

# SUMMARY OF OBSERVATIONS.

MAY, 1905.

**General Summary.**—The month was generally of a very quiet character, the weather being mainly under the influence of high pressure systems lying immediately over, or in the vicinity of, our islands. The gale which marked the close of April on the southern and south-western coasts, continued into May Day, but the deep disturbance which gave rise to it soon lost its energy and passed north-eastward from the South of Ireland to the Norwegian coast. With the great preponderance of high pressure conditions the weather in nearly all districts was fine, bright and dry, such rain as fell being, usually, in insignificant showers. Snow fell at Lairg on the 25th, and hail or sleet showers in various eastern localities at other times. There were two well-defined cold weather periods, numerous instances of afternoon maximum temperatures below  $50^{\circ}$  being reported in the first week, and again from the 21st to the 25th, when even along the south coast of England, between Scilly and Margate, there were maxima as low as  $50^{\circ}$  and  $51^{\circ}$ . Much damage was occasioned by night frosts during the later cold, a grass minimum of  $20^{\circ}$  being registered at Marlborough, and below  $17^{\circ}$  at Worksop. Thunderstorms were experienced in the south-east of England on the 30th. Early on the morning of the 1st earthquake shocks were felt in the neighbourhood of Llangollen and Valle Crucis Abbey. For the month as a whole pressure was everywhere well in excess of the normal; the winds were variable in direction and of little strength; temperature showed a slight excess in most localities; there was a decided deficiency in the rainfall; and there was a considerable excess of bright sunshine except at some northern stations.

**Pressure.**—*Mean at 8 a.m.* ranged from 30.14ins. and upwards at some of the southern stations to 30.01ins. at Sumburgh Head. The values were everywhere above the average,\* the greatest excess being 0.17in. at Roche's Point, and the least 0.12in. in the Shetlands. The distribution of mean pressure was very similar to the normal, the gradient being slight. *Highest* readings were recorded on the 4th, 30.50ins. at Shields, on the 9th and 10th, 30.46ins. over the western half of the English Channel, on the 13th, 30.51ins. at Birr Castle and Blacksod Point, and from the 14th to the 18th, exceeding 30.4ins. in many places. *Lowest* readings occurred during the passage of a deep disturbance at the beginning of the month, the mercury falling below 29ins. at Holyhead and Donaghadee on the morning of the 1st. In the disturbances towards the close there were only a few instances of readings under 29.8ins. at the north-western stations. *Range* was slightly less than an inch at Jersey, Clacton-on-Sea and Yarmouth, and amounted to 1.5in. at Birr Castle, Donaghadee and Holyhead.

**Depressions.**—The only well-marked system of low pressure which visited our islands, or, indeed, any part of the region included in the weather reports, was that which appeared outside our south-western coasts on April 30th, and between May 1st and 3rd moved across the Irish Sea and Scotland and up the Norwegian coast (see Map 2, Plate V.). It was of considerable depth in its earliest stages, but during its progress northward it rapidly became shallower. The other disturbances of the month were few in number and of minor importance.

**Anticyclones.**—During the greater part of the period areas of high atmospheric pressure prevailed over Western Europe, and the central spaces of several of them visited the British Isles. On the 3rd an anticyclone began to spread in upon us from the south-westward, and thenceforward to the 23rd pressure was generally high in all districts, and as already stated above there were several days on which barometer readings from 30.4 ins. to 30.5 ins. were registered. Even after the 23rd the type of conditions over a large part of the country was anticyclonic, the centres of the systems being situated on the Continent, between the Bay of Biscay and the Baltic.

**Winds.**—With the numerous changes in the positions of the high and low pressure systems, the winds varied greatly in direction, Northerly to North-Easterly, and Westerly to South-Westerly being the most frequent. As a rule the various currents had not much strength. Gale force was attained on three days at Holyhead, and on two days at Dungeness and Spurn Head.

**Temperature.**—*Mean at sea level* ranged from  $55.5^{\circ}$  at Southampton and  $55^{\circ}$  at Foynes and Killarney to below  $50^{\circ}$  at some stations in the north-east of England, and also over the extreme north of Scotland,  $45.3^{\circ}$  at Sumburgh Head. The actual mean values generally differed but little from the average,\* most stations returning an excess. Alnwick and Killarney, however, had an excess of  $2.4^{\circ}$ , and Foynes of  $3.2^{\circ}$ . *Highest* readings occurred from the 15th to the 20th, and from the 28th to the 30th, the warmest day being the 29th, with  $84^{\circ}$  at Brixton and Epsom, and  $80^{\circ}$  or  $81^{\circ}$  at a few other stations in the south-east of England. In Ireland  $75^{\circ}$  was reached at Killarney on the 15th, and in Scotland at Strathpeffer on the 16th. There were, as noted above, two periods of sharp cold, with maximum temperatures from  $44^{\circ}$  to  $49^{\circ}$ . *Lowest* night values were registered from the 3rd to the 9th, and the 22nd to the 26th. Scotland and Ireland had no minima below  $30^{\circ}$ , but in England, Wokingham recorded  $22^{\circ}$  on the 23rd, Garforth  $25^{\circ}$  on the 5th, and Marlborough and Llangammarch Wells  $26^{\circ}$  on the 23rd. *Range*, as usual at this season, was generally large, exceeding  $40^{\circ}$  over a great part of the country, Garforth showing  $51^{\circ}$ , Cambridge  $52^{\circ}$ , and Epsom and Wokingham  $56^{\circ}$ . On the other hand Scilly had a range of  $20^{\circ}$  and Holyhead  $21^{\circ}$ . *Vapour Pressure* ranged from 0.33in. at Valencia and Roche's Point, to 0.26in. at Sumburgh Head. *Relative Humidity* ranged from 89 per cent. at Sumburgh Head, and 87 per cent. at Spurn Head to 71 per cent. at Bath, and 70 per cent. in London.

**Rainfall.**—There was a small excess at Eastbourne, Glencarron and Fort Augustus, but elsewhere the rainfall amounts were all below the average\*, the deficiency generally being large, as much as 2ins. to 2.5ins. at Foynes, Bath, Birmingham, Sheffield, Stonyhurst, Clifton and Arlington. The aggregate totals for the month were nearly everywhere less than 2ins., and at the majority of stations less than an inch, but Laudale had 3.3ins. and Glencarron 4.9 ins., whereas Bath and Clifton had only 0.07in., and Cardiff, Guernsey and Jersey less than 0.2in. Cronkbourne, Glencarron, Reading and Kingstown were the only stations where as much as an inch fell in a day. Birmingham and Bognor had only three days with rain, Reading and many other places 4 days, and the great majority of stations less than 10 days, while Glencarron had 21 days.

**Bright Sunshine** was less than the average\* in some parts of Scotland and the north-east of England, but above it in all other districts, the excess in many localities being more than 50 hours, exceeding 70 hours at Brighton, 72 hours at Westminster and 75 hours at Southampton. The largest aggregate amounts were 302 hours at Bognor, 306 at Bournemouth, and 311 at Totland Bay, thus averaging 10 hours per day. The percentage of possible duration ranged from 21 at Newcastle and 28 at Strathpeffer to 61 and upwards at several south coast stations, 64 at Bournemouth and 65 at Totland Bay.

\* 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.