

MONTHLY WEATHER REPORT.

SEPTEMBER 1886.

SECTION I.

GENERAL SUMMARY FOR THE MONTH.

THE weather of September was somewhat peculiar; over the greater part of England it was fair as a whole and rather warm, while in Ireland and Scotland it was dull and rather cold. In all districts the changes from heat to cold have been very sudden, the most marked case being that which took place over the south-east of England on the 2nd. Pressure was rather above its average value, and its range was not large except in the north-west and north. Temperature was in excess of the mean over the south-eastern part of the country, but in defect in the west and north; the differences, however, were not large: its range during the month was considerable. The wind was chiefly South-easterly and South-westerly in the north and north-west, but was very variable elsewhere, and not strong. Gales were pretty frequent in the extreme west and north-west, but were not severe. Rainfall was in excess of the average at most of the western and north-western stations, but in defect elsewhere; and the amount of bright sunshine was small except over the south-eastern half of England.

September 1.—The weather over western Europe on this day was fine, especially over England and France, where the maximum temperatures were as high as 80° to 87° and the winds were very light and variable from the Westward. The appearance of the sky, however, was less settled than on the previous days, and the subsequent formation of a second (small) anticyclonic system (No. XXII.) in the west and south-west, brought about a conflict of wind currents in the south and east, which caused a sudden collapse of the bright warm weather which had prevailed during the previous few days.

September 2 to 4.—The change of weather during this interval, in which the distribution of pressure was of a complex and variable type, was very remarkable. At 8 a.m. on the 2nd the anticyclone No. XXI. still lay over Germany and France, while the new one referred to in the last paragraph lay over Ireland, Wales, and the west of England. The collision between the Northerly winds of the latter system and the Southerly of the former produced several local depressions over the south-eastern and southern parts of our area, and these were accompanied by heavy falls of rain and sudden changes of temperature, so that in London the temperature at 2 p.m. on the 2nd was no less than 26° lower than that recorded at the same hour on the 1st. The rainfall at Hurst Castle was 1.2 ins., and the wind blew freshly from North and North-east over our south-eastern counties. Over the northern parts of the kingdom the weather remained fair. On the 3rd some amelioration was observed (though thunderstorms were experienced in the south), the rainfall decreased, temperature rose a little, the wind lulled and veered, and while the new anticyclone advanced north-eastwards to the northern parts of England and Ireland the small depression referred to above began to move away to the north-westward, and to fill up. On the 4th conditions had improved greatly; the depressions moved away towards Ireland, the anticyclone passed eastwards towards the Baltic, the wind became more Southerly, and temperature during the afternoon rose to a maximum of 79° in the south-east of England.

Over central and eastern Europe the weather remained fine, but in France the changes referred to above were felt very decidedly, and thunderstorms of considerable severity occurred both on the 2nd and 3rd, accompanied by a fall of temperature. On the 4th, however, the weather was improving.

September 5-12.—The distribution of pressure now underwent a further change; gradients for South-westerly winds became prevalent, and gradually grew steep, and, as is usual under such circumstances, depressions appeared in the west and north-west and moved north-eastwards, past our north-western coasts. At first they were apparently shallow, but their centres passed by at so great a distance from us, in a direction parallel to the arrow marked "A" on Map 2, Plate XVIII., that their effect on our winds was trifling. Owing to subsidiary disturbances, however, showery weather and thunderstorms were very prevalent in nearly all parts of the kingdom. Early on the 5th a depression of great size (No. LV.*) arrived off the north-west of Ireland, producing Southerly and South-westerly gales in the west and north, and freshening South-westerly winds elsewhere, with some rain, which commenced first in the west, and then spread eastwards to all parts of the kingdom. This was followed rapidly by No. LVI,* the movements of which were very similar to those of its predecessor; as, however, the system was deep and its centre apparently passed nearer to our coasts than that of No. LV., the gales and winds which it produced were stronger, and its rainfall much heavier—especially over the Irish Sea. Another, less deep, system (No. LVII.*) followed on the 11th, but in its rear the barometer rose and the general distribution of pressure again began to change.

The unsettled weather caused by these disturbances spread gradually over western Europe, where, though the wind was not strong as a rule, thunderstorms were of almost daily occurrence, and the rainfall was large. Over central and eastern Europe the weather was less disturbed.

September 13-14.—The weather experienced during this brief period was of a transitional character. The continental high-pressure area over France and Germany still held, but instead of the low-pressure area recently existing over the Atlantic, a second anticyclone (No. XXIII.) appeared, and between this and the older system the shallow depression, No. LVIII,* was formed over Ireland, and travelling north-eastwards, caused heavy local rains in Ireland and Scotland, as well as less heavy falls in the west and north generally. By 8 a.m. on the 15th, however, the new anticyclone was spreading all over the kingdom and was becoming the dominant system of north-western Europe. Temperature, after rising to 80° at Jersey and in London on the 14th, fell decidedly as the wind drew into East, but the weather became dry generally.

As the new system advanced the old continental anticyclone moved eastwards and dispersed, and on the 15th thunderstorms were experienced very generally in Germany. Temperature also began to give way very decidedly over northern Europe.

September 15-20.—The dominant pressure-system during this time was anticyclonic and the gradients favourable for Easterly and South-easterly winds. At first these gradients were confined to the southern half of our area (see Charts of 15th), but as the centre of the system passed eastwards to the North Sea they spread northwards over our western districts, while over Scandinavia steep gradients for Westerly winds appeared. The Easterly wind over the United Kingdom was cold and dry at first, but on the 18th and 19th, when some shallow local depressions began to appear off our south-western and south-eastern coasts, the thermometer rose again, and the appearance of the sky became less settled.

In France thunderstorms were very prevalent during this period, apparently owing to the fact that a second high-pressure system lay over the Iberian Peninsula, the Westerly winds of which were opposed to the Easterly winds of the more northern system, the region of contact between the currents being France and the Bay of Biscay.

* See Section II. and Map 2, Plate XVIII., for the history and tracks of depression.

September 21-25.--The dominant system of pressure distribution at this time was still anticyclonic, but the system was a new one, and the type of gradient varied from north-easterly at the commencement of the period, to westerly and south-westerly at its close. The new anticyclone (No. XXIV.) appeared off our north-western coasts on the 20th, remained there for a day or two, while the old one was dispersing over Poland and the western parts of Russia. Some small depressions (and notably No. LIX.)* then appeared in the south. The winds were therefore North-easterly at first and blew strongly over the southern parts of the kingdom, while over southern Europe (owing to the persistence of the high-pressure area over Spain) they were Westerly and South-westerly (see the Charts for the 21st and 22nd in the Daily and Weekly Reports). In the western and central districts the weather was fair, but in the north and north-east and on our southern coasts there were cold showers. Gradually, however, the anticyclone moved southwards down the western coasts of our Islands, and, as the wind backed round to North, West, and South-west, the rain ceased in the south and east, while showers set in on our west and north-west coasts.

On the Continent a good deal of rain fell, and thunderstorms occurred frequently.

September 26-30.--The system of pressure-distribution now became cyclonic and simpler, and the type of gradient favourable for Westerly and South-westerly winds. Temperature consequently rose generally, especially over England, until on the 29th maxima were recorded as high as 70° to 71° at our inland stations. Depressions again began to move from south-west to north-east outside our extreme north-western coasts, the most important of them being No. LX.,* the centre of which passed close to the Farö Isles on the 27th. Another large system passed outside our western and north-western coasts on the 30th, but its centre was at so great a distance from us that its characteristics could not be tabulated in Section II. Its movements, however, were apparently about parallel to the broken arrow marked "A" on Map 2, Plate XVIII.

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