

MONTHLY WEATHER REPORT.

APRIL 1884.

SECTION I.

GENERAL SUMMARY FOR THE MONTH.

THE weather of April consisted of three distinct periods:—(1) A comparatively mild period, which lasted till the 7th. (2.) An anticyclonic period, of cold dry North-easterly and Easterly winds, lasting from the 8th to the 25th. In it the temperature was much below its average value, and during its latter portion destructive frosts occurred over England. (3) A period of less cold weather than that last mentioned, lasting from the 26th to the end of the month, marked by very variable winds, showery weather, and local thunderstorms. On the whole, however, the mean temperature of the month was below its normal value especially over the south of England; the rainfall was deficient, but the clouds were heavy and numerous, and the amount of bright sunshine was consequently very small.

April 1-7.—During this period the distribution of pressure, the winds, and the weather were of a southerly type. For the first two days the pressure distribution was simple, the barometer being, on the whole, highest over Russia and the Baltic, and lowest to the westward of Ireland, and there were no subsidiary disturbances worth noting. The sky consequently cleared and the thermometer rose quickly, so that for a time the weather was remarkably similar to that observed over England about the middle of March. The maximum readings recorded varied from 65° to 68° over England, both on the 2nd and 3rd, but on the latter day the sky began to wear an unsettled appearance over London and its vicinity, and several complications ensued. A moderate-sized depression appeared off the south-west of Ireland on the 3rd and advanced eastwards slowly, till, at 8 a.m. on the 4th, its centre was not many miles to the southward of Cape Clear (see the charts given in the Weekly Weather Report, page 54). The movements of this disturbance were peculiar, and are shown as nearly as possible by the arrow marked XIX. on Map 2, Plate IX. A shallow subsidiary was formed over the Bristol Channel on the 3rd, and, moving northwards, reached the Irish Sea near Barrow-in-Furness by 6 p.m., and the west of Scotland by 8 a.m. the next day, whence it apparently passed northwards and dispersed. No sooner had it gone, however, than another small subsidiary disturbance appeared at the mouth of the English Channel, and this moved quickly in about a north-north-westerly direction across St. George's Channel, so that at 8 a.m. on the 5th it lay over the north of Ireland (see the chart for that date in the Weekly Weather Report, page 55, and the arrow XIXB. on Map 2, Plate IX. in the present Report). From this position it travelled away to the north-westward. The larger depression in the south-west then dispersed, and the barometer rose quickly in the south-west and south. The principal effects resulting from these small disturbances were (1) the spreading of the cyclonic conditions (viz., the strong South-easterly and Southerly winds, rain, thunder, and lightning) over nearly the whole of our Islands, and (2) a great reduction from the high temperature which had been experienced on the 1st and 2nd. The rainfall, however, was not heavy, except near the mouth of St. George's Channel, where it amounted to an inch, or more.

On April 6th another depression appeared off our north-west coasts, but it travelled quickly away to the northward, without coming sufficiently near to us for its movements to be shown on Map 2, Plate IX. During the night of the 6th (pressure being still highest in the north-east and lowest in the west) a shallow depression was formed over the north-east of France (see the 6 p.m. synoptic chart in the Weekly Weather Report, page 55), and this advanced northwards, bringing local thunderstorms and much rain to the south-eastern and eastern parts of England, while fair weather prevailed in the west. Great variations in the direction of the wind were caused by this disturbance over all the eastern parts of the country, but these were followed by a settling down finally to a light breeze from the northward. The system apparently broke up over the North Sea on the 7th; and a complete change took place in the distribution of pressure, and, consequently, in the winds and weather also.

April 8–25.—Throughout the whole of this period the conditions over our Islands were more or less anticyclonic, the air was cold and searching, sharp frosts were felt at times, and the winds were chiefly Northerly to Easterly in direction. The period may, however, be subdivided as follows:—(1.) From the 8th to the 10th, when an arm (or “ridge”) of high pressure extended from the Scandinavian anticyclone across the North Sea and our Islands, producing North-easterly winds over England and the Channel, while Southerly and South-easterly winds prevailed in the north. Temperature during this time decreased, but was not very low, and while dry weather prevailed in most places, some rain showers fell in the north-eastern parts of Great Britain on the 8th, and hail showers in the south-east next day. (2.) From the 11th to the 16th, when, owing to a fall of the barometer over the Baltic and northern Europe, the area of highest pressure was transferred to a position off our north-western coasts, while a ridge extended thence in a south-south-easterly direction over the whole kingdom. The wind consequently backed to the northward on our North Sea coasts, but became at first South-easterly and then Easterly in the west. Temperature fell fast, and the mean temperature over England at this time was as low as that of February: some of the night frosts were very keen (see the Daily and Weekly Weather Reports for about this date). Showers of sleet, soft hail, and snow fell in the north and east, and gradually spread over the country; the air was, on the whole, cold and searching, and on several of the nights frost occurred at our inland stations. These conditions continued with little modification till about the 16th, and during their prevalence dry North-easterly winds prevailed very generally, with cold showers separated by bright intervals. (3.) On April 17th pressure began to give way over Scandinavia, and being already relatively low over the south of France, a band of relatively high pressure was left over the British Islands and the North Sea, lying west and east from the Atlantic to the Baltic and North Germany. Thus, while North-easterly breezes continued to blow in the south, Westerly winds appeared for a time at our northern stations (see the daily charts in the Weekly Weather Report, p. 62), but soon disappeared as the band of high pressure again spread northwards, and North-easterly winds became general, with a further decrease of temperature. On April 20th pressure gave way a little on our Atlantic coasts, and the high-pressure band assumed the form of a well-developed ridge extending south-westward, from a large high-pressure area whose centre lay over northern Europe, right over the North Sea and our Islands. With this change the cold became still more severe, so that not only were the mean daily temperatures from five to ten degrees below the average for the time of year, but the night frosts were very sharp—especially in some parts of Surrey, where the fruit crops suffered severely. The very cold spell continued till the 25th, when the whole system which had prevailed since the 8th began to break up.

April 26–30.—The distribution of pressure now became irregular, although the gradients were not steep. An ill-formed depression appeared off our north-western coasts on the 26th, causing Southerly winds for a time, but dispersing quickly. Another shallow system (No. XXI.) moved north-north-westwards over the eastern shores of the North Sea

on the 26th, while a third, of complex form (No. XXII.), came in over our south-western counties on the 27th, and dispersed near London early on the 29th. These depressions brought with them cold rain, thunder, and lightning to the regions which they visited, together with some (irregular) increase of air temperature, and displaced the searching, parching North-easterly and Easterly winds of the previous three weeks. Pressure now became more uniform over the southern parts of the kingdom, and although a new cyclonic system (see No. XXIII., p. 43, and Map 2, Plate IX.), approached our north-western coasts on the 29th, it brought with it only moderate gradients for Southerly to Westerly breezes. Temperature rose decidedly, and warm showers fell in most places, accompanied by some thunder in the south-east.