

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

NOVEMBER 1893.

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General Summary.—The weather of November was cold and changeable, with frequent falls of rain, sleet or snow. A Northerly gale of exceptional violence was experienced over our Islands and their immediate neighbourhood between the 17th and 19th. Pressure was high, especially in the west; temperature was below the average; the winds were chiefly Northerly or North-westerly in the more northern districts, but rather variable in the south; rainfall was less than the normal in all localities excepting the north of Scotland and the east of England; and bright sunshine was a little in excess of the average at a large majority of the stations.

Pressure.—*Mean for the month at 8 a.m.* ranged from 30·10 ins. and upwards in the west of Ireland to 29·95 ins. or less on the north and east coasts of Great Britain generally, and to about 29·85 ins. in the Shetlands, the distribution being favourable for winds from the North-westward. The mean values were above the average* in all places, the excess being greatest (0·25 in. to 0·32 in.) on the west coasts of Ireland and Scotland, and least (0·07 in. to 0·10 in.) on the east and south-east coasts of England. *Highest* readings were recorded on the 21st, when the barometer rose to 30·6 ins. and upwards in the west of Ireland, and to 30·4 ins. and upwards in nearly all other parts of the kingdom. In the more northern districts, however, the mercury was equally high, and in some places slightly higher, between the 8th and the 11th. *Lowest* readings were recorded generally on the 17th, when the barometer fell below 28·6 ins. in many parts of Scotland and below 29·0 ins. on all but our extreme southern coasts. *Range* was moderate in the south and south-east, but large in the west and north.

Depressions.—Several large depressions travelled eastwards or south-eastwards across Northern Europe, their secondaries in many instances passing across the more southern parts of Scandinavia, Denmark, and the North Sea. The most important depression observed in the immediate neighbourhood of our Islands was that of the 16th to 19th. The centre of this disturbance advanced in the first instance north-eastwards across Ireland and Scotland, but on the night of the 17th it entirely changed its course, the system ultimately moving in a south-south-easterly direction along our east coasts to Belgium and the east of France, where it apparently broke up. The depression was preceded by a shallower system, which moved east-north-eastwards along the English Channel on the night of the 14th, and which afterwards travelled on to Germany and Poland.

Anticyclones.—Three such areas were observed. The first extended over our Islands from the north-westward on the 6th, its central portion being situated over Scotland until the 11th, when the entire system moved away in a south-easterly direction. The second spread over from the westward on the 19th and 20th, its gradual advance from the Atlantic occasioning the sudden change in the movement of the deep depression noticed above; the central portion of the anticyclone remained over Ireland until the 23rd, when it passed away to the south-westward. The third appeared over our western coasts on the 26th, but quickly moved away to the southward.

Winds were chiefly Northerly or North-westerly on our northern coasts, but rather variable over the more southern parts of the kingdom. The per-centage of winds from the Southward and South-eastward was in all places very slight. Gales were numerous, the most important being the severe storm from the Northward, which sprang up on our northern coasts on the night of the 17th and which afterwards extended over the entire kingdom. At Deerness (Orkneys) the wind blew with an hourly velocity of 90 miles or more for five consecutive hours, the maximum of 96 miles registered between 8.30 and 9.30 p.m. on the 17th being five miles in excess of anything previously recorded in our Islands.

Temperature.—*Mean at sea level* ranged from between 47° and 48° in the Scilly and Channel Islands to 41° or less over central Ireland, and to 37° or less over the inland parts of the north of Scotland, the values being below the average* at all stations excepting one or two situated in the north-east of England and the north of Ireland. *Highest* readings were observed over England and Ireland on the 3rd, but in Scotland on the 28th or 29th. *Lowest* readings occurred at various times in the different districts, sharp frost being experienced in all parts of the Kingdom; at Braemar and Loughborough the sheltered thermometer fell to 19°, and at Lairg and Markree Castle to 20°. *Range* was moderate for the time of year. *Vapour Tension* ranged from about 0·27 in. on our extreme south-west coasts to 0·22 in. or less in the east of Scotland and the central parts of England and Ireland. *Relative Humidity* varied from 79 per cent. at Belmullet and 80 per cent. at Scilly and Jersey to 91 per cent. at Cambridge, 92 per cent. at Prawle Point, and 97 per cent. at Stornoway.

Rainfall was in excess of the average* in the north of Scotland and also in the east of England. Elsewhere the amounts were less than the normal, the deficiency being considerable at many of our western stations. The largest aggregates were 15·4 ins. at Glencarron, 8·0 ins. at Fort William, and 7·1 ins. at Stornoway, the smallest being 0·9 in. at Donaghadee, 1·1 ins. at Hereford, and 1·4 ins. at Leith and Edgeworthstown. Amounts exceeding an inch in 24 hours were recorded at several of the western and northern stations, the largest of all being 3·9 ins. at Glencarron on the 28th, and 2·2 ins. at Fort William on the 29th.

Bright Sunshine was in excess of the normal in most places, but showed a deficiency in Scotland and Central Ireland. The per-centage of the possible duration ranged from 29 at several of our south-western stations and at Arley Cottage (County Cavan) to 10 at Manchester, 9 at Braemar, and only 4 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.