

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

JANUARY 1890.

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General Summary.—The month of January was exceedingly mild, rough, and unsettled. Pressure was considerably below the average in the north and north-west, and gradients were steep. Temperature was continuously high, more especially so during the first and concluding weeks of the month. The wind was usually strong from the South-westward (South to West), with frequent gales in most districts; on our western and northern coasts the latter were at times of great severity. Rainfall was heavy in the west and north, but snow was almost entirely absent. Thunderstorms occurred on several occasions in Ireland and Scotland. The amount of bright sunshine was rather in excess of the average.

Pressure.—*Mean for the month* varied from a little below 29·4 ins. in the Shetlands and Hebrides to a little above 30·0 ins. in the Channel Islands. The distribution of pressure was of a normal character, but as the values in the extreme north were about 0·25 inch below the average,* while those in the south exhibited no material departure, the mean gradient was considerably steeper than usual. *Highest* values were recorded on the night of the 29th, when the barometer varied from about 30·1 ins. in the north of Scotland to about 30·5 ins. on our extreme south-west coasts. *Lowest* were recorded over Scotland on the 19th, but over Ireland and England on the 23rd; in the former case the mercury fell to between 28·3 ins. and 28·5 ins., in the latter to between 28·5 ins. and 28·7 ins. *Range* was large in all districts.

Depressions were very numerous and often of considerable depth. Their centres travelled as a rule in a north-easterly direction outside our extreme north-western and northern coasts, and were in many cases too distant for their movements to be indicated in Map II. Plate I. On the 23rd, however, a deep system passed eastwards directly across England, while on the 28th two smaller and shallower disturbances pursued a similar course over our southern counties and the Channel.

Anticyclones.—These were usually found at a considerable distance to the eastward or southward of the United Kingdom, and it was not until the close of the month that our Islands were visited by any definite high-pressure system. After the 29th, however, an anticyclone spread over us from the south-westward.

Wind was chiefly South-westerly, and very strong in force, especially on our extreme western and northern coasts. At Malin Head and Roche's Point gales blew on 16 days, at Stornoway and Scilly on 17, at Valencia on 18, and at Mullaghmore on 20. The Southerly gales of the 18th and the South-westerly to Westerly gales of the 25th were very severe in the west and north.

Temperature.—*Mean at Sea Level* ranged from a little below 41° in the extreme north of Scotland and east of England, and a little below 42° over central Ireland and all the more northern and eastern parts of Great Britain, to 48° and upwards off the south-west of England. The general distribution was fairly normal, but the values were everywhere in excess of the average, especially over Great Britain; in some parts of eastern and central England the difference from the mean amounted to more than 4°, while in central Scotland it was as much as 5° or 6°. *Highest* values were recorded on varying dates; at Cambridge and Llandudno the thermometer on the 6th or 7th rose to 58°, while at Brookeborough the maximum on the 14th was as high as 59°. *Lowest* was observed between the 1st and 3rd over England, on the 23rd or 24th over Scotland, and on the 29th over the greater part of Ireland. *Range* was somewhat large at several of the inland and northern stations, amounting to 39° at Lairg and Glencarron and to 40° at Cambridge. *Vapour Tension* was somewhat low, ranging as it did from 0·23 inch or less over central Ireland and the eastern parts of Great Britain to 0·30 inch at Pembroke and 0·32 inch at Scilly. *Relative Humidity* varied from 83 at Aberdeen and Shields to 95 at Pembroke, 96 at Stornoway, and 98 at Hawes Junction.

Rainfall varied from rather less than 2 inches in some of the eastern and central parts of England to 8·7 ins. at Belmullet, 10·1 ins. at Hawes Junction, 11·5 ins. at Killarney, 15·1 ins. at Laudale, and 16·3 ins. at Glencarron. The values did not differ much from the average* in the east and south, but were considerably in excess in the west and north, where the rainfall was both frequent and heavy. At each of the stations of Glencarron, Laudale, Stonyhurst, Falmouth, Edgeworthstown, and Valencia there was only one day without rain.

Bright Sunshine.—Notwithstanding the generally unsettled character of the weather, the amount of bright sunshine was above rather than below the average. The per-centage of the possible amount of duration exceeded 20 at several of the English stations; at Aberdeen it was as high as 29 and at Dublin 30.

* The averages employed are—*Pressure* and *Temperature* for 20 years, 1861–80; *Rainfall* for the 20 years, 1866–85.