

SUMMARY OF OBSERVATIONS.

FEBRUARY, 1902.

General Summary.—Until the closing week the weather of February was extremely cold, with frequent falls of snow in the northern parts of the kingdom, and occasional falls in the south. Towards the end of the month, however, the weather became much milder, with considerable quantities of rain in most districts. Thunder and lightning occurred on our south-west coasts on the 7th, and at several stations in the south and east of England on the 27th or 28th. Pressure was below the average; temperature also showed a large deficit, especially in the inland parts of Great Britain; the winds were mainly Easterly in the south, but Southerly in the north; rainfall was very deficient over Great Britain as a whole, but exceeded the normal in Ireland; bright sunshine differed but little from the average.

Pressure.—*Mean at 8 a.m.* ranged from 29·85 ins. and upwards over the greater part of England and the east of Scotland to 29·76 ins. at Scilly and to 29·75 ins. or rather less on the west coast of Ireland. The general distribution over our islands was therefore abnormal, the south-westerly gradient usually observed in February being replaced by gradients for Easterly or South-Easterly winds in the south, and for Southerly winds in the north. The mean values were below the average* in all but the extreme northern districts, the deficit being small in the northern and eastern parts of the kingdom generally, but larger in the south-west; at Scilly it amounted to about 0·2 inch. *Highest* readings were observed on the morning of the 1st, when the barometer ranged from between 31·00 ins. and 31·04 ins. in the north of Scotland to about 30·55 ins. in the extreme south of England. *Lowest* readings were recorded as a rule on the 27th, when the mercury fell a trifle below 28·9 ins. in the south-west of Ireland, and below 29·3 ins. in all districts excepting the north-east of Scotland. *Range* was moderate in the south and east of England, but large elsewhere; in the north of Ireland it amounted to nearly 2 ins.

Depressions were rather numerous, but were of very little intensity. During the early part of the month they moved in various directions, most of the systems dispersing either over the North Sea or the western parts of the Continent. After the 18th several depressions approached the Irish coasts, apparently from the south-westward, but afterwards moved away again over the Atlantic in a north-westerly direction.

Anticyclones.—At the commencement of the month the remarkably high anticyclone which lay over the northern parts of the United Kingdom at the close of January was still in force. In the course of the next few days, however, it gradually dispersed, the remnant of the system moving southwards on the 4th, and afterwards eastwards to the central parts of the Continent. The only other anticyclone observed in our immediate neighbourhood was one of very moderate height which spread over Western Europe on the 13th and 14th, but which moved away to Russia after the 15th. On the 17th it extended northwards over Scandinavia, and on the 19th and 20th its western borders spread again temporarily over the greater part of the United Kingdom, the system afterwards drifting away finally to the eastward.

Winds were chiefly from the Eastward (North-East to South-East) in the south, but from the Southward in the north. Gales were rare, excepting on our extreme north and north-west coasts, and even there they were of little strength. At many stations in the northern and central parts of the United Kingdom the wind did not once reach force 7 by Beaufort's Scale.

Temperature.—*Mean at sea level* ranged from 43° at Scilly, and 40° or more on our extreme west and south-west coasts generally to 36° and less in the central parts of the north of Ireland, and to 34° and less at several inland stations in the northern parts both of England and Scotland. The general distribution agreed very closely with the normal, but in the western half of the kingdom the thermal gradients between the coast and the inland districts were unusually steep for the month of February. The mean values were in all cases much below the average*, the deficit exceeding 5° at many of the inland stations in Great Britain and amounting to as much as 6°·7 at Chester. *Highest* readings occurred in the north, mostly between the 23rd and 25th, but in other districts on the 28th; on one or other of these dates the thermometer rose to between 50° and 55° very generally, and at Llandudno on the 25th it reached a maximum of 59°. *Lowest* readings were recorded as a rule between the 12th and 14th, but in the central and southern parts of England they occurred more commonly on the 16th or 17th. Hard frost prevailed about these times over the United Kingdom generally, the sheltered thermometer falling below 10° at many of the northern and central stations; at Edenfel (Omagh) and Newton Reigny it sank to 4°, at Braemar to zero, and at Lairg to - 2°. *Vapour Tension* ranged from between 0·21 in. and 0·23 in. on our extreme west and south-west coasts to 0·16 in. or less over northern and central England, and to only 0·13 in. at Newton Reigny. *Relative Humidity* varied from 98 per cent. at Portland Bill and 90 per cent. and upwards at several stations in the northern, eastern, and southern parts of the United Kingdom, as well as at Parsonstown, to 83 per cent. at Newton Reigny and Jersey, and to 82 per cent. at Scilly.

Rainfall was slightly in excess of the average* at many of the Irish stations, and also in the Isle of Man and at isolated places in the west and south-west of Scotland. Over Great Britain as a whole the amount was, however, less than the normal, the deficiency being large in many parts of Scotland and also in the south and east of England. The largest aggregates were 5·8 ins. at Valencia, 5·3 ins. at Cally (Gatehouse), and 4·6 ins. at Roche's Point; the smallest being 0·4 in. at Hollesley Bay, 0·5 in. at Yarmouth, and 0·6 in. at Geldeston. Snow was very prevalent in the earlier half of the month, and in the northern districts it lay to a considerable depth. Heavy rain fell in the south of Ireland between the 16th and 18th, and again on the 21st and 26th.

Bright Sunshine differed but little from the average*, some stations showing a slight excess, but others a small deficiency. The percentage of the possible duration ranged from 41 at Felixstowe and Clacton-on-Sea to 20 or less at several of our northern and central stations, 12 in London, 11 at Edgbaston, and only 8 at Prestwich.

* 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.")