MONTHLY WEATHER REPORT.

JANUARY 1887.

SECTION I.

General Summary for the Month.

The weather experienced during this month was somewhat rough in the extreme western and northern parts of the kingdom, but quiet elsewhere. Pressure was rather in excess of the average over the southern parts of the kingdom, but slightly in defect in the north, and its range over England was large. Depressions were numerous, but except in one case, they did not pass very near to the British Islands; the anticyclones, though few in number, were of a very decided character. Temperature was below the average except in the north, and the extremes recorded over England were somewhat striking—readings as low as 8° or 10° being registered in some of the more southern counties early in the month, while maxima as high as 60° were reported at Hereford and Strathfield Turgis near its close. Rainfall was large in the west and north-west, small in the east and south, and Sunshine was deficient in many places. The wind was chiefly South-westerly, and gales occurred on 14 days at Stornoway, 12 at Aberdeen and Mullaghmore, 11 at Belmullet, and 9 at Valencia and Scilly. Over the greater part of England very few were reported.

January 1–3.—At the commencement of the year an elongated high-pressure area lay over Russia, the south of Sweden, the North Sea, England, and the north of France, its major axis stretching from north-east to south-west. Its maximum readings varied from 30·3 inches to a little above 30·5 inches, and while in a north-westerly direction the values decreased to about 30·0 inches in the Hebrides, and to 29·95 inches at Bodö; in the opposite direction they decreased to about 29·8 inches over the Gulf of Genoa and all the eastern part of the Mediterranean, with Italy and the Adriatic. Temperature was very low within the high-pressure system, the 8 a.m. readings being 6° at Stockholm, 12° at Moscow, 14° to 22° over some of the inland parts of England, 25° at Brussels, and 26° at Paris. In the west of Ireland, however, and the Hebrides, the thermometer had risen to between 45° and 47°, from a slightly lower value on the previous day, and the South-westerly winds prevailing in those regions had become strong, and appeared to be spreading over the kingdom while the high-pressure band moved south-eastwards. The reports for the following day showed a further encroachment of the milder weather, while on the 3rd a deep depression (No. I.*) reached our north-western coasts, and caused the South-westerly current to spread all over the British Islands, with force varying from a strong breeze to a strong gale. Temperature rose rapidly; the high-pressure area and zone of frost—now much reduced in intensity—was pushed south-eastwards to central France and Germany, while over the Mediterranean the barometer rose.

January 4–10.—The conditions during this period were cyclonic, and of a complex character; on the 4th a well marked "V"-shaped system advanced over the United Kingdom, and within its area several minima appeared. Thus while South-easterly winds set in over the eastern shores of the North Sea, strong North-westerly winds and gales were felt at our western stations, South-westerly winds over France, and variable breezes over Great Britain. Rain, sleet, and snow fell over the British Islands and France, and thunderstorms occurred in the south-west; but over Scandinavia the weather was at first fine, though snow fell afterwards in considerable quantity. On the 6th and 7th pressure was as low as 28·9 inches, and less, over the greater part of England and the north of Ireland, and, as the primary depression in the north passed away the "V" developed into an independent system

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

(No. II.*), which, after remaining stationary for a day or two, dispersed during the 9th and the earlier part of the 10th.

January 10–11.—In this brief period a new depression (No. III.*) appeared off the west of Ireland, and passing quickly to the north-eastward, had reached the Hebrides by 8 a.m. on the 11th. Another "V"-shaped secondary disturbance was developed over the western parts of the kingdom as it passed, and in consequence of this the variations in temperature were large, the weather was rainy, and the wind, after blowing hard from South-east and South, shifted suddenly to the North-westward, and blew strongly from that quarter at the western stations.

January 12–16.—The barometer now rose quickly, and anticyclonic conditions became prevalent over nearly the whole of Europe. By 8 a.m. on the 13th readings exceeded 30·5 inches over the Baltic provinces of Russia, and were above 30·4 inches in a ridge which extended thence in a westerly direction over North Germany, the southern parts of the Baltic and North Sea, and the greater part of England. To the north-westward of this ridge pressure decreased to about 29·8 inches off the extreme north-west coasts, while to the south-eastward it decreased to rather below 30·1 inches over Italy and the Balkan Peninsula. Temperature became very low as the high pressure system was developed, the thermometer falling to between 17° and 25° over our Midland counties, but owing to the advance of a second anticyclonic system from the westward, the weather did not become fine until after the 14th. The two systems subsequently merged, and while moderate to rather steep gradients for South-westerly winds were formed over northern Europe, slight ones for Easterly winds appeared in the south.

January 17–31.—Depressions now again began to pass north-eastwards over north-western Europe from the Atlantic, and continued to do so almost without interruption till the end of the month. Temperature increased decidedly over the British Isles and their neighbourhood, and Southerly to Westerly and North-westerly winds became general, at times blowing a hard gale in the north and west, but at others lulling to a moderate breeze. The first of these was a comparatively small and unimportant system, which, after producing fresh Southerly gales in the north of Scotland only on the 16th, moved northwards, and was followed by a much more important system early on the 17th (No. IV.*). The third (No. V.*) was of moderate size and depth, but passed much nearer to our coasts than its predecessor. Then followed a slight anticyclonic interregnum, but this soon gave way, and some enormous depressions advanced towards Lapland from the south-westward at so great a distance from us that their tracks cannot be accurately shown on Map 2, Plate II. So great was their size, however, and so steep their gradients that their South-westerly and Westerly winds were felt even on parts of our coasts, where they blew a gale at times. On the morning of the 21st the pressure (30·7 inches and more) on our south-western coasts and at the mouth of the Channel was more than 2 inches higher than that prevailing at the same hour in Lapland, the gradients being then steep over Scandinavia and the North Sea. An anticyclone (No. II.), in which the maximum readings exceeded 30·7 inches, was then approaching our south-western coasts from the Atlantic, and as it passed eastwards over France (and decreased in intensity) southerly gradients were again restored in the west, and the movement of the depression, in a northerly and north-easterly direction, outside our western and north-western coasts, was resumed. These gradually became larger, so that by the 29th a cyclonic system covered all the northern parts of our area, and barometric readings varied from nearly 30·7 inches over western Germany to about 28·7 inches in the west of Lapland. The centres of the systems, however, passed by us at so great a distance from our coasts that their characteristics cannot be given in Section II., nor can their tracks be drawn accurately on our Map. The month closed with a continuation of cold anticyclonic weather over Germany and France, while depressions were moving north-eastwards in quick succession outside our extreme north-western coasts.

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