

14° 30' W. End of gale at 6 p. m. on the 20th. Highest force of wind, 10; shifts of wind, 2 points." This gale must have been very local in character, as other vessels in the vicinity experienced moderate winds. By the 20th this disturbance had increased considerably in extent and intensity, as strong northwesterly gales prevailed between the 15th meridian and the French coast. On the 23d the American steamship *Macomet* ran into a northwesterly gale about 300 miles east of Bermuda. The storm log is as follows: "Gale began on the 23d. Lowest barometer, 29.74 inches, at 6 a. m. on the 23d; position, 33° 40' N., 58° 03' W. End of gale at 6 p. m. on the 23d. Highest force of wind, 9; shifts of wind, W.-WNW.-N." As can be seen from the report, this storm was of short duration, and it also covered a limited area; one vessel near latitude 38°, longitude 61°, experienced a northwest gale of about 50 miles an hour, while a number of other ships in the vicinity encountered only light to moderate winds.

On the 24th the station at New York reported a northwest wind of 52 miles an hour, with a barometer reading of 29.64 inches. This disturbance was of limited extent, as no vessel reports were received denoting heavy weather in that locality.

On the 26th a vessel near latitude 37°, longitude 58°, reported a westerly gale of over 50 miles an hour, while over the remainder of the ocean moderate weather prevailed.

The conditions during the rest of the month were comparatively featureless with slight pressure gradients and light winds, except that on the 30th the barometer reading at the Azores was unusually low, while in Iceland it was well above the normal. This reversal of the ordinary conditions was responsible for the easterly winds that prevailed over the intervening territory, although no high velocities were reported.

NOTES ON WEATHER IN OTHER PARTS OF THE WORLD.

*British Isles.*—From the first day, which was dull and rainy in London and many other parts of Great Britain, to the last, on which hailstorms were widespread, April was unsettled, showery, and inclement. \* \* \*

General deficiency of sunshine kept the daytime temperature very low, so that at numerous stations the mean maximum temperature was below the normal. On the other hand, owing to the persistent cloudiness, the nights were unusually warm. \* \* \*

The general rainfall, expressed as a percentage of the average was: England and Wales, 204; Scotland, 100; Ireland, 146. \* \* \*

In London (Camden Square) the mean temperature was 49.3° F., or 1.2° F. above the average. The duration of rainfall, 73.1 hours, was the largest recorded in April since these observations were started in 1881. Evaporation 0.85 inch.<sup>1</sup>

*Northwestern Europe.*—Pressure was high over Iceland and a series of depressions, none of them of great intensity, passed slowly across the British Isles. The most severe occurred at the end of the month and caused gales in the Baltic on the 30th. The result was an unsettled month in western Europe, cold and snowy in Norway, rainy and not particularly mild farther south. \* \* \*<sup>1</sup>

*Switzerland.*—Geneva, April 12.—A number of visitors and some scientists are witnessing a strange Alpine phenomenon at Grindelwald, where the famous Grindelwald glacier has been moving into the valley at the rate of 4 to 6 feet daily.

It has already destroyed a pine forest and crushed a stone bridge across the Black Lutschine into atoms. The ice river continues advancing across the water to the upward bank.

The rapid movement is due to the enormous amount of ice and snow on the higher portions of the glacier. The ordinary pace of a glacier is a few yards in 50 years.—*Herald, Elmira, N. Y., April 13, 1920.*

\* \* \* On the 18th very heavy rain fell in Switzerland—91 mm. at Berne and 75 mm. in Lugano. \* \* \*<sup>1</sup>

*Spitzbergen.*—\* \* \* 48 degrees of frost was recorded at Spitzbergen on the 13th, but on the 21st the temperature there rose suddenly to a maximum of 34° F.<sup>1</sup>

*India.*—On April 23 a violent cyclone passed over Manikganj, a small town in Bengal, killing 93 persons.<sup>1</sup>

*Australia and New Zealand.*—Unusually wet weather appears to have prevailed in New Zealand and in Northern and Eastern Australia.<sup>1</sup>

<sup>1</sup> The Meteorological Magazine, May, 1920, pp. 75 and 80.

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DETAILS OF THE WEATHER OF THE MONTH IN THE UNITED STATES.

CYCLONES AND ANTICYCLONES.

By R. HANSON WEIGHTMAN, Meteorologist.

*Cyclones.*—The number of LOWS was much greater than the average. The Alberta LOWs, all of which made their appearance over the western portion of that region, gave birth to secondaries in most cases. In the west and central portions of the country, LOW tracks were south of the normal, while in the East the tendency was to the northward. The table below gives the number of LOWs by types.

LOWS.

	Alber- ta.	North Paci- fic.	South Paci- fic.	North- ern Rocky Moun- tain.	Colo- rado.	Tex- as.	East Gulf.	South atlan- tic.	Cent- ral.	To- tal.
April, 1920.....	5.0	2.0	0.0	2.0	2.0	1.0	0.0	3.0	2.0	17.0
Average number 1892-1912.....	3.4	1.5	0.9	0.5	1.3	0.9	0.3	0.6	0.7	10.3

*Anticyclones.*—The number of HIGHS was also above the average, especially the Alberta type of which there were 7. High pressure centers persisted for considerable periods to the west of Hudson Bay and on the north Pacific coast. The distribution of HIGHS by types is indicated in the table hereunder.

HIGHS.

	North Pacific.	South Pacific.	Alber- ta.	Plateau and Rocky Moun- tain region.	Hudson Bay.	To- tal.
April, 1920.....	1.0	2.0	7.0	2.0	0.0	12.0
Average number 1892-1912.....	1.6	1.6	3.1	1.0	0.6	7.9