	35	30	− 46	11	38	0.15	− 0.24	0.10	1.5	2	10	14	7	nw.	M. A. Ostby.
Minnesota.																				
Albert Lea	Freeborn	1,229	21	− 1.9	−14.7	32	22†	− 35	12	32	0.45	− 0.47	0.30	6.0	2	12	12	7	nw.	Edward Carey.
Alexandria	Douglas	1,391	18	− 5.6	−13.2	23	29	− 37	12	42	0.56	− 0.10	0.28	3.7	4	15	4	12	nw.	P. O. Unumb.
Angus	Polk	870	10	−12.9	−16.4	24	31	− 49	11	35	0.15	.....	0.10	1.5	2	16	6	9	s.	John Nadvornik.
Bagley	Clearwater	.....	6	−12.7	.....	24	30	− 52	11	46	0.36	.....	0.14	6.0	3	14	11	6	sw.	Jens Nelson.
Baudette	Beltrami	1,084	1	−12.2	.....	24	30	− 48	6	41	0.09	.....	0.06	2.1	4	22	0	9	nw.	C. S. Dahlquist.
Beardsley	Bigstone	1,090	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. L. Fitzgerald.
Beaulieu	Mahnomen	1,200	9	−12.2	.....	23	31	− 49	11	43	0.60	.....	0.30	6.0	3	19	9	3	w.	Dr. P. A. Slattery.
Bemidji	Beltrami	1,400	9	.....	.....	.....	.....	.....	.....	.....	0.08	.....	0.06	0.8	2	.....	.....	.....	.....	C. W. Warfield.
Bird Island	Renville	1,039	22	− 3.0	−13.4	28	22†	− 38	12	32	0.23	− 0.39	0.21	2.6	3	7	11	13	nw.	Dr. F. L. Puffer.
Caledonia	Houston	1,179	19	− 1.8	−17.2	28	22	− 32	12†	41	0.62	− 0.39	0.15	6.2	7	14	3	14	nw.	W. D. Belden.
Campbell	Wilkin	984	6	− 7.6	.....	34	23	− 40	12	43	0.48	.....	0.20	4.8	4	11	2	18	nw.	J. T. Nelsess.
Cass Lake	Cass	1,300	5	.....	.....	.....	.....	.....	.....	.....	0.18	.....	0.10	4.0	2	.....	.....	.....	.....	C. W. Burns.
Collegeville	Stearns	1,282	19	− 2.5	−15.9	26	23	− 37	12	30	0.55	− 0.10	0.32	3.6	5	18	6	7	nw.	F. Tembreull.
Crookston	Polk	863	23	−10.2	−13.3	24	31	− 39	11	35	0.55	− 0.05	0.35	5.5	2	13	11	7	s.	A. G. Andersen.
Detroit	Becker	1,364	16	−14.2	−19.9	21	29	− 51	12	51	0.42	− 0.18	0.25	5.7	2	21	6	4	nw.	G. W. Peoples.
Ely	St. Louis	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. A. Barnes.
Fairmont (near)	Martin	1,240	25	− 0.8	−13.5	37	23	− 35	12	29	0.67	− 0.26	0.06	7.3	6	14	11	6	nw.	W. F. Wherland.
Faribault	Rice	1,003	14	.....	.....	.....	.....	.....	.....	.....	0.20	− 0.38	0.20	2.0	6	14	11	6	nw.	Alice Chambers.
Farmington	Dakota	902	24	− 4.2	−16.9	25	22†	− 37	12	33	0.38	− 0.56	0.18	6.0	6	15	8	8	nw.	E. D. Akin.
Fergus Falls	Otter Tail	1,210	20	− 3.9	−12.6	25	22	− 35	12	30	0.40	− 0.25	0.16	4.0	14	13	11	7	nw.	C. E. Kissinger.
Fort Ripley	Crow Wing	1,136	4	−11.4	.....	22	22†	− 51	12	46	0.36	− 0.19	0.17	7.9	5	23	0	8	n.	J. J. Tucker.
Fosston	Polk	1,289	2	−12.5	.....	18	31	− 48	11	36	0.26	.....	0.22	2.6	3	19	5	7	sw.	O. N. Hem.
Glencoe	McLeod	1,000	15	− 3.4	−17.2	26	23	− 37	12	35	0.70	+ 0.03	0.60	7.0	2	19	7	5	nw.	F. B. Reed.
Grand Meadow	Mower	1,338	24	− 4.1	−16.4	29	23	− 38	12	32	0.76	− 0.20	0.16	8.5	9	21	5	5	nw.	C. F. Greening.
Gull Lake Dam	Cass	1,215	1	−11.6	.....	21	22†	− 47	12	32	0.32	.....	0.15	15.1	7	22	4	5	nw.	G. A. Williams.
Hallock	Kittson	815	13	−12.4	−13.1	25	31	− 47	11	35	0.22	− 0.34	0.12	2.2	3	23	0	8	n.	D. A. Robertson.
Halstad	Norman	870	6	−11.8	.....	25	22†	− 43	11	45	0.26	.....	0.16	2.5	2	21	2	8	nw.	A. G. Holstrom.
Hinckley	Pine	1,050	7	− 6.5	.....	28[a]	29	− 40[a]	6†	33[a]	.....	.....	.....	.....	.....	6[a]	15[a]	9[a]	n.	W. R. Newman.
International Falls	Koochiching	1,112	9	− 9.4	.....	27	30	− 41	7†	40	0.65	.....	0.20	6.5	5	23	5	3	w.	Rees Roe.
Itasca State Park	Clearwater	1,500	1	−14.2	.....	21	22†	− 48	7†	42	0.35	.....	0.30	3.5	2	21	6	4	s.	J. A. Stillwell.
Lake Crystal	Blue Earth	.....	4	− 1.0	.....	32	22†	− 37	12	38	0.70	.....	0.30	7.0	4	16	8	7	nw.	W. P. Cobb.
Leech Lake Dam	Cass	1,301	24	−11.1	−15.6	25	30	− 47	12	47	0.28	− 0.47	0.07	5.0	6	14	13	7	w.	Hans Olson.
Littlefork	Koochiching	.....	2	−13.9	.....	27	30	− 52	7	49	0.33	.....	0.23	2.5	2	23	6	2	.....	O. C. Olson.
Long Prairie	Todd	1,299	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. L. Sheets.
Lynd	Lyon	1,175	19	0.0	−13.9	35	22	− 43	12	37	0.24	− 0.39	0.09	3.0	3	14	7	10	nw.	J. W. Rouse.
Mankato	Blue Earth	758	14	.....	.....	.....	.....	.....	.....	.....	0.22	− 0.80	0.12	4.0	2	20	4	7	nw.	Sadie H. Blake.
Mapleplain	Hennepin	1,023	17	− 4.0	−15.6	28	22†	− 37	12	28	0.85	− 0.27	0.50	9.8	12	11	13	7	nw.	G. W. Richards.
Milaca	Mille Lacs	1,072	13	− 6.8	−16.5	28	30	− 44	12	33	0.71	+ 0.27	0.41	8.0	3	15	9	7	nw.	C. H. Foss.
Milan	Chippewa	955	18	− 2.8	−13.1	31	22	− 37	12	34	0.70	− 0.38	0.20	7.0	6	7	22	2	nw.	O. K. Opjorden.
Minneapolis	Hennepin	918	21	− 2.7	−16.1	26	22	− 31	12	23	0.44	− 0.25	0.18	8.4	7	14	7	10	w.	U. S. Weather Bureau.
Montevideo	Chippewa	900	22	− 1.4	−12.4	25	22	− 38	12	36	0.29	− 0.37	0.10	3.2	6	11	9	11	nw.	L. G. Moyer.
Moorhead	Clay	935	31	− 6.2	− 8.9	28	22	− 38	11	35	0.39	− 0.32	0.27	3.9	10	13	10	8	nw.	U. S. Weather Bureau.
Mora	Kanabec	.....	7	− 8.4	.....	30	30	− 48	12	45	0.70	.....	0.35	7.5	3	21	6	4	nw.	Hans Peterson.
Morris	Stevens	1,170	27	− 5.2	−13.0	27	22	− 38	12	28	0.45	− 0.04	0.20	4.5	5	18	5	8	nw.	D. T. Wheaton.
New London	Kandiyohi	1,215	18	− 3.8	−13.2	30	24	− 42	12	36	0.24	− 0.37	0.18	3.0	2	17	11	3	sw.	Harold Swensen.
New Richland	Waseca	1,180	18	− 2.4	−16.8	28	22	− 37	12	27	0.36	− 0.60	0.15	4.0	3	17	10	4	nw.	N. O. Tyrholm.
New Ulm	Brown	791	32	− 3.4	−16.3	31	22	− 34	12	39	1.15	+ 0.11	0.45	11.4	7	8	0	23	nw.	A. L. Henle.
Osakis	Douglas	1,343	4	− 6.1	.....	22	23	− 41	12	31	0.33	.....	0.20	4.5	3	16	4	11	nw.	J. B. Johnson.
Park Rapids	Hubbard	1,426	22	−12.2	−15.8	21[a]	22†	− 47	12	44[a]	0.31	− 0.49	0.20	3.1	4	22	1	8	nw.	Dr. P. A. Walling.
Pine River Dam	Crow Wing	1,251	25	−10.8	−16.2	22	31	− 53	12	37	0.15	− 0.56	0.08	4.0	2	19	0 9	3	w.	Neil McKay.
Pokegama Falls	Itasca	1,280	25	−11.8	−15.8	25	30	− 53	6†	43	0.15	− 0.65	0.07	3.9	3	19	6	6	w.	A. L. Mampel.
Redlake	Beltrami	1,152	4	−10.2	.....	25	30	− 45	11	42	0.20	.....	0.20	1.8	1	12	9	10	w.	A. C. Goddard.
Red Wing	Goodhue	680	16	.....	.....	.....	.....	.....	.....	.....	0.52	− 0.34	0.18	6.5	6	16	4	11	nw.	Louis Bach.
Redwood Falls	Redwood	1,050	5	− 0.6	.....	32	22	− 36	12	35	0.65	− 0.33	0.40	6.5	3	14	9	8	nw.	N. B. Andersen.
Reeds Landing	Wabasha	681	16	.....	.....	.....	.....	.....	.....	.....	0.22	− 0.32	0.07	6.6	7	9	0	22	nw.	John Deschneau.
Rochester	Olmsted	991	7	− 3.8	.....	28	22	− 39	12†	47	0.24	.....	0.15	6.5	2	16	4	11	nw.	Mary P. Cram.
Roseau	Roseau	1,040	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A. Waag.
St. Charles	Winona	850	21	− 3.2	−17.0	27	23	− 40	12	32	0.54	− 0.63	0.18	5.6	5	21	2	8	se.	S. W. Gleason.

TABLE 1.—*Climatological data for January, 1912. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Precipitation, in inches. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
Minnesota—Continued.																				
St. Cloud	Sherburne	1,020	35	− 5.7	−15.5	23	22	− 40	12	26	0.26	− 0.47	0.11	2.5	3	18	6	7	nw.	J. H. Capser.
St. Paul	Ramsey	940	41	− 2.0	−13.6	26	22	− 36	12	28	0.52	− 0.38	0.19	7.3	9	13	14	4	nw.	U. S. Weather Bureau.
St. Peter	Nicollet	825	17	− 1.6	−17.8	30	23	− 40	12	37	0.22	− 0.45	0.12	2.2	2	14	9	8	w.	State Hospital.
Sandstone	Pine			− 8.6		32	30	− 44[a]	6	42[a]	0.49		0.16	6.1	5	14	11	6	n.	A. D. Hale.
Sandy Lake Dam	Aitkin	1,234	19	− 9.6	−16.5	24	30	− 47	7	39	0.13	− 0.75	0.13	1.8	1	21	6	4	sw.	A. Newstrom.
State Sanatorium	Cass		4	− 8.4		21	30	− 43	12	31	0.38		0.25	4.0	2	22	2	7	n.	Dr. L. B. Ohlinger.
Stillwater	Washington	694	6								0.09		0.07	1.0	2	22	4	5	nw.	Oscar Ostrom.
Taylors Falls	Chisago	759	5	− 6.8		22	22†	− 45	6†	41	0.30		0.30	4.5	1	19	5	7	n.	Mpls. Gen. Elec. Co.
Thief River Falls	Pennington		1	−13.4		22	31	− 47	11	35	0.22		0.12	1.8	2	24	5	2	n.	E.W. Lown.
Tracy	Lyon		1																	B. L. English.
Warroad	Roseau	1,069	2	−13.2		20	31	− 47	7	37	0.10		0.10	1.0	1	24	3	4	nw.	J. H. Sawyer.
Winnebago	Faribault	1,100	14	− 1.8	−17.2	34	22	− 35	12	39	1.10	+ 0.27	0.70	11.0	5	19	6	6	nw.	H. H. Haight.
Winnibigoshish	Itasca	1,300	24	−10.0	−15.6	26	30	− 46	6†	41	0.36	− 0.38	0.09	4.2	5	25	1	5	nw.	John Duncan.
Winona	Winona	700	16	− 1.0	−13.5	29	23	− 35	12	36	0.52	− 0.63	0.17	5.6	7	19	4	8	w.	P. C. Myers.
Worthington	Nobles	1,593	17	− 2.0	−16.6	34	22	− 36	12	45	0.40	− 0.22	0.40	3.5	1	18	3	10	nw.	M. P. Mann.
Zumbrota	Goodhue	917	16	− 3.4	−18.6	26	23	− 36	12	33	0.51		0.21	4.8	5	15	11	5	nw.	W. C. Rowell.
South Dakota.																				
Milbank	Grant	1,148	21	− 2.6	−14.8	38	23	− 34	12	42	0.21	− 0.41	0.12	1.2	3	10	1	20	nw.	I. T. Patridge.
Wisconsin.																				
Antigo	Langlade	1,489	18	− 3.2	−16.7	28	31	− 35	7	35	0.72		0.20	7.2	7	24	1	6	w.	Elton C. Larzelere.
Barron	Barron	1,115	21	− 6.7	−17.0	23	31	− 42	7†	42	0.40	− 0.72	0.20	4.0	2	21	7	3	sw.	Wm. A. Kent.
Beloit	Rock	750	46	5.4	−15.0	35	23	− 22	12	35	0.52	− 1.36	0.20	5.2	3	24	0	7	nw.	Smith Observatory.
Big St. Germain Dam	Vilas	1,590	2	− 6.0		26	30†	− 40	6	43	0.72		0.23	15.0	6	21	6	4	nw.	Oscar Brehmer.
Brodhead	Green	812	14	3.2	−17.6	33	23	− 26	12	36	0.75	− 0.59	0.30	7.5	4	20	7	4	nw.	Hector D. Kirkpatrick.
Burnett	Dodge	880	8	− 2.0		23	23	− 27	12	35	1.56		0.65	17.8	7	16	5	10	nw.	Geo. W. Smith.
Cottage Grove	Dane	888	1								0.64		0.25	9.7	8	15	9	7	nw.	John E. Mellish.
Darlington	Lafayette	867	6	1.7		34[a]	23	− 26[a]	12†	32[a]						18[a]	3[a]	9[a]	nw.	S. P. Nelson.
Deerskin Dam	Forest	1,625	2	− 6.4		30	31	− 43	7	48	0.49		0.30	7.3	3	16	11	4	nw.	Wm. E. O'Neal.
Delavan	Walworth	920	21	2.8	−16.4	33	23	− 22	12†	30	0.18	− 1.42	0.08	4.5	4	16	7	8	nw.	Elwood S. Austin.
Dodgeville	Iowa	1,116	12	1.0	−17.0	31	23	− 29	12	33	0.40	− 0.45	0.30	4.0	2	19	2	10	sw.	Thomas Gibbon.
Downing	Dunn	983	10	− 6.3	−17.4	27	1	− 45	12	45	1.30	+ 0.13	0.60	13.0	5	7	2	22	w.	Eugene F. Stoddard.
Eau Claire	Eau Claire	800	21	− 3.4	−16.5	27	30	− 36	12	35	0.53	− 0.47	0.26	5.3	8	17	7	7	nw.	Robert D. Whitford.
Grand Rapids	Wood	1,021	13	− 4.2	−17.5	29	30	− 36	12	38	1.09	+ 0.61	0.45	16.5	9	19	0	12	w.	Willis B. Raymond.
Grantsburg	Burnett	1,095	21	− 8.2	−19.1	27	30	− 48	12	48	0.90	− 0.21	0.50	9.0	3	18	5	8	nw.	Theodore Olsen.
Hancock	Waushara	1,091	20	− 3.0	−18.3	27	30	− 36	12	38	0.90	− 0.34	0.30	9.0	5	17	5	9	nw.	Frederick B. Hamilton.
Hatfield	Jackson	973	18	− 5.9	−20.8	25	1	− 43	12	43	0.25	− 0.58	0.10	2.5	3	24	5	2	nw.	Walter S. Woods.
Hayward	Sawyer	1,197	21	− 8.2	−18.2	26	30	− 49	12	43	0.65	− 0.39	0.25	6.5	5	18	6	7	sw.	William E. Swain.
Hillsboro	Vernon	1,000	21	− 4.5	−19.8	27	23	− 45	12	47	0.75	− 0.66	0.30	7.5	4	20	10	1	w.	Emil V. Wernick.
Koepenick	Langlade	1,683	21	− 4.8	−17.5	30	1	− 42	7	43	0.40	− 0.95	0.10	4.0	4	0	27	4	nw.	Edward S. Koepenick.
Lac du Flambeau	Vilas		2	−10.0		22	22	− 40	12†	41	0.68		0.43	11.8	4	23	1	7	n.	W. J. Lovett.
La Crosse	La Crosse	714	40	− 1.1	−16.5	29	23	− 34	7	35	0.78	− 0.30	0.20	8.4	13	12	10	9	s.	U. S. Weather Bureau.
Lakemills	Jefferson	897	21	2.2	−16.2	30	23	− 25	12	34	0.59	− 0.96	0.25	6.5	6	12	11	8	w.	S. Newton Dexter Smith.
Lancaster	Grant	1,070	21	0.7	−15.8	32	23	− 29	12	31	0.42	− 0.62	0.36	8.5	3	8[b]	13[b]	8[b]	nw.	Edward Pollock.
Long Lake	Oneida	1,592	4	− 9.0		31	31	− 49	6	52	0.53		0.16	7.2	8	21	2	8	w.	Louis Frank.
Madison	Dane	974	43	1.2	−15.3	31	23	− 25	12	30	0.58	− 0.98	0.20	5.9	12	13	5	13	nw.	U. S. Weather Bureau.
Mather	Juneau	962	8	− 5.4		23	22†	− 37	7†	46	1.20		0.30	12.0	9	14	6	11	w.	Frank Evans.
Mauston	do	882	16	− 1.9	−17.7	26	23†	− 37	12†	47	0.25	− 0.81	0.15	5.0	2	20	4	7	nw.	Eugene L. Hitchcock.
Meadow Valley	do	974	21	− 4.6	−18.3	24	31	− 38	12	41	0.51	− 0.29	0.23	9.0	5	13	13	5	nw.	Charles H. Johnson.
Medford	Taylor	1,420	23	− 4.0	−16.9	25	30	− 40	6	35	0.30	− 0.66	0.20	3.0	2	19	6	6	n.	Wm. Zeit.
Merrill	Lincoln	1,267	6	− 3.9		28	31	− 42	12	42	0.20		0.20	2.0	1	20[a]	6[a]	4[a]	nw.	J. M. Wilson.
Minocqua	Oneida	1,604	8	− 7.4		26	31	− 41	12†	45	0.40		0.20	6.5	5	17	9	5	w.	Benjamin W. Applebee.
Mondovi	Buffalo	738	4	− 5.6		26	22	− 38	12†	43	0.28		0.09	7.5	7	22	3	6	nw.	Dr. Chas. Hebard.
Mount Horeb	Dane	1,226	8	0.6		30	23	− 30	7	31	0.77		0.20	8.0	5	22	3	6	nw.	W. M. Lewis.
Muscoda	Grant	666	3	− 0.8		32	22	− 35	12	42	0.31		0.16	6.0	3	18	4	9	nw.	Wm. Hessler.
Neillsville	Clark	996	22	− 6.3	−19.4	24	31	− 38	12	41	0.76	− 0.35	0.27	8.0	3	18	0	13	nw.	Wm. Heaslett.
New Richmond	St. Croix	990	7	− 6.2		24	30	− 41	12	42	1.40		0.60	14.0	3	4	14	13	nw.	Franc A. R. Van Meter.
Osceola	Polk	806	21	− 6.6	−16.6	24	29†	− 45	12	35	0.64	− 0.36	0.27	8.5	4	17	4	10	w.	Charles W. Staples.
Park Falls	Price	1,492	21	− 7.2[d]		29[c]	31	− 44	7	45[c]	0.55		0.25	1.9	4	21[c]	2[c]	5[c]	w.	Flambeau Paper Co.
Portage	Columbia	809	23	− 0.8	−19.0	26	23	− 30	12	31	0.73	− 0.42	0.35	8.0	4	21	4	6	nw.	James H. Martin.
Port Edwards	Wood	969	2	− 5.4		30	30	− 44	12	47	1.50		0.70	15.0	6	27	0	4	nw.	Nekoosa-Edwards Paper Co
Prairie du Chien	Crawford	690	21	− 0.8	−19.1	33	22	− 34	12†	39	0.51	− 0.71	0.28	10.0	3	10	7	14	nw.	James A. Gillis.
Prairie du Sac	Sauk	750	4	− 0.4		30	23	− 34	13	47	0.72		0.23	11.0	5	15	7	9	nw.	Wis. River Power Co.
Prentice	Price	1,551	14	− 7.0	−18.3	23	31	− 47	12	42	0.37	− 0.91	0.16	3.5	4	20	2	9	w.	Joseph G. Lash.
Rhinelander	Oneida	1,550	6	− 5.4		31	31	− 40	6	39	0.36		0.07	5.5	8	24	2	5	nw.	Rhinelander Power Co.
Shullsburg	Lafayette	1,019	6	1.8		33	23	− 27	7	31	0.45		0.18	4.5	4	18	3	10	w.	Harrison B. Chamberlain.
Solon Springs	Douglas	1,083	6	− 8.6		29	30	− 45	12†	41	0.60		0.40	6.0	3	23	0	8	sw.	John M. Sayles.
Spooner	Washburn	1,104	18	− 7.4	−18.6	26	31	− 40	12	34	0.85	− 0.09	0.40	8.5	5	23	2	6	w.	Horace A. Bresee.
Stanley	Chippewa	1,082	8	− 5.6		24[a]	30†	− 41[a]	6	40[a]	0.69		0.40	7.0	2	25	1	5	nw.	W. Humphrey Scott.
Stevens Point	Portage	1,113	19																	Garry E. Culver.
Sugar Camp Dam	Oneida	1,582	2								0.52		0.16	9.0	7	18	5	8	nw.	Robert Hayes.
Trout Lake	Vilas			− 6.2		25	27	− 40	6	44	0.72			7.2	4	17	5	9	w.	F. B. Woodruff.
Twin Lakes Dam	do	1,625	2								0.70		0.40	13.2	5	18	7	6	sw.	Albert D. Hansen.
Valley Junction	Monroe	930	20	− 4.1	−19.2	25	31	− 36	12	41	1.03	+ 0.01	0.21	10.4	10	14	7	10	nw.	Frederick Muermann.
Viroqua	Vernon	1,413	22	− 0.9	−16.6	27	23	− 33	12	30	0.78	− 0.43	0.25	10.0	9	15	8	8	nw.	Henry E. Rogers.
Vudesare	Vilas	1,600	4	−10.2		28	31	− 42	6†	49	1.06		0.40	15.8	4	18	10	3	w.	Louis L. Thomas.
Watertown	Jefferson	824	21	0.4	−18.5	29	23	− 26	13	38	1.38	− 0.26	0.55	13.8	9	15	5	11	nw.	Charles J. Salick.
Waukesha	Waukesha	864	21	2.8	−16.6	26	23	− 22	13†	31	1.36	− 0.11	0.45	13.5	8	12	15	4	nw.	Carroll College.
Wausau	Marathon	1,212	17	− 3.2	−18.0	24	30†	− 35	6	35	0.38	− 0.78	0.13	6.0	7	22	5	4	nw.	George H. Halder.
Weyerhauser	Rusk	1,297	10	− 8.4		30	30	− 48	6	42	0.74		0.25	10.5	5	22	5	4	nw.	Miss Etta Stiles.
Whitehall	Trempealeau	675	21	− 4.5	−18.6	26	23	− 49	7	43	0.90	+ 0.06	0.30	9.0	6	19	0	12	w.	Hans J. Haugh.
Iowa.																				
Albia	Monroe	959	14	5.2	−18.5	43	22	− 29	12	48	0.20	− 1.22	0.20	2.0	1	15	7	9	nw.	J. I. Chenoweth.
Algona	Kossuth	1,213	38	0.7	−12.6	35	22†	− 35	12	33	0.43	− 0.36	0.15	6.5	4	17	8	6	nw.	Dr. F. T. Seeley.
Alta	Buena Vista	1,513	21	0.8	−15.6	38	24	− 36	12	45	0.77	+ 0.13	0.23	8.0	9	9	11	11	nw.	David E. Hadden.
Amana	Iowa	721	36	6.0	−10.3	40	22	− 28	12	37	0.23	− 1.24	0.09	2.3	7	12	10	9	nw.	C. Schadt.
Ames	Story	926	36	3.1	−14.4	39	22	− 35	12	40	0.49	− 0.43	0.15		8				nw.	Iowa State College.
Baxter	Jasper	998	12	3.6	−16.7	45	22	− 33	12	42	0.93	+ 0.05	0.48	9.0	8	13	11	7	nw.	W. R. Vandike.
Belle Plaine	Benton	828	22	4.2	−14.2	41	22	− 31	12	42	0.43	− 1.34	0.20	4.0	5	13	7	11	nw.	S. P. Van Dike.
Belmond	Wright		2	− 0.8		34	23	− 37	12	36	1.04		0.35	10.4	14	5	15	11	nw.	Geo. P. Hardwick.

TABLE 1.—*Climatological data for January, 1912. District No. 5*—Continued.

Stations.	Counties.	Elevation. feet.	Length of record, years.	Temperature, in degrees Fahrenheit. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Precipitation, in inches. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Sky. Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.
***Iowa*—Continued.**																				
Bloomfield	Davis		5	9.9		44	22	− 26	12	37	0.40		0.16	4.0	5	18	0	13	nw.	Albert Power.
Bonaparte	Van Buren		21	8.8	−14.4	43	22	− 26	12	41	0.28	− 1.70	0.16	3.0	2					B. R. Vale.
Boone	Boone	1,134	7	1.2		38	22	− 35	12	39	0.43		0.17	5.0	3				nw.	C. F. Henning.
Britt	Hancock	1,236	15	−0.8	−16.8	34	23	− 36	12	36	0.33	− 0.35	0.11	3.3	6	16	10	5	nw.	L. M. Goodman.
Buckingham	Tama		12								0.45	− 0.61	0.24		3	12	14	5		J. S. Guynn.
Burlington	Des Moines	544	16	9.4	−17.6	42	22	− 21	12	36	0.65	− 1.33	0.30	6.5	4	19	2	10	w.	Max E. Poppe, jr.
Carroll	Carroll	1,265	22	5.3	−13.7	47	24	− 40	12	40	0.70	− 0.11	0.30	7.0	4	11	8	12	nw.	Mrs. Jos. J. Wolfe.
Cedar Rapids	Linn	733	30	4.0	−14.2	36	22	− 25	12	37	0.46	− 0.96	0.20	4.6	4	14	4	13	w.	Chas. B. Graf.
Charles City	Floyd	1,015	21	−2.4	−13.8	34	22	− 34	12	37	0.93	− 0.04	0.30	7.9	7	11	6	14	nw.	U. S. Weather Bureau.
Clear Lake	Cerro Gordo	1,241	14	0.6	−16.0	33	23†	− 35	12	39	0.15	− 0.42	0.10	1.5	2	22	0	9	nw.	Oscar Stevens.
Clinton	Clinton	593	45	7.0	−12.7	39	22	− 21	12	34	0.44	− 1.48	0.19	4.5	4	8	14	9	nw.	Luke Roberts.
Columbus Junction	Louisa	595	11	9.6	−13.7	42	22	− 24	12	37	0.11	− 1.36	0.10	1.5	2	15	7	9	nw.	J. B. Johnston.
Davenport	Scott	580	41	8.0	−12.8	42	22	− 21	12	35	0.18	− 1.39	0.09	2.5	5	9	7	15	w.	U. S. Weather Bureau.
Decorah	Winneshiek	875	19	−2.1	−17.6	33	23	− 37	12	38	0.61	− 0.54	0.18	7.0	7					F. H. Baker.
Delaware	Delaware	1,083	21	1.9	−13.9	34	22	− 28	12	35	0.26	− 0.73	0.13	8.5	4	19	4	8	nw.	William Ball.
Des Moines	Polk	861	34	6.2	−14.2	42	22	− 29	12	38	0.53	− 0.68	0.19	6.2	10	10	5	16	nw.	U. S. Weather Bureau.
Dubuque	Dubuque	639	39	3.8	−14.5	36	23	− 26	12	31	0.55	− 0.94	0.20	5.8	9	10	9	12	nw.	Do.
Earlham	Madison		10	5.0	−14.4	42	22	− 36	12	38	0.37	− 0.71	0.30	3.7	3	16	1	14	nw.	George Phillips.
Elkader	Clayton	727	33	−1.3	−16.1	32	26	− 36	7†	37	0.68	− 0.63	0.18	11.0	5	17	8	6	nw.	Chas. Reinecke.
Elma	Howard		2	−3.0		32	23	− 36	7†	31	0.44		0.25	6.5	4	16	11	4	nw.	H. A. Moore.
Estherville	Emmet	1,298	17	0.1	−14.9	38	22	− 36	12	34	0.60	+ 0.04	0.30	6.0	4				nw.	A. O. Peterson.
Fairfield	Jefferson		28	9.5	− 8.1	42	22	− 25	12	35	0.16	− 1.54	0.08	1.4	3	17	3	11	nw.	R. M. McKenzie.
Fayette	Fayette	1,003	22	−1.4	−17.5	34	23	− 32	7†	42	0.68	− 0.60	0.28	7.0	4	17	7	7	nw.	R. Z. Latimer.
Forest City	Winnebago	1,226	18	−2.8	−19.0	33	22	− 36	12	40	0.75	+ 0.11	0.20	8.0	6	15	11	5	nw.	J. A. Peters.
Fort Dodge	Webster	1,126	12	2.2	−14.9	37	22†	− 35	12	46	0.70	+ 0.06	0.30	7.0	5	19	3	9	nw.	J. F. Monk.
Fort Madison	Lee	516	63								0.50	− 1.46	0.20	5.0	3	7	9	15	n.	Miss L. A. McCready.
Gilman	Marshall	1,052	13								1.70	+ 0.87	0.60		5					J. L. Wylie.
Grand Meadow	Clayton	1,180	21	−2.0	−17.5	32	23	− 35	12	30	1.02	− 0.15	0.40	10.3	5	13	9	9	nw.	F. L. Williams.
Grinnell	Poweshiek	1,023	20	5.4	−14.8	40	22	− 29	12	39	0.50	− 0.77	0.45	5.0	2	16	5	10	nw.	D. W. Brainard.
Grundy Center	Grundy	976	21	2.6	−14.3	38	23	− 32	12	36	0.70	− 0.12	0.30	7.0	3	22	0	9	nw.	J. B. Calderwood.
Guthrie Center	Guthrie	1,077	17	6.1	−16.6	39	22	− 35	12	35	0.51	− 0.08	0.16	4.1	6	17	4	10	nw.	D. G. Beardsley.
Hampton	Franklin	1,155	22	1.0	−14.5	33	22	− 34	12	30	0.97	− 0.07	0.40	9.1	4	6	15	10	nw.	E. C. Grenelle.
Humboldt	Humboldt	1,095	24	0.8	−16.0	38	22	− 42	12	44	0.78	+ 0.23	0.38	7.8	3	16	3	12	nw.	Henry S. Wells.
Independence	Buchanan	921	48	1.7	−13.5	35	23	− 32	12	35	0.55	− 0.68	0.25	5.5	4	15	6	10	nw.	R. E. Dudley.
Indianola	Warren	969	21	6.6	−13.6	40	22	− 32	12	35	0.47	− 0.80	0.30	4.2	7	11	6	14	nw.	Prof. J. L. Tilton.
Iowa City	Johnson	683	52	4.0	−15.1	39	22	− 28	12	40	0.26	− 1.48	0.13	3.0	3	13	5	13	nw.	Prof. A. G. Smith.
Iowa Falls	Hardin	1,170	19	−0.8	−16.0	35	22	− 34	12	40	0.90	0.00	0.30	9.0	5	16	6	9	nw.	J. B. Parmlee.
Jefferson	Greene		13	3.2		39	22	− 37	12	41	0.88	+ 0.06	0.35	10.3	7	11	11	9	nw.	Ora M. Hall.
Keokuk	Lee	547	41	11.8	−11.9	46	22	− 22	12	38	0.18	− 1.51	0.09	3.4	4	8	13	10	nw.	U. S. Weather Bureau.
Keosauqua	Van Buren	644	20	8.4	−14.7	43	22	− 25	12	39	0.50	− 0.87	0.15	5.0	6					J. H. Landes.
Knoxville	Marion	920	17	8.0	−15.1	44	22	− 30	12	33	0.40	− 0.95	0.10	3.0	6	17	2	12	nw.	Casey and Bellville.
Lacona	Warren		13								0.51	− 1.16	0.20	6.0	13	10	8	13		J. B. Alter.
Le Claire	Scott	576	12								0.22	− 1.21	0.10	2.2	9					Miss M. T. Disney.
Marshalltown	Marshall	947	20	2.4	−17.0	43	22	− 31	12	41	0.99	− 0.01	0.37	10.0	9	5	18	8	nw.	Ralph B. Reasoner.
Mason City	Cerro Gordo	1,132	15	−0.8	−15.9	33	23	− 33	12	36	0.50	− 0.65	0.10	5.0	6	14	10	7	nw.	J. S. Hills.
Monroe	Jasper			5.1		42	22	− 32	12	38	0.41		0.41	3.0	1	13	3	15	sw.	J. A. Dibel.
Mount Pleasant	Henry	729	31	9.8	−11.2	41	22	− 24	12	38	0.42	− 1.04	0.21	4.7	3	10	9	12	nw.	J. W. Edwards.
Muscatine	Muscatine		52								0.27	− 1.64	0.10	3.2	5					William Molis.
New Hampton	Chickasaw	1,169	15	−2.4	−19.2	32	23	− 34	12	32	0.20	− 0.63	0.10	2.0	2	16	6	9	n.	A. F. Kemman.
Northwood	Worth	1,122	16	−2.0	−18.3	34	23	− 37	12	36	0.86	+ 0.01	0.30	8.5	10	16	5	10	nw.	Chas. H. Dwelle.
Olin	Jones	760	14	4.4	−16.2	37	22	− 25	7†	41	0.50	− 1.18	0.30	5.0	2	20	9	2	nw.	Dr. F. W. Port.
Osage	Mitchell	1,184	25	−1.8	−15.8	32	23	− 35	12	34						16	5	10	nw.	Lester Coonradt.
Oskaloosa	Nahaska	843	36	6.4	−12.8	42	22	− 31	12	40	0.30	− 0.62	0.20	3.0	3	16	2	13	nw.	Joseph Boyd.
Ottumwa	Wapello	649	17	9.4	−15.1	41	22	− 28	12	38	0.13	− 1.47	0.13		1	11	6	14	nw.	Chester Potter.
Pella	Marion	877	10	5.4	−17.8	44	22	− 33	12	44	0.38	− 0.74	0.17	5.6	6	23	8	0	nw.	J. H. Ver Steeg.
Perry	Dallas	975	11													12	13	6	nw.	Ed. S. Gray.
Plover	Pocahontas	1,426	16	2.2	−15.8	37	21	− 36	12	34	0.95	+ 0.37	0.30	9.5	7	23	2	6	s.	J. S. Smith.
Pocahontas	do	1,248	8	1.4	−16.1	35	22†	− 36	12	37	0.55	− 0.38	0.17	5.8	10	18	6	7	nw.	T. E. Hronek.
Ridgeway	Winneshiek	1,215	14	1.0	−18.2	33	22†	− 35	12	36	0.77	− 1.21	0.23	4.8	12	16	8	7	nw.	Arthur Betts.
Rockwell City	Calhoun		16	3.9	−15.9	39	22	− 35	12	36	1.90	+ 1.20	0.60	19.0	6	18	0	13		C. M. Randall.
Sac City	Sac	1,278	36	3.1	−14.3	37	21†	− 35	12	43	1.30	+ 0.32	0.40	13.0	7	18	3	10	nw.	E. N. Baily.
Saint Charles	Madison	1,070	11	8.4	−14.4	44	22†	− 32	12	37	0.42	− 0.73	0.20	3.2	4	16	6	9	nw.	R. D. Minard.
Sigourney	Keokuk	877	16	7.0	−15.8	41	22	− 27	12	39	0.21	− 1.38	0.12	3.5	3	4	22	5	nw.	J. T. Parker.
Stockport	Van Buren	745	10	8.6		43	22	− 25	12	45	0.28	− 1.06	0.12		3	17	3	11	nw.	C. L. Beswick.
Storm Lake	Buena Vista	1,440	23	1.8[d]	−15.6	34[e]	22†	− 36[e]	12	31[e]	0.61	− 0.10	0.18	5.3	6	18	4	9	nw.	Prof. W. Ingold.
Tipton	Cedar	807	13	7.2	−13.4	37	22	− 20	7†	34	0.38	− 1.11	0.09	3.8	6	13	9	9	nw.	F. K. Gregg.
Toledo	Tama	856	18	3.2	−15.9	39	22	− 31	12	36	1.10	+ 0.15	0.50	11.0	4	16	5	10	nw.	I. F. Giger.
Wapello	Louisa	588	14	10.8	−14.3	35	22	− 18	12	33	0.05	− 1.28	0.03	3.0	2	12	6	13	nw.	G. W. Schofield.
Washington	Washington	769	30	9.6	− 9.5	46	22	− 26	12	37	0.12	− 1.44	0.10	1.0	2	15	10	6	nw.	Wm. A. Cook.
Waterloo	Black Hawk	862	29	1.2	−16.3	36[d]	22	− 32	12	36[d]	0.73	− 0.39	0.24	7.3	7	14	4	13	nw.	Ralph B. Slippy.
Waukee	Dallas	1,039	9	4.8	−16.0	48	22	− 36	12	39	0.64	− 1.04	0.36	4.7	8	18	7	6	nw.	Samuel F. Foft.
Waverly	Bremer	948	16	0.0	−17.9	36	23	− 34	12	41	0.70	− 0.29	0.40	7.0	2	19	9	3	nw.	Earl C. Moore.
Webster City	Hamilton		7																	C. D. Carpenter.
West Bend	Palo Alto	1,197	19	1.7	−15.1	36	22	− 36	12	37	0.70	0.00	0.30	7.0	6	12	10	9	nw.	Phil. Dorweiler.
Whitten	Hardin	1,036	15	1.0	−17.4	45	28	− 35	12	39	0.65	− 0.21	0.40	6.5	3	11	10	10	nw.	Dr. F. P. Butler.
Winterset	Madison	1,129	21	6.7	−14.7	41	23	− 34	12	35	0.40	− 0.51	0.20	4.0	3	10	7	14	n.	Dr. R. S. Cooper.
Missouri.																				
Gorin	Scotland	700	26								0.20	− 1.49	0.15	2.0	4	9	5	17	nw.	J. W. Pulliam.
Hannibal	Marion	534	20	15.2	−11.5	48	22	− 20	7	35	0.32	− 1.88	0.12	4.3	7	13	8	10	nw.	U. S. Weather Bureau.
Louisiana	Pike	500	34	15.3	−12.9	49	23	− 25	13	39	0.56	− 1.50	0.50	6.0	3	20	5	6	ne.	J. T. Farrell.
Mexico	Audrain	797	34	16.0	−13.0	52	22	− 21	7†	46	0.73	− 1.38	0.40	4.1	6	15	0	16	nw.	J. F. Llewellyn.
Steffenville	Lewis	576	19	15.0	−14.0	48	23	− 22	12	35	0.46	− 1.96	0.10	3.0	5	12	9	10	nw.	Frank Hall.
Sublett	Adair	1,000	32																	Lewis Spriggs.
Vandalia	Audrain	776	1	15.0		51	24	− 24	7	34	0.45		0.45	4.5	1	21	6	4	n.	C. B. Ellis.
Warrenton	Warren	865	22	16.5	−13.0	53	22	− 20	7	42	0.92	− 1.69	0.54	6.2	6	10	8	13	nw.	Prof. J. H. Frick.
Indiana.																				
Collegeville	Jasper		13	12.9	−13.8	40	18†	− 23	13	35	2.07	− 0.32	0.57	7.0	12	9	10	12	sw.	Otto Miller.
Knox	Starke	716	7	13.4		38	18	− 17	13	29	1.08		0.43	12.8	8	11	10	10	w.	W. R. R. Tatman.
Laporte	Laporte	810	16	11.8	−13.3	36	23	− 17	7	23	1.38	− 0.87	0.40	10.8	12	13	5	13	w.	Wm. M. Walton, jr.
Plymouth	Marshall	790	9	13.2		37	18	− 17	7	28	1.10		0.35	10.0	11	8	12	11	sw.	J. W. Siders.

TABLE 1.—*Climatological data for January, 1912. District No. 5*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Illinois.																				
Aledo	Mercer	738	12	9.7	−13.3	41	22	− 23	12	37	0.17	− 1.29	0.12	3.5	3	16	6	9	nw.	William B. Frew.
Alexander	Morgan	670	19	15.2	−11.9	47	22	− 24	7	36	0.68	− 1.42	0.55	4.0	8	10	10	11	nw.	George H. Hall.
Antioch	Lake	861	11	4.8	−15.0	33	1	− 18	7†	31	0.50	− 1.10	0.25	6.5	3	9	8	14	w.	J. C. James.
Astoria	Fulton	650	13	13.2	−12.5	44	22†	− 21	13	37	0.59	− 1.67	0.20	4.8	6	8	11	12	nw.	Edward V. Bohl.
Aurora	Kane	687	33	9.0	−11.8	35	22†	− 20	7	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. Holden.
Bement	Piatt	700	5	16.2[c]	.....	44[a]	22	− 18[c]	7	28[c]	1.42	.....	0.98	8.0	6	9	7	15	w.	Rev. C. S. Adams.
Bloomington	McLean	840	21	12.3	−12.8	43	23	− 19	7	34	0.77	− 1.33	0.50	4.1	4	15	14	2	w.	Prof. H. N. Pearce.
Cairo	Alexander	359	40	26.6	− 8.2	57	23	− 8	13	30	4.13	+ 0.31	1.43	7.4	6	15	6	10	n.	U. S. Weather Bureau.
Carbondale	Jackson	412	7	24.5	.....	59	23	− 24	13	43	3.16	.....	0.70	18.7	8	16	2	13	nw.	State Normal University.
Carlinville	Macoupin	663	22	16.8	−11.9	52	23	− 22	7	32	0.92	− 1.33	0.61	4.3	4	13	4	14	w.	W. T. Eddy.
Carlyle	Clinton	470	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	J. E. Rogan.
Chester	Randolph	380	6	.....	.....	.....	.....	.....	.....	.....	2.72	.....	1.10	16.4	10	.....	.....	.....	.....	F. A. Gollon.
Clinton	Dewitt	727	2	14.2	.....	44	23	− 21	7	33	1.18	.....	0.71	7.0	5	12	8	11	nw.	J. Frank Ziegler.
Coatsburg	Adams	763	20	13.1	−11.9	43	22†	− 21	7	34	.....	.....	.....	.....	.....	18	4	9	n.	Dr. J. R. Lambert.
Cobden	Union	656	29	24.4	− 9.4	59	23	− 18	13	41	2.90	− 0.52	1.05	21.0	5	12	7	12	n.	John Buck.
Dakota	Stephenson	929	7	3.3	.....	34	23	− 24	7	33	0.34	.....	0.20	7.2	5	11	11	9	w.	Rev. G. W. Kerstetter.
Decatur	Macon	685	21	15.7	−10.5	46	22	− 22	7	35	1.34	− 1.08	0.79	6.7	5	13	4	14	nw.	Prof. J. H. Coonradt.
Dixon	Lee	725	22	6.5	−13.6	36	23	− 20	7	38	0.50	− 1.46	0.28	4.0	3	20	8	3	.....	H. U. Bardwell.
Du Quoin	Perry	459	24	22.8	− 9.0	59	23	− 22	13	41	2.68	+ 0.17	0.78	11.5	6	18	6	7	nw.	G. H. Knetzger.
Dwight	Livingston	600	19	11.3	−14.3	36	22†	− 17	7	32	0.47	− 1.64	0.22	3.3	6	11	4	16	nw.	Edward O. Welch.
East St. Louis	St. Clair	418	1	.....	.....	.....	.....	.....	.....	.....	1.29	.....	0.60	13.2	6	.....	.....	.....	.....	W. McK. Brown.
Edwardsville	Madison	554	13	.....	.....	.....	.....	.....	.....	.....	1.27	− 1.09	0.60	15.5	4	.....	.....	.....	.....	W. H. Morgan.
Elgin	Kane	716	5	9.0	.....	32	22†	− 19	7	32	0.49	.....	0.36	6.0	4	7	12	12	nw.	Elgin Observatory.
Ewing	Franklin	449	.....	.....	.....	.....	.....	.....	.....	.....	0.92	.....	0.58	11.5	5	12	9	10	w.	Ewing College.
Fairview	Fulton	733	.....	.....	.....	.....	.....	.....	.....	.....	0.17	.....	0.09	2.2	4	.....	.....	.....	.....	Abram Wilson.
Galva	Henry	842	20	8.6	−13.0	39	22	− 21	7†	39	0.18	− 1.55	0.11	3.2	4	16	4	11	nw.	Prof. F. U. White.
Grafton	Jersey	422	19	.....	.....	.....	.....	.....	.....	.....	1.48	− 0.69	0.58	9.0	6	.....	.....	.....	.....	R. C. Goodrich.
Greenville	Bond	635	34	18.3	−10.7	49	22	− 20	7	30	0.57	− 2.19	0.40	5.8	3	9	6	16	nw.	M. S. Oudyn.
Griggsville	Pike	650	27	15.6	−11.2	49	23	− 20	7	37	0.25	− 1.81	0.16	1.5	5	15	3	13	nw.	George F. Kneeland.
Havana	Mason	475	20	15.4	−11.6	46	23	− 16	7	35	0.58	− 1.56	0.33	2.3	5	9	19	3	w.	F. and C. Borgelt.
Henry	Marshall	500	24	11.4	−11.6	38	22†	− 17	12	34	0.18	− 1.70	0.11	2.5	2	18	8	5	nw.	Dr. F. A. Powell.
Hillsboro	Montgomery	675	18	18.8	−11.3	51	23	− 20	7	34	1.01	− 1.38	0.42	15.5	6	14	1	16	nw.	Ira L. Woodward.
Joliet	Will	541	21	10.0	−13.8	36	23	− 18	7	34	0.22	− 1.75	0.08	2.0	4	13	12	6	nw.	F. M. Muhlig.
Kishwaukee	Winnebago	730	24	4.7	−15.1	35	23	− 22	7	32	0.22	− 1.95	0.12	5.8	4	12	14	5	nw.	George Stevens.
La Grange	Cook	657	20	9.2	−13.5	36	23	− 18	7	34	0.40	− 1.47	0.24	5.1	6	9	12	10	nw.	Prof. F. E. Sanford.
La Harpe	Hancock	698	33	11.5	−12.2	43	22	− 21	12†	39	0.52	− 1.85	0.24	5.5	4	16	6	9	nw.	George E. Campbell.
Lanark	Carroll	883	23	3.9	−16.0	34	23	− 27	7	37	0.40	− 1.07	0.25	5.7	4	18	4	9	nw.	M. N. Wertz.
La Salle	La Salle	536	34	9.4	−12.9	39	22	− 16	7	34	0.13	− 2.03	0.06	2.5	5	10	9	12	w.	U. S. Weather Bureau.
Lincoln	Logan	482	24	14.6	−12.3	43	23	− 22	7	33	0.91	− 1.34	0.30	6.8	7	15	6	10	nw.	Prof. C. S. Oglevee.
Loami	Sangamon	624	12	.....	.....	.....	.....	.....	.....	.....	1.19	− 1.24	0.90	4.5	5	11	1	19	nw.	H. C. Foster.
Macomb	McDonough	700	.....	.....	.....	.....	.....	.....	.....	.....	0.11	.....	0.05	2.7	3	.....	.....	.....	.....	State Normal University.
Manteno	Kankakee	711	.....	.....	.....	.....	.....	.....	.....	.....	0.62	.....	0.27	4.3	10	21	6	4	w.	J. F. Schmeltzer.
Martinton	Iroquois	633	25	10.8	−12.9	45	22	− 18	7	48	0.62	− 1.40	0.47	2.7	4	13	1	17	sw.	Joseph H. Peltier.
Mascoutah	St. Clair	425	22	21.5	− 9.3	58	22	− 19	7†	37	1.23	− 1.29	0.50	13.0	5	17	10	4	nw.	George Henrich.
Minonk	Woodford	745	19	12.3	−11.4	38	23	− 18	7	36	0.54	− 1.23	0.28	2.8	9	15	4	12	nw.	M. H. Pfaffle.
Monmouth	Warren	784	20	10.8	−11.8	42	22	− 22	12	39	0.60	− 1.37	0.25	7.0	5	12	3	16	n.	Dr. J. C. Hutchison.
Morris	Grundy	518	.....	.....	.....	.....	.....	.....	.....	.....	0.18	.....	0.10	2.0	4	9	8	14	nw.	E. G. Cryder.
Morrison	Whiteside	685	18	7.8	−12.8	38	22	− 22	12	37	0.38	− 1.26	0.20	3.8	6	16	8	7	nw.	S. A. Maxwell.
Morrisonville	Christian	638	13	16.4	−11.6	48	22	− 28	7	36	0.74	− 1.40	0.62	8.3	5	16	5	10	nw.	J. D. Lowis.
Mount Vernon	Jefferson	511	18	20.0	−14.1	53	23	− 18	7	49	1.38	− 1.48	0.63	13.0	5	16	0	15	n.	Theodore P. Stelle.
Nashville	Washington	503	.....	.....	.....	.....	.....	.....	.....	.....	1.43	.....	0.52	9.7	5	.....	.....	.....	.....	Prof. John M. Avery.
Oregon	Ogle	702	3	5.5	.....	35	22	− 24	12	31	0.66	.....	0.20	12.0	8	11	1	19	w.	Samuel Ray.
Ottawa	La Salle	500	26	10.6[b]	−13.0	39[b]	22	− 16[a]	7	33[b]	0.27	− 1.85	0.25	1.5	2	6	2	23	nw.	Miss Maude M. Harris.
Pana	Christian	692	26	16.8	−11.3	45	22†	− 25	7	34	1.24	− 1.30	0.60	10.6	6	17	6	8	nw.	C. W. Sibley.
Peoria	Peoria	609	56	11.0	−12.1	40	22	− 17	13	37	0.35	− 1.85	0.20	2.1	7	6	11	14	w.	U. S. Weather Bureau.
Pontiac	Livingston	546	10	12.4	−12.5	38	23	− 16	7	31	1.00	− 1.36	0.45	5.5	5	9	6	16	w.	George Butterworth.
Quincy	Adams	481	.....	13.7	.....	47	22†	− 20	13	40	0.29	.....	0.10	2.1	4	.....	.....	.....	.....	Fred J. Brinkoetter.
Riley	McHenry	956	53	5.8	−12.6	32	23	− 20	7	33	0.28	− 1.59	0.10	4.1	6	10	9	12	nw.	John West James.
Roberts	Ford	774	.....	.....	.....	.....	.....	.....	.....	.....	0.89	.....	0.69	1.3	4	11	9	11	nw.	R. E. Bradbury.
Rockford	Winnebago	763	20	4.4	−16.0	37[a]	22	− 20	7†	32[a]	0.62	− 1.83	0.18	7.0	8	17	0	14	.....	Hosmer C. Porter.
Rushville	Schuyler	670	21	14.0	−11.9	45	22	− 18	12†	39	0.30	− 1.75	0.10	3.0	4	4	6	21	nw.	H. F. Dyson.
St. Charles	Kane	700	17	8.6	−13.4	35	23†	− 19	7	35	0.35	− 1.55	0.16	5.5	4	9	15	7	nw.	Dr. William H. Bishop.
St. Peter	Fayette	500	11	18.8	−11.9	49	22	− 24	7	31	1.70	− 0.58	0.65	10.0	6	15	5	11	nw.	M. L. Lansford.
Sparta	Randolph	538	26	20.8	−11.4	55	23	− 19	7	34	1.96	− 0.48	1.04	14.8	6	16	4	11	nw.	James A. Caldwell.
Springfield	Sangamon	644	32	15.2	−11.1	46	22	− 19	7	33	1.08	− 1.17	0.72	4.8	7	8	8	15	nw.	U. S. Weather Bureau.
Streator	La Salle	626	19	5.4	−18.6	37	22	− 17	7	42	0.44	− 1.55	0.16	1.5	13	14	11	6	sw.	Miss Lora Sweetser.
Sullivan	Moultrie	530	12	16.1	−11.6	47	22	− 23	7	34	1.57	− 0.81	0.92	5.4	5	9	12	10	nw.	C. A. Corbin.
Sycamore	Dekalb	855	32	5.8	−13.6	36	22†	− 20	7	40	0.40	− 1.42	0.20	4.0	3	11	4	16	nw.	Miss Edna J. Davis.
Tiskilwa	Bureau	798	28	.....	.....	.....	.....	.....	.....	.....	0.36	− 1.67	0.20	3.4	5	.....	.....	.....	.....	F. I. Smucker.
Walnut	....do	717	21	8.1	−14.4	38	22	− 19	7	32	0.17	− 1.65	0.11	2.4	4	12	7	12	w.	O. C. Nussle.
Warsaw	Hancock	501	14	.....	.....	.....	.....	.....	.....	.....	0.25	− 1.77	0.22	2.7	3	.....	.....	.....	.....	W. R. Kirkbride.
Waterloo	Monroe	719	.....	.....	.....	.....	.....	.....	.....	.....	1.73	.....	0.65	9.6	5	14	8	9	n.	Prof. James E. Raibourn.
White Hall	Greene	573	4	16.6	.....	50	22	− 26[a]	7	36[a]	.....	.....	.....	5.0	.....	15	7	9	nw.	R. V. Smith.
Windsor	Shelby	681	13	17.0	− 9.6	48	23†	− 25	7†	43	1.26	− 1.25	0.57	6.5	6	13	7	11	nw.	Herbert Rose.
Winnebago	Winnebago	900	25	4.4	−15.7	34	23	− 23	7	33	0.44	− 1.49	0.20	6.0	4	14	10	7	w.	Frank Osborn.
Yorkville	Kendall	584	25	7.5	−13.7	35	22	− 20	7	33	0.29	− 1.58	0.20	3.1	5	13	9	9	w.	Herman A. Grimwood.
Zion	Carroll	938	18	3.6	−16.2	37	22	− 30[a]	7	40[a]	0.36	− 1.17	0.24	6.0	3	21	3	7	w.	Robert F. Gillogly.

[a], [b], [c], etc., indicate respectively 1, 2, 3, etc., days missing from the record.
** Temperature extremes are observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. *Precipitation is less than 0.01 inch rain or melted snow.*

TABLE 2.—*Daily precipitation for January, 1912. District No. 5, Upper Mississippi Valley.*

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
North Dakota.																																	
Amenia	Red			T.																	T.		T.			T.			T.			.20	0.20
Bottineau	Mouse		T.	.02					.02					.03		T.		T.					.12				.25		.09			.06	0.59
Cando	Sheyenne																						.22										0.22
Crosby	Mouse		.02											T.		T.						.08		T.		.11		.08	.05				0.34
Devils Lake	Sheyenne		T.											T.						T.			.02			.22	.03	.02	.02			T.	0.31
Donnybrook	Mouse																T.					.02		T.		.10	.05	.03			T.		0.20
Dunseith	do																																
Edmore	Sheyenne																																
Fessenden	James																										.09		.04			.11	0.24
Forman	Sheyenne																															.20	0.20
Grafton	Red																										.10		T.	.02		T.	0.12
Granville	Mouse														.05													.10				.05	0.20
Hannah	Pembina													T.												T.	.02	T.	.20			T.	0.22
Hansboro	Red													T.													.13	.03					0.16
Hillsboro	do																											.30	.20			.20	0.70
Lakota	Sheyenne			T.										.01			T.						T.		T.	.04	.08			.09			0.22
Langdon	Pembina		.06			T.			.05							.02				T.		.01		T.			.03			T.			0.17
Larimore	Red																																
Lisbon	Sheyenne					T.									T.		T.					T.				T.	.10			T.		.20	0.30
McKinney	Mouse																									.20						.05	0.25
Manfred	Sheyenne													.02						T.		.03	T.			.05	.02	T.	.10			.10	0.32
Mayville	Red																					T.			.01		.30			.05		T.	0.36
Minot	Mouse	.05	.03			.01								T.									.10		T.		.16	T.	.05			.15	0.55
Minto	Red																.02								.32				.05			.08	0.47
Oriska	Sheyenne																																
Park River	Red																																
Pembina	do																								.02						.05		0.07
Power	Sheyenne																			.10		.10	T.			.20			.10	.10		.20	0.80
Pratt	Mouse																									.08		.05					0.13
Towner	do																	T.					.02			.10	.10	T.		T.			0.22
University	Red								T.	T.				.01			T.						T.			T.	.25		.10	T.		T.	0.36
Wahpeton	do																				.05						.06			.03			0.14
Walhalla	Pembina																											.20					0.20
Westhope	Mouse																																
Willow City	do							T.	T.					.05												.10		T.					0.15
Minnesota.																																	
Albert Lea	Mississippi								T.			T.						T.	T.							T.			.15	T.		.30	0.45
Alexandria ‖	do	T.								T.				T.			T.	T.				.03	T.				.18		.07	.28			0.56
Angus	Red																T.										.05		.10	T.		T.	0.15
Bagley	do																									.14			.10			.12	0.36
Baudette	Rainy	.01																					.06						.01			.01	0.09
Beardsley	Minnesota																																
Beaulieu ‖	Red																										.30		.20	.10		T.	0.60
Bemidji	Mississippi																											.02		.06			0.08
Bird Island	Minnesota								T.	T.	T.			T.	T.			T.	T.	T.			T.				.01		.21			.01	0.23
Caledonia ‖	Mississippi	.08		T.					.10	T.		.02			.05				.12		.10			T.			.15		T.	T.			0.62
Campbell ‖	Red				T.	.20				T.					.10						T.						.10					.08	0.48
Cass Lake ‖	Mississippi	T.															T.						T.				.10			.08			0.18
Collegeville	do																	.02		.01					T.		.17		.32	.03		T.	0.55
Crookston ‖	Red					T.																	T.				.35			.20			0.55
Detroit ‖	do	.17				T.												T.									.25			T.			0.42
Ely	Rainy																																
Fairmont (near)	Minnesota			T.		.10			T.		T.			.20				.05	.02										.20	T.		.10	0.67
Faribault	Mississippi								T.		.01			T.	T.		T.	.04	.03						T.	T.	.02		.04			.06	0.20
Farmington	do								T.					T.	T.			T.	T.		.02		.02		T.	T.	.18		.05	.06		.05	0.38
Fergus Falls	Red				.01	.01		T.	.01	.01					.03				.01	.02	.03		.01			.04	.12		.02	.03		.05	0.40
Fort Ripley ‖	Mississippi	.03	T.																		.01						.11		T.	.17		.04	0.36
Fosston	Red													T.													.22		.02	.02		T.	0.26
Glencoe	Mississippi																										.10		.60				0.70
Grand Meadow	do					T.		T.	.11		T.	.08		.16	.06			T.	.06	T.	T.		T.	T.			.04		.11	.04	.10	T.	0.76
Gull Lake Dam	do	.03												.01			.02					.01					.15		.06		.04		0.32
Hallock	Red																										.12		.05			.05	0.22
Halstad ‖	do															T.											.16					.10	0.26
Hinckley	St. Croix																																
International Falls	Rainy	.10				T.								.10	T.														.10	.15		.20	0.65
Itasca State Park	Mississippi																										.30	.05					0.35
Lake Crystal	Minnesota													.20															.30	.10		.10	0.70
Leech Lake Dam	Mississippi																.03	.07						T.	T.		.07		.04	.03		.04	0.28
Littlefork	Rainy																												.10			.23	0.33
Long Prairie	Mississippi																																
Lynd	Minnesota										T.			.07			T.	T.	T.				T.						.08	T.		.09	0.24
Mankato ‖	do														.12															.10			0.22
Maple Plain	Mississippi		T.	T.	.01				.01		T.				.02		T.	.01	T.	.01	.02		.01		T.	.01	.15		.50	.05		.05	0.85
Milaca	do														T.				T.		T.					.10		.20	.41				0.71
Milan	Minnesota								.10		T.				.10								T.			T.	.10		.15	.05		.20	0.70
Minneapolis	Mississippi		T.	T.					.01						T.			T.		T.	.01		T.		.01	.07	.11		.12	T.		.11	0.44
Montevideo ‖	Minnesota	.10						T.		.04					.01			T.		T.	T.		T.	T.	T.		.05	.04	T.	.05		T.	0.29
Moorhead	Red			.01	.01			.01						T.	.02		T.	T.		.01			T.		T.	.13	.14		.03	.01		.02	0.39
Mora	St. Croix	T.							T.					T.			T.		T.		T.					T.	.35		.30			.05	0.70
Morris	Minnesota														.05					.10							.20		.05	.05			0.45
New London	Mississippi															T.		T.							.06	T.			.18				0.24
New Richland	Minnesota								T.		T.			.10	T.			T.	T.				T.			T.			.11	T.		.15	0.36
New Ulm ‖	do	.25		T.		T.			T.	.02				T.	.20	.05							T.			T.	.03		.45	.15		T.	1.15
Osakis	Mississippi				T.	T.			T.						T.		T.				T.		T.				.20		.10	.03		T.	0.33
Park Rapids ‖	do	.02													.04												.20			.05		T.	0.31
Pine River Dam	do													T.									T.					.07	.08			T.	0.15
Pokegama Falls	do	T.												T.	T.		T.						T.				.02		.07			.06	0.15
Red Lake	Red																													.20			0.20
Red Wing ‖	Mississippi	.18							.04						T.	.02			T.	T.	.06			T.			.14	T.		.08	T.		0.52
Redwood Falls	Minnesota								T.					.15															.40			.10	0.65
Reeds Landing ‖	Mississippi	.07							.01						.01				.01		.02						.07			.03			0.22
Rochester ‖	do													T.					T.				T.				.15			.09			0.24
Roseau	Red																																
St. Charles	Mississippi														.12				.13		.02						.18		.09	T.			0.54
St. Cloud	do								T.										T.								.10		.11	.05			0.26
St. Paul	do			.01				.01	.01					T.	T.		T.	T.	T.	.02			T.		T.	.05	.14		.13	.02		.13	0.52
St. Peter	Minnesota													.10															.12				0.22
Sandstone ‖	St. Croix							T.						.01	T.					T.		T.	T.			.12		.09	.16			.11	0.4
Sandy Lake Dam	Mississippi													T.			T.										T.		.13	T.		T.	0.1

TABLE 2.—*Daily precipitation for January, 1912. District No. 5*—Continued.

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Minnesota—Contd.																																	
State Sanatorium	Mississippi													T.			T.								T.	.13			.25			T.	0.38
Stillwater ‖	St. Croix		T.					T.													T.					T.	.02			.07			0.09
Taylors Falls	do														T.												.30		T.				0.30
Thief River Falls	Red																T.									.10			.12				0.22
Tracy	Minnesota																																
Warroad	Rainy							T.						T.																.10		T.	0.10
Winnebago ‖	Minnesota	.70								T.					.10			.10	T.					.10					T.	.10			1.10
Winnibigoshish	Mississippi														T.		.09										.06		.07	.05		.09	0.36
Winona	do								.12		T.	T.		.07	.01			T.	.02		.10		T.			T.	.17		.03			T.	0.52
Worthington ‖	Des Moines			T.		T.			T.	T.	T.				T.	T.		T.	T.										.40			T.	0.40
Zumbrota	Mississippi								T.					.11	T.			T.	T.		.05		T.				.21		T.	.09		.05	0.51
South Dakota.																																	
Millbank ‖	Minnesota																									T.	.04			.12	.05		0.21
Wisconsin.																																	
Antigo	Wisconsin	.10							.10					T.	.10							T.	.02				.20		.10	.10			0.72
Barron	Chippewa													T.	T.											T.	.20		.20			T.	0.40
Beloit	Rock						T.		.20												.20						.12						0.52
Big St. Ger. Dam	Wisconsin								.04						.23		T.	.04						T.			.11		.12	.18			0.72
Brodhead	Rock								.30						.15						.20						.10						0.75
Burnett	do								.65			T.			.17				.17		.10		.08			.22	.17			T.	T.		1.56
Cottage Grove	do			.01	T.	T.	T.		.25			.01			.08				.14	T.	.04		.01	T.		T.	.10	T.	T.	T.	T.		0.64
Darlington	do																																
Deerskin Dam	Wisconsin														.08				T.										.11	.30			0.49
Delavan	Rock		T.	T.			T.		.08					T.	.05								.01				.04						0.18
Dodgeville	do								.30										.10														0.40
Downing	Chippewa	.10						.10	T.	T.					T.			T.								T.	.40		.60			.10	1.30
Eau Claire	do								.05	.05				T.	.04			T.	.02		.02		T.			T.	.26		.07			.02	0.53
Grand Rapids ‖	Wisconsin	.45							.14						.05	.24			.22		.10		T.				.22	.22		.05	T.		1.69
Grantsburg	St. Croix	.20												T.	.20											T.			.50				0.90
Hancock	Wisconsin								T.					T.	.20				.10		.10			T.		T.	.30		.20	T.	T.		0.90
Hatfield	Black								.10																	.10			.05				0.25
Hayward	St. Croix													.05	.20								.05						.25			.10	0.65
Hillsboro	Wisconsin								.30		.95			.20	T.			T.			.20		T.			T.			T.	T.		T.	0.75
Koepenick	do													.10	.10								T.				.10		.10				0.40
Lac de Flambeau	Chippewa														.07												.06		.43	.12			0.68
La Crosse	Mississippi			T.		T.		.07	.11		.05			.09	.02			.09	.03	.01	.03		T.			.04	.16		.03	T.		.05	0.78
Lake Mills	Rock			T.	T.	T.	T.		.25			T.			.10				.04		.06		.02			T.	.12					T.	0.59
Lancaster	Mississippi														.03			.03														.36	0.42
Long Lake	Wisconsin	T.							.06					T.	.07		.02	.06	.03				T.	T.			.04		.09	.16	T.		0.53
Madison	Rock			.01		T.	T.	.09	.11		.01			.01	.03			.02	.14		.02		.02			T.	.08		T.	T.	T.	[illegible]	[illegible]
Mather ‖	Wisconsin	.20							.20						.10	.05			.10		.10						.30	.10		.05			1.20
Mauston	do															.10													.15				0.25
Meadow Valley	do								.14					T.	.08				.03	.03						T.	.23		T.				0.51
Medford	Black													T.	.10								T.			T.	.20						0.30
Merrill	Wisconsin														T.														.20				0.20
Minocqua	do	T.							T.				T.		.03		T.	.02	T.				T.				.03		.12	.20	T.		0.40
Mondovi	Mississippi	T.							.06					T.	.02			T.	.02		.03				T.	T.	.09		.03			.03	0.28
Mount Horeb	Rock								.20			T.			.09				.20		.19						.09					T.	0.77
Muscoda ‖	Wisconsin								.16			T.			.07				.08		T.		T.				T.						0.31
Neillsville	Black								.22								.27										.27						0.76
New Richmond	St. Croix													T.													.40		.60			.40	1.40
Osceola ‖	do								T.					T.	.07		T.			T.						T.	.27		.23			.07	0.64
Park Falls	Chippewa													T.	.25			.05					T.				.20			.05			0.55
Portage	Wisconsin								.35								T.		.20		.08		T.			T.	.10		T.	T.			0.73
Port Edwards	do								.10					T.	.30				.20				T.			.10	.70		.10				1.50
Prairie du Chien ‖	Mississippi								.28						.05	T.			.18		T.						T.						0.51
Prairie du Sac	Wisconsin								.23			T.			.12				.19		.03			T.			.15						0.72
Prentice	Chippewa													T.	.07		T.						.03				.11		.16	T.			0.37
Rhinelander	Wisconsin								.06					T.	.04		T.	.05	.02		T.		.02				.06		.04	.07			0.36
Shullsburg	Mississippi								.18						.15				.09		.03			T.			T.						0.45
Solon Springs	St. Croix														.10												.10		.40				0.60
Spooner	do	.10													.10												.20		.40			.05	0.85
Stanley	Chippewa													T.									.29						.40			T.	0.69
Stevens Point	Wisconsin																																
Sugar Camp Dam	do													.03	.06		.06	.06	T.								.04		.11	.16			0.52
Trout Lake	do	T.							.10					.10		T.							T.				.02		*	*	.50		0.72
Twin Lakes Dam	do								.02					.05	.15		T.	T.									T.	.40	.08	T.			0.70
Valley Junction	do			.01					.20					T.	.11			.03	.12		.11		T.			.10	.21		.12	.02			1.03
Viroqua	Mississippi								.25					.04	.05				.20		.09		.02	T.		T.	.10	T.	.01			.02	0.78
Vudesare	Wisconsin								T.					T.	.06		T.						T.	T.		T.			.30	.40	.30		1.06
Watertown ‖	Rock	T.			T.				.45	.10					.15				.15		.20	.05		.08			.10	.10			T.		1.38
Waukesha	Fox								.45			.05			.20				.08		.18		.05			.10	.25						1.36
Wausau	Wisconsin								.12					T.	.01				.05				T.			.03	.13		.01	.03			0.38
Weyerhaeuser	Chippewa		.25						.03	T.				T.	.05		T.									T.	.25		.16				0.74
Whitehall	Mississippi								.10					.10							.10					.10	.30		.20			T.	0.90
Iowa.																																	
Albia ‖	Des Moines	T.							T.	T.	T.				.20						T.								T.	T.			0.20
Algona	do			.04			T.	T.	.12		T.			.12	T.			T.											.15	T.		T.	0.43
Alta ‖	Raccoon			T.			.10		.15	.03		.02	T.		.05	T.			.18								.01		.18	.05			0.77
Amana	Iowa			.02			.02	T.	.06		.02	T.		T.	.09				.01		T.									T.		.01	0.23
Ames	Skunk			T.			T.	.05	.11			.05		.15	.01			T.	.10					T.		.01			T.			.01	0.49
Baxter	do			.05			.04		.12			.01		.36	.12				.16					T.					.07			T.	0.93
Belle Plaine	Iowa								.05		.03				.20				.10													.05	0.43
Belmond	do	T.				.04	.03	.03	.35	.03	.06	T.		.10	.01			.02	.25		.03					T.	T.		.04	.02		.03	1.04
Bloomfield	Mississippi								.10	.05		.04			.16														.05	T.			0.40
Bonaparte	Des Moines						T.		.12		T.					.16											T.						0.28
Boone ‖	do			T.					.12	T.					.17	T.			.14										T.	T.			0.43
Britt	Iowa							.03	.08					.05	T.			T.	.06										.08	T.		.03	0.33
Buckingham	Cedar			T.					.13	T.				.24				.08									T.			T.			0.45
Burlington ‖	Mississippi								.30		.05		.20		.10	T.					T.												0.65
Carroll ‖	Raccoon			.10					.20				.10						.30														0.70
Cedar Rapids ‖	Cedar			T.	T.		T.	T.	.16	T.	.05				.20				.05						T.						T.		0.46
Charles City	do			.04				.29						.30				.14	.03										.03			.10	0.93
Clear Lake	do									.10																						.05	0.15
Clinton	Mississippi						T.	*	.19		T.			.15							T.											.10	0.44
Columbus Junction	Iowa						T.	T.	.10		T.	T.			.01								T.						T.		T.		0.11

TABLE 2.—*Daily precipitation for January, 1912. District No. 5*—Continued.

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
***Iowa*—Continued.**																																	
Davenport	Mississippi			T.			.01	T.	.09		.01	T.		.05	.02						T.			T.	T.		T.		T.	T.		T.	0.18
Decorah	do								.18		.04				.08				.17		.02		.02									.10	0.61
Delaware	do								.13						.05				.06													.02	0.26
Des Moines	Des Moines			.02	T.	T.	.02	.01	.08		T.	.02		.19	T.			.10	.05		T.		T.	T.		T.		T.	.02	T.		.02	0.53
Dubuque	Mississippi			T.		T.	.01	.05	.07		T.			.08	.05			.06	.14	T.	.03		T.				T.		T.	T.		.06	0.55
Earlham	Raccoon			T.			.05	.02	T.			T.		.30															T.	T.		T.	0.37
Elkader	Mississippi			T.					.18		T.				.12				.18		.06								T.	T.		.14	0.68
Elma	Wapsipinic'n			T.		T.			.25		T.	T.		.07	T.			T.	.07		T.					T.	T.		T.	.05		T.	0.44
Estherville ‖	Des Moines								.10					.10					.10										.30				0.60
Fairfield	Skunk						T.	T.	.07		.01	T.			.08														T.			T.	0.16
Fayette	Mississippi								.20					.10	T.				.28		T.								T.			.10	0.68
Forest City ‖	Cedar							.20		.05				.10	T.			.10											.10			.20	0.75
Fort Dodge ‖	Des Moines						.05		.20						.10				.30					T.					.05				0.70
Fort Madison	Mississippi		T.				.10		.20			.20			T.														T.	T.		T.	0.50
Gilman	Iowa							.30				.60			.40				.30											.10			1.70
Grand Meadow	Mississippi								.40						.20				.30		.07		T.				T.		T.			.05	1.02
Grinnell	Iowa							T.				T.			.45	T.		.05			T.			T.			T.	T.		T.		T.	0.50
Grundy Center	Cedar							T.	.20					T	.20				.30											T.		T.	0.70
Guthrie Center	Raccoon			.15			.05	.01	.05			T.		.03	T.			T.	.16	T.						T.		T.	T.	T.		T.	0.51
Hampton	Cedar		T.					.40		T.				.25				.30										.02					0.97
Humboldt	Des Moines								.38					.15					.25														0.78
Independence	Wapsipin'n						T.	T.	.20					T.	.25				.05								T.			T.		.05	0.55
Indianola	Des Moines			.01			.01	.02	.08		T.	T.		.30	T.				.04									T.	.01			T.	0.47
Iowa City ‖	Iowa				T.		T.		.13		.03	T.			.10	T.														T.			0.26
Iowa Falls ‖	do			T.			.05		.30	T.	T.	T.	T.		.20	T.			.30	T.				T.			T.	T.	T.	.03	T.		0.90
Jefferson	Raccoon		.10					.03				.15		.08	T.			.06	.35	T.						T.		.08	T.	T.		T.	0.88
Keokuk	Mississippi		T.			T.	.01	T.	.03		.08	.06			T.				T.		T.						T.		T.	T.		T.	0.18
Keosauqua ‖	Des Moines							T.	.10	.10	.05	.05			.15	.05													T.				0.50
Knoxville	do							.05	.05			.05		.10	.05													T.	.10	T.		T.	0.40
Lacona	do			.01	.01		.01	.02	.10		.01	.01		.10	.10				.10				.01						.02	.01			0.51
Le Claire ‖	Mississippi				.02			.02	.01	.06	.01				.04	.01					.01					T.					.01		0.22
Marshalltown ‖	Iowa			.03	T.		.10		.15	T.	.02		.04		.37	T.		T.	.17		T.			T.			T.		T.	.07	.04		0.99
Mason City	Cedar								.10					.08				.10											.10	.02		.10	0.50
Monroe	Skunk								T.			T.			.41														T.				0.41
Mount Pleasant	do						T.	T.	.24		.07	T.	T.		.11				T.		T.								T.	T.		T.	0.42
Muscatine ‖	Mississippi				T.			T.	.10	.04	.05				.07	.02					T.	T.								T.	T.		0.27
New Hampton	Wapsipin'n													.10									T.				T.			T.		.10	0.30
Northwood	Cedar				T.				.10		.02			.03	.05			T.	.10	.02			.03			.01			.20	T.		.30	0.86
Olin	Wapsipin'n														.20																	.30	0.50
Osage	Cedar																																
Oskaloosa	Des Moines			T.		T.	T.	.02	.08	T.					.20														T.				0.30
Ottumwa	do											T.			.13													T.					0.13
Pella	do			T.			T.	.05	.08	T.	.01	.02		T.	.17				T.		T.			T.		T.	T.		.05	T.		T.	0.38
Perry	Raccoon																																
Plover	Des Moines			.05				.05	.10					.30					.20											.20		.05	0.95
Pocahontas	do			.03			.02	.01	.17			T.		.01	.02				.15								.04		.02			.05	0.55
Ridgeway	Mississippi								.20			.01		.17	.03			.23	T.		.01		.01			.01	.05		.01	.01		.03	0.77
Rockwell City	Raccoon	.30										.20		.10	.10				.60													.60	1.90
Sac City	do						.20	.10	.40					.20	.10											T.				.10		.20	1.30
St. Charles	Des Moines			.02										.20	T.				.10									T.	.10	T.		T.	0.42
Sigourney	Skunk							.03	.03			T.			.12														T.	T.			0.21
Stockport	do								.12		.05	T.			.11						T.												0.28
Storm Lake	Raccoon						.09		.18		.02			.03					.13										.16				0.61
Tipton	Cedar			.04				.07	.06		T.	T.		T.	.08			T.			T.			T.			T.	T.	.06		.09	0.38
Toledo	Iowa						.10		.25	T.		T.		T.	.50				.25		T.								T.			1.10
Wapello	do								.03						.02																		0.05
Washington	Skunk							T.	.10		T.				T.														.02	T.		T.	0.12
Waterloo ‖	Cedar	.02					.05		.20	.01					.24	.01			.20							T.							0.73
Waukee	Raccoon			.02	T.	T.	.02	.01	.10			.01		.36	T.				.07		T.		T.			T.	T.	T.	.05	T.		T.	0.64
Waverly	Cedar							.30										.40															0.70
Webster City	Des Moines																																
West Bend	do		T.	.03					.10		.03			.14														.10	T.		.30	0.70
Whitten	Iowa								.20					.05					.40										T.	T.		T.	0.65
Winterset	Des Moines			T.		T.	T.	.10				T.		.10	T.				.20							T.	T.	T.		T.		T.	0.40
Missouri.																																	
Gorin	Mississippi						.01		.15		.02				.02																		0.20
Hannibal	do		.01		T.	T.	.08		.02		.01	.08		T.	T.			.03	.09										T.	T.		T.	0.32
Louisiana	do					T.	.05					.01							.50														0.56
Mexico ‖	do						.40	.10	T.	.01			.05		T.	T.			.15										T.	.02			0.73
Steffenville	do									.30			.06		T.	T.		.10												T.		T.	0.46
Sublett	do																																
Vandalia	do							.45																									0.45
Warrenton ‖	do		.02				.12	.04	T.	.04			.16						.54	T.													0.92
Indiana.																																	
Collegeville	Iroquois	T.	T.	T.			.05	T.	.20	.20	.15	.20	.15	.10	.10	.15	.15	.05	.57	T.	T.										T.		2.07
Knox	Kankakee		T.	T.	T.		.05		.24			.04			.08	.06		T.	.43		.08						T.					.10	1.08
Laporte	do		T.		T.	.02	.05		.40		.06				.02	.15	.04	T.	.30		.05						.05			T.	.15	.09	1.38
Plymouth	do		T.		T.		.03		.35			.02			.03	.12	.07	.02	.28	T.	.05						.04			T.	.09		1.10
Illinois.																																	
Aledo	Mississippi						T.	.01	.12						.04														T.	T.		T.	0.17
Alexander	Illinois		.02				.04		.01		.01	.03	.01		.01			T.	.55										T.	T.		T.	0.68
Antioch	do								.20						.05						.25												0.50
Astoria	do		T.				.10		.10		.01	.20			.03			T.	.15		T.								T.	T.		T.	0.59
Aurora	do																																
Beardstown ‖	do																																
Bement	Mississippi		.02		T.	T.	.12		.07			.18	.05		T.			T.	.98		T.								T.	T.	T.		1.42
Bloomington	Illinois						.02		.13		T.	.12				T.			.50		T.											T.	0.77
Cairo	Mississippi						.46		.02			1.43				T.		T.	1.31										.82	.09	T.		4.13
Carbondale	do						.36		.09			.66	.50			T.			.70	.04									.60	.21			3.16
Carlinville	Illinois		.09				.19	.03				T.			T.			.61															0.92
Carlyle	Mississippi																																
Chester ‖	do						.30	.22	T.	.01	.04		1.10		T.	.02			.65	.28									.04	.06		T.	2.72
Clinton	Illinois		T.		T.		.11		.07		T.	.22	.07		T.	T.		T.	.71		T.								T.		T.		1.18
Coatsburg	Mississippi																																
Cobden	do						.30		T.			.75						T.	1.05										.68	.12			2.90
Dakota	do			T.	T.	T.	T.		.20						.10				T.		.01		T.	.01			T.		T.	.02			0.34

TABLE 2.—*Daily precipitation for January, 1912. District No. 5*—Continued.

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Illinois—Contd.																																	
Decatur	Illinois		.02				.12		.18		T.	.23			T.			T.	.79		T.								T.				1.34
Dixon ‖	Mississippi								.28						.12	.10																	0.50
Duquoin	do						.53		T.			.60						T.	.78	.10									.65	.02			2.68
Dwight	Illinois		T.		T.		.02		.17			.02	T.		.03	.01		T.	.22		T.		T.				T.			T.	T.	T.	0.47
East St. Louis ‖	Mississippi						.15	.10	.05				.60						.30	.09													1.29
Edwardsville	do						.26		.05			.60							.36														1.27
Elgin	Illinois						T.		.08						.02						.36						.03						0.49
Ewing	Mississippi						.26		.04		.30	.28						.04	T.					T.		T.				T.			0.92
Fairview	Illinois		T.				.01	T.	.05		T.	T.			.09				.02		T.								T.	T.		T.	0.17
Galva	do						T.	T.	.11		.01				.04				.02		T.		T.						T.			T.	0.18
Grafton ‖	Mississippi		.10				.40	.20		.10			.10						.58														1.48
Greenville	do						.40		.12									T.	.05														0.57
Griggsville	Illinois		.02			T.	.05	.01	.01		T.							T.	.16										T.	T.			0.25
Havana	do						.07		.09		T.	.05			.04			.33															0.58
Henry	do						T.		.11			T.			.07						T.		T.									T.	0.18
Hillsboro	Mississippi		.08				.18		.08			.15		.10						.42													1.01
Joliet	Illinois						.03		.08			T.	T.		.07			T.	T.		.04						T.		T.	T.	T.	T.	0.22
Kishwaukee	Mississippi					T.	T.		.12						.04				T.		.03		T.				.03			T.		T.	0.22
La Grange	Illinois						.03		.24						.04			T.	T.		.04		T.				.02	.03				T.	0.40
La Harpe	do					T.		T.	.24		.02	.20			.06														T.	T.		T.	0.52
Lanark	Mississippi							T.	.10						.25						.02		T.					T.		T.		.03	0.40
La Salle	Illinois		T.	T.	T.		.01		.06		T.	T.			.02			.03	T.		T.		T.	T.			T.	T.	T.	T.	T.	.01	0.13
Lincoln	do		T.				.10		.18		.03	.13	.15		.02			T.	.30		T.						T.		T.	T.	T.		0.91
Loami	do		T.				.12		.02		T.	.10	.05		T.			T.	.90									T.	T.	T.		T.	1.19
Macomb	do		T.					.05	.03	T.		.03	T.				T.											T.				T.	0.11
Manteno	do	T.	.01				.03		.21			.01	.02		.04	.01		.01	.27		.01						T.	T.			T.		0.62
Martinton ‖	do		T.	T.		T.		.10		.03			T.		.02				.47	T.		T.						T.			T.		0.62
Mascoutah	Mississippi						.25		.05			*	.63		T.				.30														1.22
Minonk	Illinois		.02				.02		.11	.01	T.	.05	.02		.02	T.			.28		T.		.01				T.			T.	T.	T.	0.54
Monmouth	Mississippi								.10		.05				.10						.25											.10	0.60
Morris	Illinois						.01		.10		T.				.02				.05		T.						T.						0.18
Morrison	Mississippi			.03			.02		.20		T.				.10						.02									T.		.01	0.38
Morrisonville	Illinois		T.				.04		.03			.03	.02		T.	T.		T.	.62														0.74
Mount Vernon ‖	Mississippi						.15	.35	.05				.20						.63														1.38
Nashville	do					T.	.40		.03			.32	.16	T.					.52								T.						1.43
Oregon	do			.03			.05	.05	.20			.02			.14	.05					.12						T.						0.66
Ottawa	Illinois						T.		.25							.02															T.	T.	0.27
Pana	Mississippi		T.	T.			.19		.06			.16	.20		.03	T.		T.	.60		T.												1.24
Peoria	Illinois		.01			T.	.03		.06		.01	.04	T.		T.			.08	.12		T.		T.	T.			T.		T.	T.	T.	T.	0.35
Pontiac	do		.05		T.	T.	.05		.40		T.	T.			.05	T.		T.	.45		T.		T.				T.			T.	T.	T.	1.00
Quincy ‖	Mississippi						.09			.02	T.		.08		T.				.10											T.			0.29
Riley	do			T.			.02		.10						.03			T.			.07		.03				.03		T.	T.			0.28
Roberts	Illinois		T.				.03	.13				.04			T.	T.		T.	.69		T.						T.		T.	T.	T.	T.	0.89
Rockford ‖	Mississippi			T.			.05		.18						.05	.04			.04		.18			.05				.03					0.62
Rushville	Illinois		T.				.05		.05			T.	.10	.10	T.				T.									T.		T.			0.30
St. Charles	do	T.		T.	T.	T.	T.	T.	.16	T.					.06	T.			T.		.08			T.			.05	T.		T.	T.		0.35
St. Peter	Mississippi						.65		.20			.20	.10					.05	.50										T.				1.70
Sparta	do						.21		.02			.35	.33		T.				1.04	.01											T.		1.96
Springfield	Illinois		T.			T.	.12		.06		.01	.15			.02			.22	.50										T.	T.		T.	1.08
Streator ‖	do	.01		.01		.01		.01	.10	.04	T.	T.	.02		.02	.01			.16		T.	T.		.03			T.	T.			.01	.01	0.44
Sullivan	Mississippi		T.				.20					.24	.10					.11	.92														1.57
Sycamore ‖	do						T.		.20						.10						.10						T.						0.40
Tiskilwa	Illinois		T.	T.	T.				.20		T.				.10			.02			T.					.02	T.			.02		T.	0.36
Walnut	Mississippi			T.			.01		.11		T.				.02	.03			T.		T.									T.	T.	T.	0.17
Warsaw ‖	do						T.	.22			.01	.02																		T.			0.25
Waterloo	do						.49		.12			.65	.09		T.			T.	.38	T.											T.		1.73
White Hall	Illinois																																
Windsor	Mississippi						.30		.10			.20				.06		.04	.57														1.26
Winnebago	do						T.	T.	.20						.14						.05			T.			.05			T.		T.	0.44
Yorkville	Illinois		T.			T.	T.		.20		T.		T.		.02	.02			T.		.04						.01		T.	T.	T.		0.29
Zion	Mississippi			T.			.05								.24									T.	T.							.07	0.36

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures for January, 1912. District No. 5, Upper Mississippi Valley.*

Date.	North Dakota.										Minnesota.																	
	Bottineau. §§		Devils Lake.		Lisbon. §§		Minot. §§		Pembina. §§		Collegeville.		Crookston. §§		Grand Meadow.		Montevideo. §§		Moorhead.		New Ulm. §§		Pine River Dam.		St. Paul.		Winnibigoshish.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	-9	-24	-13	-28	-7	-20	-6	-21	-20	-22	13	-13	-12	-19	0	-21	-5	-17	-6	-20	-5	-15	-13	-24	-2	-14	0	-24
2....	-8	-25	-7	-28	-7	-27	-3	-21	-18	-35	-1	-20	-13	-32	-4	-23	-4	-23	-8	-29	-5	-22	-8	-43	-9	-19	-5	-35
3....	-10	-36	-5	-25	-5	-28	-1	-23	-25	-27	-5	-18	-5	-24	-5	-21	0	-21	-6	-22	-16	-22	-5	-37	-5	-18	-2	-37
4....	-9	-30	-9	-28	-3	-29	-7	-21	-22	-32	-4	-23	-9	-25	-10	-21	-6	-20	-5	-25	-12	-23	-10	-31	-8	-19	-9	-34
5....	-22	-35	-18	-32	-5	-32	-13	-30	-20	-38	-9	-30	-20	-33	-11	-28	-18	-27	-22	-30	-20	-26	-15	-36	-14	-28	-17	-39
6....	-26	-35	-20	-31	-5	-33	-10	-28	-10	-27	-2	-26	-20	-33	-14	-26	-9	-26	-15	-29	-24	-26	-18	-49	-13	-25	-18	-46
7....	-4	-35	-2	-29	-3	-33	2	-28	-15	-22	-7	-28	-6	-32	-14	-34	1	-29	-4	-29	-11	-28	-14	-51	-9	-28	-9	-45
8....	-8	-22	-9	-17	-3	-29	1	-11	-18	-26	7	-20	-6	-26	-2	-14	6	-13	2	-20	1	-26	-3	-36	2	-9	0	-30
9....	-22	-25	-17	-24	7	-20	-14	-23	-20	-30	-2	-19	-20	-27	-5	-16	-8	-12	-12	-23	-10	-12	-10	-25	-8	-18	-5	-31
10....	-32	-36	-21	-36	0	-27	-19	-26	-26	-40	-10	-22	-25	-31	-12	-25	-12	-23	-18	-29	-16	-21	-18	-39	-13	-23	-15	-38
11....	-30	-45	-21	-41	0	-40	-15	-41	-22	-44	-18	-30	-25	-39	-15	-26	-21	-29	-23	-38	-20	-23	-23	-39	-18	-28	-19	-43
12....	1	-41	-6	-34	0	-35	5	-41	-20	-38	-14	-37	-3	-38	-14	-38	-2	-38	-7	-38	-3	-34	-16	-53	-13	-30	-8	-46
13....	3	-33	1	-6	6	-35	3	-15	-18	-32	6	-24	4	-25	5	-26	12	-12	6	-7	11	-18	2	-22	11	-13	2	-25
14....	-5	-26	-2	-24	6	-6	4	-10	-15	-28	7	-10	-15	-17	7	-8	9	-4	0	-22	-6	-6	3	-14	6	-10	0	-17
15....	1	-15	2	-25	5	-30	21	-12	-18	-30	1	-25	4	-28	-7	-22	6	-26	0	-26	4	-24	-5	-37	0	-20	-4	-34
16....	11	-5	11	-2	20	-25	15	-9	-10	-26	9	-13	13	-25	9	-18	17	-7	16	-1	15	-24	8	-13	14	-9	8	-15
17....	7	-7	3	-14	16	-3	10	-3	-5	-22	19	6	8	-2	20	9	16	6	12	0	20	4	12	3	22	9	9	-5
18....	5	-28	-10	-24	13	-15	8	-20	-8	-18	17	-10	-7	-22	16	-9	8	0	6	-18	20	3	5	-16	9	-10	-2	-23
19....	5	-32	3	-23	5	-25	6	-13	-10	-25	3	-22	-4	-26	-3	-22	10	-20	1	-22	14	-18	-4	-33	3	-17	4	-25
20....	4	-31	9	-15	7	-23	20	-16	-12	-22	7	-13	6	-24	0	-12	14	-10	6	-15	8	-18	3	-27	3	-4	6	-29
21....	20	-19	12	-2	15	-12	32	3	-5	-18	20	-6	7	-12	22	-10	17	5	7	1	20	-9	11	-10	19	-3	9	-9
22....	20	5	24	-1	32	6	32	6	0	-20	25	11	21	-6	26	5	25	10	28	4	31	0	20	-15	26	12	17	-13
23....	12	-11	12	-9	20	-3	23	-7	5	-16	26	0	6	-8	29	6	19	5	12	-8	20	10	19	-7	24	6	16	-10
24....	18	-12	17	-7	24	-7	22	-9	10	-10	14	-9	8	-10	17	-8	22	-6	15	-12	22	-9	8	-20	15	-3	11	-5
25....	10	4	8	1	20	9	13	8	2	-8	16	4	15	-10	18	5	18	12	17	10	23	-8	19	-5	15	7	10	-10
26....	-1	-5	8	-24	17	-7	8	-1	-5	-10	12	5	3	-3	24	5	12	10	12	-15	21	15	10	-3	16	0	14	-7
27....	5	-24	3	-31	10	-20	8	-22	0	-14	15	-9	8	-27	15	-13	15	-11	12	-23	15	4	3	-34	21	-7	11	-25
28....	17	-17	14	1	21	-15	22	-3	8	-18	21	0	15	-20	15	2	15	10	18	7	24	-9	16	-8	19	8	17	-13
29....	16	1	14	-5	12	6	22	7	18	-10	21	10	7	-4	21	-3	18	-10	9	-2	18	6	21	-16	21	10	25	5
30....	28	6	33	-7	32	-15	40	8	10	-5	24	-2	19	-12	20	-5	20	-7	16	-13	14	-7	21	4	22	2	26	-15
31....	28	6	32	8	0	-12	.....	11	5	-8	23	4	24	-10	19	-6	24	10	25	13	23	-6	22	2	22	-1	22	12
Mns..	0.8	-20.4	1.5	-18.1	8.1	-18.9	7.6	-13.3	-9.2	-23.3	7.5	-12.5	0.7	-21.0	5.4	-13.6	7.1	-9.8	3.0	-15.5	5.7	-12.6	2.2	-23.7	5.7	-9.7	3.0	-22.9

Date.	Wisconsin.														Iowa.													
	Eau Claire.		Grantsburg.		Hancock.		La Crosse.		Madison.		Prentice.		Wausau.		Algona.		Cedar Rapids.§§		Charles City.		Davenport.		Des Moines.		Dubuque.		Keokuk.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1....	20	-15	16	-20	21	-12	3	-11	7	-7	20	-16	24	-11	-1	-14	6	-5	0	-19	16	-1	7	-10	9	-5	17	3
2....	-8	-23	-11	-40	-3	-17	-2	-18	1	-8	5	-34	-1	-19	-1	-17	6	-7	-3	-26	16	-2	5	-15	5	-5	14	5
3....	-2	-24	-10	-33	0	-18	2	-18	4	-8	-5	-34	-2	-22	-3	-11	2	-7	0	-14	8	1	5	-6	6	-6	13	1
4....	-8	-26	-10	-26	-5	-17	-8	-20	-5	-13	-6	-28	-4	-21	-2	-16	-3	-4	-7	-15	5	-6	6	-9	1	-9	7	-1
5....	-18	-22	-15	-32	-14	-23	-9	-22	-14	-23	-12	-27	-12	-23	-6	-24	-11	-13	-13	-23	-5	-15	1	-16	-8	-19	4	-10
6....	-16	-32	-16	-44	-16	-29	-13	-26	-14	-24	-20	-46	-15	-35	-10	-21	-7	-16	-15	-29	-8	-16	-10	-19	-11	-19	-4	-12
7....	-12	-33	-13	-43	-10	-31	-8	-34	-7	-24	-15	-43	-14	-32	-9	-33	-2	-23	-11	-31	-3	-19	-5	-25	-1	-22	-1	-18
8....	0	-15	0	-18	-2	-20	4	-8	0	-7	-5	-29	-2	-18	6	-11	4	-22	1	-11	4	-3	10	-5	6	-3	8	-3
9....	-5	-15	3	-22	-6	-13	-3	-14	-3	-14	-5	-20	-2	-15	3	-13	2	-5	-6	-12	7	-4	5	-4	-1	-10	14	-2
10....	-14	-27	-17	-37	-9	-25	-10	-18	-7	-15	-12	-34	-6	-26	-8	-18	-4	-9	-11	-20	-2	-7	-2	-8	-4	-15	4	-4
11....	-15	-27	-16	-36	-10	-25	-13	-26	-11	-19	-11	-31	-7	-25	-9	-23	-6	-12	-13	-30	-3	-11	-7	-21	-8	-19	-3	-12
12....	-15	-36	-14	-48	-8	-36	-14	-34	-5	-25	-5	-47	-9	-29	-15	-35	-5	-24	-12	-34	-3	-21	-14	-29	-6	-26	-4	-22
13....	8	-25	5	-28	6	-29	10	-25	10	-20	2	-30	-5	-22	7	-22	12	-25	8	-17	15	-10	15	-15	13	-18	20	-18
14....	9	-2	6	-2	12	2	11	-5	13	-2	2	0	-8	-20	17	-6	14	-6	8	-10	16	-1	16	-5	15	-2	19	1
15....	1	-20	-2	-27	2	-17	0	-15	1	-10	0	11	-2	-12	-3	-22	-2	-13	-7	-20	3	-10	-2	-17	2	-10	2	-10
16....	10	-17	11	-28	7	-23	14	-17	12	-11	5	-28	6	-20	14	-11	19	-14	13	-16	17	-9	21	-2	15	-12	19	-4
17....	21	6	20	-11	22	6	23	14	21	12	15	5	19	6	21	12	31	-2	22	12	29	17	25	19	24	15	35	16
18....	15	-2	14	-7	17	6	17	-5	18	5	15	-5	18	4	17	-5	19	18	16	-11	24	2	19	0	21	-3	27	10
19....	5	-19	-3	-27	5	-19	1	-15	5	-13	5	-29	7	-18	-1	-22	16	-12	0	-19	7	-9	15	-15	2	-12	16	-6
20....	9	-8	6	-22	7	-10	13	-7	10	-8	4	-14	7	-5	9	-3	17	-12	9	-11	19	2	16	-2	12	-2	22	8
21....	18	-11	19	-7	17	-9	18	-7	18	-6	18	-11	18	-8	28	-5	29	-3	22	-11	35	10	36	-2	24	-6	42	7
22....	23	6	21	-7	19	4	24	9	24	10	18	0	19	-5	35	8	36	-1	34	2	42	18	42	18	35	10	46	26
23....	23	10	19	-4	21	12	29	6	31	9	18	5	20	13	35	16	35	15	34	-3	35	7	35	23	36	11	44	30
24....	10	-8	10	-21	13	-7	15	-7	15	1	14	0	18	4	23	0	22	2	20	-17	25	8	29	18	21	0	30	20
25....	15	1	11	-12	11	-9	16	5	17	0	6	-16	9	-10	26	13	29	1	24	10	31	15	30	14	26	4	30	19
26....	18	10	14	3	13	3	18	4	23	12	7	-6	16	-2	30	10	33	11	30	3	32	20	35	14	28	12	37	28
27....	11	-23	16	-32	13	-25	12	-11	14	-5	8	-30	15	-18	16	-13	20	6	15	-4	20	11	22	4	14	4	30	20
28....	18	-5	21	-11	15	-18	17	8	21	4	15	-14	13	-11	19	0	22	5	17	1	23	19	22	14	21	12	29	23
29....	24	2	20	-3	20	1	22	9	18	9	20	0	21	6	18	8	21	7	20	1	22	11	23	11	22	8	24	14
30....	27	0	27	-2	27	13	24	6	21	11	22	5	24	11	16	-3	20	6	16	-4	24	8	20	3	24	8	26	11
31....	24	-7	24	-5	20	-10	24	-3	22	7	23	-16	23	-8	33	1	31	3	24	-6	32	9	38	8	26	1	38	12
Mns..	6.3	-13.1	5.0	-21.4	6.6	-12.7	7.6	-9.8	8.4	-5.9	4.7	-18.8	6.1	-12.6	9.8	-8.4	13.1	-5.2	7.6	-12.1	15.4	.5	14.8	-2.5	12.0	-4.5	19.5	4.3

TABLE 3.—*Maximum and minimum temperatures for January, 1912. District No. 5*—Continued.

Date.	Hannibal, Mo.		Laporte, Ind.		Illinois.															
					Cairo.		Greenville.		La Salle		Monmouth.		Mount Vernon.§§		Peoria.		Springfield.		Winnebago.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	25	7	21	7	36	20	28	12	16	3	15	−1	32	16	21	5	25	11	11	−3
2	21	9	20	10	43	27	32	18	11	3	15	3	36	16	16	5	22	10	7	−6
3	18	6	23	14	34	21	26	9	13	2	14	−3	30	14	17	3	21	6	8	−4
4	9	3	22	0	32	17	18	6	6	−6	5	−4	25	13	8	−2	11	2	1	−10
5	10	−8	0	−6	22	10	8	0	−4	−12	0	−13	13	7	0	−10	6	−8	−9	−16
6	−2	−11	3	−10	14	−4	0	−12	−6	−14	−4	−12	7	1	−3	−13	−2	−10	−10	−19
7	0	−20	−2	−17	6	−8	−1	−20	−1	−16	−2	−19	8	−18	−2	−17	0	−19	−6	−23
8	11	0	8	−4	22	6	15	−2	3	−3	4	−3	10	−14	5	−6	8	−2	1	−8
9	22	3	5	−5	29	7	20	4	8	−5	10	−4	22	0	11	−3	16	2	1	−10
10	8	−2	8	−5	43	17	15	3	1	−5	3	−5	20	3	5	−5	7	−1	−4	−13
11	1	−7	10	−5	17	7	8	0	−2	−8	−3	−9	10	5	−2	−6	2	−3	−5	−13
12	−4	−18	15	−4	8	−5	3	−10	0	−15	−1	−22	3	−5	−1	−16	−2	−13	−5	−22
13	18	−15	8	−15	20	−8	15	−13	15	−11	14	−16	17	−13	13	−17	14	−11	12	−18
14	22	4	18	7	28	16	24	11	18	1	20	4	26	−7	19	4	22	8	16	5
15	4	−8	18	8	24	1	16	−5	3	−6	9	−11	4	0	4	−8	4	−6	5	−10
16	26	0	11	−5	31	1	17	−8	15	−9	16	−11	37	−12	17	−11	18	−6	13	−14
17	40	26	33	10	50	31	46	16	33	15	34	16	43	−3	34	17	39	18	28	11
18	31	15	35	22	50	26	45	24	28	9	30	19	43	36	31	10	40	16	22	10
19	17	−2	22	−5	29	19	24	11	9	−5	22	−9	24	15	10	−6	16	1	10	−11
20	25	11	21	−7	42	21	32	12	21	1	20	0	42	11	21	6	26	12	16	−8
21	45	10	30	4	45	23	43	14	36	2	39	0	42	15	40	3	43	10	26	−7
22	48	34	34	14	55	37	49	33	39	18	42	22	51	30	40	23	46	32	33	7
23	47	30	36	28	57	41	47	32	37	19	39	29	53	32	39	27	43	32	34	19
24	31	24	28	9	45	33	34	24	26	10	36	14	39	28	28	13	32	23	19	−1
25	32	22	24	5	40	32	32	24	29	13	31	14	34	23	33	14	32	21	24	0
26	42	26	26	10	56	36	43	26	30	23	33	26	46	26	33	27	40	30	30	18
27	33	26	25	13	41	33	35	29	26	13	36	17	38	26	28	18	32	24	18	−3
28	32	23	22	12	50	35	37	30	25	17	32	17	35	32	28	21	34	27	20	12
29	28	18	25	18	37	29	33	23	23	18	26	13	32	26	24	17	27	20	21	14
30	28	13	24	11	31	27	29	20	24	11	28	9	30	25	25	10	26	15	23	3
31	30	14	30	9	38	23	37	15	31	10	33	9	39	20	32	10	36	14	28	1
Mns	22.8	7.5	19.5	4.0	34.7	18.4	26.1	10.5	16.5	2.4	19.2	2.3	28.7	11.2	18.5	3.6	22.1	8.2	12.5	−3.8

a, b, c, etc., indicate respectively 1, 2, 3, etc., days missing from the record.
§ Data are from standard instruments not supplied by the U. S. Weather Bureau.
§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.