

MONTHLY WEATHER REPORT.

FEBRUARY 1885.

SECTION I.

GENERAL SUMMARY FOR THE MONTH.

THE weather during February was unsettled generally; mild (especially over England) and showery (especially in the west and north), but as a rule not very rough. Pressure was decidedly low; its distribution was favourable for winds and weather of a South-westerly character, and these prevailed continuously except during the interval between the 14th and 20th. The depressions observed were numerous, but (except in the case of No. XI.*) their gradients were not steep, and the gales observed were consequently of moderate strength; those experienced with No. XI. in the north and north-west on the 21st-22nd were, however, very severe. The rainfall was in excess of the average almost everywhere, especially in the west and north, but the excess arose from the frequency of the showers rather than from their intensity. Of bright sunshine there was a decided increase on the amounts recorded in January.

February 1-14.—Throughout this period the dominant weather system over our Islands and their neighbourhood was cyclonic, and the type South-westerly. The temperature was consequently somewhat above the average, and showers of rain with cloudy skies alternated with brief spells of fine bright weather, and occasional displays of lightning. The depressions which reached our coasts were numerous, and although none of them were deep, some presented features deserving special notice, because it is not usual for them to be repeated so frequently in one month. The first disturbance (viz., that which passed along our extreme west and north-west coasts on January 31st and February 1st) was well-marked, but beyond extending eastwards over Scotland in the form of a hollow, showed no marked peculiarities. The second (No. IV.*) was still less important as a system, but passed nearer to us than its predecessor, and travelled northwards on the 3rd. The third was shallow, and of irregular form; it reached the west of Ireland early on the 4th, and on arriving off the west of Scotland that evening dispersed entirely. This was followed immediately by another, (No. V.*), somewhat more clearly marked, but on passing over Scotland this also dispersed. On the 6th a larger, and in every way more important depression (No. VI.*), arrived off the north-west of Ireland, and developed a well-marked subsidiary disturbance (No. VIA.), over the south-west of Ireland, which, however, dispersed completely before 8 a.m. next day. The 8th brought yet another well-marked disturbance (No. VII.*) to our north-western coasts, and this as it travelled northwards developed a remarkably well-formed and rather deep subsidiary system (No. VIIA.), over the Irish Sea, which by the time it reached the North Sea had so far dispersed as to form a mere "hollow" to the larger system, the centre of which then lay to the northward of Scotland (Weekly Weather Report, p. 23). The 10th brought another disturbance to our neighbourhood, which passed sufficiently near to our northern coasts for its characteristics to be tabulated as No. VIII.* This also developed an arm of low pressure over the German Ocean, and then travelled away outside our area of observation on the following day.

After the 11th, however, the depressions which appeared moved in a more easterly direction than those hitherto mentioned, and their trajectories lay at a great distance from

* See Section II., and Map 2, plate IV. for the history and tracks of depressions.

our northern coasts, in about the direction shown by the broken arrow marked "B" on Map 2. With each of them, however, a subsidiary disturbance was developed over Scotland, of sufficient intensity for North-easterly winds to be experienced temporarily in the extreme north of that country, accompanied by a decided fall of temperature, cold rain, and snow, while South-westerly winds were felt over the other parts of the kingdom. Two such disturbances passed by, one on the 12th, and the other on the 13th (the latter being the more decided of the two), and travelled away towards Scandinavia, without much effect being produced on the weather over England and the south of Ireland—which was fair and warm.

February 14–21.—A series of complications now ensued in which cyclonic and anti-cyclonic conditions were greatly intermingled, and the type of pressure distribution was constantly changing. The period commenced on the 14th by the appearance at the mouth of St. George's Channel of a small and very shallow depression which moved very little and irregularly for two days. Other irregularities appeared in Scotland, and the consequence was that varying breezes and changeable weather were experienced all over the United Kingdom. The winds, however, remained light, and although rain fell in most places, the amounts were small, and temperature changed frequently and very irregularly. Pressure, however, continued highest over the south-east of France, whence at 8 a.m. on the 16th, a ridge spread north-westwards across our Islands to the Atlantic. A new small and shallow depression (No. IX.)* now showed itself at the mouth of the Channel, and travelling fast in a north-easterly direction passed across our southern and south-eastern counties, and caused moderate winds from the Eastward and North-eastward to spread temporarily almost all over the country, while Southerly and South-westerly gales were felt in France. In its rear other very shallow disturbances appeared over England (on the 17th and 18th), but these gradually dispersed, and slight gradients for North-westerly and Westerly winds became pretty general. The distribution of pressure at 8 a.m. on the 19th was very complex; anticyclone No. V. (see p. 16) had appeared over France, and, spreading northwards, was joined by No. VI. over Ireland. At the same time another high-pressure area lay over northern Europe, but was separated from the two systems already named by a band of low barometer, in which lay two well-defined minima. (See Daily Weather Report for this date, and the Weekly Weather Report, 1885, page 30.) This distribution of pressure was at first rendered still more complex by the arrival over the Bay of Biscay of depression No. X.,* but its subsequent advance eastwards over France was accompanied by the breaking up of many of the minor system—just referred to, and the development of the anticyclonic system No. VI. into a large and well-formed system over the northern parts of Great Britain and the North Sea. Although this anticyclone remained with us for so short a period, the intensity of the cold which it produced was great, especially in Scotland. Thus at Wick the thermometer fell from a maximum of 38° on the 19th to a minimum of 9° early next morning, while, as the system passed off it rose again to 35° in the course of the day. It was at this time that the minimum readings for the month were recorded almost all over the kingdom.

February 22–28.—With the advance of the large and important cyclonic system No. XI.* the period of irregular pressure distribution and sudden changes came to an end, and the cyclonic south-westerly type of distribution was restored. The storm of wind which accompanied this new cyclone was especially violent over the northern and north-western parts of the kingdom, where great damage was done, while over England it was little felt, though the sky looked very angry, and some strong squalls were experienced. When, however, this had passed off no new depression of importance occurred, and the month, closed with the advance of a small shallow local depression across England—subsidiary to a larger but unimportant disturbance in the far North—followed by a rapid recovery of pressure and a new ridge-shaped anticyclone to Ireland.

* See Section II., and Map 2, plate IV., for the history and tracks of depressions.