

SUMMARY OF OBSERVATIONS.

JANUARY, 1906.

General Summary.—As a result of the numerous Atlantic disturbances which skirted our coasts or moved across the country, the opening month of the year was of an exceedingly unsettled and boisterous character. For the first few days, under the influence of an almost stationary depression outside the south-western coasts, the weather was dry and cold, with South-Easterly to Easterly strong winds or fresh to strong gales on many sections of our coasts, a whole gale locally. In the main, however, the prevailing conditions were of a South-Westerly to Westerly type, the wind on several occasions increasing to a fresh or strong gale, and in some instances to the force of a whole gale. Rain was both frequent and heavy in all districts, and hail, sleet or snow was experienced very generally at times, but there were no great snow-storms, although there were occasionally fairly deep drifts brought about by the high winds in some northern districts. For the midwinter month thunderstorms were unusually frequent—at Portland Bill on the 5th and 10th; a remarkably severe one, accompanied by heavy squalls of hail and snow, and a very sudden and rapid rise of the barometer for a few minutes, was experienced pretty generally over the southern parts of Ireland and England on the 9th; Glencarron and Laudale were visited on the 12th; Blackpool and Aberystwyth on the 13th; Western Scotland between the 14th and 16th; and the south-west of Ireland on the 18th. Notwithstanding the disturbed character of the weather there were many fine bright periods, especially in the east and south, while the prevailing South-Westerly type insured almost continual mildness. For the month as a whole pressure was nearly everywhere in defect; the winds were mostly from between South and West; temperature exceeded the normal in all districts; generally there was a considerable excess of rain, while the duration of bright sunshine was in excess over the southern half of England, and in defect elsewhere.

Pressure.—*Mean at 8 a.m.* ranged from 30·06 ins. at Jersey, and above 29·9 ins. over the southern portion of England to below 29·6 ins. in the extreme north of Scotland, 29·48 ins. at Sumburgh Head. At Jersey the value was 0·02 in. above the average*, and at Scilly nearly 0·01 in. above, but in all other localities the results were below the average, the defect increasing northward to 0·22 in. in the Shetlands. The general distribution of pressure was similar to the normal, but the gradient was steeper. *Highest* readings were registered between the 19th and the 23rd, when they exceeded 30·6 ins. at nearly all stations, touching 30·69 ins. at Pembroke and Roche's Point on the 19th, and at Oxford on the 23rd, and 30·70 ins. at Valencia on the 19th. *Lowest* values were recorded on the 6th, 9th and 10th. On the 6th the barometer fell to 28·92 ins. at Nottingham and Spurn Head; on the 9th to 28·66 ins. at Stornoway, and 28·69 ins. at Nairn; and on the 10th to 28·76 ins. at Sumburgh Head. There were several other days with readings down to nearly 29 ins. *Range* was not large for the time of year, amounting to only 1·1 in. at Jersey and slightly exceeding 1·8 in. at Malin Head, Stornoway and Nairn. In a narrow belt extending from Pembroke to Spurn Head, along the path of one of the deepest disturbances, the range was 1·7 in.

Depressions.—The disturbances of the month were numerous, the great majority of them, however, skirting the western and northern coasts on a general north-easterly course, and having their centres well out at sea, but as many as five low pressure systems crossed the country on a west to east course. A number of the disturbances were of considerable depth.

Anticyclones.—Nearly all the areas of high pressure were situated over some part of the Continent, but during the 22nd and 23rd, the central space of a well-formed anticyclone, with the barometer above 30·6 ins., moved across Ireland and England and passed on to the Continent. On the 30th one approached the south-western coasts, where the barometer rose to 30·5 ins.

Winds.—The disposition of pressure favoured the general prevalence of winds from points between South and West, and other quarters were rarely represented. Gales were experienced on 12 days at Stornoway, 11 at Deerness, 10 at Portland Bill, and 9 at Blacksod Point, Holyhead and Cockle Park.

Temperature.—*Mean at sea level* ranged from above 47° at Scilly and between 46° and 47° at the extreme south-western coast stations to below 40° over the north-east of Scotland, and as low as 38° at Lairg. The general distribution was in fair accordance with the normal, but the actual mean values were everywhere above the average*, by more than 2° in most places, by more than 4° at Llangammarch Wells, Totland Bay, Wisley, Southampton, Portland Bill and Shrewsbury, and amounting to 5°·1 at Bawtry. *Highest* readings occurred generally between the 26th and the 28th, when there were numbers of instances of 55° and upwards, 57° at Bawtry and Hereford, and 59° at Maidenhead. Westminster's maximum of 54° occurred about midnight of the 12th. *Lowest* values were recorded mainly between the 22nd and 24th in England and Ireland, but on very varied dates in Scotland, 20° being touched at Nairn on the 1st, and at Wokingham on the 23rd; 21° at Llangammarch Wells (23rd) and Cullompton (24th); and 22° at Rauceby and Epsom (23rd) and Swarraton (24th). Minima from 23° to 25° were reported at many stations. *Range* was, in the absence of the usual low midwinter minima, very small, amounting to 34° only at Nairn, Maidenhead and Wokingham, while at a number of places, nearly all on the coast, it was 17° to 19°. *Vapour Pressure* ranged from 0·20 in. at Strathpeffer and 0·21 in. over the north-east of Scotland to 0·28 in. at Roche's Point and Scilly. *Relative Humidity* ranged from 80 per cent. at Westminster (6 p.m.) and 82 per cent. at Dublin (Trinity College) (9 a.m.) to 93 per cent. at Roche's Point and Birr Castle (8 a.m.) and Dunmow (9 a.m.) and 98 per cent. at Donaghadee (8 a.m.).

Rainfall.—With half a dozen unimportant exceptions the month's precipitation was above the average*, the excess in many cases exceeding 2 ins., being as much as 5·4 ins. at Southampton and Glencarron, and 6·1 ins. at Arlington. The largest aggregates were 15·6 ins. at Glencarron, 12·1 ins. at Laudale, 10·6 ins. at Arlington and 10·4 ins. at Fort Augustus, more than a score of stations, mostly in Wales and the south-west of England, receiving from 6 ins. to more than 8 ins.; the smallest aggregates were 1·3 in. at Whitby and 1·4 in. at Aberdeen, only three other north-eastern stations returning less than 2 ins. Considering the wetness of the month falls of an inch or more in a day were not very numerous. On the 2nd several southern stations, between Worthing and Newquay, had from 1 in. to 1·4 in.; some of the Welsh stations had up to 1·3 in. on the 5th; and on the 16th there were heavy falls south of the Thames Valley, 1·8 in. at Southampton. At Glencarron 2·5 ins. fell on the 27th. The number of days on which precipitation was measured ranged from 30 at Blacksod Point and Foynes to 14 at Aberdeen and Whitby.

Bright Sunshine.—The duration of sunshine exceeded the average* over the southern half of Britain, elsewhere it was mostly deficient, Southampton having an excess of 30 hours, Newton Rigg a deficiency of 16 hours. Ramsgate totalled 95 hours (37 per cent. of the possible duration), Bognor and Totland Bay 91 hours, and Broadstairs 90 hours (35 per cent.), whereas Manchester had 18 hours (7 per cent.), Bunhill Row 14 hours (6 per cent.) and Fort Augustus less than eight hours (3 per cent.). Compared with Bunhill Row, in the centre of London, Westminster had 42 hours (17 per cent.) and Kew 65 hours (26 per cent.).

Observations in the Upper Air.—These observations form part of the Weekly Weather Report. During January they were obtained on the 1st, 3rd, 4th, 5th, 10th, 11th, 12th, 13th (2), 17th, 19th, 22nd, 27th and 29th.

* The averages employed are—*Pressure, Temperature and Rainfall* for the 35 years 1871-1905; and *Bright Sunshine* for the 25 years 1881-1905. See Appendix III. "Weekly Weather Report," 1906.