

SUMMARY OF OBSERVATIONS.

JANUARY, 1904.

General Summary.—The weather during the opening month of the year proved of an unsettled and unseasonable character even the extensive anticyclone system which prevailed during the third week not producing the type of wintry conditions usually associated with such systems at this season. A "silver thaw" experienced in London on the morning of the 2nd marked the termination of the brief spell of sharp frost towards the close of December, and after this mild, open weather was largely in the ascendant, cyclonic disturbances being numerous, but keeping well out on the Atlantic, and travelling on a general north-easterly course for the Arctic regions. This resulted in the predominance during the greater part of the period of a South-Westerly type of conditions, producing strong winds or gales on many occasions, frequent rains in most parts of the country, hail and snow in various northern and western districts, and thunderstorms at a number of stations in the western and southern districts. Pressure was below the average; the winds were mainly from points between South and West; temperature was above the normal in nearly all localities; rainfall varied considerably both in frequency and in amount; and the duration of bright sunshine was deficient practically all over the country.

Pressure.—*Mean at 8 a.m.* ranged from 30·01 ins. at Jersey and above 29·90 ins. over the southern portion of England to less than 29·70 ins. in the north of Ireland and over the greater part of Scotland and to 29·55 ins. in the Shetlands. The values were everywhere below the average,* the defect being very slight on the eastern portion of the English Channel, but amounting to 0·15 in. in the north of Scotland and to 0·16 in. at Malin Head. The distribution of mean pressure was very similar to the normal, but the gradient was a little more steep than usual. *Highest* readings were recorded on the 21st and 22nd, when 30·76 ins. was reached at various stations in England and Ireland, the only other well-marked maximum being on the 6th, when Oxford rose to 30·34 ins. *Lowest* readings occurred on the 14th, when the barometer fell below 28·5 ins. in most parts of Scotland, to 28·33 ins. at Sumburgh Head, and to 28·35 ins. at Wick. Readings below 29 ins. were reported on the 10th, 27th, 28th, and 29th. *Range* was large in all districts, to from about 1·5 in. on the western portion of the English Channel to 2 ins. and upwards over Scotland and the north of England and of Ireland, and to 2·2 ins. at Aberdeen, Nairn, and Sumburgh Head.

Depressions.—From Map 2, Plate I., it will be seen that while the weather over our islands was influenced by a large number of depressions, nearly the whole of the centres of barometric minima moved on a general north-easterly course at a considerable distance outside our western and northern coasts, indicated approximately by the path marked A on Map 2, Pl. I. A small but deep system which moved eastward along the south of Ireland on the 4th, changed its course to south-east in the night and next morning it dispersed near Brittany. On the morning of the 6th a rapid fall of the barometer was in progress on our south-western coasts, the centre of the disturbance reaching the Bristol Channel the same evening, and there dying out. Another short-lived one appeared near the Channel Islands on the 31st, but expired on reaching the north of England next morning. The deepest disturbance was that of the middle of the month, its centre crossing the north of Scotland in the night of the 13th, the barometer falling below 29 ins. at nearly every station in the kingdom, and in the Shetlands it sank to 28·33 ins. next morning. The system subsequently travelled away across southern Scandinavia and the Baltic.

Anticyclones.—During the greater part of the period the areas of high pressure were over Continental countries, Russia in particular. On the morning of the 6th a small anticyclone, with the barometer above 30·3 ins., formed over the south-east of England and Belgium, but it did not last the day, being merged in the Continental system. Between the 16th and 24th our islands were mainly under the influence of a large anticyclone, the centre of which, with the barometer above 30·7 ins., moved across Ireland and England, on its way to the Continent, on the 21st and 22nd.

Winds.—With nearly the whole of the centres of disturbances keeping out on the Atlantic the direction of the wind over our islands was, with some unimportant exceptions, from the Southward and Westward, frequently blowing with considerable force. Gales were numerous, but, as a rule, not of any great strength. At Stornoway there were 11 days with gales, at Deerness 12, at Blacksod Point 13, at Holyhead and Pembroke 14, and at Malin Head and Scilly as many as 17 days.

Temperature.—*Mean at sea level* ranged from nearly 47° at Scilly and above 42° at most stations in the south-west quarter of England and in the south and west of Ireland to below 40° generally over the eastern half of Britain, to 38° at Clacton-on-Sea, and slightly less at Strathpeffer. The general distribution was in fair agreement with the normal, but in nearly every instance the mean values were above the average,* few places, however, showing an excess of so much as 2°, the greatest being 2°·6 at Fort William. Both the maximum and the minimum values were registered on very varied dates. *Highest* readings were 60° at Ampleforth, 59° at Bramley, and 57° at Colly Weston; 55° at Dublin (City) and 54° at Kilkenny; 54° at Ochtertyre and 53° at Nairn. *Lowest* readings were 12° at Bramley, 17° at Wokingham, and 19° at Reading and Maidenhead; 25° at Dublin (Phoenix Park), 26° at Glasnevin, and 28° at Birr Castle, Edenfel, and Kilkenny; 23° at Fort Augustus and 24° at Lairg. *Range* varied from 47° at Bramley, 37° at Maidenhead, and 36° at Wokingham to 20° and less at several coast stations, 18° at Sumburgh Head and Blacksod Point, 17° at Deerness, and only 15° at Malin Head. *Vapour Pressure* ranged from 0·27 in. at Scilly and 0·26 in. at Roche's Point to 0·20 in. at Aberdeen and Nairn. *Relative Humidity* was as high as 93 per cent. at Oxford, Spurn Head, and in London, 90 per cent. or above at the majority of stations, and ranged down to 81 per cent. at Blacksod Point.

Rainfall was in excess of the average* over the United Kingdom generally, but showed a deficit at many stations in the north and east. The aggregates ranged from 10·7 ins. at Glencarron, 10·6 ins. at Laudale, and 8·3 ins. at Killarney to 1·7 in. at Bawtry and Newcastle-on-Tyne, 1·6 in. at Lowestoft and Yarmouth, and 1·3 in. at Cambridge and Nairn. The number of rainy days varied greatly, from 31 at Sumburgh Head and 30 at Blacksod Point to 14 at Leith and Whitby and 13 at Shields. On the 30th there was a fall of 1·3 in. at Bramley, and there were only eight other stations where an inch or more was measured in a day.

Bright Sunshine was below the average* at nearly all stations. The percentage of possible duration ranged from 26 at Aberystwyth and 24 at Felixstowe to 5 at Manchester and 3 at Fort William.

* The averages employed are—*Pressure and Temperature* for the 30 years 1881-1900; *Rainfall* for the 35 years 1866-1900; and *Bright Sunshine* for the 20 years 1881-1900. See Appendix III. "Weekly Weather Report," 1901.