

number of such stations reporting thunderstorms (T) and auroras (A) in each State and on each day of the month, respectively.

*Thunderstorms.*—Reports of 2,563 thunderstorms were received during the current month as against 2,203 in 1899 and 5,736 during the preceding month.

The dates on which the number of reports of thunderstorms for the whole country were most numerous were: 2d, 192; 1st, 152; 3d, 142; 26th, 137.

Reports were most numerous from: Missouri, 243; Illinois, 177; New York, 126; Iowa, 123.

*Auroras.*—The evenings on which bright moonlight must have interfered with observations of faint auroras are assumed to be the four preceding and following the date of full moon, viz, 4th to 13th.

*In Canada.*—Auroras were reported as follows: Father Point, 18th, 19th, 28th; Minnedosa, 4th, 16th, 27th, 28th, 30th.

Thunderstorms were reported as follows: Yarmouth, 17th, 18th; Charlottetown, 12th, 22d; Father Point, 27th; Quebec,

3d, 21st, 26th; Montreal, 3d, 6th; Bissett, 16th, 21st; Ottawa, 16th, 21st, 26th, 27th; Kingston, 6th, 16th, 21st, 26th; Toronto, 3d, 6th, 11th, 15th, 16th, 21st, 26th; White River, 2d, 3d, 15th, 25th; Saugeen, 11th, 21st; Parry Sound, 6th, 11th, 12th, 16th, 20th; Port Arthur, 1st, 2d, 4th, 5th; Winnipeg, 22d; Minnedosa, 24th; Qu'Appelle, 9th; Swift Current, 8th, 9th; Hamilton, 18th, 24th, 29th, 30th.

#### ERRATA.

June REVIEW, 1900, page 243, "Observations at Honolulu," line 18, for "has always been," read "is." Page 250, line 20 from bottom, for "Upsala," read "Christiania." Page 251, column 1, lines 11 and 12 from bottom, for "he" and "ower," read "the" and "lower."

In the article "Forecasting for the Farmer," July, 1900, REVIEW, page 288, first column, fourth paragraph, first line should read "While drying weather is most hoped for," instead of "While drying weather is not hoped for."

### DESCRIPTION OF TABLES AND CHARTS.

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Table I gives, for about 145 Weather Bureau stations making two observations daily and for about 25 others making only one 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 total depth of snowfall, and the mean wet-bulb temperatures. The altitudes of the instruments above ground are also given.

Table II gives, for about 2,700 stations occupied by voluntary observers, the highest maximum and the lowest 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 the station; the total monthly precipitation, and the total depth in inches of any snow that may have fallen. When the spaces in the snow column are left blank it indicates that no snow has fallen, but when it is possible that there may have been snow of which no record has been made, that fact is indicated by leaders, thus (. . .).

Table III gives, for 44 stations selected out of 144 that maintain continuous records, the mean hourly temperatures deduced from the Richard thermographs described and figured in the Report of the Chief of the Weather Bureau, 1891-92, p. 29.

Table IV gives, for 44 stations selected out of 142 that maintain continuous records, the mean hourly pressures as automatically registered by Richard barographs, 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, 1891-92, pp. 26 and 30.

Table V gives, for about 157 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.

Table VI gives, for all stations that make observations at 8 a. m. and 8 p. m., the four component directions and the resultant directions based on these two observations only and without considering the velocity of the wind. 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 any geographical division the average resultant direction for that division can be obtained.

Table VII gives the total number of stations in each State from which meteorological reports of any kind have been received, and the number of such stations reporting thunderstorms (T) and auroras (A) on each day of the current month.

Table VIII gives, for about 95 stations, the average hourly sunshine (in percentages) as derived from the automatic records made by two essentially different types of instruments, designated, respectively, 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.

Table IX gives a record of rains whose intensity at some period of the storm's continuance equaled or exceeded the following rates:

Duration, minutes..	5	10	15	20	25	30	35	40	45	50	60	80	100	120
Rates pr. hr. (ins.)..	3.00	1.80	1.40	1.20	1.08	1.00	0.94	0.90	0.86	0.84	0.75	0.60	0.54	0.50

In the northern part of the United States, especially in the colder months of the year, rains of the intensities shown in the above table seldom occur. In all cases where no storm of sufficient intensity to entitle it to a place in the full table has occurred, the greatest rainfall of any single storm has been given, also the greatest hourly fall during that storm.

Table X gives, for about 30 stations furnished by the Canadian Meteorological Service, Prof. R. F. Stupart, director, the means of pressure and temperature, total precipitation and depth of snowfall, and the respective departures from normal values, except in the case of snowfall.

Table XI gives the heights of rivers referred to zeros of gages.

#### NOTES EXPLANATORY OF THE CHARTS.

Chart I, tracks of centers of high areas, and Chart II, tracks of centers of low areas, are constructed in the same way. The roman numerals show number and chronological order of highs (Chart I) and lows (Chart II). The figures