

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

FEBRUARY 1894.

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General Summary.—The weather of February was very changeable, especially in the northern parts of the kingdom, where heavy falls of rain were experienced, with occasional snow or sleet. Thunder and lightning were observed on many occasions in the west and north, and brilliant aurora was seen on the 28th in nearly all parts of Great Britain. Pressure was above the average in the south, but considerably below it in the extreme north; temperature was in excess in all localities excepting the north and east of Scotland; the winds were Westerly or South-westerly; rainfall was greatly in excess of the normal in Scotland, but was in defect in the southern parts of the kingdom; and bright sunshine was abundant in all but the western districts.

Pressure.—*Mean at 8 a.m.* ranged from between 30·09 ins. and 30·16 ins. over the English Channel to a little below 29·45 ins. in the Shetlands, the values being in excess of the average,* over the southern parts of the kingdom, but considerably below it in the north. The gradient over our islands was therefore unusually steep, the difference in pressure between the extreme northern and southern districts being more than three times as great as that shown by the chart of average values. *Highest* readings were recorded between the 18th and 20th, when the barometer rose to 30·5 ins. and upwards over the eastern and central parts of England, and to 30·3 ins. and upwards in all but the extreme northern parts of the kingdom. *Lowest* readings occurred very generally on the night of the 11th, when the mercury fell to between 28·1 ins. and 28·5 ins. in Scotland, and to 29·0 ins. or less in all but the most southern parts of the United Kingdom. In the extreme north of Scotland readings below 28·5 ins. were again observed on the night of the 23rd. *Range* was moderate in the south, but large in Scotland, and especially so in the extreme north, where it exceeded two inches.

Depressions.—The depressions observed off our northern coasts were very numerous, but in only three instances did the centres pass sufficiently near our islands for their tracks to be shown on Map 2, Plate II. The disturbances of the 11th and the 23rd were of great depth, and produced barometrical changes of unusual abruptness over Scotland. Between the 14th and 17th a large but shallow "V-shaped" depression advanced slowly over our islands from the westward, the southern portion of the system ultimately becoming detached and travelling south-eastward across the Channel to the west of France.

Anticyclones.—On two occasions during the earlier part of the month, viz., between the 1st and 5th and between the 12th and 14th, an anticyclone spread temporarily over our islands from the southward, the system in the latter instance assuming the form of a long ridge which finally drifted away to the eastward. After the 17th a large high pressure area advanced from Scandinavia, and remained over our islands until the 22nd, when it moved away to the south-eastward.

Winds were chiefly Westerly or South-westerly, with frequent gales, especially on our western and northern coasts. At Malin Head gale force was reached on 16 days, at Stornoway on 17 days, and at Aberdeen on as many as 19 days. At a large majority of the coast stations there were no calms reported.

Temperature.—*Mean at Sea Level* ranged from between 46° and 47° on our extreme south-west coasts to about 40° on the east coasts of England and to between 36° and 39° over the northern parts of Scotland. The general distribution showed a fair agreement with the normal, but the actual values were above the average* in all localities excepting the north and east of Scotland, the excess amounting to 2° or more at several stations in Ireland and the south of England. *Highest* readings occurred mostly on the 6th or 7th, but in some few cases a second maximum was reported on the 26th or 27th. *Lowest* readings were observed on various dates in different localities, but mainly between the 13th and 15th in Scotland, and between the 20th and 23rd in Ireland and England. On the 15th hard frost occurred in the north of Scotland, the thermometer falling to 3° at Lairg, 4° at Braemar, and 10° at Nairn. *Range* was moderate generally, but amounted to as many as 49° at Lairg and 45° at Braemar. *Vapour Tension* ranged from about 0·28 in. on our extreme south-west coasts to a little below 0·18 in. in the east of Scotland. *Relative Humidity* was below 80 per cent. in the east of Scotland and below 90 per cent. in most other parts of the kingdom; at Stornoway, however, the per-centage was as high as 97.

Rainfall amounted to less than the average* in the south of Ireland and also at many stations in the east and south of England, but was in excess of the normal in nearly all other localities. In many parts of Scotland the total fall amounted to more than double, and at Leith and Fort Augustus to more than three times the average. The largest aggregates reported during the month were 14·9 ins. at Glencarron, 14·5 ins. at Fort William, and 12·7 ins. at Glenlee; while the smallest were 1·0 in. at the North Foreland, 1·1 ins. at Yarmouth and Cambridge, and 1·2 ins. at Geldeston. Falls exceeding an inch in 24 hours were recorded at many stations, the largest being 2·6 ins. at Fort Augustus and 1·9 ins. at Fort William on the 6th, and 1·9 ins. at Glencarron on the 11th.

Bright Sunshine was in excess of the average* in all districts excepting the west of Scotland, the north-west of England, and the south of Ireland, the excess being considerable in the east and south-east of England. The per-centage of the possible amount was above 30 at many of the English stations, and as high as 37 at Geldeston, Hastings, and Eastbourne. In the north and west of Scotland, however, the per-centages were below 20, the smallest of all being 8 at Fort Augustus and Fort William.

* The averages employed are—*Pressure* and *Temperature* for the 20 years 1871–90; *Rainfall* for the 25 years 1866–90; *Bright Sunshine* for the 10 years 1881–90.