

# MONTHLY WEATHER REPORT.

AUGUST 1884.

## SECTION I.

### GENERAL SUMMARY FOR THE MONTH.

THE weather of August, taken as a whole, was quiet, bright, and warm; at times it was hot, especially over the southern and eastern parts of England. Pressure was about its average value, and its range was small; the depressions observed were shallow and their tracks lay uniformly at a great distance outside our extreme north-western coast, but subsidiary disturbances passed frequently over the kingdom, producing severe thunderstorms in all districts. Those experienced in the southern parts of Scotland and in the east of Norfolk on the 12th were exceptionally heavy, and resulted in great loss both of life and property. The highest temperatures recorded exceeded  $90^{\circ}$  over our south-eastern and eastern counties, while the lowest were below  $40^{\circ}$  in a few localities. The winds varied greatly in direction between South-west and South-east, and were moderate to light in force; the gales reported were slight, and were chiefly Southerly in direction, and were confined almost entirely to our extreme west and north-west coasts. After the 24th the fine weather broke up abruptly, and cold autumnal winds and showers set in.

August 1-3.—At 8 a.m. on August 1st a band of rather high and uniform pressure lay from north to south over Norway, the North Sea, and France, separating a depression which had been lying over the Baltic for a few days from a new one (No. XLV.\*), which was advancing towards our western coasts from the Atlantic. The gradients over our Islands were favourable for Southerly and South-easterly winds, moderate in the west, slight in the east; and while winds from these points prevailed at our western stations, accompanied by cool and somewhat showery weather, variable airs were experienced over England and the east of Scotland, with fine weather and high temperature. In the course of the day the thermometer rose to between  $80^{\circ}$  and  $84^{\circ}$  over England, and the South-easterly breeze spread eastwards to our inland stations, where, however, it was very light in force. In the course of the 2nd and 3rd the depression in the west moved away to the north-eastward, and the barometer rose in its rear; on the 2nd the wind veered to South-west, and temperature again increased greatly over our inland counties during the daytime, but on the 3rd the heat was not so great, as the wind had veered towards West in places.

August 4-6.—A small but well-marked anticyclone (No. XV. p. 81) now began to approach us from the south-westward. The barometer rose steadily; the wind over our Islands veered to West more generally, and to North-west in places, and fell very light, but the thermometer did not rise above  $73^{\circ}$  at any of our stations until after the centre had passed to the eastward. Then, as the wind drew into South-east and South, the heat increased, so that on the 5th several of the shade maxima recorded over England were as high as  $74^{\circ}$  to  $77^{\circ}$ , increasing to  $76^{\circ}$  and  $80^{\circ}$  on the 6th. The weather was somewhat hazy, but dry.

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



August 7-11.—During this period the type of pressure distribution over the United Kingdom and its neighbourhood was Southerly, barometric readings being highest to the eastward of the North Sea, lowest to the westward of Ireland, and the gradients slight. At first fine warm weather prevailed very generally, maximum readings being recorded over England as high as  $85^{\circ}$  to  $88^{\circ}$  on the 8th, and  $89^{\circ}$  to  $93^{\circ}$  on the 11th. On the evening of the 9th, however, some thunder and lightning were experienced in the extreme west and north-west, and these spread gradually to the eastward and southward, accompanied at times by more or less rain. On the 11th thunder and lightning were observed, even over the south-eastern parts of England, but on that day the rainfall was less general than on the 10th. This unsettled weather appeared to be related to a very shallow but moderate-sized depression, the first indications of which were seen in a gradual giving way of pressure over the United Kingdom on the 9th and 10th, but which assumed no definite form till the 11th, when it appeared over Ireland and Scotland as a very shallow "hollow" lying between a high-pressure area over northern Europe and another over the Atlantic to the south-westward of our Islands. Its form was, however, too indefinite and its movement too uncertain for it to be included in the Table of Cyclonic Systems on page 80, or for its track to be drawn on Map 2, Plate XVII.

August 11-13.—The distribution of pressure during these three days was very complex, the "hollow" referred to above having become the dominant system over the United Kingdom, while the barometer was high both over northern Europe and to the south-westward of the British Islands. South-westerly and Westerly winds were experienced on our western and southern coasts, while South-easterly to North-easterly winds were felt over the North Sea. Temperature fell rapidly, especially on the 12th, and thunderstorms were experienced, particularly in Scotland, where, as well as in the east of Norfolk, the storms were very violent, and the rainfall was heavy. From this date, however, the weather began to improve, the "hollow" moved slightly to the north-eastwards and began to disperse, and a South-westerly and Southerly current of wind spread completely over the kingdom.

August 14-17.—During this time pressure recovered and barometric readings became more uniform, the conditions being favourable for Southerly winds, of little strength, even at the western stations. The weather became still better, and, except over the extreme western and north-western districts, was rainless. On the 16th the thermometer again rose over the inland counties of England to between  $75^{\circ}$  and  $80^{\circ}$  in the shade, and on the 17th to between  $80^{\circ}$  and  $84^{\circ}$ , the Irish and Scotch stations showing much lower values generally. On the 17th, however, some shallow local disturbances were developed over France, where they produced thunderstorms and rain, and these subsequently spread to the southern counties of England.

August 18-19.—A clearly marked, but shallow depression (No. XLVI.\*) now reached our north-western coasts, and, in union with the shallow disturbances just referred to, developed a new arm (or "hollow") of low pressure over the country generally, bringing rain, thunder, and lightning to all districts, with a fresh fall of the thermometer. The whole system, however, was slight, and as it passed off a new anticyclonic system (No. XVI.) appeared in the south-west, and advanced over the United Kingdom.

August 20-23.—This period was anticyclonic. The system appeared off our south-western coasts and the Bay of Biscay on the 20th (see page 81), and, passing in a north-easterly direction, reached the eastern shores of the North Sea on the 22nd. It then increased in size, and formed one of those large and more permanent high-pressure areas which occasionally continue over Europe for lengthened periods producing a corresponding permanence in our weather. As no new system appeared for some time, the distribution of pressure from the 22nd to the 24th, inclusive, was again favourable for the prevalence of gentle Southerly breezes. The weather was consequently fine and bright, the air dry, and the thermometer continued to rise from day to day, so that the highest of the daily maximum

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



readings over England varied from  $80^{\circ}$  to  $84^{\circ}$  on the 22nd, from  $80^{\circ}$  to  $86^{\circ}$  on the 23rd, and from  $85^{\circ}$  to  $90^{\circ}$  early on the 24th. This, however, was the last spell of really hot weather experienced during the summer, for showers and local thunderstorms now appeared in the north, and soon spread to all parts of our Islands.

August 24-29.—This was a period of complex distribution of pressure, very variable winds, cool, wet weather, and local thunderstorms. On the morning of the 24th (the high-pressure area in the east being still unchanged), a new and decided anticyclonic system appeared in the west, following closely in the rear of cyclonic system No. XLVII.\* as it passed away to the northward of Scotland. The new anticyclone was of moderate height, and as its centre remained outside our western coasts, its eastern side brought over us a spell of brisk cold winds from North-west and North, which, impinging on the warm Southerly current hitherto existing, produced a series of local disturbances, accompanied by heavy clouds, squally weather, much rain, and occasional thunder in all parts of Great Britain. The fall of temperature was remarkable; in London the thermometer at 2 p.m. on the 25th was no less than  $27^{\circ}$  lower than it was at the same hour on the previous day, and the air felt peculiarly keen and searching. This North-westerly wind remained with us for several days, and although there was subsequently a considerable amelioration of its temperature and weather, the thermometer continued low for the time of year, rain was frequent and, at times, heavy.

August 30-31.—The disturbances just referred to now began to disperse; the barometer rose, the wind backed to between West and South on all our coasts, and temperature increased. In the north the weather improved a little, but over England rain still fell in heavy showers, and the appearance of the sky was far from being settled.

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