

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

DECEMBER 1900.

(Issued as a Supplement to the Weekly Weather Report, 1900.)

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PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & CO., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of December was exceedingly mild and unsettled, with frequent gales and heavy rains in the west and north, and an extremely heavy fall over England on the 30th. Thunder and lightning occurred in the west and north of Scotland on the 13th and 14th. Pressure was below the average in all but the most southern districts; temperature was greatly above the normal; the winds were chiefly South-Westerly, with a severe gale in Scotland on the 21st, and over Ireland and England on the 28th; rainfall was mostly in excess of the average, and especially so in the western and central parts of Scotland; bright sunshine was very deficient. In its general features the month was remarkably similar to the December of 1898. It was, however, milder, and in some places wetter, than every other December of the past 30 years.

Pressure.—*Mean at 8 a.m.* ranged from 30·03 ins. at Jersey, and from 29·95 ins. and upwards over the eastern and central parts of the English Channel generally, to 29·50 ins. and less in the north of Scotland, and to 29·45 ins. and less in the Shetlands. In the extreme south the readings agreed very closely with the average,* but in all other districts they were below it, and as the deficit was greatest in the north the gradient for South-Westerly and Westerly winds was much steeper than that shown by the chart of normal values. *Highest* readings were recorded on the 16th, when the barometer rose to 30·5 ins. and upwards in the extreme south of England, and to 30·1 ins. and upwards in all but the extreme northern parts of the Kingdom. *Lowest* readings occurred over the country generally during the passage of the deep depression of the 28th, when the barometer fell to 28·6 ins. and less over the northern parts of Ireland and England, to 28·8 ins. and less over the northern half of the Kingdom generally, and to 29·1 ins. and less at all but the English Channel stations. In the north of Scotland the lowest readings, 28·3 ins. and less, were recorded on the 21st. *Range* was moderate for the time of year.

Depressions were numerous, their centres travelling in many cases outside our extreme north-western and northern coasts in the directions shown by the generalised arrows A, B and C, on Map 2, Pl. XII. Of the remainder the most important were (1) a deep depression which skirted the north of Scotland on the 21st, (2) an equally deep disturbance which moved eastwards across the more central parts of our islands and the North Sea on the 28th, and (3) a small secondary system of growing intensity which advanced along the extreme south of England on the 30th, but which afterwards travelled south-eastwards across the north-east of France and gradually dispersed.

Anticyclones.—Throughout nearly the whole month a large anticyclone existed over Southern Europe and the Mediterranean. At times the system extended northwards over the central countries, and on the 16th it spread very temporarily over a considerable portion of the United Kingdom. With the latter unimportant exception the distribution of pressure over these islands was continuously cyclonic.

Winds were mainly South-Westerly, and gales very frequent, especially in the west and north. The Westerly (South-Westerly to North-Westerly) gales of the 21st and 28th were of great severity, the former in Scotland and the north of Ireland, and the latter over the whole of Ireland and England.

Temperature.—*Mean at sea level* ranged from a trifle below 51° in the Scilly Islands, and from 48° and upwards on our extreme south-west coasts generally, to 44° and less over Norfolk and the northern parts of Central Ireland, and to 42° and less in inland portions of the north of Scotland. The general distribution agreed very closely with the normal, but the actual values were considerably above the average,* the excess amounting to more than 6° in many parts of Great Britain and also in the east of Ireland, and to more than 7° at several of the English stations; at Fulbeck and Bawtry it was as much as 7°·5. *Highest* readings occurred at varying times in the different districts. In nearly all places the thermometer at some time rose well above 55°; on the 20th it reached 60° at Cirencester and Dublin, and 62° at Llandudno. *Lowest* readings were observed between the 4th and 7th in the north and west of Scotland, but mostly between the 22nd and 24th in other districts. Sharp frost was, however, very rare, and in many places the absolute minimum for the month was higher than in any December for at least 30 years past. *Vapour Tension* ranged from between 0·30 in. and 0·34 in. on our south and south-west coasts, to 0·24 in. and less in the east of Scotland. *Relative Humidity* was very high,—over 90 per cent. in many places, and as much as 96 per cent. at Dungeness; the lowest values reported were 83 per cent. at Leith and 85 per cent. at Aberdeen and Valencia.

Rainfall was generally in excess of the average,* the only localities with any deficit being the north-east coasts of Great Britain and a few isolated places in North Wales, including also Dublin. In the west and north the excess was, as a rule, very large, the amount at many stations in Scotland, and at a few stations in the west of England being more than twice the average, and in some cases the heaviest recorded in December for at least 30 years past. The largest aggregates reported were:—20·8 ins. at Fort William, 18·1 ins. at Laudale, and 16·9 ins. at Glencarron; the smallest being 1·6 in. at Dublin, 1·8 in. at Shields and Durham, and 2·0 ins. at Cambridge. In the west and north of Scotland falls exceeding an inch in 24 hours were unusually frequent; at Laudale there were as many as 8, and at Fort William 6, two of the falls at the latter station exceeding 2 ins., and that on consecutive days. The heaviest rains of all occurred, however, on the 30th, when the western and south midland counties of England were visited by falls exceeding 2 ins. in many places, and exceeding 3 ins. in a narrow strip of country extending from Bristol and Chepstow to Coventry.

Bright Sunshine was mostly deficient, very few places reporting as much as 20 per cent. of the average* amount. At many of the northern stations there was less than 10 per cent., the smallest proportions of all being 1 per cent. at Fort William and 4 per cent. at Fort Augustus.

* The averages employed are—*Pressure and Temperature* for the 25 years 1871–95; *Rainfall* for the 30 years 1866–95; and *Bright Sunshine* for the 15 years 1881–95. (See preface to "Weekly Weather Report, 1895," and preface to "Daily Weather Reports, July–December, 1896.")