

# MONTHLY WEATHER REPORT.

DECEMBER 1885.

## SECTION I.

### GENERAL SUMMARY FOR THE MONTH.

THE weather of December was, on the whole, quiet. Pressure was considerably above its normal value for the time of year—especially in the south. Depressions were far more numerous in the north than elsewhere, and anticyclonic conditions prevailed frequently. Temperature was as a whole slightly high in Scotland, and slightly low over Ireland and England, and the changes from mild to frosty periods were somewhat frequent, and very sharply defined. The wind was mainly from Westerly and South-westerly points, and at times blew hard on our extreme northern and western coasts; in the south, however, there was a considerable admixture of wind from North-east and East, but this current was of little strength. Clear sky prevailed in the north-east and east, but there was also a considerable quantity of dry fog reported, which kept the record of Bright Sunshine at a low point. Rainfall was very deficient, except in the extreme north and north-west.

December 1-5.—During this period the dominant systems of pressure-distribution were cyclonic over our Islands and anticyclonic over the Bay of Biscay and France. The gradients were chiefly favourable for Westerly (North-west to South-west) winds, and were at times very steep. Temperature was above the average for the time of year, and a good deal of rain fell in the west and north, followed by snow in most places. Three well-marked depressions (No. LXXIII. to LXXV.\*) passed over or near to the British Islands during this period. The first was apparently large, but travelled at so great a distance outside our extreme north-west coasts, that the winds and weather at our eastern and southern stations were but little affected, until the evening of the 2nd, when a shallow subsidiary system advanced over England from the westward, causing some rain and a fresh breeze. The second depression was both large and deep, and, as its centre passed immediately over the north of Scotland, its gales were felt in all parts of the kingdom. At the English stations they varied in direction from South to West, but on our north and north-west coasts, the wind, after blowing hard from these points veered to North-west and North, and for a time blew very hard, with a fall of temperature, cold rain, and in places hail. During this depression the barometer fell below 29 inches, all over Scotland, and to 28.5 inches at Wick. The third depression was both smaller and shallower than either of those just mentioned, and, as its centre passed in about an east-south-easterly direction over the extreme south-west of our Islands and the northern parts of France, the wind veered round to North-east and East over England, and temperature began to give way decidedly—especially at the northern stations. A heavy fall of rain occurred in the south and south-west, while snow and hail fell in the north, and the weather became very wintry.

December 6-10.—A cold, and chiefly anticyclonic, period now set in, the barometer rising decidedly on our northern and western coasts as the depression last named moved on

\* See Section II. and Map 2 Plate XXIV., for the history and tracks of depressions.



to the neighbourhood of Strasbourg and dispersed. On the 7th (pressure being then highest off our north-west coasts) a new and large depression appeared over Finland, while a shallow one advanced over the Bay of Biscay; the combined effect of these systems was to draw down a current of cold dry Northerly and Easterly wind over the whole of our Islands, producing a hard frost, which spread gradually to the southward, so that by the morning of the 8th it was felt at all but our extreme south-western stations. Some snow fell in the north and east, but over the greater part of England the weather was dry, and occasionally foggy. The anticyclone then moved slowly to the south-westwards, and at 8 a.m. on the 9th lay over, and to the westward of Ireland; the wind consequently backed to North-west in the north, and to North over our southern counties, and some snow fell in several places, with some temporary increase of temperature. At 8 a.m. on the 10th, however, frost again prevailed very generally, with brisk Northerly winds over England and Ireland, and light breezes in Scotland.

December 11-16.—Pressure now gave way decidedly in the north, and as the high-pressure area in the west moved southwards, Westerly breezes spread gradually over the British Islands, with warmer weather, the change commencing in the extreme north, and spreading rapidly thence in a southerly direction. At 8 a.m. on the 11th the thermometer had risen to  $42^{\circ}$  at Sumburgh Head, where rain and a Westerly breeze had set in, while over central England there were North-westerly and Northerly airs, and the temperature was as low as  $20^{\circ}$  to  $22^{\circ}$  in the shade. By the next morning the thermometer had risen to between  $45^{\circ}$  and  $48^{\circ}$  over Ireland and the Hebrides, and to between  $40^{\circ}$  and  $45^{\circ}$  over the northern and western parts of Great Britain, and at 8 a.m. on Sunday (13th), the temperature ranged from  $37^{\circ}$  at Yarmouth and  $41^{\circ}$  in London, to  $49^{\circ}$  or  $50^{\circ}$  at all our extreme western and northern stations. The wind at this time had become South-westerly on all our coasts (though a North-easterly wind and hard frost still held in the east and south of France), and blew hard at several of the extreme northern and western stations. Rain fell in considerable quantities over the extreme northern parts of the country, and some showers were reported subsequently at the Irish stations, but it is remarkable how dry the weather remained over England, considering how complete the change of conditions had been. It was evident that during this period depressions of great size and depth were advancing from the Atlantic over northern Europe, causing strong South-westerly and Westerly gales over Scandinavia, the Shetlands, Hebrides, and northern parts of Scotland, while over Ireland and England the wind was moderate to fresh in force. The centre of these systems, however, lay so far to the northward of our Islands that it has been found impossible to tabulate them in Section II., or to draw their tracks on Map 2 Plate XXIV.

December 17-20.—The anticyclone (No. XL.) now spread northwards from France, and for a time covered nearly the whole of western Europe. The gradients were slight, but were mainly favourable for Southerly (South-east to South-west) winds, which were consequently experienced in all parts of our Islands, but blew strongly at the western and north-western stations only. The weather was mild; some rain fell almost daily in the west and north-west, but over the greater part of England and the east of Scotland the weather was dry. On the 20th a complication appeared, in the formation of a shallow depression (No. LXXVI.\*) over the south of Ireland, whence it moved north-eastwards during the day. Showery weather became prevalent, except in the south-east of England and the north of Scotland, but temperature showed no important change.

December 21.—The weather of this day was transitional, the shallow depression just referred to, after reaching Ayrshire, began to move in a south-easterly direction, and travelling across the northern and eastern counties of England, dispersed between the mouth of the Thames and Holland on the following morning. In its rear the barometer rose quickly and decided gradients for Northerly winds were formed over the United Kingdom, the Northerly current bringing with it a fresh burst of cold weather, preceded by some showers of rain, hail, and snow, especially on our north-western coasts.

\* See Section II. and Map 2 Plate XXIV., for the history and tracks of depressions.



December 22-31.—The distribution of pressure during this interval was variable, being alternately anticyclonic with northerly gradients, and cyclonic with westerly gradients. A well-marked anticyclone (No. XLI., p. 136) advanced from the Atlantic, immediately in the rear of the depression No. LXXVI.,\* and was accompanied by a great fall of temperature, light Northerly (N.E.-N.W.) winds, dry weather, and a good deal of fog. On the 23rd, however, the anticyclone began to give way on its northern side, so that although the cold weather still held over Ireland, the greater part of England, and the north of France, milder Westerly winds and gales again set in over Scotland and northern Europe, while very large depressions passed in from the Atlantic to northern Europe, but having their centres too far to the northward of our area for their tracks to be shown on Plate XXIV. On the 26th the anticyclone in the West again spread over the kingdom; but the 27th and 28th brought a new series of large and deep depressions to the northern parts of our area, with Westerly gales, strong winds, and mild weather, in the rear of which the wind again veered to North-west (on the 29th and 30th), with frosts and cold showers. On the last day of the month there was yet another depression—shallower and of smaller area than either of those recently experienced—the effect of which was to break up the frost again and restore the mild Westerly breezes over all parts of the kingdom. Thus the year closed with mild and comparatively fair weather, Westerly winds, and unsteady pressure. It is remarkable how little rain fell with the Westerly winds this month, although the systems which produced them were unusually large, some of them very deep, and the changes of temperature which they brought were considerable.

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