

MONTHLY WEATHER REPORT.

DECEMBER 1887.

SECTION I.

GENERAL SUMMARY FOR THE MONTH.

THE weather of December was changeable and unsettled until about the 20th, with frequent gales in the western and northern parts of the United Kingdom, and occasional gales in the south and east. Towards the close of the period, however, the atmosphere became much less disturbed, and dry, frosty weather set in generally. The mean pressure of the month was below the average excepting in the south-west of Ireland, and temperature also showed a deficit as compared with the normal, especially in Scotland. The amount of rainfall was everywhere less than the average, and bright sunshine was very deficient, more particularly over London and the western and central parts of Scotland.

December 1-5.—During this interval barometric pressure was highest over France and the Bay of Biscay, lowest to the northward of our Islands and over Scandinavia, the gradients being steeper over the northern parts of the area than in the south. The wind was therefore Westerly over the British Islands and North Sea, and occasionally blew hard at the northern stations, as some depressions (Nos. XLII. and XLIII.*) moved eastwards from the Atlantic over Scandinavia. The weather was mild generally—showery in the north, fair in the south, and at times foggy; frost occurred daily over France, and sharper frost over South Germany.

December 6-11.—The distribution of pressure now became more complex, owing to the appearance of a second high-pressure area over Northern Europe, and the movements of the depressions which appeared over our northern districts underwent considerable modification. In the case of No. XLIV.* the centre, after reaching our extreme northern coasts from the south-westward, developed a "V"-shaped secondary, which passed directly over the kingdom while the primary dispersed. This was followed quickly by the appearance of No. XLV.,* which, after reaching the west of Scotland, travelled quickly to the eastward, and reached the Baltic by the 10th. The progress of these systems was attended by South-westerly to Westerly gales over Ireland, England, and France, and eventually over Central Europe and the Baltic, and in their rear a smart gale from the north-westward sprang up suddenly over the Shetlands and Caithness, with a high sea and heavy snow squalls. Temperature during this period was, upon the whole, above the average, maximum readings, varying between 50° and 55° , being recorded on more than one occasion in nearly all districts. Towards the end of the time, however, when pressure became more uniform, the weather grew much colder, a sharp frost being experienced in nearly all parts of Great Britain on the night of the 10th. In Scotland, where the maximum readings of the previous day were mostly below 35° , the frost was very intense, the sheltered thermometer falling to 17° at Fort Augustus, 16° at Braemar, and 11° at Lairg.

December 12-17.—During the night of the 11th the anticyclone over Spain gave way, while the barometer rose considerably over Scandinavia and Northern Russia. Depressions of considerable size and depth now began to appear, first off our western coasts and moving in

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

the direction shown by the generalised arrow "A" in Map 2, Plate XXIV.; and gales from the Southward or South-westward were experienced in many parts of Western Europe, with heavy rain at some of our western stations, and lightning in places. On the night of the 14th two well-marked secondary disturbances advanced over our Islands from the westward, and on the following day these travelled on to the North Sea, their ultimate effect being to reduce the northern high-pressure system, and to restore a Westerly type of weather. A large depression (No. XLVI.*) then appeared in the north, and on the 17th, when it began to move eastwards and a brisk recovery of pressure took place in its rear, strong gales from the Westward and North-westward were experienced over the northern parts of the United Kingdom, with snow in Scotland.

December 18-25.—The type of pressure-distribution now became chiefly northerly, the only interruption occurring on the 22nd, when with the appearance of a large depression in the far north, a "ridge" spread temporarily over us from the Atlantic. The principal feature in the week was the gradual movement of a shallow depression (No. XLVII.*) in a southerly direction over Denmark and North Germany. The disturbance was not in itself of sufficient importance to exercise much influence on our weather, but its progress was accompanied by numerous small secondary systems, which travelled south-eastwards across the United Kingdom, and occasioned frequent showers of hail and snow. The weather at this time was, in fact, everywhere cold and inclement, with sharp frosts in nearly all parts of Great Britain. On the night of the 20th the sheltered thermometer fell as low as 9° at Braemar, 17° at Lairg, and 18° at Fort Augustus.

December 26-31.—A complete change now took place. During the 24th and 25th an anticyclone was gradually formed over the northern parts of Scandinavia, and on the 26th this extended in a south-westerly direction, and ultimately became united with the high-pressure system hitherto prevailing to the westward of our Islands. Anticyclonic conditions therefore set in over the whole of Western Europe, with light variable breezes and cold weather. The sky was at first moderately clear over our Islands, but as the anticyclone increased in height the weather became dull and gloomy, and thick fogs occurred in many parts of England. In the north and east of Great Britain, where slight irregularities in pressure were observed, there were occasional showers of snow or sleet, and on the 27th a heavy snowstorm was experienced in the extreme south-east of England. Temperature was considerably below the average, the daily maxima over our Islands being frequently below 40° , and sharp frosts prevailed at night. On the Continent the weather at this time was exceedingly severe, especially between the 27th and 29th, when the thermometer fell to between 5° and 10° Fahr. over Germany, and to -30° or -40° Fahr. over Northern Russia. Over Southern Europe the readings were of course much higher, but conditions were exceedingly wintry and unsettled everywhere, with heavy gales and snowstorms over Spain and the northern shores of the Mediterranean. At the close of the month the large anticyclone was moving away to the eastward, and the barometer was falling in all the more western countries, with Southerly winds and increasing temperatures in the west and north of our Islands.

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