

SUMMARY OF OBSERVATIONS.

JANUARY, 1902.

General Summary.—The weather was mild and rainy in the early part of the month, but subsequently became colder and much drier in all but the extreme northern and north-western districts; snow showers were, however, very general in the closing week. Thunder and lightning occurred in the west and north of Scotland on the nights of the 3rd and 4th, and at several of our western stations on the 24th and 25th. Pressure was above the average; temperature was also high, especially over Eastern and Central England; the winds were chiefly Westerly, but very few gales were experienced, excepting on the Atlantic coasts; rainfall was less than the normal at all but the extreme northern and north-western stations; bright sunshine exceeded the average duration in all but the Irish and south-western districts.

Pressure.—*Mean at 8 a.m.* ranged from 30·25 ins. at Jersey, and 30·20 ins. and upwards over the greater part of the English Channel, to 29·70 ins. and less in the Shetlands, the gradient over our islands being much steeper than usual, and favourable for winds from the Westward and North-westward. The mean values were above the average,* the excess being slight in the northern and eastern districts, but large in the west and south, and especially so on our extreme south-west coasts, where it amounted to more than 0·2 inch. *Highest* readings were observed in all the more northern districts on the 31st, when the barometer rose above 30·9 ins. in the northern parts of England and Ireland, and above 31·0 ins. over nearly the whole of Scotland, the highest value reported being 31·11 ins. at Aberdeen. The readings in Scotland at this time were the highest recorded in these islands excepting in January 1896, when the barometer on the 9th rose to about the same level. In the southern portions of the Kingdom the highest readings occurred on the 15th, the mercury rising above 30·85 ins. in most places, and above 30·9 ins. in the Isle of Wight and the Channel Islands. *Lowest* readings were observed in Scotland on the 1st, when the barometer fell below 28·7 ins. in the Hebrides and below 28·9 ins. in all other parts of the country. Over England and Ireland they occurred more commonly on the 24th, when the mercury ranged from about 29·0 ins. in the extreme northern districts to about 29·3 ins. on our southern coasts. *Range* was moderate in the south, but very large in the north; at some of the Scotch stations it amounted to more than 2½ ins.

Depressions.—Most of the Atlantic storm systems passed along in tracks lying far to the northward of our islands, the centres moving in many cases across the north of Scandinavia. In two instances, however, the centre of a well-defined depression passed directly across Scotland and the North Sea, the earlier of these being observed on the 1st and 2nd, and the latter on the 27th and 28th.

Anticyclones.—Three such systems were observed. The first spread over our islands from the south-westward on the 5th and 6th, its central portion moving eastward across the Bay of Biscay and France on the 7th; after the latter date the entire system passed away to Southern Europe. The second extended from the north-westward on the 12th, and covered nearly the whole of Europe by the 14th, the system remaining over the western countries until the 22nd, when it moved away to the southward. The third advanced from the south-westward over our islands and Scandinavia on the 29th, its central portion being found at the close of the month over Scotland and the south of Norway. During its progress the system increased greatly in intensity and yielded the exceptionally high readings of the barometer already quoted.

Winds were chiefly from the Westward, with a tendency to draw into South-west over England and Ireland and into North-west in Scotland; on our south-west coasts, however, the direction varied considerably from time to time. Gales were unusually rare for the time of year excepting on our extreme north and north-west coasts, where they were quite as numerous as usual; at Malin Head they occurred on as many as 20 days.

Temperature.—*Mean at sea level* ranged from a little below 48° in the Scilly Islands, and from 45° and upwards on our extreme south-west coasts generally, to 41° and less over the north of Ireland and the east of England, and to between 36° and 38° at most stations in the northern half of Scotland. In the last-mentioned region the values were slightly below the average,* but in all other parts of the Kingdom they were above it, the excess being large (3° or more) in several parts of Eastern and Central England, where the distribution of temperature showed a rather striking departure from the ordinary winter type. *Highest* readings occurred at somewhat various times in different places, but mostly on or about the 3rd; at several of the English stations and at Dublin the thermometer rose slightly above 55°, the highest reading reported being 58° at Newcastle-on-Tyne. *Lowest* readings were observed over England mostly on the 15th, but in Ireland Scotland and the extreme north of England, they occurred at various times between the 27th and 31st. Over England the lowest readings recorded were 14° at Bramley and 16° at Newton Reigny (Penrith), but at Nairn the thermometer fell to 8°, at Braemar to 3°, and at Lairg to 2°. *Range* was moderate generally, but large at inland stations in the north of Scotland. *Vapour Tension* ranged from 0·28 in. at Scilly and 0·25 in. or more on our south-west coasts generally, to 0·20 in. or rather less over eastern and central Scotland, and at isolated places over northern and central England. *Relative Humidity* ranged from 95 per cent. at Dungeness and 93 per cent. at Malin Head, to only 80 per cent. at Sheffield and 79 per cent. at Jersey.

Rainfall amounted to considerably less than the average* over the United Kingdom generally, the total fall at many of the English stations being less than half the normal. The largest aggregates were 12·7 ins. at Glencarron, 9·5 ins. at Fort William and 8·2 ins. at Laudale; the smallest being 0·5 in. at Durham, Cambridge and Clacton-on-Sea, and 0·6 in. at Spurn Head, Hollesley Bay and London. Less than 10 rainy days were experienced at many of the English stations, but in the extreme western and northern districts the number was in excess of the average, the largest reported being 29 at Stornoway and 28 at Sumburgh Head. Snow showers were experienced at many northern stations between the 10th and 14th, and in nearly all parts of the Kingdom during the closing week.

Bright Sunshine was in excess of the average* in most parts of Great Britain, but was rather deficient in the south-western districts, and also in Ireland. The percentage of the possible duration ranged from 37 at Felixstowe, and 32 at Hollesley Bay, to 15 or less at several of our northern stations, and to only 9 at Glasgow.

* The averages employed are—*Pressure and Temperature* for the 30 years, 1871–1900; *Rainfall* for the 35 years, 1866–1900; and *Bright Sunshine* for the 20 years, 1881–1900. (The averages will be published shortly as an appendix to the "Weekly Weather Report.")