

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, AND AT GIBRALTAR AND MALTA, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANIZATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE. To be purchased through any Bookseller or directly from H.M. STATIONERY OFFICE at the following addresses:—
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FORTY-THIRD YEAR.
Vol. XXXV. (New Series)

No. I.

JANUARY, 1918.

[Price 6d., Post free, 7d.]

First Part Wintry with Snow and Severe Frost: Second Part Spring-Like.

Two opposite types of weather sharply divided the month into two seasons—winter and spring. The first period, which very generally lasted to the 17th, was characterised by unusually low temperatures and winds from the East, North or North-West. Snow also fell frequently, and in many localities lay on the ground until about the 18th. This wintry spell culminated in a heavy downpour of rain, snow and sleet on the 15th, caused by a small but intense cyclonic disturbance which formed over the south-west of England on that day and by 7h. on the 16th was centred near Kent. It caused Westerly gales in the Straits of Dover, which were accompanied by very rough seas, experienced all along the coast to the south of Ireland. In this connexion the observer at Bognor reports on 15th "More damage by sea to parade than I have known." On the 18th the observer at Fethard, Waterford reports "Gale piling mountainous seas on the coast, while enormous quantities of wreckage drifted ashore." The precipitation yielded by this interruption to winter's progress was large, especially at many of the southern stations. Some of the individual falls measured on the morning of the 16th were Lyme Regis 45mm., Dover (Water Works), Hastings, and Heathfield 43mm., Lyminge 41mm., Kearsney 40mm., Cuckfield 38mm., and Sandgate 37mm.

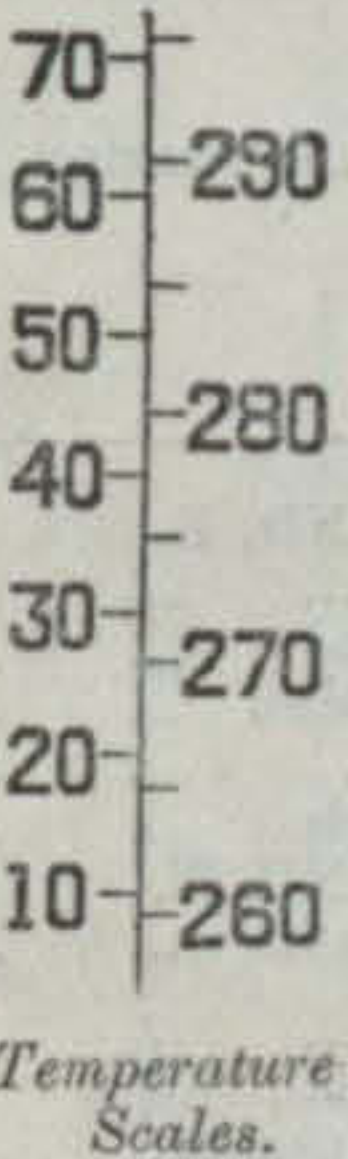
The second or spring-like half of the month was characterised by southerly breezes and a rapid rise in temperature, the contrast between the first part of the month and the second at some of the northern stations being great. Thus at Bellingham on the 14th the minimum temperature was 257a., while on the 31st the maximum was 285a. or a range of 28a. At many other places the increase was almost as great. The following notes supplied by various observers have reference to these improved conditions:—*Meltham, Yorkshire*, "Jan. 20th-30th, eleven consecutive days with maximum temperatures of 283a. and upwards is quite unprecedented in January for 40 years." *Hereford*, 22nd, "Red Admiral butterfly seen in garden." 24th, "Birds mating." *Wallington, Surrey*, 27th, "Yellow crocus fully out." *Sheepstor, Devon*, "12 nights in succession with minimum of 277a. and above. No reading below 277a. after 17th, and no frost even on the grass, is very remarkable for January on Dartmoor." *Allans Green, Northumberland*, "Snow was on the ground up to about 20th, when the ground became dry enough to plough, and wheat has been sown, late as it is in the north part of England, with a fair prospect of a crop. Stock has done well, the change has benefited sheep and there is every prospect of good lambing." On the other hand *Mount Callan, Co. Clare* reports "No absorption of ground after snow and frost, and hard to get any work done."

As a result of the heavy precipitation of the 15th and the rapid thaw about the 18th floods were caused in many localities. They were reported from Gwernyfed, Ridlington, Cullompton, Oundle (Nene Valley), Killerton ("very great floods, river rose 7 ft. in 6 hours"), Tenbury ("rapid thaw, river Teme 14 ft. above ordinary level"), Penshurst (40 sheep washed away") and Bramley (3,000 German prisoners unable to work owing to the site being badly flooded").

Air Pressure.—The general distribution of pressure as shown by the map on p. 3 approximated very closely to the normal. As a rule the highest pressures were recorded on the 3rd or 4th, and the lowest between the 15th and 20th, these two periods coinciding with an anticyclonic and a cyclonic distribution of pressure respectively. The gales experienced were of a sporadic character, the more important of them being associated with the depressions of the 6th, 7th, 13th, 15th, 16th and 17th. On the 6th a deep depression which formed over Northern Scotland had reached the North-West coast of Denmark at 7 h. on the following day, and in its rear there was a northerly gale at Deerness and Stornoway and a whole gale at Lerwick. At Deerness there was also a blizzard and snow-drifts 120 cm. deep. It was during a snowstorm following this gale that H.M.S. "Raccoon" on the night of the 8th foundered off the North Coast of Ireland with all hands. This gale also caused snowy conditions to extend southwards as far as Jersey and westwards to Ireland, the snow at Cahirciveen on the morning of the 8th being 8 cm. deep. On the 13th at 7 h. a depression was centred off the West of Ireland, and brought gales and snow and very low temperatures to many districts, and especially in Scotland, at Buchlyvie (Stirling) and West Linton (Peebles) a minimum of 254a being recorded and 255a at Eskdalemuir, these being the lowest readings in Scotland in January since 1910. The mean temperature of the week ending on the 19th was in various districts 7a or 8a

below the normal. As evidence of the severity of the cold, the observer at Crathes reports that the river Dee was frozen over at the beginning of this week, the last time this occurred previously being in 1894-1895. The lower reaches of Loch Lomond also were frozen over for the first time during twenty-three years. A depression of the 15th to 16th was followed the next day by a disturbance of considerable intensity which caused further falls of snow and rain over England, the rain measurements for the 15th being very generally the heaviest for the month. Towards the end of the month conditions became quieter and the weather over the southern parts of the British Isles was largely influenced by anticyclonic systems embracing the greater part of Europe. On the morning of the 26th there was much fog in the English Channel and southern parts of the North Sea; and also at many home and foreign stations on the 27th. Fog also prevailed at the inland stations of South England, at the mouth of the Humber on the 30th, and over a large area of England on the 31st. The latter fog spread over the Eastern Counties and up to the Tay, and was dense in the low-lying parts of London and caused many fatalities.

Temperature.—In most districts the low temperatures of the first part of the month and the high temperatures during the second part balanced one another, so that at the English and Irish Stations the mean for the month differed but little from the normal. The variation ranged from +0.4a in the Midland Counties and England North-West to -1.7a in Scotland North. In Scotland East there was a deficit of 1.5a. A notable feature was the low maxima on the 8th, readings below the freezing point being experienced in many localities. The lowest were 267a at Glen, Kingussie, and Little Massingham; 268a at several English and Scottish stations; and 269a at many stations in East England. The lowest of the minima in England was 257a at Bellingham, Northumberland; in Scotland 254a at West Linton, Peebles; in Ireland 261a at Belfast and Lisburn ("lowest for a generation"); and in Wales 261a at Gwernyfed, most of which occurred on the 14th. The highest maxima were 287a at Westminster on the 24th and Woburn on the 20th, 287a at Gordon Castle on the 26th, 287a at Dublin (Phoenix Park) on the 27th, and 287a at Llandudno on the 24th.



Rainfall.—The precipitation very largely fell in the form of rain and snow and varied considerably in amount, the departures from the normal being equally varied. The latter ranged from an excess of 31 mm. in England South-East to a deficit of 20 mm. in the English Channel. Scotland North had a deficit of 16 mm. and England South-West an excess of 23 mm. As a rule more precipitation fell during the night than during the day, the latter amounts in some places being four times those of the former, due to a large extent to the heavy snowstorm during the night 15th to 16th. In Scotland aggregates were here and there below the normal, but in general there was a moderate to decided excess. At Kinlochquoich the aggregate was 276 mm., a moderate one at that place for January. At Fort William 55 mm. fell on the 28th. On the 15th there were falls of 41 mm. at Southampton, and 40 mm. at Portsmouth. At Beddgelert 69 mm. was credited to the 14th.

Sunshine.—The mean daily sunshine was above the normal in England and below it in Ireland and the greater part of Scotland. The mean values varied from 2.9 hr. in the English Channel to 0.5 hr. in Scotland North, the latter having a deficiency compared with the normal of 0.4 hr. and the former an excess of 0.8 hr.

Optical Phenomena.—Solar halos were seen at Clacton 10th, 22nd; Oxford 9th, 12th; Norwich 11th; and Totland Bay 23rd. Lunar halos were more frequently observed on 16th, 17th, 18th, 20th, 21st, 22nd, 24th and 27th. The **Zodiacal Light** was seen at Aberdovey and Oxford on 3rd, and again at Oxford 7th, 10th, and 11th.

Aurora.—Aurora was observed at Fort Augustus on the 14th and in other parts of Scotland on the night of the 30th.