

and northeastward, and was accompanied on its south and east sides by unusually numerous local thunder and hail-storms, of which a special report is in preparation.

No. VIII. This disturbance probably originated on the Plains west of the Mississippi, up which an easterly wind had, for several days, been blowing, in consequence of the high pressure then existing in the South Atlantic States. The greatest depression was on the morning of the 27th, in Dakota, on the afternoon of which date there were presented in that region, in a marked degree, a great contrast of cold north and hot south winds, the temperature ranging from 90 to 95 degrees from Lake Superior to Nebraska, with numerous local thunder-storms, while 57 degrees was reported from Pembina and Fort Garry. This conflict of north and south winds, with low barometer, continued for forty-eight hours, when an area of high barometer advanced southeastward toward Lake Superior, and on the 29th and 30th the original disturbance died away, and disappeared in Canada.

(4.) *Local Storms.*—By the term local storm will be included, in this section, every recorded case of thunder, lightning, or hail. The electrical phenomena attending these storms will be considered in a subsequent paragraph; but, so far as these storms are connected with the areas of low barometer, their distribution will be apparent from the following table of local storm frequency:

Regions reporting 1, 2, or 3 local storms during the month, at the Signal Service Stations:

Ohio Valley.	New York.
Middle Atlantic Coast.	Upper Lake region.
New England.	Upper Mississippi Valley.

Regions reporting from 4 to 8 local storms during the month, at the Signal Service Stations:

South Atlantic States.	Missouri Valley.
Blue Ridge.	Colorado.
Tennessee.	New Mexico.
Gulf States.	

The most remarkable series of thunder and hail-storms is reported from Pike's Peak, where they have occurred on 12 different days, mostly during the last half of the month.

### III.—ATMOSPHERIC TEMPERATURE.

(1.) *In General*—The general distribution of the temperature is apparent from the accompanying chart of isothermal lines and the table of comparative temperatures. For the entire Atlantic States a slight deficiency is reported, but in the interior of the country a decided excess.

(2.) *Frosts.*—No remarkably severe frosts have been reported during the month, but slight frosts have been quite frequent in the Northwest, the Ohio Valley, the Lower Lake region and New England. The most extensive frosts occurred on the 7th in North Carolina, Virginia, Pennsylvania, New York and Ohio; on the 18th in Illinois, Iowa, Michigan, Wisconsin, Indiana and Ohio; on the 19th in Ohio, Indiana, Virginia, North Carolina, New York and Maine; on the 23d in Pennsylvania, Virginia and New Jersey.