MONTHLY WEATHER REVIEW,

JUNE, 1878.

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 July 13th, have been made use of, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at 114 Signal Service stations and 12 Canadian stations, as telegraphed to this office; monthly journals and means, 119 and 135 respectively, from the former, and monthly means from 13 of the latter; reports from 25 special Sunset stations; 240 monthly registers from Voluntary Observers; 49 monthly registers from United States Army Post Surgeons; Marine Records; International Simultaneous Observations; monthly reports of the Weather Services of the States of Iowa and Missouri; reliable newspaper extracts; special reports.

BAROMETRIC PRESSURE.

Upon chart No. II is shown the general distribution of the atmospheric pressure for the month by the isobaric lines. Compared with the means for June of previous years, the pressure for the present month averages lower in the Gulf and Atlantic States, and slightly higher in the Northwest and Upper Lake region.

The Local Barometric Ranges, as reduced to sea-level, for the month, vary as follows: New England, from 0.70 of an inch at Burlington to 0.96 at Eastport; Middle Atlantic States, 0.65 at Lynchburg to 0.75 at Philadelphia; South Atlantic States, 0.50 at Jacksonville to 0.61 at Cape Lookout; Gulf States, 0.25 at Key West to 0.45 at Mobile, 0.29 at Galveston and 0.56 at Jacksboro, Texas; Ohio valley and Tennessee, 0.50 at Memphis to 0.80 at Pittsburg; Lower Lake region, 0.64 at Oswego to 0.74 at Toledo; Upper Lake region, 0.64 at Chicago to 0.90 at Marquette; Upper Mississippi valley, 0.57 at St. Louis to 0.77 at St. Paul; Red River of the North valley, 0.61 Pembina to 0.76 at Breckenridge; Missouri valley, 0.59 at Bismarck to 0.67 at Omaha; Plains of Nebraska and Kansas, 0 72 at Dodge City to 0.76 at North Platte; Rocky Mountain region, 0.30 at Santa Fe to 0.54 at Denver; between Rocky Mountains and Pacific States, 0.28 at Pioche to 0.46 at Boise City; Pacific States, 0.21 at Campo, Cal., to 0.59 at Portland, Or.

Areas of High Pressure—Of these, nine are described. But one, No. II, was of decided interest, in that it produced destructive frosts on the 6th and 7th.

No. I.—This is a continuation of the high-pressure area described in the MAY REVIEW as No. VI. 1st, in the morning it was central in New England, with northeasterly winds and generally clear weather; minimum temperature on Mt. Washington, 34° Fah.; at Portland and Eastport, highest barometer, reduced to sea level, 30.29 in., or 0.33 in. above the normals. During the day it moved eastward off the coast. 2nd, the pressure rapidly diminished in New England, as it withdrew to the eastward; p. m. barometer at Halifax 30.12,or 0.29 above the normal.

No. II.—1st, prevailed over California, with clear weather; p. m. barometer at San Francisco, 30.11, or 0.16 above normal. It extended north and eastward toward Oregon and Utah during the day. 2nd, it was probably central in Utah by midnight, with barometer at Salt Lake City 0.13 above normal. During the night the temperature on Pike's Peak fell to 16°. 3rd, it continued advancing eastward; by midnight it covered the country from the Rocky Mountains to the Missouri valley; barometer at North Platte, 0.23 above normal. The minimum temperatures indicated frosts as far southward as the northern portions of