

SUMMARY OF OBSERVATIONS.

APRIL, 1904.

General Summary.—Atmospheric conditions of a varied character were experienced during the month of April, ranging from very unsettled, wet, and sometimes wild and stormy in the extreme west and north, to comparatively fine, bright and dry in the south and east. These variations were associated with the large number of Atlantic disturbances which skirted our western and northern coasts, while systems of high pressure were found in the south, their centres being for the most part about the Bay of Biscay region. The worst of the gales were experienced about the northern districts in the first week or ten days, a brief but violent one in the early hours of the 6th being marked by extraordinarily rapid fluctuations of the barometer while the centre of the depression was moving eastward across the north of Scotland. Thunderstorms occurred about the eastern side of the Irish Sea on the 3rd, and in various parts of the south and east of England on the 12th and 13th. An almost uniform mildness prevailed, there being no well-defined periods of cold, the night frosts being local and unimportant. On the other hand, there was nothing exceptional in the warmth of the days. For the month as a whole pressure was above the normal over the more southern parts of the Kingdom, and considerably below it in the far north; the winds were mainly in the South-West and North-West quarters, gales being frequent in the northern districts; temperature was nearly everywhere in excess; and both rainfall and bright sunshine were rather variable.

Pressure.—*Mean at 8 a.m.* ranged from 29·56 ins. at Sumburgh Head, and below 29·7 ins. over the greater part of Scotland to 30·0 ins. and above about the western half of the English Channel, to 30·04 ins. at Jersey. At all the southern stations in England and Ireland the values were above the average,* the excess at Jersey amounting to 0·13 in. Elsewhere they were all below the average, the deficiency increasing northward to 0·29 in. at Sumburgh Head. The distribution of mean pressure differed widely from the normal, there being a gradient of as much as 0·48 in. between the Shetlands and the Channel Islands against the normal of less than 0·07 in. *Highest* readings were registered at the commencement of the month or between the 18th and 25th, 30·33 ins. at Jersey on the 5th, and 30·42 ins. at Valencia on the 20th. *Lowest* readings occurred in the earlier half, there being few instances below 29 ins., but on the morning of the 6th Stornoway recorded 28·60 ins. and Aberdeen 28·80 ins., followed by an unusually rapid rise of 0·43 in. at the former station in an hour and three-quarters, and of 0·35 in. at the latter in the same interval. On the 13th Blacksod Point recorded 28·73 ins. *Range* varied from less than 0·8 in. in the south-east of England to upwards of 1·6 in. in the far west.

Depressions.—On referring to Map 2, Plate IV., it will be seen that, with the exception of a short-lived disturbance which moved down our south-western coasts to the Bay of Biscay, and another which passed down the east coast, the numerous depressions of the month had their centres to the west and north of our islands, some travelling north-eastwards, others eastwards. In the night of the 5th-6th the centre of one of the deepest disturbances of the month moved swiftly across the extreme north of Scotland, and by the morning of the 7th it had reached the Gulf of Bothnia. This decided persistency of the paths of progression to north-east and east in the localities referred to, and the almost entire absence of disturbances in the more southern parts of the country determined the great prevalence of winds from points in the western half of the compass.

Anticyclones.—On the morning of the 11th a small portion of the central space of a very shallow high pressure system (barometer slightly above 30·1 ins.) moved eastward across the southern counties. During the rest of the month, although pressure was generally in excess of the normal in the south, the centres of the various anticyclones were either out at sea to the south-westward, or over some part of the Continent, the highest records being slightly above 30·5 ins. on the 4th and 5th on the lower part of the Bay of Biscay, and above 30·7 ins. on the 19th and 20th over North-Eastern Russia.

Winds.—Map 1, Plate IV., shows a considerable proportion of South-Easterly winds in the Shetlands, but elsewhere the directions were for the most part South-Westerly, Westerly or North-Westerly. Gales were experienced on 11 days at Durham and Deerness, 12 at Spurn Head, 13 at Blacksod Point and Cockle Park (Morpeth), and 17 at Malin Head. They were much less frequent in the south.

Temperature.—*Mean at sea level* ranged from 51° at Southampton and above 50° in the Channel Islands and in the Thames watershed, to below 45° along the north-west, north and north-east coasts of Scotland, and to 42°·5 at Sumburgh Head. The general distribution differed in several respects from the normal, the mean values in nearly all instances being above the average*; the excess was as a rule moderate, but at several stations in the east of England it amounted to 3° or more. Along the west and north coast of Ireland there was a deficiency of 1°. Both the maximum and the minimum values occurred on very varied dates. *Highest* readings in England, 70° at Maidenhead, 69° in London; in Scotland, 67° at Nairn, 66° at Leith and Strathpeffer; in Ireland, 64° at Killarney and 63° at Glasnevin; and in the Channel Islands 61° at Guernsey. Sumburgh Head did not exceed 51°, and Scilly 56°. *Lowest* readings 26° at Garforth, 27° at Wokingham, and 28° at Whitby; 23° at Braemar and 30° at Kilkenny, Stornoway and Wick. Aberystwyth, Scilly, Guernsey and Totland Bay did not fall below 40°, and Portland Bill 41°. *Range* was less than usual, few stations showing as much as 35°, but Garforth had 42°, and Maidenhead and Wokingham 38°, while at the other extreme Pembroke had 19°, Blacksod, Valencia and Sumburgh Head 17°, and Scilly 16°. *Vapour Pressure* ranged from 0·29 in. at Jersey and Spurn Head to 0·23 in. in the north of Scotland, *Relative Humidity* varied from 92 per cent. at Malin Head and Spurn Head to 75 per cent. at Leith.

Rainfall was in excess of the average* over Scotland and in many parts of the north-west of England and north of Ireland, nearly everywhere else it was in defect. At Glencarron the total was 13·3 ins., an excess of 8·8 ins.; Laudale had 11·2 ins., an excess of 7·5 ins.; and Fort William 9·7 ins., an excess of 6·1 ins. Many stations in England, mostly in the east, received less than an inch, Chester and Spurn Head only 0·5 in. There were 29 rainy days at Blacksod Point and 28 at Valencia, against 9 at Reading and Chester, 7 at Broadstairs, and 6 at Shoeburyness. Except in Scotland falls of as much as half-an-inch in a day were very rare, and the only places with more than an inch were Laudale, Fort William, and Glencarron.

Bright Sunshine was above the average* over the midland, eastern and northern districts of England, variable elsewhere. The percentage of possible duration ranged from 52 at Guernsey and 51 at Clacton to 19 at Fort William and 15 at Manchester.

* 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. See Appendix III. "Weekly Weather Report," 1901.