

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

DECEMBER 1893.

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General Summary.—The weather of December was generally mild, wet, and stormy, with heavy gales at times on nearly all our coasts. Thunder and lightning were of somewhat frequent occurrence in the western districts, and thick fogs were experienced in the south-east of England at the close of the month. Pressure was considerably below the average in the north, but slightly above it in the south; temperature was high, especially in the north-west; the winds were chiefly Westerly or South-westerly; rainfall was in excess of the average; and the amount of bright sunshine, though small in Scotland, was abnormally large in most parts of England and Ireland.

Pressure.—*Mean at 8 a.m.* ranged from 30·07 ins. at Jersey, and from 30·0 ins. and upwards over the Channel and South of England generally to about 29·5 ins. in the Shetlands and Hebrides. The general distribution was therefore in close agreement with the normal, but as the actual values were a little above the average* over the central and southern parts of England, while they were considerably below it in the more northern districts, the mean gradient over our islands was much steeper than usual. *Highest* readings were recorded on the 29th, when the barometer rose to 30·7 ins. and upwards over the eastern and central parts of England, and to 30·6 ins. or more in all but the extreme northern parts of the kingdom. *Lowest* readings were observed in Scotland on the 8th, when the mercury fell to 27·97 ins. at Stornoway and to between 28·1 ins. and 28·5 ins. in other parts of the country. Over England and Ireland the absolute minima occurred either on the 13th or 20th, the barometer falling to between 28·6 ins. and 28·7 ins. in nearly all places. *Range* was large, amounting as it did to two inches or more over a considerable portion of the country, and to nearly two inches and a half in the north of Scotland.

Depressions were numerous and in many cases of great depth. The most important systems were: (1.) The disturbance of the 8th, which skirted the north of Scotland; and (2.) Those of the 12th, 13th, and 20th, each of which advanced in an easterly or a north-easterly direction over the central or southern parts of the United Kingdom.

Anticyclones.—Three such systems were observed. The first advanced from the Atlantic on the 1st, and remained over Western Europe until the 5th, when it passed away to the southward. The second spread temporarily over the southern parts of our islands from France on the 15th, but moved away to the eastward on the 17th. The third also extended from the southward on the 25th, and increased in size until it embraced nearly the entire Continent. At the close of the month the system was beginning to give way under the influence of some large depressions which were advancing eastwards over Northern Europe.

Winds were chiefly Westerly or South-Westerly, with a large number of gales, especially on our western and northern coasts; at Roche's Point the wind blew with gale force on 14 days and at Stornoway and Malin Head on as many as 16 days. The storms experienced in Scotland on the 8th, in the south of England on the 12th, and over the western parts of the Channel on the 20th, were of great severity.

Temperature.—*Mean at Sea Level* ranged from 47° and upwards in the Scilly Islands, and 45° and upwards on our extreme south-west coasts generally to 40° or less over central Ireland, and to 39° or less in the north of Norfolk, the distribution being fairly normal, excepting in Scotland, where, owing to the continued prevalence of W. and S.W. winds, the ordinary wintry conditions were less clearly marked than usual. The mean values were everywhere above the average,* the excess being greatest in the north of Ireland and in the western and central parts of Scotland, where it amounted to between three and five degrees. *Highest* readings were registered on the 13th, 15th or 16th, when the thermometer rose to 55° or more in nearly all districts. *Lowest* readings were observed between the 1st and 3rd, when sharp frost prevailed very generally, minimum values below 20° being recorded in many parts of Great Britain. At Lairg the sheltered thermometer fell to 12°, at Glenlee to 13°, and at Nairn, Cirencester, and Llandovery to 15°. *Range* was somewhat large,—over 35° at many of the inland stations in Great Britain, and as much as 40° at Nairn and Glenlee, and 42° at Lairg. *Vapour Tension* ranged from 0·28 in. on our south-west coasts to 0·21 in. or less over central England and the east of Scotland. *Relative Humidity* exceeded 90 per cent. on our extreme north and north-west coasts, and also over the southern parts of Ireland and England, the lowest values (85 per cent. or less) being reported in the east of Scotland and the Scilly Islands.

Rainfall varied greatly in different parts of the kingdom, but was mostly above the average,* the excess being large in the west and north-west of Scotland. The largest aggregates recorded were 16·3 ins. at Fort William, 15·8 ins. at Glencarron, and 11·9 ins. at Laudale; the smallest were 1·0 in. at Cambridge, 1·3 ins. at Shields, Durham, and Stamford, and 1·5 ins. at Dungeness. The number of rainy days was very large in the extreme western and northern districts; at Sumburgh Head, Stornoway, and Glencarron, there were 29, and at Fort William and Belmullet as many as 30, while at Laudale a measurable quantity fell every day in the month.

Bright Sunshine was deficient in the extreme north, but exceeded the average* in nearly all other parts of the kingdom, the excess being in many places very considerable. The per-centage of the possible amount ranged from 37 at Jersey, 34 at Margate, and 32 at Dublin, to 6 at Stornoway, 3 at Fort William and Manchester, and 2 at Fort Augustus.

* The averages employed are—*Pressure and Temperature* for the 20 years, 1871–90; *Rainfall* for the 25 years, 1866–90; and *Bright Sunshine* for the 10 years, 1881–90.