

(OFFICIAL COPY.)

SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS, for the CALENDAR MONTH,

JANUARY 1889.

Issued as a Supplement to the Weekly Weather Report, 1889.

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PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; ADAM AND CHARLES BLACK, 6, NORTH
BRIDGE, EDINBURGH; AND HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

General Summary.—The month was quiet and foggy. Pressure was in excess of the average,* and changes were slight and gradual; its distribution was mainly anticyclonic; generally favourable for North-easterly winds over the southern districts, South-westerly to Westerly in the north. Temperature was rather low over our eastern and midland counties, high elsewhere, and rainfall was below the average except in the extreme western parts of Ireland and Scotland.

Pressure.—*Mean for the Month, at 8 a.m.*, varied from between 30·2 ins. and 30·15 ins. over the Channel and southern counties of England, to about 30·05 ins. over the north of Ireland and the south of Scotland, and to between 29·90 ins. and 29·80 ins. in the north of Scotland and Shetland Islands. It exceeded the average for January* by about three-tenths of an inch over the south of Ireland and south-east of England, and by about two-tenths in the north of Scotland; the mean gradients were slight. *Highest* values recorded varied from 30·4 ins. to 30·6 ins. and more, and occurred very generally between the 24th and 27th, as an anticyclone passed over the Kingdom in a south-easterly direction: *Lowest* occurred in the west and north on the 8th or 9th, but in the southern districts on the 12th; none of the readings (when reduced to sea level) were so low as 29·0 ins. *Range* was moderate.

Depressions.—Those passing near to or over our Islands were neither large nor deep; most of them moved north-eastward, considerably to the westward and northward of the British Islands; a shallow one (Track No. II.†) was developed over Wales late on the 9th, and filled up off our south-eastern coasts next morning; another (No. III.*) advanced over central France from the westward on the 12th, and filled up without reaching Germany.

Anticyclones.—Anticyclonic conditions prevailed over Europe through nearly the whole month. The largest systems were of great intensity; their central parts lay over Russia, where the barometer rose to above 31·0 ins. on the 1st, and again between 11th and 16th; on 15th the highest reading (at Moscow) exceeded 31·2 ins. From these systems a ridge extended westwards, sometimes lying over the British Islands and at others over Germany and France. On 17th another anticyclone approached our western coasts from the Atlantic, and spread eastward over Western Europe, while the Russian system receded. The new system, after lying over or off our western coasts for several days, moved southward, and at 8 a.m. on the 31st lay over Spain.

Wind was chiefly South-westerly and Westerly in the north, variable in the south, mainly North-westerly to North-easterly in the English Channel. In force it was generally light to moderate, except in the extreme north-west and south-west, where moderate to fresh gales occurred frequently. Stornoway reported gales on 19 different days, Mullaghmore on 12, Scilly on 10, Pembroke and Valencia on 8, Roche's Point and Aberdeen on 7 days each. Leith, York, Yarmouth, Cambridge, Oxford, Hawes Junction, Bidston, and Parsonstown experienced no gales, and London only one.

Temperature.—*Mean, at Sea Level*, ranged from 47° at Scilly, and from between 45° and 46° at Land's End, and in extreme south-west of Ireland, to rather below 40° over the counties off Tyrone, Fermanagh, Leitrim and Cavan, to about the same value in east of Scotland, and to between 35° and 36° over Cambridgeshire and west of Norfolk. It was below that of the previous month by about 4° over the greater part of England, but by only 1° over Ireland and greater part of Scotland. It was below the average* by about 1° over the eastern and midland counties of England, above it elsewhere, the excess being less than a degree in Ireland, but amounting to two to three degrees in most parts of Scotland—where South-westerly winds were in excess. *Highest* readings occurred very generally on 18th or 31st, when cyclonic Westerly breezes prevailed over the Kingdom. *Lowest* occurred in Ireland and greater part of Scotland on 2nd or 3rd, in the north and west of Scotland and north-west of England on the 27th; over the greater part of England the cold was greatest between 6th and 8th, when a ridge from the European anticyclone spread westward across this country and France. *Range* was not large, the greatest being 41°, at Churchstoke, and 37° at Loughborough. *Vapour Tension* varied from between 0·24 in. and 0·28 in. at our extreme south-western, western, and north-western stations to between 0·18 in. and 0·20 in. over the midland, eastern, and home counties, and at Aberdeen. *Relative Humidity* was greatest (more than 95%) in the west of Scotland; it was above 90 in most other places, but varied between 85 and 89 in north-east of Scotland, at Bidston, as well as in the south of Ireland, and Channel Islands.

Rainfall was very small over England where many of the aggregates were less than one inch. It was less than the average in the eastern and central parts of Ireland and Scotland also, but largely in excess over the extreme west of both of those countries. The largest amounts were 9·6 in. at Laudale, 8·3 ins. at Valencia, and 6·5 at Killarney. The smallest were 0·56 in. at Hereford, and 0·62 in. at Ingatestone.

Bright Sunshine was deficient in most places. The per-centage recorded was only 5 in London and at Glencarron, 8 at Glasgow, and below 20 in most places. At Plymouth, Hastings, and Durham, however, it was 20, at Marchmont 21, and at Aberdeen and Jersey 27.

* The averages employed are—*Pressure and Temperature*, for the 20 years 1861–80; *Rainfall* for the 20 years 1866–85.

† See Map 2, Plate i.