

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

DECEMBER 1897.

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General Summary.—With the exception of a few days in the latter part of the month, when frost and fog were prevalent, the weather was as a rule very mild and changeable, with frequent gales and heavy falls of rain. Thunder and lightning occurred very generally over the southern parts of Ireland and England on the evening or night of the 14th, and on many parts of our western coasts on the 8th, the 16th and the 30th. Pressure was below the average; temperature was high, especially in the south-west; the winds were chiefly from between South and West; rainfall exceeded the normal in all but the eastern districts; bright sunshine was greatly in excess of the average in the west and south, and slightly so in most other localities.

Pressure.—*Mean at 8 a.m.* ranged from 29.95 ins. and upwards over the south-east of England and the eastern parts of the Channel to 29.6 ins., and less in the north and west of Scotland. In the former regions the mean values were a trifle above the average,* but in all other districts they were below it, and as the deficit was greatest in the west, the gradient over our islands was steeper than usual, and favourable for winds from a more Southerly quarter. *Highest* readings were observed on the 21st or 22nd, when the barometer rose to 30.6 ins. and upwards in the eastern and central parts of Great Britain, and to 30.5 ins. and upwards in all but the south-western parts of the kingdom. *Lowest* readings occurred, as a rule, on the 30th, when the barometer fell slightly below 28.2 ins. in the Hebrides, and below 29.0 ins. in the western and northern parts of the kingdom generally. In the south and south-east of England, however, the lowest readings (29.0 ins. to 29.2 ins.) were registered on the 10th. *Range* was large in the north, but moderate elsewhere.

Depressions.—The centres of the larger and more important depressions moved, as a rule, in a northerly or north-easterly direction outside our western and northern coasts, their centres being too far distant for the tracks to be shown on Map 2, Pl. XII. In two instances, however, shallow disturbances advanced in an easterly direction, the system of the 12th moving along the English Channel at an unusually rapid rate.

Anticyclones.—Two such systems were observed. The first passed quickly south-eastwards across our islands on the 2nd and 3rd, but soon broke up on reaching the Continent. The second spread over from Central Europe on the 17th, and remained with us until the 25th, when it receded slowly to the eastward, and finally to the south-eastward.

Winds.—The winds blew chiefly from points between South and West, but at some of the more southern stations there was a fair admixture of breezes from the Eastward. Gales were very frequent, especially on our western and southern coasts, the number of days affected being as large as 18 at Scilly, 15 at Valencia, and 14 at Roche's Point. As a rule, however, they were of no great strength.

Temperature.—*Mean at sea level* ranged from 49° at Scilly, and 46° and upwards on our south-west coasts generally, to 40° and less over the inland parts of the north and east of England, and to between 36° and 38° at inland stations in the northern and central parts of Scotland. In the regions last mentioned the mean values were a little below the average*, but in all other districts they were above it, the excess varying considerably in amount in different places, but being upon the whole greatest in the south-western portions of the United Kingdom. *Highest* readings were recorded over England mainly between the 16th and 18th, but in Ireland and Scotland on the 26th or 27th, the thermometer on one or other of these dates rising to 55° and upwards in most places, to 58° at several of the English and Irish stations, and to 60° at Llandudno. *Lowest* readings occurred in the south-west on the 3rd, but in other districts between the 22nd and 25th. On the latter dates sharp frost occurred over Great Britain, the lowest readings in the screen being 14° at Lairg, 16° at Braemar and 18° at Fort Augustus. *Range* was moderate for the time of year. *Vapour Tension* varied from 0.30 in. at Scilly, and 0.26 in. on our south-west and extreme north-west coasts generally, to 0.21 in. and less over central England, and to 0.18 in. and less over central Scotland. *Relative Humidity* ranged from 98 per cent. at Ardrossan, and 96 per cent. at Malin Head, to 82 per cent. at Liverpool, 81 per cent. at Valencia, and 80 per cent. at Nairn.

Rainfall amounted to more than the average* in all but the eastern districts, the excess being large at many of the western stations. The largest aggregates reported were 11.8 ins. at Glenlee, 11.4 ins. at Fort William, 11.0 ins. at Killarney and 10.4 ins. at Laudale; the smallest being 1.2 ins. at Cambridge, 1.3 ins. at Wick and Spurn Head, and 1.4 ins. at Yarmouth. The number of rainy days was, as a rule, somewhat in excess of the normal; at many stations a measurable quantity was reported on more than 20 days, and at Belmullet on as many as 26 days. Falls exceeding an inch in 24 hours occurred at several of the western and northern stations, the largest being 2.0 ins. at Killarney and 1.9 ins. at Fort William, both on the 28th, 1.8 ins. at Arlington on the 7th, and 1.6 ins. at Llandovery on the 29th. During the early part of the month falls of snow or sleet occurred on several occasions in the more northern districts.

Bright Sunshine was considerably in excess of the average* in the west and south, and slightly so in most other districts. At some stations in the north and east of England, however, there was a deficiency. The percentage of the possible duration ranged from 40 at Jersey, and 30 or more at many of the western stations to 9 at Oswaldkirk and Glasgow, and to 7 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.