

SUMMARY OF OBSERVATIONS.

NOVEMBER, 1902.

General Summary.—Until the closing week, when rain fell very generally, the weather of November was mostly fair and dry in the eastern parts of the United Kingdom, with, however, occasional fogs or mists. In the extreme south-western, western, and north-western districts the conditions were far less settled, and in the south of Ireland, especially, rain was frequent and often heavy. Lightning was seen at scattered places in the west and north-west of England on the 8th, and a little snow fell in several parts of our southern counties between the 20th and 23rd. Pressure was below the average in most places; temperature was above the normal, and considerably so in the north of Scotland; the winds were mainly from the Southward and South-eastward; rainfall was less than the average, excepting in Ireland and the south-west of England; bright sunshine varied considerably in amount in different places, but was deficient at most of our southern stations.

Pressure.—*Mean at 8 a.m.* ranged from 29·90 ins. and upwards in the east and south east of England to 29·65 ins. and less in the west of Ireland. The distribution over our islands was, therefore, of quite an abnormal character, the moderate gradient for South-westerly winds usually existing in November being replaced by irregular, but rather steep, gradients for Southerly and South-easterly breezes. On many parts of our north and east coasts the mean values were slightly above the average,* but in all other places they were below it, the deficit being large (0·18 in. to 0·22 in.) on our extreme west and south-west coasts. *Highest* readings were observed on the 17th or 18th, when the barometer rose to 30·5 ins. and upwards on the north-east coasts of Scotland, to 30·3 ins. and upwards over the northern, eastern and central parts of the United Kingdom generally, and to 30·1 ins. and upwards in all districts, excepting the south-west of Ireland. *Lowest* readings occurred at the northern stations on the 8th or 9th, but at the southern stations on the 24th or 25th, when each portion of the country was visited, successively, by cyclonic systems of considerable depth. On the former occasion the barometer fell below 28·8 ins. in the Hebrides, and below 29·0 ins. over Scotland and the north of Ireland generally; on the latter occasion it fell nearly as low as 28·5 ins. in the Scilly Islands, and below 28·8 ins. on all our south-west coasts. *Range* was large in the immediate neighbourhood of each of these minima, but moderate elsewhere.

Depressions.—Owing to the persistence of high pressure areas over northern Europe the centres of the Atlantic depressions failed to advance eastwards directly over the United Kingdom. In many cases they travelled northwards along our extreme western coasts, while in other instances they skirted the west and north of Scotland. Between the 24th and 26th the centre of a cyclonic area (originally of considerable depth), which appeared off the south-west of Ireland, moved in an east-south-easterly direction across the western part of the English Channel and the north of France, the system gradually filling up as it progressed, and eventually disappearing a little to the eastward of Paris.

Anticyclones.—Four such systems were observed. The first, which had extended from the Atlantic over these islands and France at the end of October, moved away steadily eastwards after the 2nd. The second was developed over Scandinavia on the 5th but soon passed away to the south-eastward. The third extended gradually westwards from Russia on the 13th and 14th; on the 15th its central area took up a fairly permanent position over northern Europe, the borders of the system remaining, however, over the greater part of the United Kingdom until the 20th. The fourth, a system of very moderate height, advanced over Scandinavia from the northward at the close of the month.

Winds.—Excepting on our extreme western coasts, where breezes from South-West or West were not uncommon, the prevailing winds were mainly from points between South and East, the proportion of winds from the South-Eastward being unusually large in all parts of the kingdom. Gales were numerous, especially in the west and extreme north (at Malin Head they occurred on 14 days, and at Deerness and Scilly on as many as 17 days), but were seldom of any great strength.

Temperature.—*Mean at sea level* ranged from a little above 51° in the Scilly Islands, and from 49° and upwards on our south-west coasts generally, to 45° or less over the northern parts of central Ireland, and to 44° or less at some stations in central Scotland and the north and east of England. The general distribution over our islands was in fair agreement with the normal, but the actual values were above the average,* the excess being slight in the south, but larger in the north, and especially in the north of Scotland, where it amounted in many places to more than 4°. *Highest* readings occurred, as a rule, either on the 1st or on the 6th or 7th, the thermometer on one or other of these dates rising to 60° or slightly above it in several isolated parts of the kingdom. *Lowest* readings were registered at various times in different localities, but chiefly between the 19th and 23rd, when sharp frost occurred very generally; the lowest readings reported were 23° at Bawtry and 24° at Colly Weston and Kilkenny. *Range* was everywhere moderate. *Vapour Pressure* ranged from 0·32 in. at Scilly, and 0·28 in. or more on most parts of our western and southern coasts, to 0·24 in. or rather less over the central portions of Scotland and the north of England. *Relative Humidity* was high over the greater part of England and Ireland, more than 90 per cent. being reported in many places; in the south-west of England and the east of Scotland the percentage values were mostly below 85.

Rainfall was in excess of the average* at most stations in Ireland and the south-west of England, but was deficient elsewhere; at many places in the northern parts of Great Britain the total amount was considerably less than half the normal, and at Leith it was less than one-fourth. The largest aggregates reported were 8·5 ins. at Valencia, 7·9 ins. at Killarney, and 7·3 ins. at Cally (Gatehouse); the smallest being 0·5 in. at Leith, 0·7 in. at Nairn, and 0·9 in. at Wick. The number of days with rain was small in the eastern and central parts of Great Britain, but much larger in the west; at Valencia there were as many as 25, and at Parsonstown 24 such occasions. Falls exceeding an inch in 24 hours were recorded on several occasions in Ireland and the west of Scotland, the largest daily amounts reported being 1·5 ins. at Parsonstown and Kilkenny on the 6th, and at Valencia on the 10th, and 1·4 ins. at Killarney on the 11th, and at Cally (Gatehouse) on the 28th. A little snow fell in various parts of the south of England between the 20th and 22nd.

Bright Sunshine varied considerably in amount in different parts of the kingdom, but was less than the average* at most of our southern and south-western stations, the deficiency being considerable at Valencia. The percentage of the possible duration ranged from 34 at Felixstowe, Scilly, and Jersey, to 15 or less at several places in the western, northern, and central parts of the United Kingdom, to 10 at Newcastle-on-Tyne, and to only 4 at Glasgow.

* 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.