

SUMMARY OF OBSERVATIONS.

FEBRUARY, 1905.

General Summary.—During the first eighteen days of the month our islands were between an anticyclonic system, having its central space most of the time to the south-westward or southward (the Bay region), and disturbances which kept at a considerable distance beyond our northern coasts on their way to the Arctic parts of Scandinavia. Winds from between South-West and North-West were consequently largely prevalent, and, at times, were strong to a gale in force, but the period was almost uniformly mild, with the temperature of the successive weeks from 2° to 5° above the average, while with the exception of the north of Scotland there was everywhere a very large deficiency of rain. The remainder of the month was of a more variable character, with more or less severe gales from Northerly, as well as from Southerly, directions, and very strong North-Easterly winds along the southern and eastern coasts. Much colder weather was experienced in all districts, temperature being as much in defect as it had previously been in excess. Rain, hail, sleet, or snow, fell more frequently, and in somewhat larger quantities than before, but the amounts measured were still less than the normal in nearly all localities, the result being that for the eight weeks, January 1st to February 25th, all the eastern and southern portions of Britain had received only from one-third (England, N.E.) to one-half (Channel Islands) the normal precipitation, the north of Scotland alone showing an excess. For the whole of February pressure and temperature were generally above the normal; the winds were mainly from between South-West and North-West, and gales were rather frequent; there was a marked deficiency of rain, and bright sunshine was as a rule abundant.

Pressure.—*Mean at 8 a.m.* ranged from 30.28 ins. at Jersey, 30.27 ins. at Scilly, and above 30.2 ins. at nearly all southern stations to below 29.9 ins. in the north of Scotland, and 29.75 ins. at Sumburgh Head. With the exception of a slight deficiency of 0.01 in. in the Shetlands, the values were all in excess of the average,* the differences increasing from north to south, so that at Roche's Point the excess amounted to 0.33 in., and at Valencia to 0.34 in. The distribution of mean pressure shows the gradient to be twice as steep as the normal. *Highest* readings occurred about the 12th, 15th, and 21st and 22nd, when 30.6 ins. was exceeded in many places, Aberdeen touching 30.7 ins. on the 21st. *Lowest* values were reported on the 18th—28.65 ins. at Sumburgh Head,—and on the 26th–27th—Stornoway sinking to 28.48 ins., and Malin Head to 28.51 ins. *Range* was considerable in all districts, from 1.3 ins. at Jersey and Dungeness to 2 ins. or more in the north and north-west; 2.2 ins. at Stornoway and Malin Head.

Depressions.—From Map 2, Plate II., it will be seen that the disturbances of the month were nearly all outside our islands, to the northward and north-eastward. One which appeared over Wales on the morning of the 7th, and dispersed over the south of England in the following night, had the barometer at its centre as high as 30.3 ins. to 30.4 ins. It brought rain to many localities, but no wind. The only other depression whose centre came inland was that which lingered about our north-western, northern, and eastern districts from the 25th until March 1st.

Anticyclones.—While the barometer maintained a high level during a greater part of the period, the central space of only one anticyclone visited the country, passing across the northern districts on the 21st for Scandinavia and Russia, with readings above 30.6 ins. Our extreme south-western districts were covered by a very small portion of the core of one from the 11th to the 14th. As was the case in January the high pressure centres were found mainly from the Bay of Biscay eastward across Central Europe to Russia.

Winds.—With the exception of a current from between North-East and South-East for a few days about the end of the third week, the winds were almost wholly in the Western half of the compass. Gale force was experienced at Deerness on 15 days, at Durham on 12 days, and at Malin Head and Blacksod Point on 11 days.

Temperature.—*Mean at sea level* ranged from above 46° at Scilly and above 44° at all south-western stations to below 40° over the north of Scotland and to slightly under 38° at Fort Augustus and Lairg. The general distribution resembled the normal, but the mean values were in nearly all cases above the average,* the excess being nearly 3° at a few places in the south-east quarter of England. *Highest* readings occurred mainly about the 5th, and 14th to 18th, there being numerous instances of 55° and upwards, 59° being registered at Garforth on the 14th. *Lowest* values were recorded about the 8th, 12th and 20th to 25th; in Ireland, 21° at Birr Castle on the 24th; in England, 20° at Garforth and Rauceby on the 8th; and in Scotland, 15° at Lairg on the 23rd, and 12° at Braemar on the 22nd. *Range* was moderate, 39° at Garforth being the greatest, while Blacksod and Scilly had only 19° , Newquay 18° , and Aberystwyth and Guernsey 17° . *Vapour Pressure* ranged from 0.26 in. at Scilly to 0.19 in. at Nairn. *Relative Humidity* at 8 a.m. was as high as 92 per cent. at Dungeness and Birr Castle, and 91 per cent. at Clacton-on-Sea and Roche's Point, the lowest being 83 per cent. at Blacksod Point, and 81 per cent. at Valencia.

Rainfall.—In the north of Scotland, and locally in the north of Ireland, the rainfall was above the average,* by as much as 3.8 ins. at Glencarron and 3.1 ins. at Laudale, but over the rest of the kingdom there was a deficiency, of as much as 2.5 ins. at Falmouth and 2.7 ins. at Roche's Point. The aggregate totals for the month ranged from 10.7 ins. at Glencarron, 9.7 ins. at Laudale, and 6.1 ins. at Stornoway, to less than an inch at a large number of stations, and to only 0.4 in. at Reading, Oxford, and Shoeburyness. The days on which precipitation was measured numbered 25 at Sumburgh Head, Stornoway, and Glencarron, and 24 at Blacksod and Lairg, against 8, 9, or 10 in many parts of England. The falls were, as a rule, very small, there being only a few records of as much as 0.5 in. in a day, but Killarney had 1.3 in. on the 25th, Glencarron 1.4 in. on the 3rd, and Laudale 2.4 ins. on the 25th, the only stations with more than an inch.

Bright Sunshine was below the average* in the Channel Islands and in most parts of Scotland. Elsewhere nearly all the records show an excess, Blackpool and Cronkbourne being more than an hour per day to the good. The percentage of possible duration ranged from 40 at Kingstown, 38 at Cronkbourne (Isle of Man), and 36 at Dublin (Phoenix Park) to 16 at Birmingham, 15 at Llangammarch Wells, and 11 at Manchester (Whitworth Park).

* 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.