

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

## JANUARY 1891.

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**General Summary.**—The severe frost which set in over England at the close of November continued until about the 19th of January, after which the conditions became mild and unsettled, with gales from the South-Westward or Westward in most parts of the kingdom. The mean pressure of the month was in excess of the average; temperature was below the normal, especially over England; the winds were mainly Westerly or South-Westerly; and rainfall was less than the average in all districts excepting the east and south-east of England. The amount of bright sunshine was unusually large, especially over England and Ireland.

**Pressure.**—*Mean for the Month at 8 a.m.* varied from 30·15 ins. and upwards over the Channel and South of England to a little below 29·85 ins. in the Shetlands. The values were everywhere in excess of the average,\* the difference ranging between 0·10 in. and 0·15 in. over Great Britain, but amounting to 0·20 in. in the south of Ireland. The relative distribution of pressure and the mean gradient were, however, fairly normal. *Highest* readings were observed very generally on the 14th, when the barometer ranged from about 30·6 ins. in the south-east of England to 30·9 ins. and upwards, in Ireland; at Belmullet the reading at 2 p.m. and 6 p.m. on the 14th was as high as 30·97 ins. *Lowest* readings were recorded in most places on the 23rd, when the barometer fell below 29·0 ins. in the north of Scotland, and below 29·7 ins. in all other parts of the kingdom. *Range* was somewhat large in the west and north, but slight in the south.

**Depressions.**—The only depression observed during the earlier half of the month was a "V shaped" system which spread over our islands on the 8th, and which ultimately filled up. After the 18th, however, numerous depressions skirted our extreme north-western and western coasts in about the direction shown by the arrow marked "A" on Map 2, Plate I., the systems being in many cases of considerable size and depth. At the close of the month a well-marked secondary disturbance of diminishing intensity travelled eastwards across the south of England to the North Sea, where it rapidly dispersed.

**Anticyclones** were very numerous and persistent during the earlier part of the month, the systems advancing in most cases from the westward or north-westward. During the latter part of the time, however, the central portions of the anticyclones lay at a considerable distance to the southward or south-eastward of our islands, the distribution of pressure over the United Kingdom became mainly cyclonic.

**Winds.**—Over the northern districts the winds were chiefly from the Westward or South-westward, but in the south-east of England there was a somewhat large proportion of breezes from the Northward and North-eastward, while in the south-western parts of our islands winds from the latter quarters were quite as numerous as those from South-west. Gales were somewhat frequent in the north and north-west; at Aberdeen and Mullaghmore there were 12 in number, and at Stornoway 14. In the east and south-east, however, such occurrences were comparatively rare.

**Temperature.**—*Mean at sea level* ranged within a trifle of 43° on our extreme south-west coasts to 38° or less over central Ireland, to 35° or less over the inland parts of the north of Scotland, and to 32° or less in the west of Norfolk. The winter type of distribution was (as in December) unusually marked, and the values were everywhere below the average,\* the deficit varying from less than a degree and a half in most parts of Scotland to between 4° and 6° over all the eastern, central, and southern parts of England. *Highest* readings were observed as a rule between the 28th and 31st, but in Scotland they occurred in many instances on the 12th or 13th. *Lowest* readings were observed on the 6th or 7th in Ireland, on the 18th or 19th over the greater part of England, and between the 21st and 23rd in the north of Scotland. At some of the eastern and southern stations in England, however, the weather was coldest on the 10th or 11th. Minima below 10° were recorded at many of the English stations, the lowest readings of all being 1° at Stamford, 5° at Hillington and 7° at Geldeston, Cambridge, Loughborough, and Llandoverly. *Range* was large at the inland stations; at Hillington, it amounted to 45°, at Cambridge and Loughborough to 46°, and at Stamford to 51°. *Vapour Tension* was less than 0·18 in. over England and the east of Scotland, and as low as 0·15 in. at Oxford. In the Shetlands and Hebrides, however, it amounted to 0·23 in., at Valencia to 0·24 in., and at Scilly to 0·26 in. *Relative Humidity* ranged from 83 per cent. at Jersey, 84 at Mullaghmore, and 85 at Leith and in London, to 96 at Hurst Castle and Dungeness, and 97 at Hawes Junction.

**Rainfall** amounted to less than an inch in the east of Ireland and some of the north-eastern parts of Great Britain, and was as small as 0·34 in. at Leith. On the south-east coast of England, however, there was more than 3 ins., and in the south-west of Ireland more than 4 ins., while in the west of Scotland the amounts varied between 5 and 9 ins. At a large majority of our stations the values were considerably less than the average,\* but in some parts of the east and south-east of England there was a slight excess. The number of rainy days was large in the extreme north, but elsewhere it did not differ greatly from the average.

**Bright Sunshine** was, upon the whole, considerably in excess of the average.\* At Fort William the per-centage of the possible amount of duration was only 11, and at Fort Augustus it was as low as 7, but in many parts of England and Ireland it exceeded 30; the highest values of all being 39 at Jersey, 37 at Dublin, 36 at Southampton, and 35 at Llandudno.

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