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SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS for the CALENDAR MONTH,

OCTOBER 1898.

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General Summary.—During the early part of the month the weather was mostly fair and dry, with extremely high temperatures in Scotland between the 2nd and the 6th. Towards the middle of the period, however, it broke up entirely, gales and very heavy rains being experienced in most districts between the 14th and 19th, with thunder and lightning in many parts of England. On the 28th and 29th further heavy falls of rain occurred over England and Wales, with thunderstorms in the south-east, and on the evening of the latter day a destructive squall of a tornado-like character passed over Camberwell (South London). Pressure was below the average; temperature was very high; the winds varied a good deal both in direction and force; rainfall was mostly in excess of the average; bright sunshine was as a rule very deficient.

Pressure.—*Mean at 8 a.m.* ranged from 29·85 ins. and upwards over the south-east of England and the eastern parts of the Channel to 29·75 ins. and less on the west coasts of Ireland and Scotland, the general distribution being favourable for winds from the Southward or South-eastward. In the north of Scotland the mean values were slightly above the average,* but in all other districts they were below it, the deficit being greatest (0·10 in. to 0·14 in.) on our extreme west and south-west coasts. *Highest* readings were registered mostly on the 4th, when the barometer rose to 30·4 ins. and upwards in the north-east of Great Britain, and to 30·3 ins. and upwards in all but the extreme western and southern parts of our islands. In the south of England the mercury rose a little above 30·3 ins. on the 1st or 2nd. *Lowest* readings occurred over England and Ireland on the 17th, when the barometer fell below 29·0 ins. very generally, and below 28·7 ins. in Cornwall. Over Scotland the lowest values were recorded on the 22nd, and ranged between 29·0 ins. and 29·3 ins. *Range* was moderate.

Depressions.—In the latter half of the month these were rather numerous. The most important case occurred between the 14th and the 19th, when the centre of a deep disturbance advanced very slowly eastwards to our south-west coasts, the system afterwards moving north-eastwards to our south-midland counties and north-westwards to the Irish Sea, where it apparently dispersed. The movements of the depression were attended by a prolonged gale from the Eastward and South-eastward over all the more northern parts of the kingdom, with an extremely high sea off the north and east of Scotland.

Anticyclones.—The only well-defined anticyclone observed in our immediate neighbourhood spread over western Europe from the Atlantic at the beginning of the month, but moved away gradually to the northward after the 5th. On the 10th and again between the 23rd and 25th an anticyclone spread over our southern coasts from the southward or south-westward, but in each case the system soon receded, either to the southward or eastward.

Winds varied considerably in direction; at the English stations they were as a rule either from the Eastward or the South-westward. Gales were not especially numerous for the time of year, but the South-easterly storm which sprang up on our northern coasts about the middle of the month was unusually prolonged, a wind force of seven or more being reported in some places on as many as five or six consecutive days.

Temperature.—*Mean at sea level* ranged from between 57° and 58° in the Scilly and Channel islands, and from 55° and upwards in the extreme south and south-east of England generally, to 51° and less at inland stations in the north of Ireland, and to 50° and less in the north of Scotland. The general distribution over our islands was in fair agreement with the normal, but the actual values were considerably above the average*, the excess amounting to between four and four-and-a-half degrees in many parts of Great Britain, and to more than five degrees in one or two isolated places. *Highest* readings were observed, as a rule, between the 2nd and 4th, when the thermometer rose to between 70° and 75° at most of our northern stations, and to 80° at Lairg. At some stations in the north of Scotland the readings on three or four consecutive days were several degrees higher than anything previously recorded in October since at least the year 1871. *Lowest* readings occurred, as a rule, between the 11th and 13th, when frost occurred at many of our northern and central stations. In the north of Scotland, however, the lowest readings were observed either on the 17th or 18th, or on the 29th or 30th. *Range* was moderate over the country generally, but large in the north of Scotland; at Nairn and Braemar it amounted to 45°, and at Lairg to as many as 50°. *Vapour Tension* ranged from 0·40 in. or rather more in the Scilly and Channel islands to 0·32 in. or less over Central Ireland, and at some stations in the north-west of England, and to 0·30 in. or less in the north-west of Scotland. *Relative Humidity* varied from 93 per cent. at Ardrossan, Oxford and Cambridge, to 85 per cent. at Aberdeen, Liverpool and Valencia, and to 84 per cent. at Belmullet.

Rainfall varied greatly in amount in different parts of the kingdom. Over the southern and north-eastern parts of Great Britain and in the south and east of Ireland it was mostly in excess of the average. In nearly all other localities there was a deficiency, a slight excess being reported, however, at some stations in the north of Scotland. The largest aggregates for the month were 8·4 ins. at Arlington, 7·4 ins. at Glencarron and Roches Point, and 7·2 ins. at Killarney and Valencia; the smallest being 1·4 in. at Ardrossan, 1·7 in. at Dungeness and the North Foreland, and 1·8 in. at Nairn. On the 12th and 13th a very heavy fall occurred in the south of Ireland, the total amount for the two days being as much as 2·5 ins. at Valencia and 2·4 ins. at Killarney. Between the 16th and 18th daily falls of considerably more than an inch were reported at many stations in the south-western and north-eastern parts of Great Britain, the largest of all being 2·4 ins. at Marchmont on the 17th, and 2·1 ins. at Clifton on the 18th. On the 29th another heavy fall occurred in the south of England, the amount at Oxford being as much as 1·5 ins.

Bright Sunshine.—Over the country generally the amount was very deficient, but in the south of Ireland there was a slight excess, and in the extreme north of Scotland a very large one. The percentage of the possible duration ranged from 43 at Stornoway, 40 at Scilly, and 39 at Jersey, to 17 at Churchstoke and Cirencester, 15 at Manchester, and 14 at Glasgow.

* The averages employed are—*Pressure* and *Temperature* for the 25 years, 1871–95; *Rainfall* for the 30 years, 1866–95; and *Bright Sunshine* for the 15 years, 1881–95.