

MONTHLY WEATHER REPORT.

JULY 1886.

SECTION I.

GENERAL SUMMARY FOR THE MONTH.

THE weather during July was at first fine, bright, and warm. It then changed, and became variable, showery, and at times very unsettled. Towards the end of the month large amounts of rain fell all over the kingdom, but especially over the north of England, and thunderstorms were both frequent and severe. Taken as a whole, pressure was below its average value, and the mean gradients for Westerly winds were rather steep for the time of year. Depressions were somewhat numerous, but, as a rule, shallow. The anticyclones observed lay principally over the southern parts of our area, and were not high. The winds were Westerly and South-westerly, and at times blew strongly. Temperature was rather low, the rainfall large, and the fall was somewhat irregularly distributed. Bright sunshine was very deficient after the 7th.

July 1-7.—During this period the dominant system of pressure-distribution over western Europe was anticyclonic, and the gradients favourable, mainly, for South-westerly winds. The weather was warm and exceedingly fine, being, in fact, a continuance, with some improvement, of that observed at the end of June. The anticyclone was large and stable, and the heat considerable. Over England the maximum temperatures occurred between the 4th and 6th, when the thermometer rose to between 85° and 89° at the inland stations, but at this time the barometer was beginning to fall, and the sky appeared less settled than it had previously done. On the following day (though temperature then rose to 83° in London) showers began to fall in many parts of England, the anticyclone showed unmistakeable signs of breaking up, and a small shallow depression (No. XLVI.*) was developed over England, and moved eastward to North Germany, while the wind veered to the North-west and temperature fell.

On the Continent the weather during this period remained very fine and warm, but at its close began to break up, especially over France.

July 8-9.—The anticyclone, No. XV. (see the June Report) now broke into two distinct parts, one of which moved eastwards to Germany and eastern Europe, while the other moved westward to the Atlantic; the winds became North-westerly all over the kingdom, and temperature fell so decidedly that on the 8th the daily maxima recorded over England were from 7° to 10° , and on the 9th as much as 20° , lower than those registered

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

on the 7th. Clouds increased greatly, rain fell in almost all parts of the kingdom, and thunder was heard in some places.

The unsettled weather spread quickly over Germany on the 8th and 9th, where shallow local disturbances appeared and thunderstorms were severe.

July 10-13.—On the 10th there was some improvement; the Atlantic anticyclone began to advance slowly to the eastward over France, and, with a decrease of pressure in the north-west, the wind drew back to West and South-west again; over France and England the weather cleared up. Anticyclonic conditions now prevailed over all the southern half of our area, and cyclonic in the extreme north and north-west, the type of distribution being westerly to south-westerly, and the gradients slight. A well-marked, but shallow depression arrived off our north-western coasts early on the 11th, bringing South-westerly breezes, and showers to several of the western and north-western counties. Its centre, however, was too far from us, and its effect on our winds and weather too slight for its characteristics to be tabulated in Section II. The details of the anticyclone, however, are tabulated. (See No. XVI., p. 78.) Over England and France the weather was fine, and the thermometer rose again, the maxima recorded ranging from 70° to 75° over England and the eastern parts of Scotland. On the afternoon of the 13th the barometer began to fall decidedly on the west coasts, as another depression began to approach Ireland from the Atlantic.

On the Continent anticyclonic conditions spread rapidly over France and Germany, where the weather again became fine and warm, while in the extreme north-west of Europe it was wet and changeable.

July 14-16.—The weather now became very rainy, unsettled, (and, for the time of year) cold, owing to the advance of depression No. XLVII.* The system was large, but not deep, elongated in form, and, at first, moved in the direction of its minor axis. At 8 a.m. on the 14th, its centre had reached the east of Scotland, but its movement then changed abruptly to the north-north-eastward and northward, and the centre passed outside of our area of observation on the 15th. As it advanced heavy rains spread all over the kingdom, and the wind, after blowing strongly from the Southward, veered to North; temperature fell decidedly, but no serious thunderstorms were reported. On the 16th the centre of the system lay over the Atlantic at a considerable distance from the Norwegian coast, but the weather was still unsettled over the British Islands. The system was followed by several very shallow and local subsidiary disturbances which passed over the British Islands on the 16th, but these brought very little rain with them and soon dispersed.

On the Continent also the weather was very unsettled as the disturbance passed across the British Isles, and on the 15th a hollow was formed, stretching from the North Sea across eastern Germany, Hungary, and South-western Russia to the Black Sea. This dispersed as the main disturbance moved northwards.

July 17-24.—The weather of this period, though far from being settled, was warmer over England than that of the periods which immediately preceded and followed it, a condition which was brought about by the reappearance of an anticyclone (apparently No. XVI.) over France, and its spreading northwards over the countries lying to the eastward of the North Sea. Simultaneously with this a few depressions appeared off our western coasts, some of which passed northwards in a direction parallel to the arrow marked "A" on Map 2, Plate XIV. Others (such as XLVIII.* and XLVIII.A.*) came more within the area of observation, and brought mild, showery weather to all districts and thunderstorms to some localities.

Over France the weather at first became very fine and warm as the anticyclone spread over the country, but with the appearance of the small depressions referred to, thunderstorms were experienced very generally, especially on the night of the 19th, after which the weather improved again.

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

July 25-31.—The weather now became extremely unsettled and rainy. Pressure remained high over the southern parts of our area, and became high in the north also. In the meantime two well-marked but not deep depressions (No. XLIX. and L.*) advanced from the Atlantic to our western coasts, and travelling across the United Kingdom in an easterly direction, brought with them very heavy falls of rain and serious thunderstorms. In each case the rain was heaviest with the Easterly wind prevailing in the left front and on the left side of the disturbances. Over some of our northern counties more than 2 inches fell in one day (the 25th), and in those regions the total fall for the week ending on the 26th exceeded the average by about 2 inches. The two systems were separated by an interval of fair but not warm weather, in which the Northerly winds in the rear of the one disturbance lulled to a calm, which in its turn gave way to the Southerly breezes of the incoming system. The central areas of both systems were large and badly defined, and the second (No. L.), contained two distinct minima. (See the Daily and Weekly Reports for the dates referred to.)

On the Continent also these depressions caused very disturbed weather as they passed, but their effects were less marked in eastern and central than they were in western Europe, where the rain was heavy and the winds were occasionally high.

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