

MONTHLY WEATHER REPORT.

DECEMBER 1884.

SECTION I.

GENERAL SUMMARY FOR THE MONTH.

THE weather of December consisted of two distinct parts. The first was cyclonic in character, and south-westerly to westerly in type. It lasted from the 1st to the 20th of the month, and was marked by a continuous succession of depressions, which brought Southerly to Westerly, and occasionally North-westerly, gales and strong winds to our coasts, accompanied by rather high temperatures, a good deal of rain, and in many cases thunder and lightning. The barometer sometimes fell to considerably below 29 inches, and the range of pressure during the month was consequently large. The second portion was anticyclonic, and while gradients for Easterly and North-easterly winds prevailed in the south, those in the north were still favourable for winds from a South-westerly or Westerly point. Temperature was rather low, the air dry, and over the southern and eastern parts of England there hung almost constantly a dense stratum of cloud, which, with the hazy condition of the air, made the weather over those districts very dull and gloomy.

December 1-20.—The weather during this lengthy period was almost continuously cyclonic, and its type south-westerly or westerly. At times a well-marked anticyclonic "ridge" extended over the country, between a receding and an advancing depression, producing passing periods of cold, with some fog, but such occurrences were rare. The thermometer, as a rule, was somewhat above its average height, the air was damp, while rainfall was of frequent occurrence, and, at our northern and north-western stations, heavy.

The anticyclonic period prevalent during the latter part of November gave way at its close, and the morning of December 1st found us with a shallow depression (No. LXV.*) lying over the western parts of the kingdom, to which region it had advanced from the north-north-westward during the previous night. For a time North-westerly and Northerly winds prevailed in Ireland simultaneously with South-easterly and Southerly breezes at our eastern stations, and a considerable fall of sleet and cold rain occurred, accompanied by a rise of temperature. The disturbance, however, soon broke up and the cyclonic systems LXVI.* to LXVIIA.* advanced quickly over our area, followed by another on the 6th, the track of which is indicated approximately on Map 2 by the line "A," its centre passing at too great a distance from our coasts for its characteristics to be tabulated in Section II. The weather during this period consisted, therefore, of alternations of gales (chiefly South-westerly) and moderate breezes, and of showers and fair weather. Temperature was rather high for

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

the time of year, but its daily range was not large. Thunder and lightning occurred in many places on the 4th and 5th, and iridescent clouds were observed at Stornoway on the morning of the 6th.

The weather then improved slightly for a day or two, for although the general type of pressure distribution was unchanged, the depressions observed passed so far outside our most northern coasts, (in about the direction of the broken arrow marked "A" on Map 2, Plate XXV.) that their effects on the weather over the United Kingdom were not so great as those of the disturbances just referred to. Showers of rain and squally South-westerly winds were, nevertheless, still experienced, and occasionally reached the force of a gale at our outlying western and north-western stations. On December the 9th, however, a shallow, but remarkable, depression (No. LXVIII.*) appeared over the north of France, and moving rapidly to the eastward, grew much deeper and produced strong South-west to North-west gales at many of the continental stations. Over the British Islands the only material effects observed were (1) a temporary shift of the wind to North-east and North-west over our southern counties, (2) a decided increase in the strength of the wind from North-west over St. George's Channel, and (3) a considerable fall of cold rain over the southern parts of England, and sleet in the extreme south-east.

The passage of large and deep depressions over the northern parts of our area was then renewed, but their movements were more easterly than those noticed earlier in the month. The weather consequently became less settled, and iridescent clouds were again observed in Scotland on the evening of the 11th. In the rear of these depressions the barometer rose very decidedly, a well-formed ridge occasionally extending far to the Northward from the French anticyclone, causing the wind to veer well to the North-westward, and at times producing lower thermometric readings, and larger variations of temperature, than had hitherto been observed. (See particularly the maps in the Daily and Weekly Weather Reports for the 12th and 17th.) Showers of sleet, also, were mingled from time to time with those of rain, and thunder and lightning were frequently reported.

On the 19th a still more decided change took place. Pressure was then highest over Spain and lowest to the northward of the United Kingdom, when a well-formed and apparently deep depression (No. LXXI.*) approached the Hebrides from the westward. This subsequently travelled quickly in a south-easterly direction, and reached the Danish coast early on the 20th. It was succeeded immediately by an equally well-marked disturbance the centre of which lay well to the westward of Mayo at 6 p.m. on the 19th, but travelled so quickly that at 8 a.m. on the 20th it lay off the Norfolk coast. The weather brought by these two systems was very wild and rough, gales of wind varying in direction from South, round by West, to North, being experienced in most places accompanied by thunderstorms, rain, and sleet in several places. In their rear the barometer rose with great rapidity, and the long period of cyclonic westerly winds and weather came to an end.

December 21.—The weather over the United Kingdom on this day was transitional from the cyclonic to the anticyclonic system referred to above; the winds over our Islands were chiefly Northerly, moderate to light in most places, but rather strong in the east. Temperature fell decidedly, the air became dry, and the sky cleared. In the east of France, however, Northerly gales, cold rains, and snow were felt in the rear of the depression (No. LXXIA.*) as it passed away towards the Adriatic.

December 22–30.—This period was, with the exception of a brief interruption on 24th–25th, purely anticyclonic. The system was fully developed over the British Islands and their neighbourhood early on the 22nd, and took the form of a long band (or crest) of high pressure stretching completely across the United Kingdom, the North Sea, the north of

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

Denmark, and the southern parts of Scandinavia. Within its central area the winds were light and variable, temperature was very low, and the weather foggy. To the northward South-westerly and Westerly winds were reported, with relatively high temperatures and fair weather, while at our southern stations the winds were North-easterly, cold and dry, and the sky was covered with a dense sheet of anticyclonic stratus, through which the sun hardly ever shone. The days were consequently dark and gloomy, especially in the large towns. Towards the end of the month, however, the anticyclone began to give way near its western extremity. On the 28th a depression appeared over the southern parts of the Bay of Biscay and north of Spain, but this dispersed *in situ*. The barometer, however, fell steadily, and at the close of the month moderate gradients for Southerly winds had been formed over the whole of north-western Europe.