

MONTHLY WEATHER REVIEW,

MAY, 1879.

(General Weather Service of the United States.)

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

In compiling the present REVIEW the following data, received up to June 14th, have been made use of, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at 122 Signal Service stations and 12 Canadian stations, as telegraphed to this office; monthly journals and means, 131 and 149 respectively, from the former, and monthly means from 13 of the latter; reports from 28 special Sunset stations; 225 monthly registers from Voluntary Observers; 49 monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly reports from Voluntary Observers in, and the local Weather Services of, the States of Iowa and Missouri; reliable newspaper extracts; special reports.

BAROMETRIC PRESSURE.

Upon chart No. II is shown by the isobaric lines the general distribution of atmospheric pressure, as reduced to sea-level, for the month. Compared with the means for May of previous years, the mean pressure for the present month is higher in all the districts, except Florida, from southern Alabama to Texas, in the Missouri valley from Yankton to Leavenworth, and at Salt Lake City and Portland, Or.; but in these districts it agrees with the average or is very slightly below, the greatest deficiency (0.03 inch) occurring at Punta Rassa. The regions of greatest excess are in the Northwest (Bismarck 0.26 above,) in California, (Sacramento 0.14 above,) and over New England, the Middle Atlantic States and Lower Lakes, (Mt. Washington 0.14 and Albany 0.12.) In the remaining districts it ranges above the average as follows: South Atlantic States, 0.08 at Cape Hatteras to 0.00 at Jacksonville; Ohio valley and Tennessee, 0.09 at Pittsburg to 0.02 at Memphis; Upper Lakes, 0.10 at Escanaba to 0.05 at Milwaukee; Upper Mississippi valley and Minnesota, 0.10 at Pembina to 0.02 at Keokuk; Rocky Mountain stations, 0.09 at Santa Fé to 0.01 at Virginia City. In the following description of areas of high and low pressure, the barometer readings when given are as reduced to sea level, but the deviations from normal relate to pressures not reduced.

The Local Barometric Ranges have been comparatively small, and have varied as follows: California, 0.37 at San Diego and San Francisco to 0.57 at Red Bluff; Western Plateau, 0.36 at Pioche to 0.62 at Boise City; Rocky Mountains, 0.32 at La Mesilla, N. M., to 0.78 at Virginia City; Gulf States, 0.25 at Key West and 0.40 at Galveston to 0.59 at Graham, Tex., and 0.60 at Montgomery; Atlantic States, 0.55 at Jacksonville to 0.64 at Norfolk, 0.83 at Wood's Holl and 1.00 at Eastport, and in interior, 0.64 at Augusta to 0.74 at Lynchburg and 0.93 at Albany; Ohio valley and Tennessee, 0.52 at Memphis to 0.82 at Pittsburg; Lake region, 0.88 at Cleveland to 1.19 at Duluth; the Northwest and Eastern Slope of Rocky Mountains, 0.79 at St. Louis to 1.33 at Breckenridge, 0.87 at Leavenworth to 1.11 at Yankton and 0.94 at Bismarck, 0.99 at Dodge City, 1.05 at North Platte and 0.79 at Deadwood.

Areas of High Barometer.—Nine are described below. The average directions of the paths of highest pressure is from the Pacific coast, between latitudes 38° and 45° northeastward to Manitoba and thence east-southeastward to the Atlantic coast.

No. I—was central on the morning of the 18th over Minnesota, and moved southeastward over the eastern section of the country during the 2nd and 3rd. It produced the lowest temperatures of the month in the Lake region, Ohio valley, Gulf and Atlantic States, and killing frosts in the low lands of some of the Southern States. The following minimum temperatures were observed: on the 1st, at Port Huron, 27°; Oswego, 30°; on the 2nd, Pittsburgh, 33°; Knoxville, 38°; on the 3rd, Montgomery, 50°; Atlanta, 49°; Augusta, 48°; Charlotte and Kittyhawk, 45°; Washington and Albany, 36°.