

SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS, for the
CALENDAR MONTH,

JANUARY 1893.

(Issued as a Supplement to the Weekly Weather Report, 1893.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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General Summary.—The weather during the early part of the month was exceedingly cold, with dense fogs over the inland districts, and falls of snow in nearly all places. Towards the middle of the period, however, a gradual change set in, and by the close of the month the weather had become unusually mild and damp. Pressure was above the average; temperature was low, especially in the south and east of England; the winds were rather variable in the south, but mainly Westerly in the north. Rainfall was generally small; and Bright Sunshine, though rather deficient in Ireland and the south-eastern parts of England, was in excess of the average in most other localities.

Pressure.—*Mean for the Month at 8 a.m.* varied from 30·05 ins. and upwards over the south of Ireland and the central and southern parts of England to between 29·85 ins. and 29·90 ins. in Caithness and the Shetlands. The general distribution of pressure had a rather more anticyclonic tendency than usual, and the actual values were everywhere in excess of the average,* the difference being least (0·4 in. to 0·5 in.) in the south-east of England, and greatest (0·15 in. to 0·20 in.) in Ireland and Scotland. *Highest* readings occurred mainly on the 21st, when the barometer rose to between 30·3 ins. to 30·5 ins. in all the more northern and eastern districts, and to 30·6 ins. or more on our south-west coasts. *Lowest* readings were registered on the morning of the 29th, and were below 29·5 ins. in the southern and eastern parts of our Islands, and below 29·1 ins. on the west coasts of Ireland and Scotland. *Range* was somewhat small for the season.

Depressions.—Very few depressions of importance appeared in our immediate neighbourhood, the paths of the Atlantic cyclones lying as a rule well to the north-westward and northward. On the 2nd and 3rd a clearly defined system advanced in a *westerly* direction from North Germany to our east coasts, where it gradually dispersed, while from the 13th to the 15th a series of depressions spread over Great Britain and the North Sea from the northward. The latter systems were too ill-defined and their tracks too irregular to be laid down on Map 2, Plate I.

Anticyclones.—Between the 1st and the 5th a large anticyclone spread over our Islands from Northern and North-Eastern Europe, the barometer at the time being unusually high (31·2 ins. and upwards) in Central Russia. After the 6th the anticyclone moved away from our neighbourhood, but on the 9th and 10th a new high-pressure area extended over us from the north. The latter system moved away to the westward on the 11th, but on two subsequent occasions, viz., between the 14th and 15th and the 19th and 23rd, it spread temporarily over a considerable portion of Ireland and England.

Winds were chiefly from the Westward in the northern and eastern parts of the United Kingdom, but rather variable in the west and south-west. Gales were frequent on our extreme western and northern coasts, the number being as large as 14 at Mullaghmore, 12 at Roches Point, and 11 at Donaghadee. At the Channel Stations there were not more than two or three gales, and on some parts of our east coasts there were none.

Temperature.—*Mean at sea level* ranged from between 43° and 44° on our extreme south-west coasts to 39° as less over central Ireland and to 35 or less in the east and south-east of England, as well as in the inland parts of the north of Scotland. The actual values were below the average* in all localities excepting the north of Ireland, the deficit varying from less than a degree over the inland parts of Scotland and Ireland to between three and four degrees in the south and east of England generally, and to as much as five and a half degrees at Dungeness. *Highest* readings were observed mainly on the 30th or 31st, when the thermometer rose to between 50° and 55° in most places. *Lowest* readings occurred between the 3rd and the 6th, when severe frost was experienced very generally. Over England the lowest minima were 5° at Stamford, 7° at Llandovery, and 8° at Hillington, but in Scotland readings were observed as low as —4° at Braemar, and +2° at Fort Augustus. *Range* amounted to over 40° at several of the inland stations in Great Britain, the largest amounts being 51° at Braemar, 49° at Fort Augustus, and 47° at Stamford. *Vapour Tension* ranged from 0·25 in. and upwards on our extreme south-west coasts to 0·18 in. at several stations in England. *Relative Humidity* varied from 96 per cent. at Spurn Head, and 95 at Stornoway to 85 at Aberdeen, and to 82 at Valencia.

Rainfall exceeded the average* in Norfolk, and at several stations in the north of Scotland and the south-east of Ireland. Elsewhere there was a deficiency, the weather being relatively driest in the south of Scotland and the north-west of England, where the total fall amounted to less than half the normal. The number of rainy days was mostly large, 20 or more such occasions being recorded in portions of nearly all districts. At Wick and Belmullet there were 26 days with rain, and at Sumburgh Head 28.

Bright Sunshine was rather deficient in Ireland and also in the east and south of England, but in the western and southern parts of Great Britain the amount was in excess of the average.* The percentage of the possible duration ranged from 28 at Tenby, 25 at Pembroke, and 24 at Torquay to 9 at Braemar and Hillington, 5 at Fort Augustus and in London, and 4 at Manchester.

* The averages employed are—*Pressure* and *Temperature* for the 20 years 1871–90; *Rainfall* for the 25 years 1866–90; *Bright Sunshine* for the 10 years 1881–90.

TABLE I.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								
				Means of					Absolute Extremes.			
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.
0. SCOTLAND, N.	Sumburgh Head	ins. 29'858	+0'183	37°0	32°0	40°7	36°4	-2°9	24	5th, 6th	49	31st
	Wick	29'885	+ '166	37°2	31°7	41°5	36°6	-1°5	12	6th	50	23rd
	Stornoway	29'919	+ '237	37°9	32°8	42°1	37°5	-1°4	22	5th, 6th	50	23rd, 24th
1. SCOTLAND, E.	Nairn	29'928	+ '183	37°0	30°2	41°8	36°0	-1°6	8	6th, 7th	52	19th, 30th
	Aberdeen	29'951	+ '164	36°7	32°6	41°3	37°0	-0°8	12	6th	53	23rd
	Leith	29'963	+ '138	38°5	33°4	42°7	38°1	-1°0	13	6th	54	30th
2. ENGLAND, N.E.	Shields	29'979	+ '098	37°8	32°8	42°4	37°6	-1°0	18	6th	53	30th
	York	30°020	+ '088	35°4	30°4	41°4	35°9	-1°7	8	5th	53	23rd, 30th, 31st
	Spurn Head	29'971	+ '045	35°6	32°6	39°2	35°9	-2°2	25	2nd	49	31st
3. ENGLAND, E.	Yarmouth	30°016	+ '037	34°5	30°3	38°1	34°2	-3°5	20	3rd, 4th	51	31st
	Cambridge	30°062	+ '069	33°3	28°2	40°2	34°2	-3°3	10	5th	55	31st
4. MIDLAND COUNTIES	Loughborough	30°060	+ '093	34°0	29°8	40°7	35°3	-2°4	10	5th	55	30th
	Oxford	30°076	+ '077	34°1	30°9	40°1	35°5	-2°9	13	5th	53	23rd, 31st
5. ENGLAND, S.	London	30°065	+ '059	34°7	31°1	39°5	35°3	-3°7	15	5th	52	31st
	North Foreland	30°037	+ '027	35°4	30°8	38°9	34°9	-4°3	19	4th	52	31st
	Dungeness	30°046	+ '034	33°9	29°6	38°8	34°2	-5°5	11	3rd	49	23rd
	Hurst Castle	30°083	+ '081	36°3	32°6	41°0	36°8	-3°9	20	2nd	48	23rd, 29th, 30th
6. SCOTLAND, W.	Ardrossan	29'979	+ '141	38°1	33°5	42°3	37°9	-2°4	21	6th	50	23rd
7. ENGLAND, N.W.	Hawes Junction*	28'750	?	32°5	28°6	37°2	32°9	?	12	5th	47	23rd, 30th
	Liverpool	30°049	+ '125	36°7	33°3	41°2	37°3	-2°1	18	5th	52	31st
	Holyhead	30°031	+ '129	39°8	37°2	43°2	40°2	-2°0	29	2nd, 3rd, 4th, 5th	50	18th, 23rd, 31st
8. ENGLAND, S.W.	Pembroke	30°046	+ '110	40°5	37°4	43°4	40°4	-2°2	24	2nd	49	23rd, 30th, 31st
	Prawle Point	30°073	+ '067	38°6	34°7	44°1	39°4	-2°5	22	2nd, 3rd	51	18th, 23rd
9. IRELAND, N.	Malin Head	29'970	+ '155	40°7	38°3	43°4	40°9	+0°6	30	2nd, 3rd	52	30th
	Donaghadee	30°016	+ '160	40°3	36°8	44°4	40°6	+0°3	23	3rd	52	23rd
	Mullaghmore	30°010	+ '193	41°2	37°5	44°6	41°1	-1°0	24	3rd	54	30th
	Belmullet	30°017	+ '197	41°7	38°1	44°8	41°5	-1°4	25	3rd	50	19th, 20th, 22nd, 23rd, 29th, 30th
10. IRELAND, S.	Parsonstown	30°047	+ '152	37°5	32°9	44°1	38°5	-1°4	15	3rd, 4th	53	30th
	Valencia (Cahiroiveen)	30°051	+ '164	44°1	39°3	48°1	43°7	-1°3	29	4th	53	29th, 30th
	Roche's Point	30°052	+ '144	42°5	38°1	46°7	42°4	-1°2	26	3rd	52	23rd, 29th
CHANNEL ISLANDS	Scilly (St. Mary's)	30°039	+ '070	45°4	40°5	47°7	44°1	-1°8	30	3rd	53	8th, 30th, 31st
	Jersey	30°089	+ '067	40°2	36°0	44°9	40°5	-1°6	20	2nd, 3rd	52	29th

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

SUMMARY OF OBSERVATIONS, JANUARY 1893.

REPORTING STATIONS in the BRITISH ISLANDS during the Month of JANUARY 1893.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

(beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD	RAINFALL.				WEATHER. No. of Days of							WIND. No. of Observations of								
			Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
0.195	89	8.5	4.29	+0.57	0.59	26th	28	3	0	0	0	19	3	8	2	0	2	3	2	5	3	6
.200	90	8.3	3.13	+1.08	0.40	26th	26	6	1	0	0	19	8	8	0	2	2	8	0	2	9	0
.215	95	8.1	2.36	-2.94	0.20	15th, 16th, 17th, 24th, 25th, 24th	23	4	1	0	4	23	4	5	0	1	4	0	4	7	7	3
.196	89	7.9	1.46	-0.53	0.22	24th	20	5	0	0	0	14	0	0	0	1	1	2	3	4	9	11
.185	85	8.2	2.90	+0.59	0.30	4th	25	14	2	0	0	17	9	1	1	4	3	4	3	7	8	0
.202	87	6.7	0.60	-1.33	0.11	16th	16	5	0	0	0	12	0	2	1	5	2	2	4	10	1	4
.201	89	7.8	1.45	-0.30	0.48	31st	17	6	1	0	0	13	1	0	4	2	2	4	6	8	4	1
.190	92	6.5	1.27	-0.60	0.31	29th	17	4	0	0	5	14	0	7	1	3	3	8	1	4	4	0
.199	95	7.6	1.16	-0.19	0.21	26th	17	7	0	0	1	14	0	2	3	3	1	5	5	6	6	0
.188	94	6.9	2.57	+0.62	0.40	26th	23	8	1	0	2	10	4	1	5	2	2	3	3	7	8	0
.176	93	7.4	1.63	+0.09	0.33	26th	20	8	0	0	3	17	0	4	3	2	3	3	5	5	6	0
.180	91	7.7	1.58	-0.46	0.48	26th	22	12	0	0	2	16	0	3	4	4	3	2	3	6	6	0
.175	88	8.2	1.88	-0.38	0.43	26th	16	10	0	0	4	23	0	3	5	3	0	3	7	6	3	1
.180	89	8.9	1.52	-0.60	0.34	9th	19	9	0	0	2	25	2	1	5	2	3	3	5	6	4	2
.180	87	8.0	2.45	?	0.80	1st	21	9	1	0	2	20	2	3	0	6	4	2	2	9	5	0
.179	91	8.2	1.55	-1.03	0.27	31st	22	6	1	0	0	16	2	5	2	2	4	3	2	5	7	0
.201	94	6.8	1.80	-1.14	0.67	9th	16	3	0	0	2	8	3	4	7	5	1	2	2	7	5	0
.213	93	6.8	0.89	-3.36	0.20	25th	19	4	0	0	4	15	6	2	6	3	1	4	2	7	3	3
.179	97	8.2	3.16	?	0.71	31st	18	6	0	0	1	22	0	2	7	3	2	2	9	3	2	1
.198	91	6.2	1.39	-0.83	0.26	31st	19	1	0	0	8	10	2	2	3	4	5	1	5	9	2	0
.224	92	7.6	1.86	-1.52	0.45	14th	19	5	0	0	0	16	2	3	2	6	2	3	5	4	5	1
.221	88	7.4	5.14	-0.61	0.52	28th	23	4	1	0	0	13	6	3	4	6	2	4	2	3	7	0
.216	93	7.3	2.36	-0.73	0.29	8th	18	4	0	0	0	14	8	4	5	6	1	1	3	6	5	0
.222	88	9.3	1.78	?	0.32	15th	25	4	1	0	0	26	6	5	1	1	3	9	4	2	6	0
.227	92	5.9	2.49	-0.49	0.58	28th	19	2	0	0	0	5	11	2	1	4	3	3	2	10	6	0
.225	88	7.2	2.28	-2.08	0.44	13th, 15th	25	3	1	0	6	15	14	2	5	2	2	4	5	8	3	0
.226	86	7.5	3.40	?	0.64	30th	26	1	0	0	3	21	1	1	3	8	3	1	7	2	6	0
.201	90	8.3	2.59	-0.53	0.43	30th	17	3	0	1	4	24	0	0	2	0	4	0	7	1	1	16
.239	82	8.4	3.49	-3.20	0.87	25th	21	1	1	0	0	20	9	2	2	8	3	4	3	2	4	3
.251	92	6.9	5.99	+0.49	1.80	7th	15	0	0	0	0	11	12	6	2	3	5	1	3	4	7	0
.258	86	7.6	3.24	-0.49	0.90	6th	20	0	2	1	0	9	8	4	3	4	4	4	3	3	6	0
.215	87	7.8	2.51	-0.70	0.45	8th	22	3	2	0	1	17	1	3	2	4	5	3	1	4	9	0

Barometer at this station is not reduced for altitude.

TABLE II.

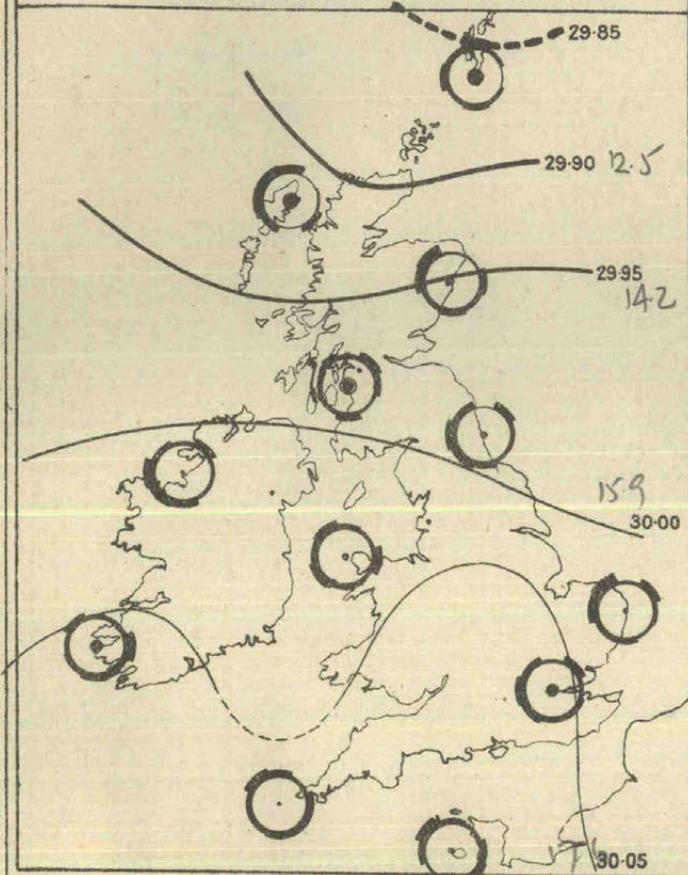
OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of JANUARY 1893.

STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	°	°	°	°	°	*	°	*	*	ins.	ins.	ins.	*	44'1	+17'1	20	°/o + 8
LAIRG	27'8	39'3	33'6	-2'6	5	4th	49	24th	23	3'11	-0'39	0'50	23rd	—	—	—	—
GLENCARRON	30'9	39'9	35'4	-1'9	14	6th	52	30th	23	10'09	+0'04	1'13	17th	—	—	—	—
FORT AUGUSTUS	31'0	41'5	36'3	-2'3	2	6th	51	30th, 31st	25	3'24	-1'39	0'61	24th	10'7	?	5	?
FORT WILLIAM	32'8	42'3	37'6	-1'8	14	6th	52	23rd, 30th	23	5'41	-4'52	1'04	23rd	24'6	?	11	?
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	*	*	40'3	-14'6	18	-6
BRAEMAR	28'4	37'6	33'0	-1'6	-4	6th	47	23rd, 24th	23	2'08	-1'02	0'19	21st	19'7	?	9	?
EDINBURGH	—	—	—	—	—	—	—	—	—	—	—	—	—	30'0	?	13	?
OCHERTYRE	30'6	41'6	36'1	-0'5	16	5th	52	22nd	19	2'25	-2'95	0'75	28th	—	—	—	—
MARCHMONT	31'3	40'0	35'7	-0'7	15	6th	49	23rd	16	2'09	-0'65	0'99	15th	28'3	?	12	?
ALNWICK CASTLE	32'8	41'8	37'3	-0'4	11	5th	53	29th	21	1'85	-0'26	0'33	17th	—	—	—	—
DURHAM	31'3	40'4	35'9	-0'9	11	6th	51	23rd	21	1'30	-0'74	0'38	31st	64'1	+21'7	27	+9
SCARBOROUGH	32'5	40'8	36'7	-1'9	10	5th	53	23rd	20	1'81	-0'13	0'37	6th	—	—	—	—
OSWALDKIRK	—	—	—	—	—	—	—	—	—	—	—	—	—	39'9	?	16	?
YORK	*	*	*	*	*	*	*	*	*	*	*	*	*	20'8	-4'8	9	-2
HILLINGTON	29'1	39'3	34'2	-2'8	8	4th	51	31st	24	2'01	+0'10	0'55	31st	38'5	-4'0	16	-1
GELDESTON	29'2	39'5	34'4	-3'8	13	4th	52	31st	25	2'08	+0'50	0'44	26th	40'7	-12'4	16	-5
CAMBRIDGE	—	—	—	—	—	—	—	—	—	—	—	—	—	38'0	-9'2	15	+4
ROTHAMSTED	29'6	39'2	34'4	-2'7	15	5th	51	31st	25	1'90	-0'72	0'31	26th	38'9	?	15	?
BAWTRY	29'4	40'8	35'1	-2'3	9	4th	54	31st	15	1'54	-0'36	0'42	31st	—	—	—	—
WORKSOP	—	—	—	—	—	—	—	—	—	—	—	—	—	33'7	-1'7	14	0
STAMFORD (KETTON HALL).	28'8	40'0	34'4	-3'0	5	5th	52	30th, 31st	20	1'45	-0'48	0'28	26th	—	—	—	—
THURCASTON	—	—	—	—	—	—	—	—	—	—	—	—	—	42'6	+10'0	17	+4
CHEADLE	30'7	39'2	35'0	-1'6	18	3rd	51	31st	23	2'35	-0'34	0'52	29th	—	—	—	—
CHURCHSTOKE	30'5	40'2	35'4	-2'5	16	4th, 5th	53	30th	18	2'03	-0'83	0'50	26th	47'6	+3'7	19	+1
HEREFORD	30'5	41'1	35'8	-2'8	13	5th	53	31st	17	1'88	-0'65	0'38	28th	—	—	—	—
CIRENCESTER	29'6	39'8	34'7	-2'8	13	3rd	52	31st	15	2'20	-0'97	0'56	30th	46'9	+2'4	19	+1
OXFORD	*	*	*	*	*	*	*	*	*	*	*	*	*	43'7	+2'4	17	+1
LONDON	*	*	*	*	*	*	*	*	*	*	*	*	*	13'1	-11'3	5	-4
MARGATE	—	—	—	—	—	—	—	—	—	—	—	—	—	28'0	?	11	?
STRATHFIELD TURGISS	29'3	38'4	33'9	-3'9	10	5th	52	23rd, 31st	21	2'30	-0'20	0'39	9th	—	—	—	—
HASTINGS	32'0	40'0	36'0	-3'9	19	3rd	50	23rd, 24th	18	1'94	-0'93	0'54	17th	39'9	-16'2	16	-6
EASTBOURNE	—	—	—	—	—	—	—	—	—	—	—	—	—	38'9	?	15	?
BRIGHTON	—	—	—	—	—	—	—	—	—	—	—	—	—	29'8	?	12	?
WESTBOURNE (SUSSEX)	—	—	—	—	—	—	—	—	—	—	—	—	—	32'9	?	13	?
SOUTHAMPTON	32'0	41'2	36'6	-3'1	18	3rd, 4th, 5th	53	23rd	15	1'70	-1'64	0'46	9th	35'1	-10'4	14	-4
STOWELL	31'1	40'1	35'6	-2'8	15	3rd	51	29th, 31st	23	2'60	?	0'51	14th	—	—	—	—
LAUDALE	32'9	43'7	38'3	-1'9	20	2nd	52	23rd	24	4'92	-4'08	0'82	25th	—	—	—	—
GLASGOW	34'0	41'4	37'7	-0'7	17	5th, 6th	50	23rd, 30th	18	1'32	-2'91	0'17	24th, 25th	32'2	+12'2	14	+5
GLENLEE	31'8	41'1	36'5	-0'7	10	5th	53	23rd	20	2'43	-3'44	0'58	25th	—	—	—	—
DOUGLAS	35'9	43'5	39'7	-0'8	24	4th	50	20th, 23rd, 24th, 29th, 31st	20	2'24	-2'47	0'51	31st	56'1	+14'3	23	+6
NEWTON REIGNY	30'6	40'2	35'4	-1'5	10	5th	49	23rd, 30th	20	1'44	-2'41	0'45	31st	28'7	-12'6	12	-5
STONYHURST	32'7	39'6	36'2	-1'6	18	5th	50	30th	18	1'76	-2'42	0'33	31st	38'1	+6'9	16	+3
BLACKPOOL	33'4	41'0	37'2	-1'0	21	5th	52	30th	14	1'08	-1'94	0'41	31st	47'7	+16'3	20	+7
MANCHESTER	32'4	40'4	36'4	-1'4	18	4th, 5th	55	31st	21	1'44	-1'80	0'25	31st	10'7	?	4	?
LLANDUDNO	35'8	42'6	39'2	-2'3	25	2nd, 4th	53	30th, 31st	19	1'47	-1'37	0'27	31st	46'6	+10'3	19	+4
LLANDOVERY	29'3	41'5	35'4	-4'9	7	3rd	52	30th, 31st	25	2'34	-3'04	0'35	26th	—	—	—	—
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	*	*	62'2	+12'8	25	+5
TENBY	—	—	—	—	—	—	—	—	—	—	—	—	—	69'5	?	28	?
ARLINGTON	31'6	40'8	36'2	-3'2	15	3rd	50	30th, 31st	20	3'37	-1'05	0'57	28th	—	—	—	—
CULMPTON	31'8	42'3	37'1	-2'7	11	3rd	54	31st	17	2'61	-0'82	0'50	28th	56'4	+20'2	22	+8
TORQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	63'1	?	24	?
NEWQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	47'8	?	18	?
FALMOUTH	38'0	45'2	41'6	-2'2	26	2nd, 3rd	53	30th	18	3'22	-2'26	0'49	30th	56'1	-9'3	21	+3
PLYMOUTH	35'7	44'3	40'0	-2'1	18	3rd	51	29th, 31st	20	2'89	-1'13	0'48	31st	51'7	+8'3	20	+3
GUERNSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	38'1	?	14	?
JERSEY	*	*	*	*	*	*	*	*	*	*	*	*	*	52'2	-15'9	19	-6
LONDONERRY	35'9	43'6	39'8	-0'2	22	4th	53	30th	23	2'77	-1'27	0'65	15th	—	—	—	—
EDENPEL (OMAGH)	34'4	41'6	38'0	-0'8	15	4th	50	23rd, 24th, 30th	23	2'86	-0'67	0'46	15th	—	—	—	—
MAKREE CASTLE	33'6	43'4	38'5	-1'1	13	3rd	53	30th	25	2'77	-0'68	0'68	15th	35'6	-6'6	15	-2
BROOKEBOROUGH	33'7	42'7	38'2	-0'2	16	2nd, 3rd, 4th	52	30th	18	2'84	-1'58	0'42	15th	—	—	—	—
ARMAGH	34'4	42'6	38'5	-0'4	21	2nd, 3rd, 4th	51	23rd, 30th	22	1'59	-1'31	0'31	15th	36'4	-5'7	15	-2
EDGEWORTHSTOWN	33'0	†	—	—	16	3rd	†	†	19	2'07	-0'92	0'42	15th	—	—	—	—
ARLEY COTTAGE (Co. CAVAN).	—	—	—	—	—	—	—	—	—	—	—	—	—	42'0	?	17	?
DUBLIN	36'9	44'7	40'8	-0'9	20	3rd	55	30th	19	2'24	+0'06	0'51	31st	49'4	-5'6	20	-2
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	*	*	39'5	-10'7	16	-4
KILKENNY CASTLE	33'7	44'1	38'9	-2'2	14	3rd	53	31st	19	3'72	+0'20	0'69	7th	—	—	—	—
WATERFORD	35'0	44'7	39'9	-2'6	17	3rd	53	23rd, 31st	17	3'81	+0'80	0'94	7th	—	—	—	—
VALENCIA (CAHIR-CIVEN).	*	*	*	*	*	*	*	*	*	*	*	*	*	45'3	-10'4	18	-4
KILLARNEY	35'5	46'7	41'1	-2'5	23	3rd, 15th	54	30th	21	4'22	?	0'96	25th	—	—	—	—
FOYNES	36'8	44'8	40'8	-1'5	19	2nd	55	30th	22	2'99	?	0'85	7th	—	—	—	—

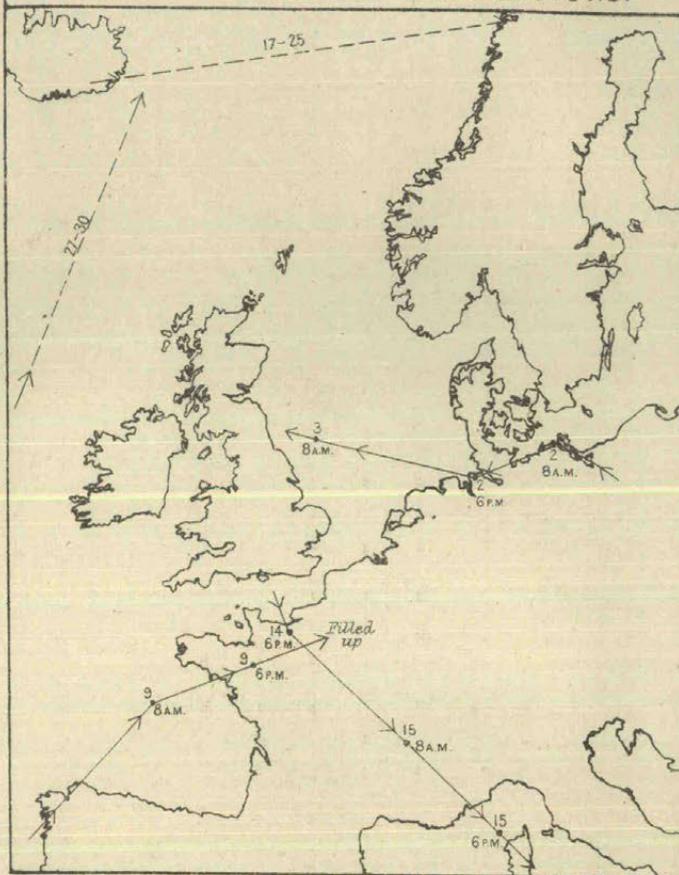
* For information, see Table I.

† Thermometer out of order.

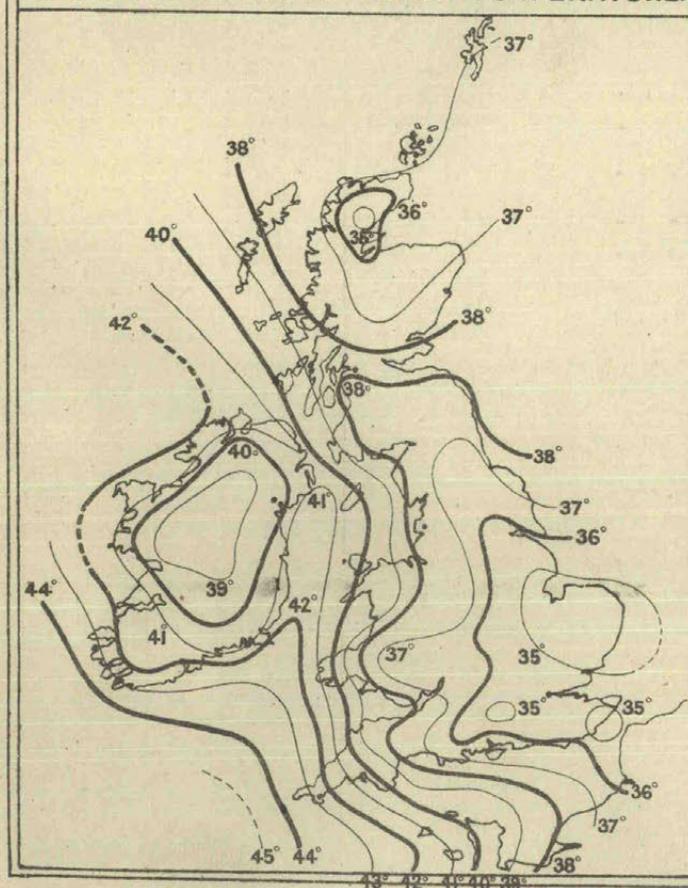
1. BAROMETER AND WIND.



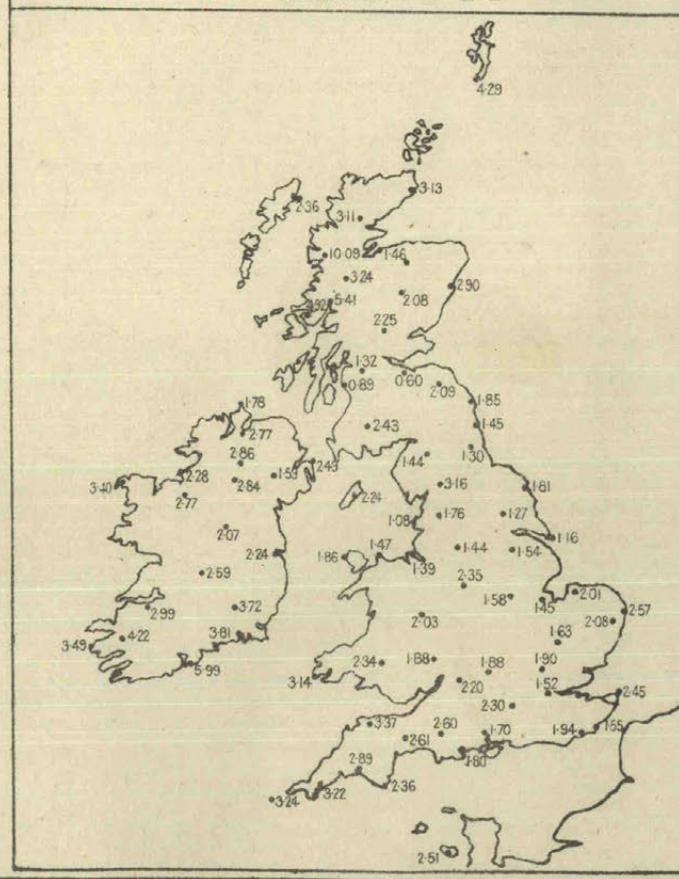
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



**SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS, for the
CALENDAR MONTH,**

FEBRUARY 1893.

(Issued as a Supplement to the Weekly Weather Report, 1893.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of February was generally rough and unsettled, with frequent falls of rain; snow or sleet occurred in many places during the latter part of the month. Pressure was everywhere low; temperature was above the average over England, but a little below it in Ireland and Scotland; the winds were chiefly Westerly or South-westerly, and often very strong in force; and rainfall was heavy, especially in the western and southern parts of England. Bright sunshine was in excess of the average, except in Wales and the north-west of England.

Pressure.—Mean for the month at 8 a.m. ranged from 29·79 ins. at Jersey and from 29·70 ins. or more in the extreme south of England, to a little below 29·45 ins. in the north of Scotland—the type of distribution being in close agreement with the normal, while the actual values were considerably below the average,* and the deficit was least (0·26 in. to 0·28 in.) in the south, and greatest (0·35 in. to 0·38 in.) in the north, the mean gradient was much steeper than usual. *Highest* readings were observed mostly on the 4th, when the barometer rose to between 30·3 ins. and 30·4 ins. over the greater part of England, and to between 30·1 ins. and 30·2 ins. in Ireland and Scotland. *Lowest* readings occurred in Scotland and the north of Ireland on the 14th, in the south of England on the 21st, and in the more central parts of the United Kingdom on the 26th, the barometer in each case falling below 28·7 ins. in the regions mentioned. The absolutely lowest readings observed at the Telegraphic Reporting Stations were 28·56 ins. at Malin Head on the 14th, and 28·60 ins. at Aberdeen and Shields either on the evening of the 26th or the early morning of the 27th. *Range* was rather large, especially over the south-eastern part of England.

Depressions were very numerous, and often of considerable depth. During the earlier half of the month they advanced, in most cases, over the northern parts of our area, and travelled eastwards to Scandinavia, or south-eastwards across the North Sea. Later on, however, the depressions appeared much further south, their centres travelling, as a rule, over the Channel or the south of England and passing away to the eastward or north-eastward; those of the 14th and 26th moved abruptly to the north-north-eastwards on reaching Great Britain.

Anticyclones.—The only anticyclone observed during the month was a large one which spread over us from the Continent on the 3rd and 4th. Two days later the system moved away to the south-eastward, and for the remainder of the time the distribution of pressure over our Islands was distinctly cyclonic.

Winds were chiefly South-westerly or Westerly, with frequent gales in most districts. At Hurst Castle the wind blew with the force of a gale on 8 days, at Donaghadee on 9 days, and at Aberdeen and Mullaghmore on as many as 10 days.

Temperature.—*Mean at Sea Level* ranged from 46° and upwards in the Channel Islands and Scilly to 41° or less over central Ireland, to about 39° on the east coast of England, and to 38° or less over the north-eastern parts of Scotland. The general distribution agreed very closely with the normal, but the actual values were a little below the average* in Ireland and Scotland and above it over England, the excess being greatest (about two degrees), at our extreme southern stations. *Highest* readings were observed in most places on the 18th or 19th, when the thermometer rose to between 55° and 60° over a considerable portion of the United Kingdom. In the northern and central parts of Scotland, however, the absolute-maxima were very little above 50°, and at Braemar the thermometer did not exceed 48°. *Lowest* readings occurred over the eastern, central, and southern parts of England on the 6th, but in other districts they were observed either on the 25th or 28th. Sharp frost was experienced very generally on one or other of these dates, the lowest readings of all being 9° at Braemar and 11° at Nairn. *Range* was moderate. *Vapour Tension* amounted to rather more than 0·25 in. on our south-west coasts, whence it decreased to 0·20 in. or less in the Shetlands and the eastern parts of Scotland. *Relative Humidity* was below 90 per cent. on our north-eastern and extreme western and south-western coasts, as well as over central England. In other localities it was greater, the highest values being 96 per cent. at Prawle Point and 95 per cent. at Stornoway.

Rainfall was in excess of the average* in all parts of the United Kingdom with the exception of the Shetlands and Hebrides. The amount of excess varied greatly in different localities, but was upon the whole greatest in the west and south of England; at Hastings the total fall was more than twice as much as the normal. The largest aggregates reported during the month were: (1 in Scotland), 8·7 ins. at Laudale, and 8·5 ins. at Fort William; (2 in Ireland), 7·2 ins. at Killarney and 6·4 ins. at Belmullet and Valencia; and (3 in England and Wales), 9·0 ins. at Hawes Junction, 6·7 ins. at Arlington, and 6·1 ins. at Llandovery. The smallest totals were 1·6 ins. at Spurn Head, 1·8 ins. at Leith, and 2·1 ins. at Durham and Stamford. More than an inch in 24 hours was reported at several stations, the largest of such amounts being 1·8 ins. at Brookeborough on the 7th and at Fort William on the 9th, and 1·7 ins. at Laudale on the 9th and at Hawes Junction on the 13th.

Bright Sunshine was rather deficient in Wales and the north-west of England, but slightly in excess of the average* elsewhere. The per-centage of the possible amount ranged from 10 at Manchester 14 at Fort Augustus, and 18 in London and at Stonyhurst, to 30 at Stornoway, Falmouth, and Guernsey, and to 32 at Jersey.

* The averages employed are—*Pressure* and *Temperature* for the 20 years, 1871–90; *Rainfall* for the 25 years, 1866–90; *Bright Sunshine* for the 10 years 1881–90.

TABLE III.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 82° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								
				Means of					Absolute Extremes.			
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.
0. SCOTLAND, N.	Sumburgh Head	ins. 29°433	ins. -0°342	38°1	34°4	42°0	38°2	-0°3	21	25th	48	6th
	Wick	29°420	-384	36°2	32°3	41°9	37°4	-1°1	18	26th	51	18th
	Stornoway	29°428	-345	38°6	33°3	45°6	38°5	-0°6	22	26th, 27h	50	18th, 19th
1. SCOTLAND, E.	Nairn	29°453	-361	36°2	30°3	43°5	36°9	-1°5	11	26th	54	18th
	Aberdeen	29°495	-353	36°3	33°2	42°9	38°1	-0°4	24	13th	55	18th
	Leith	29°514	-356	39°1	34°9	46°1	40°5	+0°5	27	24th, 25th, 26th	54	18th, 19th
2. ENGLAND, N.E.	Shields	29°543	-363	38°9	34°0	45°3	39°7	+0°2	19	27th	56	19th
	York	29°602	-337	39°1	35°0	45°4	40°2	+0°9	25	28th	57	19th
	Spurn Head	29°601	-333	38°3	34°9	42°9	38°9	-0°2	28	7th	53	19th
3. ENGLAND, E.	Yarmouth	29°659	-305	39°2	34°7	43°5	39°1	+0°5	27	6th, 7th	55	18th
	Cambridge	29°683	-296	39°1	33°5	47°3	40°4	+1°2	21	6th	59	19th
4. MIDLAND COUNTIES	Loughborough	29°653	-310	38°5	35°1	46°1	40°6	+1°0	26	6th	60	19th
	Oxford	29°694	-291	39°7	36°2	46°5	41°4	+1°4	27	6th, 7th	57	19th
5. ENGLAND, S.	London	29°711	-278	40°2	35°9	47°4	41°7	+1°2	24	6th	59	19th
	North Foreland	29°699	-281	41°3	37°1	46°1	41°6	+1°4	30	6th	55	19th
	Dungeness	29°714	-274	41°4	38°4	46°0	42°2	+1°9	32	5th, 6th	53	19th
6. SCOTLAND, W.	Hurst Castle	29°731	-255	42°4	39°2	47°2	43°2	+2°0	30	6th	51	3rd, 7th, 10th, 14th, 18th, 19th
	Ardrossan	29°526	-347	40°2	36°1	44°3	40°2	-0°3	26	25th	50	19th
7. ENGLAND, N.W.	Hawes Junction*	28°332	?	34°5	30°8	39°7	35°3	?	18	24th, 28th	52	19th
	Liverpool	29°616	-318	39°7	36°4	45°9	41°2	+0°8	29	24th	57	19th
	Holyhead	29°605	-309	41°3	38°7	45°6	42°2	+0°1	29	24th	53	19th
8. ENGLAND, S.W.	Pembroke	29°653	-284	43°0	39°9	46°1	43°0	+0°5	32	25th	50	1st
	Prawle Point	29°731	-262	42°4	39°1	47°7	43°4	+0°9	30	25th	52	3rd
9. IRELAND, N.	Malin Head	29°478	-372	40°7	37°6	44°8	41°2	-1°2	30	25th	51	19th
	Donaghadee	29°564	-320	40°3	36°8	45°4	41°1	-0°1	30	15th, 17th, 28th	51	3rd, 10th, 17th, 18th
	Mullaghmore	†29°525	-329	†41°2	†37°2	†46°9	†42°1	-0°5	†26	25th	†53	3rd, 6th, 19th
	Belmullet	29°541	-309	42°0	37°5	47°0	42°3	0°0	29	26th	53	4th, 13th, 18th
10. IRELAND, S.	Parsonstown	29°597	-309	38°8	34°5	46°6	40°6	-0°7	21	26th	56	18th
	Valencia (Cahiriveen)	29°638	-281	44°4	39°7	49°2	44°5	-0°7	27	28th	54	6th, 7th
	Roche's Point	29°646	-270	42°8	39°1	47°8	43°5	-0°5	29	28th	53	2nd
CHANNEL ISLANDS	Scilly (St. Mary's)	29°697	-262	46°8	42°6	50°0	46°3	+0°4	38	17th, 24th, 27th, 28th, 5th	53	2nd, 7th, 28th
	Jersey	29°791	-216	45°3	41°7	49°7	45°7	+2°6	34		55	18th

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

SUMMARY OF OBSERVATIONS, FEBRUARY 1893.

REPORTING STATIONS in the BRITISH ISLANDS, during the Month of FEBRUARY 1893.

Thunderstorms, and Gales are counted irrespective of the hours at which they occurred.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD.	RAINFALL.			Date.	WEATHER.							WIND.								
			Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.		No. of Days of							No. of Observations of								
							Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
ins. 0.198	% 86	7.6	ins. 2.74	ins. -0.45	ins. 0.53	9th	26	5	1	0	0	14	1	3	2	1	6	5	2	5	1	3
193	90	7.2	2.59	+0.55	0.45	10th	20	6	2	0	4	14	3	6	0	1	3	6	2	4	4	2
222	95	8.0	2.40	-1.46	0.70	10th	23	6	0	0	0	15	2	5	0	2	2	1	9	7	1	1
195	92	6.7	2.67	+1.19	0.49	7th	16	8	0	0	1	9	0	0	3	0	1	0	12	3	1	8
188	88	7.3	2.44	+0.09	0.05	26th	18	7	0	0	0	13	10	0	1	1	2	7	5	5	7	0
204	85	7.5	1.82	+0.37	0.44	26th	17	4	0	0	0	12	1	1	0	3	2	2	8	8	2	2
210	89	7.9	2.89	+1.39	1.03	26th	13	7	3	0	0	13	5	0	1	3	2	3	11	5	3	0
217	91	7.5	2.34	+0.64	0.46	26th	18	2	0	0	5	17	0	2	2	5	2	7	1	9	0	0
209	91	7.4	1.55	+0.19	0.33	26th	16	4	0	0	2	16	7	0	1	2	4	4	10	5	2	0
218	91	5.8	2.22	+0.40	0.53	21st	19	2	1	0	5	8	4	3	2	0	2	4	8	8	1	0
225	94	7.4	2.77	+1.31	0.65	21st	22	1	0	0	5	17	0	2	2	0	2	7	12	2	1	0
205	88	6.9	2.42	+0.64	0.46	15th	19	4	0	0	5	12	3	1	1	2	8	2	8	5	1	0
218	89	8.1	2.51	+0.59	0.30	2nd	22	4	0	0	4	18	0	2	2	0	5	6	7	4	1	1
222	89	7.3	2.74	+1.01	0.59	21st	21	3	2	0	5	15	6	0	2	1	2	6	9	4	2	2
234	91	6.8	3.34	?	1.35	21st	18	2	1	0	5	15	6	2	2	0	3	4	6	10	1	0
238	91	7.6	2.47	+0.52	0.45	21st	24	2	0	0	0	11	7	1	3	0	2	3	6	12	1	0
252	93	7.1	3.32	+1.07	0.59	20th	22	1	0	0	0	8	8	2	2	1	2	4	7	8	2	0
226	91	7.5	3.47	+0.43	1.01	13th	20	2	0	1	2	16	5	0	5	4	2	3	5	4	3	2
200	100	8.6	8.97	?	1.71	13th	24	7	1	0	0	21	2	0	2	3	2	6	10	4	0	1
212	87	6.4	2.84	+1.15	0.50	26th	20	2	0	0	9	14	5	0	2	3	8	2	6	6	1	0
236	92	7.4	3.15	+0.55	0.82	13th	21	0	0	0	0	13	5	0	1	3	1	8	5	5	4	1
253	91	6.6	3.84	+1.02	0.98	25th	23	0	2	1	2	8	7	1	2	3	3	5	5	6	3	0
260	96	7.4	3.87	+1.85	0.36	15th	24	1	0	0	0	13	7	0	3	3	2	1	6	12	1	0
224	88	8.0	2.63	?	0.35	13th	20	4	6	1	1	17	7	1	0	2	2	11	6	4	2	0
231	93	6.9	3.33	+0.91	0.59	13th	26	2	0	0	0	12	9	1	1	4	1	4	6	10	1	0
229	†89	†7.2	3.89	+0.80	0.85	13th	19	†2	†5	†0	†3	†10	†10	†2	†1	†3	†2	†6	†5	†7	†2	†3
223	84	6.8	6.37	?	0.74	9th	23	1	4	3	3	14	3	1	2	4	3	2	7	6	3	0
211	90	7.6	2.69	+0.49	0.57	1st	19	4	3	0	4	19	0	0	0	0	4	0	6	1	0	17
252	86	8.2	6.37	+1.42	1.16	13th	24	0	5	0	0	14	7	1	3	3	1	8	4	6	1	1
249	91	6.4	5.60	+1.17	0.70	25th, 28th	23	3	0	1	0	9	3	2	2	2	1	4	4	10	3	0
275	86	7.9	3.74	+1.03	0.47	25th	25	0	1	2	0	8	7	0	1	2	3	4	7	7	4	0
259	86	8.1	3.99	+1.44	0.61	20th	25	1	3	1	0	14	2	2	1	2	4	5	6	7	1	0

Barometer at this station is not reduced for altitude.

† Three days interpolated.

TABLE IV.

OBSERVATIONS OF TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT for the Month of FEBRUARY 1893.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centages of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	°	°	°	°	*	*	*	*	*	ins.	ins.	ins.	*	78°0	+17°6	30	+7
LAIRG	31°0	42°5	36°8	+0°1	17	26th	51	3rd	22	3°68	+0°70	1°14	14th	—	—	—	—
GLENCARRON	31°4	43°4	37°4	-0°1	16	13th	54	6th	19	8°37	+1°62	1°20	9th	—	—	—	—
FORT AUGUSTUS	32°5	43°8	38°2	-0°4	16	26th	53	18th	23	5°53	+1°80	1°30	9th	35°1	?	14	?
FORT WILLIAM	35°1	43°0	39°5	+0°3	25	13th, 25th, 26th	54	19th	18	8°47	+0°52	1°77	9th	54°3	?	21	?
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	*	*	71°1	+1°6	27	0
BRAEMAR	29°4	38°6	34°0	-1°3	9	13th	48	18th	19	3°37	+0°42	0°55	14th	52°7	?	20	?
EDINBURGH	—	—	—	—	—	—	—	—	—	—	—	—	—	63°0	?	24	?
OCHTERTYRE	32°4	43°2	37°8	+0°5	22	13th, 24th	51	18th	24	4°75	+1°01	0°73	14th	—	—	—	—
MARCHMONT	31°4	43°1	37°3	-0°2	22	24th, 25th, 26th	53	19th	21	4°05	+1°73	0°85	26th	65°0	?	25	?
ALNWICK CASTLE	†	†	†	†	†	†	†	†	21	3°38	+1°29	1°30	26th	—	—	—	—
DURHAM	33°0	43°6	38°3	+0°1	24	28th	54	19th	19	2°12	+0°52	0°54	26th	72°6	+12°0	27	+4
SCARBOROUGH	34°6	43°9	39°3	-0°2	27	24th	55	19th	19	3°19	+1°48	0°63	26th	—	—	—	—
OSWALDKIRK	—	—	—	—	—	—	—	—	—	—	—	—	—	57°8	?	22	?
YORK	*	*	*	*	*	*	*	*	*	*	*	*	*	57°3	+3°7	21	+1
HILLINGTON	34°0	44°8	39°4	+0°6	25	6th	58	19th	16	3°18	+1°38	1°05	21st	62°3	-3°2	23	-1
GELDESTON	34°6	46°1	40°4	+1°1	25	6th	57	19th	18	2°36	+0°79	0°54	21st	71°3	+1°9	26	+1
CAMBRIDGE	*	*	*	*	*	*	*	*	*	*	*	*	*	67°4	+4°4	25	+2
ROTHAMSTED	34°2	45°6	39°9	+1°3	21	6th	56	19th	23	3°51	+1°45	0°46	21st	67°7	?	25	?
BAWTRY	34°2	45°5	39°9	+0°5	24	25th	58	19th	15	2°23	+0°67	0°51	21st	—	—	—	—
WORKSOP	—	—	—	—	—	—	—	—	—	—	—	—	—	58°0	+1°9	21	0
STAMFORD (KETTON HALL).	34°4	45°8	40°1	+0°3	24	6th	59	19th	19	2°10	+0°38	0°41	21st	—	—	—	—
THURCASTON	—	—	—	—	—	—	—	—	—	—	—	—	—	53°9	+1°8	20	0
CHEADLE	33°5	43°5	38°5	+0°6	27	6th, 24th, 25th, 28th.	55	19th	25	3°21	+0°74	0°45	25th	—	—	—	—
CHURCHSTOKE	34°5	44°9	39°7	+0°6	24	25th	56	19th	23	4°16	+1°64	0°85	25th	64°8	+3°4	24	+1
HEREFORD	35°5	46°6	41°1	+0°9	27	25th, 28th	57	19th	21	2°56	+0°47	0°62	25th	—	—	—	—
CIRENCESTER	34°0	46°1	40°1	+1°4	23	6th	55	19th	22	2°77	+0°27	0°34	25th	60°0	-8°0	22	-3
OXFORD	*	*	*	*	*	*	*	*	*	*	*	*	*	66°1	+4°5	24	+2
LONDON	*	*	*	*	*	*	*	*	*	*	*	*	*	48°2	+9°3	18	+4
MARGATE	—	—	—	—	—	—	—	—	—	—	—	—	—	73°6	?	27	?
STRATHFIELD TURGISS	35°2	46°7	41°0	+1°2	20	6th	57	19th	25	3°51	+1°52	0°45	25th	—	—	—	—
HASTINGS	37°5	47°4	42°5	+1°9	32	23rd, 24th	54	8th	18	4°36	+2°32	0°80	20th	77°6	-0°1	28	0
EASTBOURNE	—	—	—	—	—	—	—	—	—	—	—	—	—	72°1	?	26	?
BRIGHTON	—	—	—	—	—	—	—	—	—	—	—	—	—	80°6	?	29	?
WESTBOURNE (SUSSEX)	—	—	—	—	—	—	—	—	—	—	—	—	—	71°6	?	26	?
SOUTHAMPTON	37°6	48°6	43°1	+1°9	28	6th	58	19th	22	3°74	+1°22	0°50	27th	74°6	+7°6	27	+3
STOWELL	36°5	46°8	41°7	+2°3	27	25th	54	19th	26	3°90	?	0°50	25th	—	—	—	—
LAUDALE	34°5	45°4	40°0	-0°3	25	27th	55	20th	25	8°72	+1°38	1°70	9th	—	—	—	—
GLASGOW	35°9	43°8	39°9	+0°7	26	28th	52	19th	18	3°80	+0°46	0°91	13th	52°2	+6°4	20	+3
GLENLEE	33°8	43°8	38°8	+0°5	17	28th	50	18th, 19th	23	6°71	+1°80	1°42	13th	—	—	—	—
DOUGLAS	37°3	44°5	40°9	0°0	26	28th	50	19th	22	5°53	+2°10	1°08	13th	60°4	-8°2	25	-2
NEWTON REIGNY	32°9	43°6	38°3	+0°9	16	28th	57	18th	22	4°55	+1°75	0°95	9th	66°8	+12°3	25	+5
STONYHURST	35°5	43°5	39°5	+0°4	24	28th	54	19th	22	5°77	+2°34	1°08	13th	47°0	-11°0	18	-4
BLACKPOOL	36°3	44°4	40°4	+0°8	29	28th	53	19th	23	4°14	+1°87	1°18	13th	49°7	-9°9	19	-3
MANCHESTER	34°9	44°9	39°9	+1°0	25	25th	58	19th	24	4°29	+2°12	0°71	13th	26°8	?	10	?
LLANDUDNO	37°7	46°6	42°2	+0°3	29	24th, 28th	59	19th	20	2°47	+0°29	0°43	25th	55°7	-8°7	21	-3
LLANDOVERY	33°9	47°7	40°8	-0°7	23	28th	58	19th	22	6°13	+2°07	0°96	9th	—	—	—	—
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	*	*	61°7	-12°2	23	-4
TENBY	—	—	—	—	—	—	—	—	—	—	—	—	—	73°6	?	27	?
ARLINGTON	35°7	45°7	40°7	+0°5	27	25th, 28th	53	19th	23	6°67	+2°57	0°82	25th	—	—	—	—
CULLOMPTON	37°1	48°5	42°8	+2°0	26	6th	55	3rd	22	4°89	+1°94	0°97	25th	67°1	+4°0	24	+1
TORQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	75°4	?	27	?
NEWQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	75°6	?	27	?
FALMOUTH	40°6	48°7	44°7	+0°6	34	25th, 28th	53	7th	24	5°52	+1°46	0°80	25th	81°9	+5°8	30	+3
PLYMOUTH	39°6	48°3	44°0	+1°1	32	25th	54	7th	22	5°73	+2°75	1°03	25th	59°5	-15°1	21	-6
GUERNSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	84°3	?	30	?
JERSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	90°3	+3°2	32	+2
LONDONDERRY	36°4	46°8	41°6	+0°4	28	23rd	55	19th	23	4°17	+1°33	0°55	13th	—	—	—	—
EDENFEL (OMAGH)	35°0	44°5	39°8	-0°2	25	25th, 28th	51	18th, 19th	17	3°00	+0°51	0°52	9th	—	—	—	—
MARKREE CASTLE	33°8	46°1	40°0	-0°7	18	25th	53	18th	23	4°08	+1°31	0°64	13th	68°3	+8°9	26	+4
BROOKEBOROUGH	34°2	45°8	40°0	+0°3	23	25th, 28th	52	18th, 19th	20	5°27	+2°18	1°76	7th	—	—	—	—
ARMAGH	35°2	45°6	40°4	+0°3	22	25th	52	18th	20	2°80	+0°49	0°54	13th	70°8	+10°4	27	+5
EDGEWORTHSTOWN	33°6	†	—	—	21	25th	†	†	18	3°27	+0°47	0°61	13th	—	—	—	—
ARLEY COTTAGE (COUNTY CAVAN).	—	—	—	—	—	—	—	—	—	—	—	—	—	62°0	?	23	?
DUBLIN	37°8	47°5	42°7	+0°2	26	25th	56	18th	22	2°67	+0°56	0°48	9th	73°9	+5°4	27	+2
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	*	*	66°6	-0°1	25	0
KILKENNY CASTLE	36°1	46°9	41°5	-0°8	21	28th	54	18th	23	3°23	+0°52	0°71	1st	—	—	—	—
WATERFORD	37°0	47°4	42°2	-1°3	22	28th	55	2nd	23	3°96	+0°42	0°73	25th	—	—	—	—
VALENCIA (CAHIR-CIVEEN).	*	*	*	*	*	*	*	*	*	*	*	*	*	59°2	-14°0	22	-5
KILLARNEY	37°1	48°6	42°8	-1°6	22	28th	56	3rd	25	7°16	?	1°16	13th	—	—	—	—
FOYNES	38°3	47°9	43°1	-0°2	26	26th	58	18th	21	4°07	?	0°51	11th	—	—	—	—

* For information see Table III.

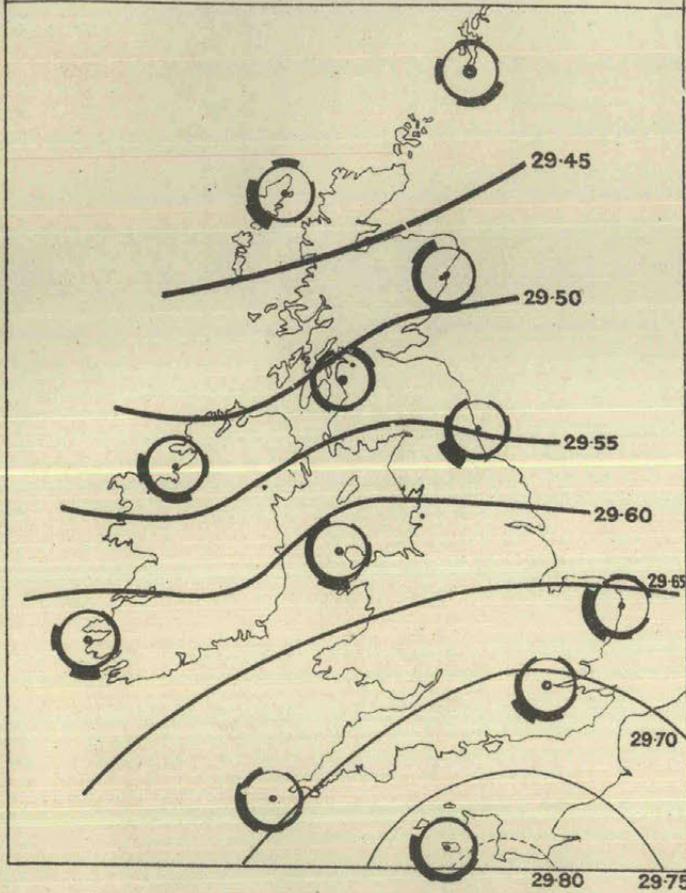
† Observations unreliable—thermometer out of order.

MONTHLY WEATHER CHART, FEBRUARY, 1893.

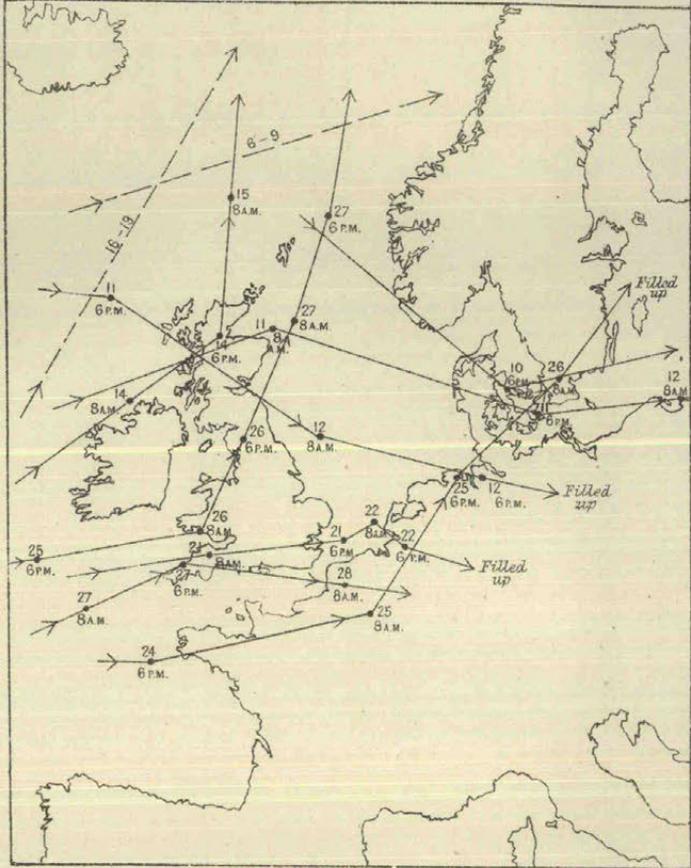
Monthly Summary.

Plate II.

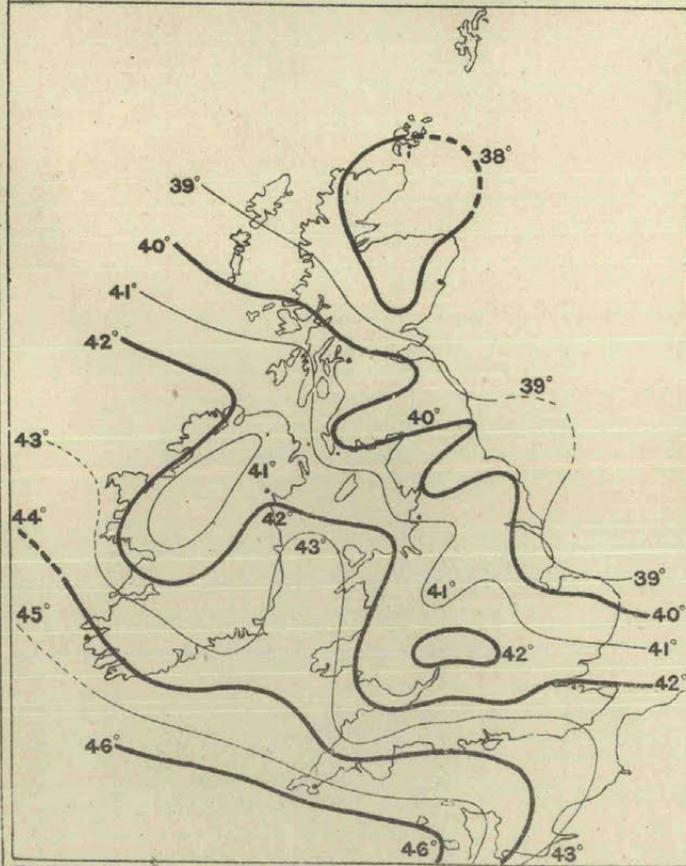
1. BAROMETER AND WIND.



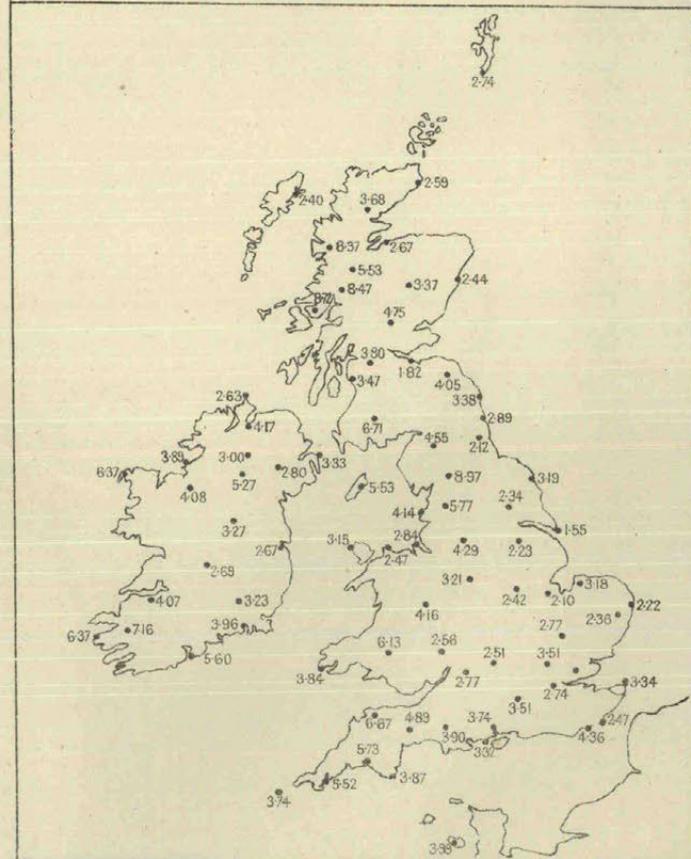
2. MOVEMENTS OF DEPRESSIONS.



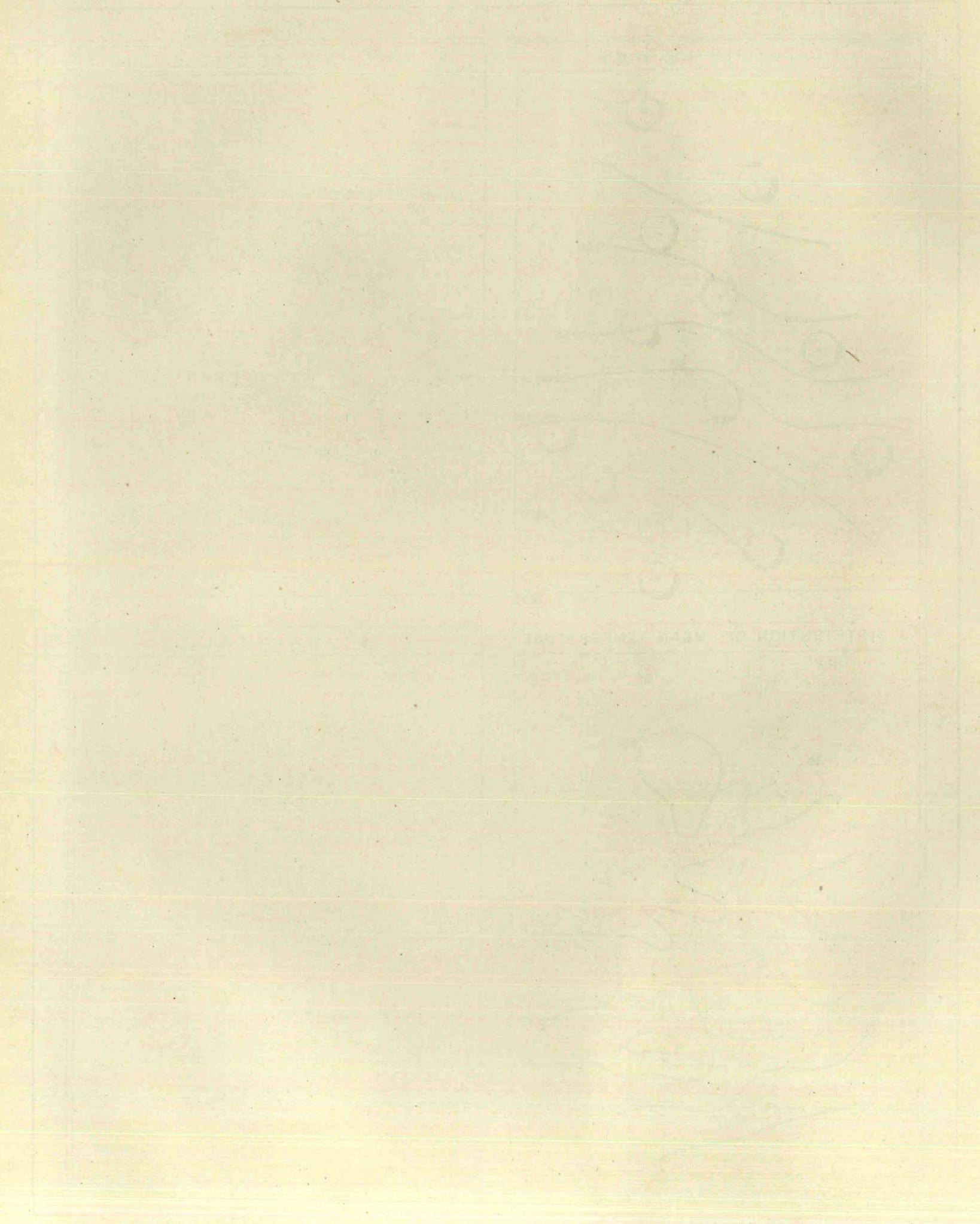
3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



THE UNIVERSITY OF CHICAGO



UNIVERSITY OF CHICAGO

**SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS, for the
CALENDAR MONTH,**

MARCH 1893.

(Issued as a Supplement to the Weekly Weather Report, 1893.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of March was exceedingly fine and dry in all but the extreme northern and north-western parts of the kingdom, where showers were rather frequent. Snow or sleet fell, however, in many places on the 16th and 17th, after which there was an almost entire absence of precipitation over the eastern, central, and southern parts of England. Pressure and temperature were in excess of the average; the winds were mainly Westerly or South-westerly; rainfall was very deficient, especially over England and the south of Ireland, and bright sunshine was unusually prevalent in nearly all parts of the kingdom.

Pressure.—*Mean for the month at 8 a.m.* ranged from between 30·15 ins. and 30·17 ins. over the greater part of the English Channel to about 30·00 ins. in the south of Scotland and extreme north of Ireland, and to 29·78 ins. in the Shetlands; the general distribution being in close agreement with the normal. The mean values were, however, above the average* in all but the extreme northern parts of the kingdom, and as the excess was greatest (about 0·2 in.) on our southern coasts, the gradient was steeper than usual, especially over Scotland. *Highest* values were recorded generally on the 25th, when the barometer rose to 30·4 ins. or more in all but the extreme northern districts. *Lowest* values were observed as a rule on the 15th or 16th; in Scotland the mercury fell to between 28·9 ins. and 29·3 ins., but in the extreme southern parts of the kingdom it did not go below 29·7 ins., similar values being recorded in the latter districts on the 1st of the month. *Range* was small (not exceeding three quarters of an inch) in the south, and moderate over the kingdom generally, but rather large (an inch and a half, or more) in the extreme north.

Depressions.—The tracks of the depressions lay as a rule well to the northward of our islands, the only well-defined system which advanced immediately over us being observed on the 1st, when a disturbance of moderate depth moved eastwards across Scotland.

Anticyclones.—Two such systems were reported. The first which was of moderate size and of short duration spread over our islands from the westward on the 5th and afterwards moved away to the south-eastward. The second advanced from the Atlantic on the 18th and remained with us until nearly the close of the month. The system was comparatively small at first but gradually increased in size until it embraced nearly the whole of Europe.

Winds were mostly from the Westward or South-westward, but on our south-west coasts they were somewhat variable,—a large per-centage of breezes from the Eastward being recorded. Gales were frequent in the north and north-west, the total number amounting to 7 at Liverpool, 8 at Mullaghmore, 9 at Stornoway, and 13 at Aberdeen. On our south-west, south, and east coasts there were, speaking generally, not more than one or two days with gales.

Temperature.—*Mean at sea level* ranged from 51° in the Channel Islands and between 48 and 50 on our extreme south-west coast, generally to between 43 and 45 on the east coasts of Great Britain, and to 43° or less in the north of Scotland. The general distribution showed a fair agreement with the normal, but the actual values were everywhere above the average,* the excess being large (3° to 5°) in most districts, but somewhat small (under 3°) on the Scotch coasts. *Highest* readings were recorded in the northern parts of the kingdom on the 24th or 25th, but in the more central and southern districts between the 29th and 31st. At many of the inland stations in England and Ireland the thermometer exceeded 65°, the highest readings of all being 71° at Llandovery and 70° at Cambridge. *Lowest* readings were observed mainly between the 17th and 19th, when sharp frost occurred in nearly all parts of Great Britain, as well as in central Ireland; at Lairg the sheltered thermometer fell to 16°, at Braemar to 17°, and at Cirencester to 19°. *Range* was large, amounting to over 40° in many parts of Great Britain, to 48° at Lairg and Llandovery, and to 49° at Loughborough. *Vapour Tension* ranged from 0·20 in. and less over central England, and 0·22 in. and less in most of the eastern and central parts of Great Britain to between 0·30 in. and 0·32 in. on our extreme south-west coasts. *Relative Humidity* varied from 76 per cent. at Aberdeen, 77 per cent. at Jersey, and 79 per cent. at Liverpool to 95 per cent. at Stornoway.

Rainfall was very deficient, the total amount being less than one quarter of the average* over a considerable portion of England, as well as in the south of Ireland, and less than one half of the normal in many other parts of the kingdom. The largest aggregates were 9·1 ins. at Glencarron, 4·4 ins. at Fort William, and 3·5 ins. at Laudale; the smallest were 0·12 in. at Roches Point, 0·18 in. at Scarborough, Oxford, and Prawle Point, and 0·23 in. at Dungeness, less than half an inch was reported at most stations situated in the central and southern parts of England, as well as in some of the southern Irish districts. In many parts of our eastern, midland, and southern counties there was no rain at all after the middle of the month.

Bright Sunshine was in excess of the average* at all stations excepting Stornoway, Markree Castle, and Valencia, the difference from the normal being in most places very considerable. More than 50 per cent. of the possible duration was recorded over the eastern, central, and southern parts of England generally, the highest values of all being 63 at Guernsey and 61 at Westbourne and Jersey. The smallest per-centage values were 17 at Fort Augustus, 24 at Markree Castle, and 25 at Stornoway.

* The averages employed are—*Pressure and Temperature* for the 20 years, 1871–90; *Rainfall* for the 25 years, 1866–90; and *Bright Sunshine* for the 10 years, 1881–90.

TABLE V.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.		Difference from Average.	AIR TEMPERATURE.							
		ins.	in.		Means of				Absolute Extremes.			
		At 8 a.m.	Minima.		Maxima.	Min. and Max. combined.	Difference Average.	Minimum.	Date.	Maximum.	Date.	
0. SCOTLAND, N.	Sumburgh Head	29'776	+0'025	40'8	36'2	45'9	41'1	+2'8	23	18th	57	25th
	Wick	29'845	+0'052	41'5	35'3	48'5	41'9	+2'5	23	18th	60	25th
	Stornoway	29'869	+0'091	42'9	36'1	47'8	42'0	+2'3	25	17th, 18th	53	23rd, 25th
1. SCOTLAND, E.	Nairn	29'898	+0'088	41'0	33'6	51'3	42'5	+2'7	23	17th, 18th	64	24th, 25th
	Aberdeen	29'937	+0'112	42'3	36'1	51'7	43'9	+4'0	26	18th	64	25th
	Leith	29'984	+0'131	40'8	34'9	52'0	43'5	+2'2	26	19th	65	25th
2. ENGLAND, N.E.	Shields	30'015	+0'135	42'0	35'6	52'2	43'9	+3'3	26	1st, 18th, 19th	64	30th
	York	30'066	+0'158	39'9	34'5	55'7	45'1	+4'0	25	19th, 20th	68	25th
	Spurn Head	30'050	+0'154	42'2	38'0	49'1	43'6	+2'9	32	18th, 19th	62	31st
3. ENGLAND, E.	Yarmouth	30'089	+0'169	42'6	37'8	49'7	43'8	+3'7	30	18th, 19th	60	31st
	Cambridge	30'136	+0'195	39'7	33'6	59'5	46'6	+5'0	23	19th	70	29th
4. MIDLAND COUNTIES	Loughborough	30'119	+0'187	38'4	33'4	58'2	45'8	+3'9	20	19th	69	24th, 25th
	Oxford	30'149	+0'198	40'0	34'9	57'1	46'0	+4'0	23	19th	67	30th
5. ENGLAND, S.	London	30'148	+0'198	42'5	35'9	56'7	46'3	+3'6	25	19th	68	29th, 31st
	North Foreland	30'127	+0'197	45'3	40'0	51'3	45'7	+4'5	32	20th	60	31st
	Dungeness	30'131	+0'193	43'8	38'3	51'6	45'0	+3'3	26	19th	58	30th
	Hurst Castle	30'159	+0'205	43'5	38'8	53'3	46'1	+3'6	30	19th, 20th	61	24th
6. SCOTLAND, W.	Ardrossan	30'001	+0'136	42'2	37'1	49'7	43'4	+2'1	29	19th	62	24th
7. ENGLAND, N.W.	Hawes Junction*	28'801	?	36'8	32'2	48'5	40'4	?	20	1st, 19th	63	24th
	Liverpool	30'093	+0'182	43'3	39'3	52'9	46'1	+4'2	31	19th	64	24th, 29th
	Holyhead	30'080	+0'173	45'3	41'4	52'4	46'9	+3'8	35	17th	64	29th
8. ENGLAND, S.W.	Pembroke	30'121	+0'192	45'5	42'5	50'4	46'5	+3'6	36	19th	57	25th, 28th
	Prawle Point	30'152	+0'187	47'3	42'0	53'8	47'9	+5'0	34	1st	62	24th
9. IRELAND, N.	Malin Head	29'971	+0'106	44'1	41'4	49'8	45'6	+3'0	32	17th	61	24th
	Donaghadee	30'053	+0'171	42'8	39'3	51'5	45'4	+3'2	30	1st	56	7th, 22nd, 23rd, 30th, 29th
	Mullaghmore	30'022	+0'150	46'0	41'8	51'6	46'7	+3'5	33	17th	63	29th
	Belmullet	30'032	+0'157	46'7	42'8	51'8	47'3	+2'4	35	16th, 17th	61	28th
10. IRELAND, S.	Parsonstown	30'075	+0'150	43'6	38'7	54'6	46'7	+4'3	25	1st	65	25th
	Valencia (Cahiriveen)	30'106	+0'181	48'8	44'0	53'8	48'9	+3'2	35	10th	63	28th, 29th
	Roche's Point	30'109	+0'182	47'1	43'2	52'2	47'7	+3'0	31	1st	56	9th
CHANNEL ISLANDS	Scilly (St. Mary's)	30'124	+0'177	49'2	45'5	53'2	49'4	+3'4	38	1st	59	30th
	Jersey	30'174	+0'213	49'0	43'4	56'6	50'0	+5'3	35	11th	66	28th

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

REPORTING STATIONS in the BRITISH ISLANDS during the Month of MARCH 1893.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.
beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD.	RAINFALL.			Date.	WEATHER, No. of Days of							WIND, No. of Observations of								
			Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.		Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
in. 0'229	91	8'5	2'51	-0'28	0'44	12th	23	2	1	0	0	22	5	3	2	0	2	4	3	10	4	3
'230	89	6'7	1'32	-0'70	0'24	15th	17	1	1	0	5	13	5	2	0	0	0	7	2	7	10	3
'263	95	8'0	1'84	-1'95	0'30	13th	17	2	1	0	2	20	9	2	1	1	1	2	6	9	3	6
'221	86	6'6	0'81	-0'87	0'13	16th	13	1	0	0	1	7	0	0	1	1	0	1	9	4	3	13
'204	76	5'3	0'68	-1'65	0'22	1st	10	2	1	0	1	7	13	1	0	1	2	6	6	10	5	0
'215	85	6'7	0'60	-0'81	0'35	1st	8	2	0	0	1	12	0	1	3	3	1	1	6	12	0	4
'227	86	6'9	0'84	-0'91	0'66	1st	7	3	1	0	2	12	2	0	1	1	2	2	12	9	4	0
'216	88	5'4	0'32	-1'41	0'09	1st	7	1	0	0	13	11	0	3	0	2	4	5	3	11	2	1
'241	89	5'4	0'29	-0'93	0'13	1st	7	1	0	0	6	9	2	2	0	2	3	5	5	10	4	0
'234	86	3'4	0'44	-1'38	0'19	1st	9	2	0	0	17	2	0	1	1	4	2	2	3	11	5	2
'212	87	4'8	0'34	-1'06	0'18	1st	6	1	0	0	12	10	0	2	0	2	3	2	12	6	4	0
'199	86	6'0	0'30	-1'34	0'11	1st	7	3	0	0	7	10	1	1	2	1	4	1	4	7	3	8
'213	86	4'8	0'18	-1'41	0'11	1st	5	1	0	0	17	12	0	0	4	2	1	6	4	8	2	4
'220	82	5'3	0'39	-1'10	0'18	1st	8	1	1	0	12	11	1	0	0	6	3	2	10	7	2	1
'242	80	2'9	0'36	?	0'14	1st	6	1	0	0	20	7	3	2	1	7	1	2	3	12	3	0
'254	89	6'5	0'23	-1'60	0'14	1st	6	1	0	0	1	7	2	4	2	6	0	1	5	7	3	3
'250	88	4'9	0'66	-1'17	0'27	1st	7	0	0	0	8	4	1	1	8	6	1	1	4	7	3	0
'241	89	6'5	1'34	-1'10	0'35	1st	14	3	1	0	7	15	1	2	8	3	0	3	7	5	2	1
'202	93	5'7	2'72	?	1'62	1st	8	3	0	0	6	15	0	3	1	5	8	3	6	3	2	0
'222	79	4'7	0'55	-1'17	0'17	2nd	9	0	0	0	13	7	7	0	0	7	7	4	2	9	2	0
'265	85	5'3	0'73	-1'54	0'22	2nd	8	0	1	0	7	10	0	1	1	1	1	4	7	6	2	8
'280	92	4'6	0'47	-1'93	0'12	3rd	11	0	0	0	7	3	2	3	2	9	1	3	3	5	5	0
'283	88	4'5	0'18	-1'77	0'06	16th	7	0	0	0	7	4	2	3	5	6	3	2	4	4	4	0
'251	86	7'7	1'33	?	0'37	1st	16	1	1	1	1	19	5	2	1	0	5	8	5	6	4	0
'257	94	6'6	0'74	-1'31	0'15	31st	13	2	0	0	2	11	4	1	3	1	3	1	5	15	2	0
'267	87	7'6	1'12	-1'75	0'30	2nd	13	1	2	1	2	14	8	2	1	1	3	5	9	7	2	1
'277	87	6'7	1'80	?	0'30	1st	16	0	0	0	2	15	1	1	1	3	4	4	9	4	5	0
'257	90	7'0	0'61	-1'72	0'17	2nd	10	0	1	0	5	18	0	0	0	0	6	0	9	1	1	14
'305	88	7'7	1'23	-2'97	0'25	24th	17	0	0	0	2	19	2	1	0	1	8	6	2	3	4	6
'281	87	5'7	0'12	-3'59	0'05	3rd	5	0	0	0	0	6	1	5	0	1	5	3	5	4	8	0
'317	91	6'4	0'34	-2'06	0'08	2nd	7	0	0	0	1	4	2	3	2	7	4	5	2	2	6	0
'268	77	4'5	0'61	-1'72	0'23	6th	12	0	0	0	14	9	0	1	3	9	2	2	3	5	4	2

barometer at this station is not reduced for altitude.

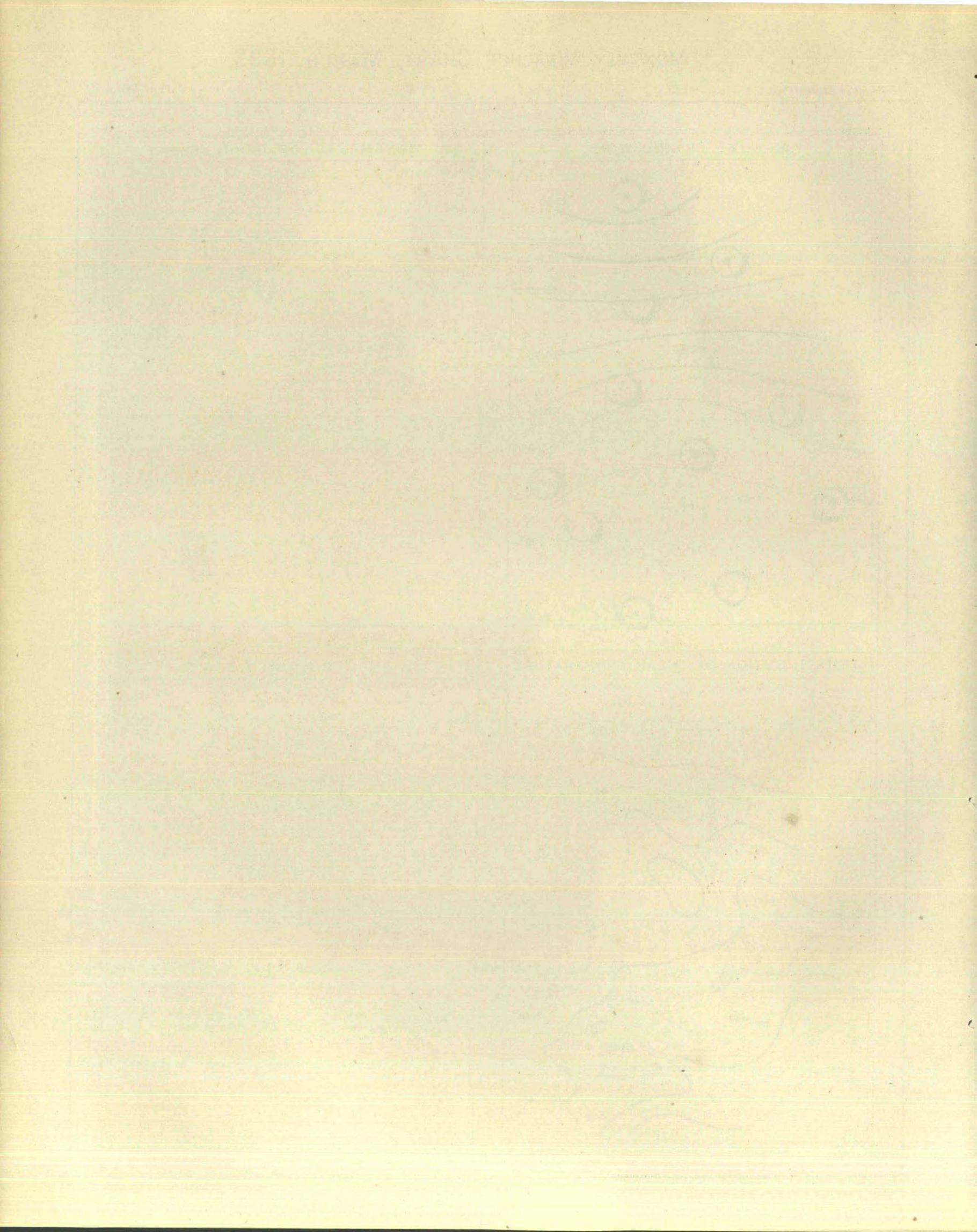
TABLE VI.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT for the Month of MARCH 1893.

STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Percentage possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	°	°	°	°	°	°	°	°	ins.	ins.	ins.	°	91'6	-7'0	25	0	2
LAIRG	33'0	49'7	41'4	+3'1	16	16th	64	23rd, 25th	19	2'32	-0'64	0'48	14th	—	—	—	—
GLENCARRON	34'6	48'3	41'5	+3'0	21	17th, 19th	64	29th	20	9'14	+2'89	1'98	14th	—	—	—	—
FORT AUGUSTUS	35'2	49'9	42'6	+3'0	23	18th	64	24th	19	2'23	-0'74	0'51	14th	62'6	?	17	?
FORT WILLIAM	37'8	49'6	43'7	+3'2	26	19th	59	24th, 28th, 30th	20	4'44	-1'65	0'57	11th	107'4	?	30	?
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	*	*	178'7	+67'1	49	+18
BRAEMAR	30'9	48'0	39'5	+3'0	17	19th	61	25th	9	0'57	-1'92	0'16	9th	167'7	?	46	?
EDINBURGH	—	—	—	—	—	—	—	—	—	—	—	—	—	137'1	?	38	?
OCHTERTYRE	34'1	53'3	43'7	+4'3	22	18th	65	24th, 25th	10	0'91	-1'88	0'30	15th	—	—	—	—
MARCHMONT	35'0	51'1	43'1	+4'1	23	19th	67	24th	9	0'95	-1'52	0'36	1st	159'8	?	44	?
ALNWICK CASTLE	†	†	†	†	†	†	†	†	8	0'70	-1'65	0'48	1st	—	—	—	—
DURHAM	35'0	53'8	44'4	+4'3	22	19th	67	24th	9	0'43	-1'73	0'24	1st	166'3	+62'0	46	+17
SCARBOROUGH	37'4	51'3	44'4	+3'4	29	17th, 18th	62	12th, 21st, 22nd, 23rd.	5	0'18	-1'71	0'09	3rd	—	—	—	—
OSWALDKIRK	*	*	*	*	*	*	*	*	*	*	*	*	*	179'5	?	49	?
YORK	*	*	*	*	*	*	*	*	*	*	*	*	*	152'9	+54'4	42	+15
HILLINGTON	33'9	56'0	45'0	+3'6	25	20th	67	30th	5	0'27	-1'39	0'09	1st	169'0	+62'5	46	+17
GELDESTON	33'6	54'8	44'2	+2'6	25	26th, 30th	68	31st	6	0'27	-1'30	0'19	1st	192'7	+68'6	53	+19
CAMBRIDGE	*	*	*	*	*	*	*	*	*	*	*	*	*	208'1	+90'0	57	+25
ROTHAMSTED	33'5	55'7	44'6	+3'7	23	19th, 20th	66	30th, 31st	7	0'35	-1'38	0'11	1st, 3rd	198'5	?	55	?
BAWTRY	34'1	56'6	45'4	+4'2	22	18th, 28th	68	25th	6	0'33	-1'38	0'15	1st	—	—	—	—
WORKSOP	—	—	—	—	—	—	—	—	—	—	—	—	—	163'8	+65'7	45	+18
STAMFORD (KETTON HALL).	32'1	58'0	45'1	+3'3	20	19th	67	30th	7	0'24	-1'21	0'08	1st	—	—	—	—
THURCASTON	—	—	—	—	—	—	—	—	—	—	—	—	—	182'9	+96'4	50	+26
CHEADLE	36'9	54'3	45'6	+5'6	27	19th	64	25th, 29th, 30th	11	0'78	-1'53	0'13	4th	—	—	—	—
CHURCHSTOKE	34'7	55'7	45'2	+4'8	22	19th	66	12th	8	0'51	-1'50	0'12	15th	197'6	+92'4	54	+25
HEREFORD	35'1	57'0	46'1	+3'8	22	19th	66	24th, 30th	5	0'27	-1'47	0'14	2nd	—	—	—	—
CIRENCESTER	32'6	55'5	44'1	+3'5	19	19th	64	29th, 30th, 31st	7	0'25	-1'84	0'09	2nd	181'8	+71'6	50	+20
OXFORD	*	*	*	*	*	*	*	*	*	*	*	*	*	200'6	+89'0	55	+24
LONDON	*	*	*	*	*	*	*	*	*	*	*	*	*	132'5	+47'4	30	+13
MARGATE	—	—	—	—	—	—	—	—	—	—	—	—	—	195'8	?	54	?
STRATHFIELD TURGISS	33'6	57'3	45'5	+3'4	21	19th	67	29th, 30th	9	0'37	-1'19	0'11	1st	—	—	—	—
HASTINGS	39'9	53'2	46'6	+3'8	30	19th	62	24th	6	0'38	-1'56	0'13	1st	20'76	+71'9	57	+20
EASTBOURNE	—	—	—	—	—	—	—	—	—	—	—	—	—	212'8	?	58	?
BRIGHTON	—	—	—	—	—	—	—	—	—	—	—	—	—	193'8	?	53	?
WESTBOURNE (SUSSEX)	—	—	—	—	—	—	—	—	—	—	—	—	—	223'7	?	61	?
SOUTHAMPTON	37'0	57'4	47'2	+4'0	26	19th	66	30th	5	0'26	-1'76	0'09	3rd	209'2	+83'0	57	+22
STOWELL	37'3	54'5	45'9	+4'3	27	19th, 20th	64	30th	10	0'69	?	0'17	1st	—	—	—	—
LAUDALE	38'4	51'5	45'0	+3'9	27	18th	60	23rd, 24th, 26th, 29th.	21	3'47	-3'12	0'49	31st	—	—	—	—
GLASGOW	37'2	49'6	43'4	+3'1	28	19th	61	24th, 25th	9	1'40	-1'08	0'35	1st	102'6	+21'9	28	+6
GLENLEE	33'4	51'9	42'7	+3'3	20	19th	64	26th	13	2'71	-1'20	0'96	1st	—	—	—	—
DOUGLAS	37'8	51'4	44'6	+3'0	29	19th	60	25th	11	1'05	-1'80	0'41	3rd	175'2	+54'8	48	+15
NEWTON REIGNY	34'5	52'5	43'5	+4'1	23	1st, 19th	66	24th	8	1'67	-0'55	0'93	1st	170'9	+70'5	47	+19
SPONHURST	37'1	50'8	44'0	+3'4	25	19th	61	24th, 29th	14	1'70	-1'74	0'52	1st	162'1	+64'6	45	+18
BLACKPOOL	38'6	51'2	44'9	+3'8	28	19th	64	24th, 29th	8	0'79	-1'46	0'27	3rd	145'8	+52'2	40	+14
MANCHESTER	37'9	54'3	46'1	+5'1	27	19th	66	12th, 25th	11	0'70	-1'76	0'20	3rd	135'4	?	37	?
LLANDUDNO	40'8	53'1	47'0	+3'9	31	19th	68	29th	7	0'77	-1'22	0'20	2nd	155'4	+64'2	43	+18
LLANDOVERY	34'3	58'2	46'3	+3'6	23	19th	71	29th	10	0'80	-2'80	0'27	3rd	—	—	—	—
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	*	*	173'7	+43'9	48	+12
TENBY	—	—	—	—	—	—	—	—	—	—	—	—	—	186'8	?	51	?
ARLINGTON	38'0	54'2	46'1	+4'7	29	11th	64	25th, 30th	9	0'92	-2'62	0'19	3rd	—	—	—	—
CULLOMPTON	35'8	56'2	46'0	+3'4	25	20th	67	30th	7	0'44	-2'03	0'16	16th	194'6	+75'4	53	+20
TORQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	210'4	?	58	?
NEWQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	192'2	?	53	?
PALMOUTH	42'7	52'3	47'5	+3'1	37	11th, 19th	58	31st	7	0'54	-2'87	0'34	1st	208'6	+78'8	57	+21
PLYMOUTH	40'7	54'5	47'6	+3'4	33	11th	63	24th, 25th	8	0'26	-2'37	0'09	3rd	208'4	+77'0	57	+21
GUERNSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	228'1	?	63	?
JERSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	221'9	+72'8	61	+20
LONDONDERRY	40'0	53'0	46'5	+4'0	32	17th	65	29th	17	2'14	-0'63	0'42	1st	—	—	—	—
EDENFEL (OMAGH)	38'5	52'1	45'3	+4'2	30	14th, 17th	65	23rd	17	1'71	-0'67	0'65	1st	—	—	—	—
MARREE CASTLE	38'5	53'1	45'8	+3'8	29	14th	64	29th	16	1'55	-0'94	0'35	16th	87'6	-13'7	24	-4
BROCKBOROUGH	38'1	52'9	45'5	+4'7	30	14th	66	29th	14	1'43	-1'39	0'40	2nd	—	—	—	—
ARMAGH	37'5	52'9	45'2	+4'0	30	17th	62	25th	11	1'00	-1'10	0'27	2nd	120'9	+27'8	33	+7
EDGEWORTHSTOWN	38'0	53'3	45'7	+4'6	31	17th	65	25th	14	1'01	-1'80	0'22	2nd	—	—	—	—
ABLEY COTTAGE (COUNTY CAVAN).	—	—	—	—	—	—	—	—	—	—	—	—	—	117'0	?	32	?
DUBLIN	41'5	54'6	48'1	+4'6	34	17th	65	29th	8	0'29	-1'82	0'10	2nd	158'2	+43'3	43	+11
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	*	*	122'9	+9'3	34	+3
KILKENNY CASTLE	38'5	54'6	46'6	+3'4	30	1st, 11th, 27th	62	23rd, 25th	10	0'38	-1'80	0'10	17th	—	—	—	—
WATERFORD	39'0	53'5	46'3	+3'1	29	27th	58	7th, 23rd, 25th, 26th, 30th.	7	0'56	-2'45	0'18	31st	—	—	—	—
VALENCIA (CAHIR-CIVIL).	*	*	*	*	*	*	*	*	*	*	*	*	*	112'7	-19'9	31	-5
KILLARNEY	42'8	54'9	48'0	+4'4	32	10th	65	29th	9	0'68	?	0'17	31st	—	—	—	—
FOXNES	42'3	53'9	48'1	+4'5	33	10th	65	29th	9	0'44	?	0'12	31st	—	—	—	—

* For information see Table V.

† Observations unreliable; thermometer out of order.



E R R A T A.

WEEKLY WEATHER REPORT, 1893.—MONTHLY SUMMARY FOR JANUARY.

Mean maximum temperature at Waterford	-	-	-	-	For 44°·7 read 45°·0.
Mean temperature	"	-	-	-	" 39°·9 " 40°·0.
Difference from average	"	-	-	-	" -2°·6 " -2°·5.
Rainy days	"	-	-	-	" 17 " 18.
Total rainfall	"	-	-	-	" 3·81 ins. " 4·11 ins.
Difference from average	"	-	-	-	" -0·80 in. " -0·50 in.

SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS, for the
CALENDAR MONTH,

APRIL 1893.

(Issued as a Supplement to the Weekly Weather Report, 1893.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 10A, GRAFTON STREET, DUBLIN.

General Summary.—The month of April was remarkably fine, warm, and dry, especially over the southern parts of England, where the severe drought which set in early in March continued with scarcely any intermission. Pressure and temperature were considerably above the average; the winds were mainly Easterly in the south, but variable in the north; rainfall was very deficient in all but the extreme northern districts, and bright sunshine was unusually prevalent, especially over the eastern, central, and southern parts of England.

Pressure.—Mean at 8 a.m. ranged from a little above 30·2 ins. over the central and north-eastern parts of England to a little below 30·1 ins. both in the Scilly and Shetland Islands. The general distribution of pressure was in fact distinctly anticyclonic, and the actual values were considerably in excess of the average,* the difference from the normal amounting to 0·30 in. or more, in all but the extreme northern and southern parts of the Kingdom. *Highest* readings were recorded on the 8th, when the barometer exceeded 30·6 ins. in Scotland and exceeded 30·4 ins. over the whole of Ireland and England. *Lowest* readings were observed in most places on the 19th, when the barometer fell below 29·9 ins. on all but our east coasts and below 29·8 ins. at most of our western stations. In the northern parts of the kingdom, however, the lowest readings, which were in some cases below 29·7 ins., occurred either between the 1st and 2nd or between the 29th and 30th. *Range* was small, especially over the southern districts, where it amounted to less than three-quarters of an inch.

Depressions.—No depressions were observed in our immediate neighbourhood, the nearest disturbances being those which passed along to the westward of our Islands on the 18th and 19th. In the course of the month numerous depressions moved eastwards across the north of Scandinavia, while shallow systems were occasionally developed over Spain and the Bay of Biscay. The former series passed too far to the northward, and the latter were too irregular in their movements to admit of their tracks being shown on Map 2, Plate IV.

Anticyclones.—Two such systems were observed, each of considerable size and persistence. The first appeared off our south-west coasts on the 1st, and, spreading eastwards, became united with another system lying over Russia, the combined area for a time covering nearly the whole of Europe. The second was formed over the North Sea about the middle of the month, and remained over the more northern parts of our Islands and the Continent until very nearly the close of the period.

Winds were mainly Easterly in the south, but very variable over the more northern parts of the United Kingdom, and a large proportion of calms prevailed in the north of Scotland. Gales were entirely absent in most places, the only station with anything like the ordinary number being Stornoway, where there were as many as six.

Temperature.—*Mean at Sea Level* ranged from 56° at Jersey and 53° or more in the south of England generally to 46° or less on the east coasts of England and in the extreme north of Scotland, the values being above the average* in all districts. Over a considerable portion of England and Ireland the excess amounted to between 4° and 6°, while at Llandoverly and Arlington it exceeded 7°. The general distribution was quite abnormal, the leading feature of interest (shown very clearly in Map 3, Plate IV.) being the marked difference existing between the values recorded at coast and at inland stations in the eastern parts of Great Britain. *Highest* readings were observed mostly between the 20th and 22nd or on the 24th, and were unusual for the time of year; at several of the English stations the thermometer rose to 80° or more, and at Cambridge it reached 84°. *Lowest* readings occurred mainly between the 12th and 14th, when sharp frost was observed in most districts. The lowest readings of all were 21° at Stamford and 22° at Churchstoke and Cirencester. *Vapour Tension* ranged from a little below 0·24 in. in many parts of central and northern England to 0·32 in. or more on our extreme south-west coasts. *Relative Humidity* was very low, especially over England and the Channel; in London the mean value for the month was only 73 per cent., while at Jersey it did not exceed 69 per cent.

Rainfall was considerably less than the average* in nearly all parts of the kingdom, the deficiency being especially marked over the southern half of England, where the total amount was in most cases less than one-tenth of the normal quantity. At Hurst Castle and the North Foreland no rain was measured during the entire month, and in most other parts of England, with the exception of our north-western counties, the fall was considerably under half-an-inch. Over Ireland and Scotland, however, the amounts were in most cases over an inch, the largest of all being 3·5 ins. at Glencarron and 3·1 ins. at Fort William. The number of rainy days ranged from less than 5 at most of the English stations to between 15 and 19 in the north of Scotland.

Bright Sunshine was above the average in all districts, the excess being small in Ireland and Scotland, but very considerable in the greater part of England. Over a large portion of our eastern, midland, and southern counties the per-centage of the possible amount was above 60, in the Channel Islands it ranged between 70 and 72, and at Westbourne it was 74. In the northern parts of Scotland, however, the per-centage was mostly below 40, the smallest of all being 29 at Fort Augustus.

* The averages employed are—*Pressure* and *Temperature* for the 20 years, 1871–90; *Rainfall* for the 25 years, 1866–90; and *Bright Sunshine* for the 10 years, 1881–90.

TABLE VII.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								
				Means of				Absolute Extremes.				
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.
0. SCOTLAND, N.	Sumburgh Head -	ins. 30°083	+0°243	44°2	38°6	49°0	43°8	+2°4	28	17th	54	19th, 24th
	Wick -	30°111	+°263	46°0	37°5	53°8	45°7	+2°8	28	11th	68	18th
	Stornoway -	30°109	+°285	46°9	38°4	52°6	45°5	+2°4	30	16th	67	23rd
1. SCOTLAND, E.	Nairn -	30°128	+°280	46°1	37°7	56°5	47°1	+3°0	29	5th, 13th	70	23rd, 24th
	Aberdeen -	30°174	+°316	47°0	39°3	53°1	46°2	+2°5	29	9th	64	19th
	Leith -	30°179	+°316	45°7	39°4	53°7	46°6	+1°6	32	10th	61	27th
2. ENGLAND, N.E.	Shields -	30°195	+°329	45°2	38°3	51°6	45°0	+1°2	28	12th	63	3rd
	York -	30°207	+°332	44°4	37°6	61°6	49°6	+4°0	29	12th	78	24th
	Spurn Head -	30°187	+°324	45°3	40°3	50°2	45°3	+0°9	33	10th	58	14th
3. ENGLAND, E.	Yarmouth -	30°180	+°308	46°1	41°0	50°3	45°7	+1°2	36	13th, 15th	60	15th
	Cambridge -	30°200	+°320	46°5	36°6	67°2	51°9	+5°3	24	14th	84	20th
4. MIDLAND COUNTIES	Loughborough -	30°207	+°328	44°0	36°7	64°5	50°6	+4°0	24	14th	81	20th
	Oxford -	30°186	+°302	46°8	39°1	64°4	51°8	+5°3	27	14th	80	20th
5. ENGLAND, S.	London -	30°179	+°301	48°7	41°2	64°4	52°8	+4°9	31	13th	82	20th
	North Foreland -	30°153	+°283	48°3	42°9	51°9	47°4	+1°8	35	15th	61	20th
	Dungeness -	30°135	+°271	49°5	42°7	55°5	49°1	+2°8	29	13th, 15th	66	20th
	Hurst Castle -	30°148	+°277	49°9	43°6	61°4	52°5	+5°9	32	14th, 15th	74	25th
6. SCOTLAND, W.	Ardrossan -	30°160	+°303	47°4	41°0	56°2	48°6	+3°1	34	10th	71	23rd
7. ENGLAND, N.W.	Hawes Junction* -	28°938	?	41°3	34°6	55°8	45°2	?	26	12th	70	20th
	Liverpool -	30°187	+°320	48°7	42°6	59°3	51°0	+4°5	34	12th, 14th	75	21st
	Holyhead -	30°161	+°304	50°0	44°5	56°6	50°6	+3°9	37	12th	75	22nd
8. ENGLAND, S.W.	Pembroke -	30°148	+°296	49°9	45°5	57°4	51°5	+5°3	36	12th	70	22nd
	Prawle Point -	30°128	+°252	52°2	45°6	58°3	52°0	+5°7	34	13th	69	21st
9. IRELAND, N.	Malin Head -	30°143	+°303	48°2	45°3	54°1	49°7	+3°8	41	1st, 9th, 30th,	66	19th
	Donaghadee -	30°182	+°323	47°4	44°6	55°2	49°9	+4°4	40	18th	62	24th
	Belmullet -	30°166	+°331	50°5	45°9	56°1	51°0	+2°8	38	12th	71	22nd
10. IRELAND S.	Parsonstown -	30°167	+°303	47°8	41°2	60°8	51°0	+4°7	31	3rd, 13th	73	21st, 22nd
	Valencia (Cahirciveen) -	30°153	+°299	52°3	45°9	59°9	52°9	+4°5	33	13th	69	22nd
	Roche's Point -	30°164	+°313	50°4	45°7	57°2	51°5	+3°6	37	2nd, 13th	72	25th
CHANNEL ISLANDS	Scilly -	30°096	+°240	51°8	47°6	56°3	52°0	+3°6	41	12th	66	26th
	Jersey -	30°107	+°235	55°1	47°5	63°1	55°3	+6°4	36	15th	77	21st

* Hawes Junction is 1,135 feet above mean sea level, and the

SUMMARY OF OBSERVATIONS, APRIL 1893.

REPORTING STATIONS in the BRITISH ISLANDS during the Month of APRIL 1893.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

(beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD.	RAINFALL.				WEATHER. No. of Days of							WIND. No. of Observations of									
			Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.	
																							ins.
0.255	88	6.7	1.20	-0.87	0.25	2nd	17	2	0	0	0	11	1	3	2	0	2	5	3	5	5	5	5
0.267	87	6.4	0.96	-0.72	0.48	29th	12	2	2	1	8	15	1	3	0	1	1	4	0	6	10	5	5
0.290	91	6.0	1.12	-0.53	0.20	30th	19	0	1	1	5	10	6	0	3	2	1	0	8	4	2	10	10
0.271	87	5.6	1.19	-0.07	0.41	15th	12	0	0	0	5	5	0	0	1	3	1	0	6	7	1	11	11
0.241	75	6.1	0.81	-1.35	0.18	18th	14	0	2	1	0	10	0	5	3	1	3	6	7	1	4	0	0
0.249	82	7.2	1.15	-0.42	0.38	15th	9	0	2	0	2	14	0	3	4	8	2	1	3	6	1	2	2
0.251	84	5.9	0.33	-1.47	0.20	16th	7	0	2	0	6	8	0	3	3	1	4	2	5	3	6	3	3
0.238	81	4.9	0.48	-1.27	0.20	16th	7	0	0	0	14	10	0	9	3	6	1	3	1	4	2	1	1
0.263	87	6.3	0.18	-1.27	0.07	17th	3	0	0	0	5	11	0	5	4	7	3	2	2	4	3	0	0
0.262	84	3.5	0.13	-1.57	0.08	16th	5	0	0	1	17	2	0	5	7	8	3	1	0	3	1	2	2
0.245	78	5.1	0.13	-1.56	0.10	16th	3	0	0	0	10	13	0	9	4	6	4	0	4	1	2	0	0
0.234	81	6.6	0.34	-1.44	0.21	16th	4	0	0	1	4	9	0	3	6	5	2	0	0	4	4	6	6
0.243	76	4.7	0.06	-1.72	0.04	16th	3	0	0	0	14	9	0	3	16	3	1	0	1	1	1	4	4
0.251	73	4.8	0.10	-1.74	0.05	19th	4	0	0	1	14	8	0	2	7	12	2	0	2	2	1	2	2
0.282	84	4.3	0.00	?	—	—	0	0	0	1	14	11	0	3	7	9	4	1	1	2	3	0	0
0.286	81	5.2	0.01	-1.76	—	—	1	0	0	0	4	5	1	3	11	10	1	0	0	2	1	2	2
0.292	82	3.3	0.00	-1.83	—	—	0	0	0	0	11	0	0	3	14	8	1	0	0	1	1	2	2
0.279	86	4.9	1.87	-0.27	0.65	28th	8	0	0	0	9	9	0	0	14	1	0	2	4	5	1	3	3
0.222	86	3.5	0.92	?	0.39	29th	7	0	1	0	14	8	0	9	5	6	4	3	0	2	1	0	0
0.259	76	3.9	0.50	-1.05	0.28	16th	4	0	0	0	18	7	0	0	6	11	3	1	6	2	1	1	1
0.304	85	3.9	0.86	-1.04	0.48	16th	6	0	0	1	8	6	0	5	1	5	1	2	4	1	3	8	8
0.303	85	3.5	0.32	-1.62	0.14	22nd	5	0	0	0	10	3	0	5	9	7	4	1	2	0	2	0	0
0.311	80	3.5	0.79	-1.28	0.70	22nd	3	0	0	1	9	5	1	4	15	7	0	0	3	0	1	0	0
0.281	84	7.0	1.16	?	0.24	15th, 16th	7	0	2	0	4	17	0	6	2	1	6	4	6	3	2	0	0
0.293	90	6.2	1.16	-0.76	0.67	16th	7	0	1	0	3	9	0	5	5	5	3	0	2	7	3	0	0
0.297	81	7.0	1.80	?	0.31	30th	14	0	0	0	3	17	0	5	7	5	2	3	4	2	2	0	0
0.277	84	6.1	0.76	-1.28	0.43	16th	7	0	0	0	5	12	0	1	6	0	6	2	4	0	1	10	10
0.331	84	5.1	1.09	-2.74	0.35	15th	9	0	0	1	9	11	0	2	5	7	4	4	0	2	0	6	6
0.310	85	5.4	1.57	-1.67	0.65	17th	5	0	0	1	0	6	0	10	1	5	4	4	1	1	4	0	0
0.321	83	5.6	0.18	-2.00	0.10	21st	2	0	0	1	7	5	0	4	8	12	1	2	1	0	2	0	0
0.301	69	3.0	0.34	-1.74	0.33	22nd	2	0	0	0	12	2	0	1	11	12	2	0	0	1	2	1	1

barometer at this station is not reduced for altitude.

TABLE VIII.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of APRIL 1893.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centages of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	°	°	°	°	°	°	°	°	ins.	ins.	ins.	°	163'2	+ 10'9	38	+ 2	
LAIRG	35'4	56'7	46'1	+ 3'5	26	9th, 11th, 13th, 16th,	73	24th	15	1'86	-0'40	0'71	6th	—	—	—	
GLENCARRON	38'4	56'4	47'4	+ 4'5	31	11th, 12th, 17th	76	23rd	18	3'51	-0'75	0'78	2nd	—	—	—	
FORT AUGUSTUS	38'3	56'5	47'4	+ 3'4	28	12th	73	23rd	14	1'61	-0'43	0'63	6th	123'7	?	29	
FORT WILLIAM	40'6	56'3	48'5	+ 3'4	31	12th	70	22nd	14	3'12	-0'42	0'72	6th	173'7	?	41	
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	*	*	164'4	+ 21'4	39	+ 5
BRAEMAR	34'0	54'7	44'4	+ 3'5	23	9th	71	24th	10	1'26	-1'10	0'40	15th	172'5	?	41	
EDINBURGH	—	—	—	—	—	—	—	—	—	—	—	—	—	164'6	?	39	
OCHTERTYRE	36'2	59'8	48'0	+ 3'9	27	8th	74	24th	6	0'96	-1'38	0'54	15th	—	—	—	
MARCHMONT	37'9	55'7	46'8	+ 3'8	31	2nd, 12th	69	20th	12	1'28	-1'13	0'35	15th	187'8	?	45	
ALNWIJK CASTLE	38'5	51'6	45'1	+ 2'3	28	11th	60	19th	9	0'54	-1'74	0'21	16th	—	—	—	
DURHAM	36'5	57'0	46'8	+ 2'9	24	12th	72	20th	8	0'37	-1'75	0'18	16th	172'7	+ 60'0	41	+ 14
SCARBOROUGH	38'8	51'5	45'2	+ 0'6	32	7th	63	19th	6	0'61	-1'34	0'37	16th	—	—	—	
OSWALDKIRK	—	—	—	—	—	—	—	—	—	—	—	—	—	227'2	?	54	
YORK	*	*	*	*	*	*	*	*	*	*	*	*	*	240'0	+ 111'4	57	+ 26
HILLINGTON	37'4	60'8	49'1	+ 3'2	25	14th	77	21st	3	0'11	-1'64	0'09	16th	244'3	+ 98'3	59	+ 24
GILDESTON	36'8	57'2	47'0	+ 1'3	27	4th	70	20th	3	0'11	-1'41	0'07	16th	234'1	+ 70'7	57	+ 17
CAMBRIDGE	*	*	*	*	*	*	*	*	*	*	*	*	*	265'5	+ 117'7	64	+ 28
ROTHAMSTED	36'8	63'1	50'0	+ 4'5	23	14th	77	20th	3	0'22	-1'91	0'08	29th	200'7	?	66	
BAWTREY	36'0	63'7	49'9	+ 3'9	26	2nd	78	20th, 24th	4	0'30	-1'38	0'18	16th	—	—	—	
WORKSOP	—	—	—	—	—	—	—	—	—	—	—	—	—	217'7	+ 95'0	52	+ 22
STAMFORD (KETTON HALL).	36'2	63'9	50'1	+ 3'4	21	14th	80	20th	4	0'43	-1'49	0'25	16th	—	—	—	
THURCASTON	—	—	—	—	—	—	—	—	—	—	—	—	—	256'6	+ 141'2	62	+ 34
CHEADLE	39'6	60'7	50'8	+ 5'7	31	14th	75	24th	4	0'53	-1'58	0'23	16th	—	—	—	
CHURCHSTOKE	36'5	60'9	48'7	+ 4'4	22	13th	76	21st	5	0'19	-1'67	0'15	16th	221'1	+ 85'4	53	+ 20
HEREFORD	39'1	62'9	51'0	+ 4'7	27	14th	79	21st	4	0'17	-1'62	0'12	16th	—	—	—	
CIRENCESTER	37'9	63'3	50'6	+ 5'4	22	14th	80	21st	2	0'07	-2'06	0'04	17th	257'6	+ 115'4	63	+ 28
OXFORD	*	*	*	*	*	*	*	*	*	*	*	*	*	255'6	+ 114'4	62	+ 28
LONDON	*	*	*	*	*	*	*	*	*	*	*	*	*	225'4	+ 101'1	55	+ 25
MARGATE	—	—	—	—	—	—	—	—	—	—	—	—	—	208'7	?	51	
STRATHFIELD TURGIS	36'2	66'7	51'5	+ 4'7	24	14th	82	20th	2	0'12	-1'72	0'09	16th	—	—	—	
HASTINGS	43'6	60'6	52'1	+ 4'7	35	13th, 14th	74	25th	1	0'02	-2'00	0'02	16th	282'3	+ 115'7	69	+ 28
EASTBOURNE	—	—	—	—	—	—	—	—	—	—	—	—	—	274'3	?	67	
BRIGHTON	—	—	—	—	—	—	—	—	—	—	—	—	—	230'7	?	68	
WESTBOURNE (SUSSEX)	—	—	—	—	—	—	—	—	—	—	—	—	—	302'3	?	74	
SOUTHAMPTON	41'9	66'5	54'2	+ 6'4	30	14th, 15th	80	25th	2	0'07	-2'06	0'04	16th	276'8	+ 114'2	67	+ 27
STOWELL	40'8	63'8	52'3	+ 6'1	28	15th	77	20th, 25th	4	0'14	?	0'09	29th	—	—	—	
LAUDALE	41'2	57'8	49'5	+ 4'0	32	12th	72	22nd	13	1'85	-2'13	0'63	15th	—	—	—	
GLASGOW	40'6	56'5	48'6	+ 3'9	33	4th	70	24th	8	1'37	-0'82	0'45	15th	180'1	+ 53'6	43	+ 13
GLENLEA	36'4	60'5	48'5	+ 4'7	27	2nd, 12th, 14th	75	24th	9	1'39	-1'52	0'51	17th	—	—	—	
DOUGLAS	40'6	57'2	48'9	+ 3'7	30	12th	67	20th	6	1'28	-1'06	0'53	17th	245'2	+ 67'1	59	+ 16
NEWTON REIGNY	36'9	60'3	48'6	+ 5'0	24	12th	74	24th	5	0'41	-1'47	0'24	16th	236'3	+ 95'8	56	+ 23
STONYHURST	39'7	58'2	49'0	+ 3'7	28	12th	70	24th	8	0'81	-1'59	0'24	16th	223'7	+ 87'8	54	+ 21
BLACKPOOL	41'6	59'2	50'4	+ 4'7	30	12th	72	21st	4	0'37	-1'33	0'18	16th	194'4	+ 70'3	51	+ 17
MANCHESTER	40'7	61'0	50'9	+ 5'4	33	3rd, 12th	75	20th, 21st	6	0'79	-1'19	0'25	1st	213'7	?	47	
LLANDUDNO	44'2	59'5	51'9	+ 5'0	35	13th	78	21st	5	0'87	-0'94	0'47	16th	207'3	+ 69'2	50	+ 17
LLANDOVERY	38'5	66'3	52'4	+ 7'1	23	13th	82	20th, 21st	3	0'11	-2'68	0'08	16th	—	—	—	
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	*	*	249'7	+ 66'8	61	+ 17
TENBY	—	—	—	—	—	—	—	—	—	—	—	—	—	268'1	?	65	
ARLINGTON	42'3	62'9	52'6	+ 7'5	29	13th	76	21st	3	0'20	-2'67	0'09	22nd	—	—	—	
GULLOMPTON	39'7	65'2	52'5	+ 6'1	27	15th	77	20th, 21st, 25th,	3	0'17	-2'41	0'08	29th	267'5	+ 122'1	65	+ 30
TORQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	279'2	?	68	
NEWQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	260'8	?	64	
FALMOUTH	46'4	58'1	52'3	+ 4'8	36	13th	69	25th	2	0'06	-2'97	0'03	1st	269'5	+ 96'5	66	+ 24
PLYMOUTH	45'5	61'1	53'3	+ 4'9	33	15th	73	21st, 25th	3	0'65	-1'76	0'57	22nd	275'5	+ 106'4	67	+ 26
GUERNSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	288'7	?	71	
JERSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	295'9	+ 108'3	72	+ 26
LONDONDERRY	43'0	60'0	51'5	+ 4'8	35	12th	74	24th	8	1'21	-1'08	0'24	16th	—	—	—	
EDENFEL (OMAGH)	40'3	58'2	49'3	+ 3'9	30	10th	70	22nd	7	1'59	-0'53	0'77	16th	—	—	—	
MARKREE CASTLE	40'3	58'3	49'3	+ 3'5	29	12th	70	21st	12	1'58	-0'88	0'67	16th	165'5	+ 13'8	39	+ 3
BROOKEBOROUGH	39'5	59'6	49'6	+ 4'6	30	10th	71	22nd, 24th	7	0'97	-1'57	0'44	16th	—	—	—	
ARMAGH	39'8	58'7	49'3	+ 4'1	31	4th, 14th	67	24th	11	0'94	-1'20	0'65	16th	182'4	+ 43'4	44	+ 11
EDGEWORTHSTOWN	40'1	59'7	49'9	+ 5'0	31	2nd, 13th	70	24th	6	1'00	-1'30	0'44	16th	—	—	—	
ARLEY COTTAGE (COUNTY CAVAN).	—	—	—	—	—	—	—	—	—	—	—	—	—	172'6	?	41	
DUBLIN	44'6	58'2	51'4	+ 4'4	36	14th	67	22nd	7	1'05	-0'98	0'37	17th	235'8	+ 73'7	57	+ 18
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	*	*	189'6	+ 20'7	46	+ 7
KILKENNY CASTLE	41'4	60'8	51'1	+ 4'4	28	2nd, 14th	72	21st	7	0'69	-1'46	0'30	17th	—	—	—	
WATERFORD	40'8	60'5	50'7	+ 3'1	28	14th	70	25th	4	0'62	-2'01	0'40	17th	—	—	—	
VALENCIA (CAHIR-CIVEEN).	*	*	*	*	*	*	*	*	*	*	*	*	*	208'8	+ 39'3	51	+ 10
KILLARNEY	43'0	59'9	51'5	+ 3'7	29	13th	68	21st, 25th	11	1'28	?	0'27	16th	—	—	—	
FOYNES	45'6	59'8	52'7	+ 5'6	36	2nd	71	21st	8	1'34	?	0'30	21st	—	—	—	

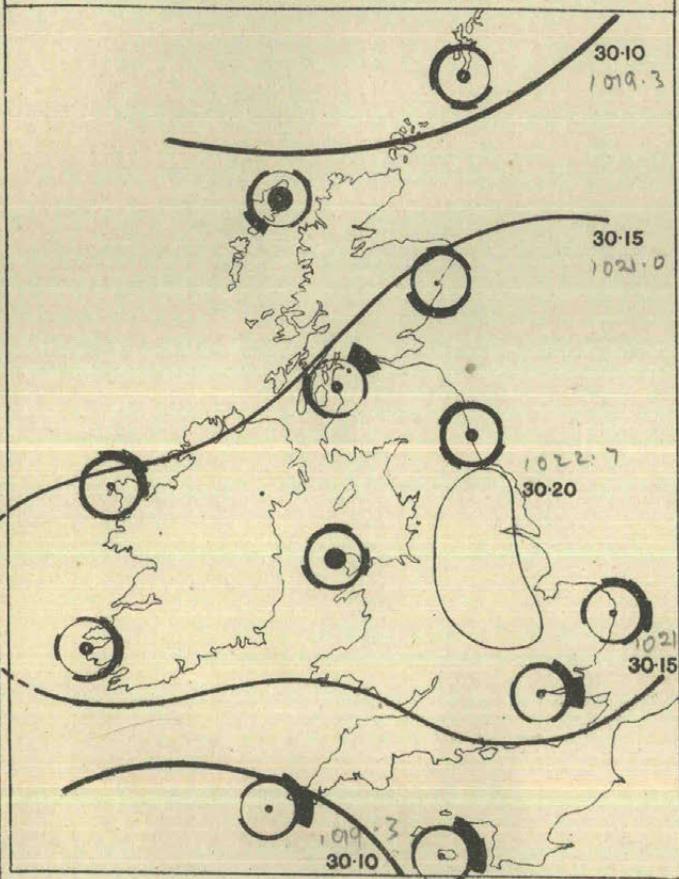
* For information see Table VII.

MONTHLY WEATHER CHART, APRIL, 1893.

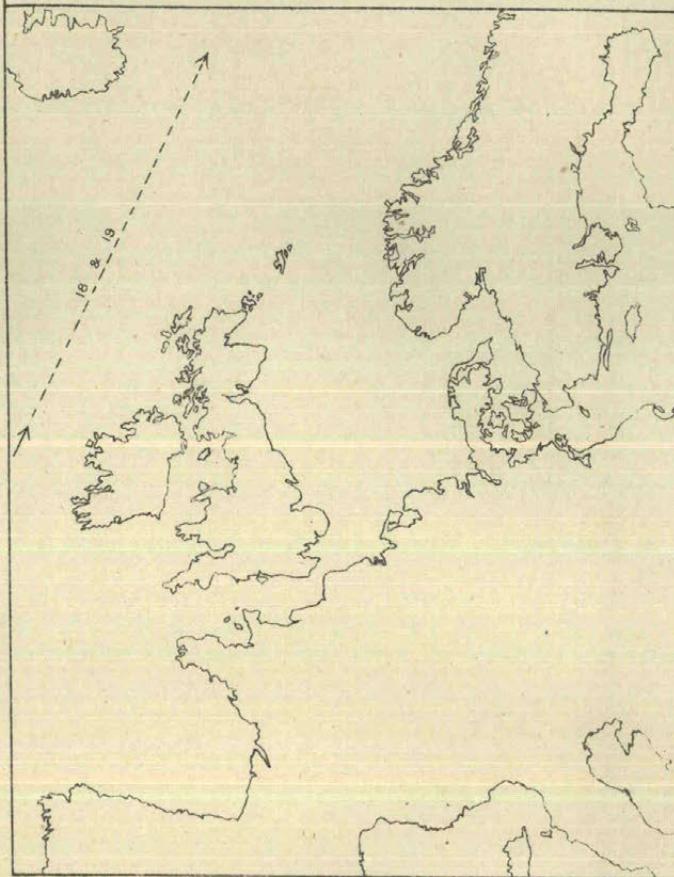
Monthly Summary.

Plate IV.

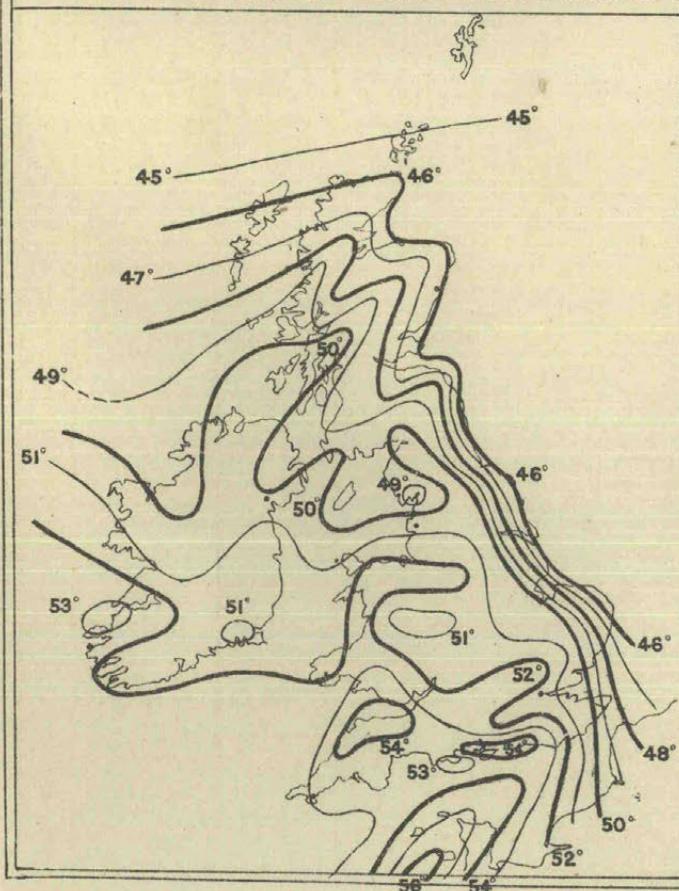
1. BAROMETER AND WIND.



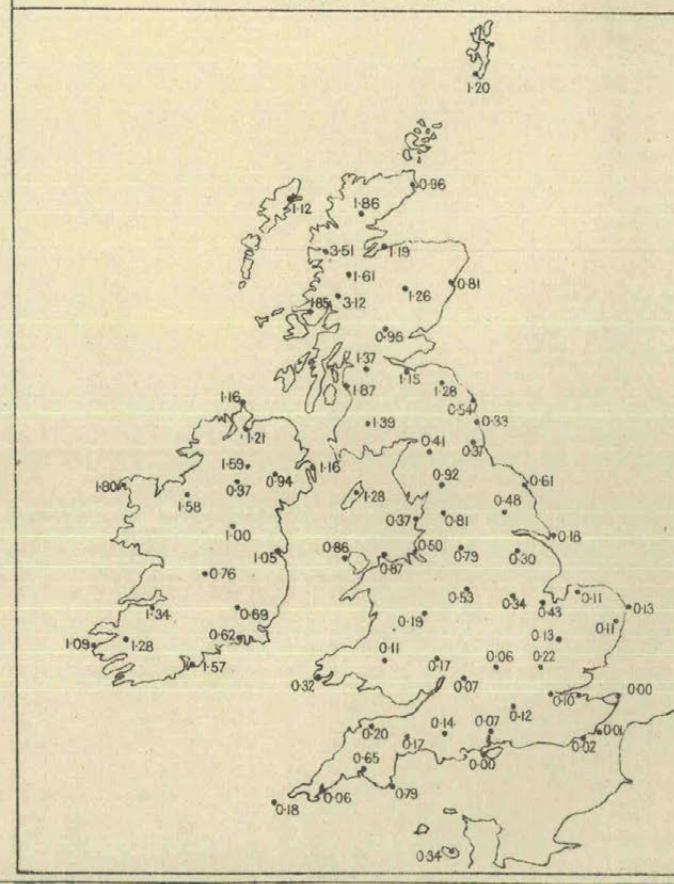
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



**SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS, for the
CALENDAR MONTH,**

MAY 1893.

(Issued as a Supplement to the Weekly Weather Report, 1893.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—During the early part of the month the weather was mostly fine and dry, especially in the southern and eastern parts of the Kingdom. After the middle of the period, however, the conditions became less settled, with decided falls of rain in most districts, and with thunderstorms in places. Pressure and temperature were above the average; the winds were variable; rainfall was fairly abundant over the central parts of England and Ireland but very deficient over our eastern and southern counties; and the amount of bright sunshine, though large in the south and south-east, was below the normal in most of the western and northern districts.

Pressure.—*Mean at 8 a.m.* ranged from between 30·05 ins. and 30·08 ins. over England, Wales, and the Channel, to a little below 30·0 ins. on our extreme north-west coasts, the general distribution showing, as in April, a marked anticyclonic tendency. The actual values were in all cases above the average,* the excess being greatest (0·10 in. to 0·14 in.) over the northern and eastern parts of Great Britain, and least (0·05 in. to 0·06 in.) in the extreme south-west of our Islands. *Highest* readings were observed as a rule between the 7th and 9th, when the barometer rose above 30·3 ins. on all but our extreme southern coasts, and above 30·5 ins. in the north-eastern parts of the United Kingdom. *Lowest* readings were recorded on the 17th or 18th, when the mercury fell to below 29·4 ins. in Ireland and below 29·6 ins. in nearly all parts of Great Britain. *Range* was moderate.

Depressions.—The only depressions observed in the immediate neighbourhood of our Islands were two systems of moderate depth which approached the Irish coast between the 18th and 20th. In each case the advance of the disturbance in a north-easterly direction was quickly checked, the system ultimately travelling away again in a north-westerly course over the Atlantic.

Anticyclones.—Two such systems were observed. The first was gradually formed over Europe on the 2nd and 3rd, and remained in existence until the 13th, its central portion being situated for the most part over Scandinavia and Northern Russia. The second, a smaller system, advanced over our Islands from the Atlantic on the 25th and remained with us until the close of the month.

Winds were very variable, and a large proportion of calms prevailed at some of the western and northern stations. An entire absence of gales was reported on many parts of our coasts, and in very few places was there more than one. At Wick, however, there were three such occurrences, and at Valencia four.

Temperature.—*Mean at sea level* ranged from 58° and upwards in the Channel Islands and some portions of the south of England, and 56° and upwards over the southern half of Ireland to 53° or less on the east coasts of Great Britain and to 48° or less in the Shetlands. The general distribution was of a more pronounced summer type than usual, and the actual values were everywhere above the average,* the excess being greatest (four to five degrees) over the central and southern parts of England and Ireland. *Highest* readings were recorded on various dates in the different districts, but mostly between the 4th and 6th, or between the 11th and 14th. At the Irish stations the thermometer did not get much above 70°, but over the inland parts of Great Britain the highest reading exceeded 75°, and at Cambridge, Strathfield Turgiss, and Llandoverly it was as high as 80°. *Lowest* readings were registered over Great Britain either on the 1st or 2nd or between the 7th and 11th, but in many parts of Ireland they occurred at the close of the month. Frost was experienced in Scotland, and absolute minima, of very little above 32°, were observed at many inland stations in Ireland and England. *Range* was large,—over 40° in many of the central districts, and as much as 48° at Bawtry and 47° at Cambridge and Strathfield Turgiss. *Vapour Tension* ranged from 0·30 in. and less in the extreme north and north-east of Scotland to 0·38 in. and more in the Scilly Islands and the south-west of Ireland. *Relative Humidity* amounted to less than 80 per cent. over the central and southern parts of England, the lowest value being 69 per cent. in London. The highest values were 90 per cent. at Stornoway and 88 per cent. at Malin Head.

Rainfall was a little in excess of the average* at some of the central stations in England and Ireland, and also at Glasgow. Elsewhere a deficiency was shown, the weather being again driest in the eastern and southern parts of England, where the total fall amounted as a rule to less than half the average. The largest aggregate amounts were 3·8 ins. at Glencarron and 3·1 ins. at Glasgow, the smallest being 0·4 in. at Dungeness, 0·5 in. in London, and 0·6 in. at Scilly and Hastings. Less than ten rainy days were reported in many parts of our eastern, central, and southern counties, but in our western districts the falls were more frequent, and in the west and north of Scotland the number ranged between 15 and 20.

Bright Sunshine was considerably less than the average* in Ireland, Scotland, and the north of England, but was in excess elsewhere. The percentage of the possible duration was above 50 at several of the Channel stations and as high as 65 at Guernsey and 62 at Jersey. The lowest values were 17 per cent. at Fort Augustus, 25 per cent. at Fort William, and 26 per cent. at Markree Castle, Armagh, and Arley Cottage (County Cavan).

* The averages employed are—*Pressure* and *Temperature* for the 20 years 1871–90; *Rainfall* for the 25 years 1866–90; *Bright Sunshine* for the 10 years 1881–90.

TABLE IX.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.									
				At 8 a.m.	Means of				Absolute Extremes.				
					Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.	
0. SCOTLAND, N.	Sumburgh Head	ins. 30°014	+0°135	48°0	42°2	52°1	47°2	+1°9	35	2nd	58	9th	
	Wick	30°010	+°109	49°8	43°3	54°9	49°1	+1°8	32	2nd, 30th	65	10th	
	Stornoway	29°972	+°086	51°5	45°2	56°6	50°9	+3°7	32	2nd	65	6th	
1. SCOTLAND, E.	Nairn	30°001	+°093	52°7	43°7	60°4	52°1	+2°8	28	2nd	72	5th	
	Aberdeen	30°045	+°127	50°8	45°2	56°4	50°8	+2°3	35	1st, 2nd	69	11th	
	Leith	30°036	+°104	52°5	45°8	60°8	53°3	+3°2	37	1st	73	28th	
2. ENGLAND, N.E.	Shields	30°057	+°114	51°3	44°9	57°4	51°2	+2°5	37	1st	67	14th	
	York	30°074	+°112	53°4	45°1	64°5	54°8	+3°9	37	11th	73	11th	
	Spurn Head	30°059	+°103	52°2	47°3	57°2	52°3	+2°6	42	4th	67	23rd	
3. ENGLAND, E.	Yarmouth	30°063	+°096	53°5	47°4	57°6	52°5	+2°3	40	1st	68	12th	
	Cambridge	30°082	+°106	55°4	44°6	68°8	56°7	+4°7	33	7th	80	15th	
4. MIDLAND COUNTIES	Loughborough	30°081	+°108	54°1	44°4	66°6	55°5	+3°3	32	11th	77	4th, 13th	
	Oxford	30°079	+°098	54°6	46°0	67°1	56°6	+4°6	37	7th, 11th	77	5th, 15th	
5. ENGLAND, S.	London	30°079	+°098	56°8	47°7	67°8	57°8	+4°4	39	31st	77	15th	
	North Foreland	30°059	+°089	55°2	48°7	60°1	54°4	+3°3	42	1st	70	25th	
	Dungeness	30°054	+°084	56°4	48°6	61°5	55°1	+3°2	40	12th, 31st	68	15th	
	Hurst Castle	30°071	+°089	56°5	50°1	64°4	57°3	+5°1	44	8th	74	26th	
6. SCOTLAND, W.	Ardrossan	30°030	+°095	52°5	46°8	59°2	53°0	+2°8	40	1st	68	9th, 14th	
7. ENGLAND, N.W.	Hawes Junction*	28°822	?	48°5	41°1	58°0	49°6	?	34	1st, 7th, 30th	70	14th	
	Liverpool	30°065	+°104	54°6	48°6	62°2	55°4	+3°9	42	8th	75	5th	
	Holyhead	30°049	+°093	54°7	49°1	60°7	54°9	+3°7	43	8th	72	5th	
8. ENGLAND, S.W.	Pembroke	30°047	+°086	54°4	49°6	59°6	54°6	+4°1	43	8th	68	5th	
	Prawle Point	30°065	+°073	55°9	49°9	60°5	55°2	+4°2	44	1st, 8th	70	10th	
9. IRELAND, N.	Malin Head	29°998	+°073	52°5	49°6	58°1	53°9	+2°7	41	1st	66	5th, 13th	
	Donaghadee	30°050	+°103	53°1	50°3	58°7	54°5	+4°4	45	1st, 2nd	67	11th	
	Belmullet	30°011	+°086	55°2	50°7	60°9	55°8	+3°7	43	1st	71	15th	
10. IRELAND, S.	Parsonstown	30°029	+°071	55°1	47°8	64°4	56°1	+5°0	39	10th, 13th, 14th, 31st.	73	5th, 13th	
	Valencia(Cahiriveen)	30°022	+°059	57°1	50°5	62°1	56°3	+4°1	43	10th	70	5th	
	Roche's Point	30°038	+°079	55°8	50°6	60°6	55°6	+3°0	46	3rd, 21st, 31st	66	26th	
CHANNEL ISLANDS	Scilly	30°025	+°051	56°4	51°7	60°4	56°1	+3°8	46	8th	65	28th	
	Jersey	30°072	+°083	58°4	50°4	64°6	57°5	+4°2	39	2nd	75	5th, 14th	

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

SUMMARY OF OBSERVATIONS, MAY 1893.

REPORTING STATIONS in the BRITISH ISLANDS during the Month of MAY 1893.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

(beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD.	RAINFALL.				WEATHER.							WIND.								
			Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Days of							No. of Observations of								
							Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
0.285	86	7.3	1.46	-0.26	0.47	10th	16	0	0	0	1	13	0	3	3	5	8	2	1	4	1	4
.305	85	7.3	1.39	-0.30	0.36	3rd	11	0	0	0	5	18	3	2	0	0	4	12	2	1	9	1
.342	90	8.3	1.51	-1.10	0.20	11th, 22nd, 23rd.	19	0	0	0	1	20	1	1	2	2	1	7	4	5	4	5
.339	85	6.2	1.03	-0.58	0.22	11th	13	0	0	0	5	9	0	0	1	5	1	0	5	4	2	13
.294	79	7.1	1.32	-0.67	0.22	11th	16	0	1	0	0	14	1	2	2	4	7	8	2	2	4	0
.314	79	8.1	1.55	-0.12	0.59	28th	11	0	0	0	1	19	0	3	5	6	1	2	5	6	1	2
.314	83	7.3	1.31	-0.38	0.38	17th	11	0	2	2	2	14	1	6	1	3	4	3	6	4	3	1
.317	78	5.8	1.91	+0.06	0.74	17th	11	0	0	1	10	12	0	4	2	4	3	7	0	7	4	0
.374	96	6.3	1.19	-0.38	0.32	20th	10	0	0	2	1	7	0	5	6	3	4	3	2	4	4	0
.331	81	3.1	0.80	-1.06	0.49	21st	8	0	0	0	17	1	0	5	8	4	1	4	1	4	4	0
.336	77	5.5	0.89	-1.01	0.35	17th	8	0	0	2	5	10	0	8	4	4	0	5	3	2	5	0
.319	76	6.3	2.40	+0.31	1.60	17th	9	0	0	3	2	8	0	1	4	4	4	1	4	8	5	0
.324	76	5.8	0.84	-1.11	0.48	17th	7	0	0	3	10	11	0	2	8	4	1	4	2	4	3	3
.321	69	6.0	0.47	-1.39	0.17	29th	8	0	0	2	8	10	0	2	3	7	0	3	8	3	5	0
.350	81	4.9	1.12	?	0.61	21st	7	0	0	1	5	8	1	3	9	2	1	5	2	2	7	0
.357	78	5.8	0.39	-1.40	0.18	21st	6	0	0	0	0	5	1	5	4	7	0	2	3	4	3	3
.363	79	3.9	0.80	-0.97	0.51	17th	6	0	0	0	3	2	2	2	7	5	2	3	5	5	2	0
.342	87	7.3	1.99	-0.35	0.75	17th	14	0	0	1	3	13	0	1	10	3	1	4	3	3	3	3
.288	85	5.5	2.84	?	0.92	17th	15	0	1	2	5	11	0	7	2	8	4	5	1	3	1	0
.322	76	5.9	1.62	-0.22	0.31	19th	14	0	0	1	9	12	0	0	4	5	6	2	3	8	2	1
.355	84	5.9	1.24	-0.66	0.53	15th	10	0	0	1	1	11	0	2	1	6	3	2	7	3	2	5
.359	85	5.9	0.76	-1.27	0.25	20th	10	0	0	0	1	8	0	3	3	8	6	3	3	3	2	0
.369	83	4.8	0.80	-0.76	0.40	16th	7	0	0	0	1	5	0	1	8	5	2	3	5	5	2	0
.347	88	8.4	1.22	?	0.33	2nd, 20th	13	0	1	0	1	24	1	2	1	1	9	7	3	4	4	0
.346	85	6.6	0.99	-1.27	0.24	17th	11	0	0	0	1	8	0	2	3	4	6	2	4	6	4	0
.368	85	7.1	2.22	?	0.55	18th	15	0	0	1	3	16	1	4	3	6	3	2	6	3	4	0
.366	84	7.3	2.82	+0.58	0.71	19th	11	0	0	1	3	17	0	0	0	9	0	6	0	1	15	
.393	84	7.7	1.79	-1.41	0.42	1st	11	0	0	0	1	16	4	2	0	5	7	4	3	3	1	6
.367	82	6.3	2.54	-0.60	1.05	16th	11	0	0	0	0	9	1	6	2	3	9	3	2	4	2	0
.382	84	6.5	0.61	-1.12	0.22	18th	7	0	0	0	2	6	0	4	5	5	3	4	4	4	2	0
.347	71	4.2	1.79	-0.08	0.91	17th	9	0	0	1	8	4	0	3	7	5	4	2	2	3	4	1

Barometer at this station is not reduced for altitude.

TABLE X.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of MAY 1893.

STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Percentage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	°	°	°	°	°	°	°	°	ins.	ins.	ins.	*	137'5	-48'8	27	27	10
LAIRG	42'8	59'0	50'9	+3'1	27	2nd	71	6th	18	1'49	-0'66	0'28	11th	—	—	—	—
GLENCARRON	44'3	59'5	51'9	+4'5	31	2nd	77	6th	18	3'84	-0'78	0'77	11th	—	—	—	—
FORT AUGUSTUS	45'4	61'1	53'3	+5'0	30	2nd	76	6th	12	1'23	-0'86	0'37	21st	84'7	?	17	?
FORT WILLIAM	46'6	59'4	53'0	+3'3	35	2nd	69	5th	15	2'73	-0'89	0'68	21st	128'4	?	25	?
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	*	*	152'5	-40'8	30	-8
BRAEMAR	41'6	58'3	50'0	+3'8	28	2nd	68	14th	12	1'07	-1'19	0'21	12th	160'3	?	32	?
EDINBURGH	—	—	—	—	—	—	—	—	—	—	—	—	—	138'3	?	28	?
OCHTERTYRE	45'1	63'2	54'2	+5'6	34	1st	76	14th	11	1'23	-1'22	0'25	18th	—	—	—	—
MARCHMONT	44'1	61'0	52'6	+4'5	34	1st	74	14th	13	1'76	-0'60	0'40	17th	159'8	?	32	?
ALNWICK CASTLE	45'3	58'0	51'7	+3'9	34	9th	66	4th	15	1'19	-0'97	0'30	16th	—	—	—	—
DURHAM	43'4	62'2	52'8	+4'1	33	10th	76	14th	12	2'33	+0'28	0'73	17th	160'4	-16'7	32	-4
SCARBOROUGH	45'8	58'1	52'0	+2'5	39	1st	69	11th	12	1'44	-0'51	0'71	2nd	—	—	—	—
OSWALDKIRK	—	—	—	—	—	—	—	—	—	—	—	—	—	174'5	?	36	?
YORK	*	*	*	*	*	*	*	*	*	*	*	*	*	198'3	+11'2	40	+2
HILLINGTON	44'5	64'6	54'6	+3'4	37	7th	74	4th	7	0'65	-1'20	0'16	17th	221'4	+10'7	46	+3
GELDESTON	44'8	62'7	53'8	+2'8	37	31st	73	12th	8	1'28	-0'43	0'89	21st	236'3	+7'2	49	+1
CAMBRIDGE	*	*	*	*	*	*	*	*	*	*	*	*	*	221'3	+21'5	46	+5
ROTHAMSTED	44'9	65'8	55'4	+4'6	37	7th, 31st	78	15th	8	1'20	-0'99	0'68	17th	216'9	?	45	?
BAWTRY	42'4	66'5	54'5	+3'3	28	6th	76	14th	10	1'92	-0'14	0'81	17th	—	—	—	—
WORKSOP	—	—	—	—	—	—	—	—	—	—	—	—	—	181'5	+6'9	37	+1
STAMFORD (KETTON HALL)	44'1	66'3	55'2	+2'8	33	7th	75	4th	10	0'76	-1'67	0'46	17th	—	—	—	—
THURCASTON	—	—	—	—	—	—	—	—	—	—	—	—	—	208'7	+33'0	43	+7
CHREADEL	45'2	62'2	53'7	+4'2	38	7th	72	13th	10	2'28	-0'11	0'73	17th	—	—	—	—
CHURCHSTOKE	44'0	64'1	54'1	+4'7	34	11th	75	4th, 5th	12	2'34	+0'18	0'65	19th	207'9	+21'9	43	+4
HEREFORD	45'7	66'8	56'3	+4'4	37	11th	77	5th	8	2'20	+0'11	0'68	18th	—	—	—	—
CIRENCESTER	43'9	65'5	54'7	+4'1	36	22nd, 31st	76	5th	7	1'48	-0'73	0'45	15th	225'5	+28'6	47	+6
OXFORD	*	*	*	*	*	*	*	*	*	*	*	*	*	212'6	+20'2	44	+4
LONDON	*	*	*	*	*	*	*	*	*	*	*	*	*	207'3	+22'5	43	+4
MARGATE	—	—	—	—	—	—	—	—	—	—	—	—	—	224'7	?	47	?
STRATHFIELD TURGISS	43'4	69'0	56'2	+4'0	33	11th	80	3rd	10	1'01	-0'78	0'34	18th	—	—	—	—
HASTINGS	48'0	62'7	55'4	+2'9	40	1st	73	14th, 15th	7	0'63	-1'18	0'27	20th	240'5	+3'2	50	0
EASTBOURNE	—	—	—	—	—	—	—	—	—	—	—	—	—	217'6	?	46	?
BRIGHTON	—	—	—	—	—	—	—	—	—	—	—	—	—	223'4	?	47	?
WESTBOURNE (SUSSEX)	—	—	—	—	—	—	—	—	—	—	—	—	—	248'4	?	52	?
SOUTHAMPTON	47'9	68'7	58'3	+5'3	41	8th	76	10th, 12th, 13th	6	0'84	-1'19	0'47	17th	255'8	+45'2	54	+10
STOWELL	45'9	65'4	55'7	+4'5	38	11th	75	5th, 13th	11	1'15	?	0'50	18th	—	—	—	—
LAUDALE	47'3	60'7	54'0	+4'1	37	1st, 2nd	70	6th	20	2'81	-1'13	0'67	11th	—	—	—	—
GLASGOW	47'0	60'0	53'5	+3'7	37	1st	70	14th	14	3'07	+0'68	0'96	19th	138'9	-20'7	28	-4
GLENLEE	44'7	62'3	53'5	+4'7	34	30th	72	14th	13	2'82	-0'15	0'81	17th	—	—	—	—
DOUGLAS	47'3	59'8	53'6	+3'8	40	10th	66	11th, 28th	13	1'43	-0'74	0'32	20th	189'1	-35'2	39	-7
NEWTON REIGNY	43'9	62'4	53'2	+5'4	31	10th	76	14th	10	1'57	-0'47	0'59	17th	170'4	-31'9	34	-7
STONYHURST	45'9	60'8	53'4	+2'9	40	1st, 8th, 11th	68	4th, 10th, 13th, 14th	12	2'45	-0'18	0'80	17th	176'8	-15'8	36	-3
BLACKPOOL	48'1	62'0	55'1	+4'5	41	8th	72	5th, 14th	10	1'74	-0'31	0'68	17th	170'1	-30'9	35	-6
MANCHESTER	46'4	62'7	54'6	+4'3	40	7th	74	13th	11	2'11	-0'30	0'75	17th	161'1	?	33	?
LLANDUDNO	49'1	62'0	55'6	+4'0	42	8th	71	5th, 6th	11	1'75	-0'06	0'48	1st	181'8	-10'6	37	-3
LLANDOVERY	46'0	68'8	57'4	+6'1	34	13th	80	5th, 13th	12	2'32	-0'51	0'53	19th	—	—	—	—
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	*	*	224'3	+9'0	47	+2
BRISTOL (MONTPELIER)	48'5	68'4	58'5	+6'7	40	8th	79	5th	10	1'65	?	0'63	15th	—	—	—	—
TENBY	—	—	—	—	—	—	—	—	—	—	—	—	—	242'2	?	50	?
ARLINGTON	46'5	63'6	55'1	+5'1	38	12th	74	13th	11	2'10	-0'86	0'58	16th	—	—	—	—
CULLOMPTON	46'3	66'3	56'3	+4'9	38	22nd	74	5th, 12th	11	2'31	+0'13	0'72	16th	213'4	+20'5	45	+5
TORQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	229'3	?	48	?
NEWQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	227'6	?	48	?
FALMOUTH	49'6	62'0	55'8	+3'9	42	21st	69	10th	7	0'67	-2'09	0'42	19th	253'5	+37'2	54	+8
PLYMOUTH	49'8	62'9	56'4	+2'8	42	22nd	71	5th, 10th, 12th	9	1'65	-0'40	0'77	16th	233'4	+26'7	49	+5
GUERNSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	303'2	?	65	?
JERSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	291'4	+48'3	62	+10
LONDONDERRY	48'9	63'4	56'2	+4'8	41	1st	73	13th	15	1'35	-1'01	0'26	1st	—	—	—	—
EDENFEL (OMAGH)	47'6	62'4	55'0	+5'1	40	1st, 31st	73	14th	11	1'30	-1'01	0'24	1st	—	—	—	—
MARKREE CASTLE	47'1	62'4	54'8	+5'2	33	31st	71	14th	15	1'53	-0'50	0'31	19th	125'8	-61'0	26	-12
BROOKEBOROUGH	47'5	62'4	55'0	+5'2	35	31st	73	14th	13	1'63	-0'89	0'35	19th	—	—	—	—
ARMAGH	46'8	61'1	54'0	+3'6	36	31st	69	14th	13	1'12	-0'92	0'25	16th	126'4	-58'1	26	-12
EDGEWORTHSTOWN	46'5	63'7	55'1	+5'0	36	31st	74	13th	11	2'47	+0'03	0'75	20th	—	—	—	—
ARLEY COTTAGE (Co. CAVAN).	—	—	—	—	—	—	—	—	—	—	—	—	—	127'2	?	26	?
DUBLIN	50'5	62'7	56'6	+4'7	43	31st	70	11th	10	1'67	-0'32	0'72	20th	175'1	-37'6	36	-8
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	*	*	126'6	-61'4	26	-13
KILKENNY CASTLE	48'4	63'8	56'1	+4'6	39	13th	73	11th	12	2'31	+0'31	0'63	20th	—	—	—	—
WATERFORD	47'8	63'5	55'7	+3'5	38	3rd	70	10th, 28th	11	1'59	-0'80	0'26	16th	—	—	—	—
VALENCIA (CAHIR-CIVERN).	*	*	*	*	*	*	*	*	*	*	*	*	*	181'9	-27'8	38	-6
KILLARNEY	48'9	63'5	56'2	+4'6	37	10th	70	10th, 13th	9	0'98	?	0'30	1st	—	—	—	—
FOXNES	50'2	63'3	56'8	+5'5	42	7th	70	9th, 10th, 13th	8	1'26	?	0'31	19th	—	—	—	—

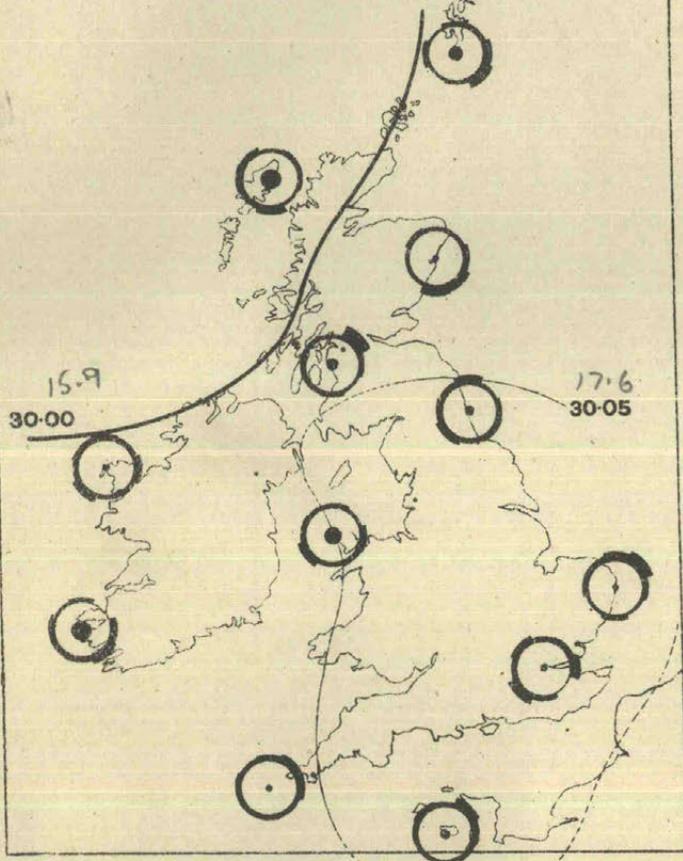
* For information, see Table IX

MONTHLY WEATHER CHART, MAY, 1893.

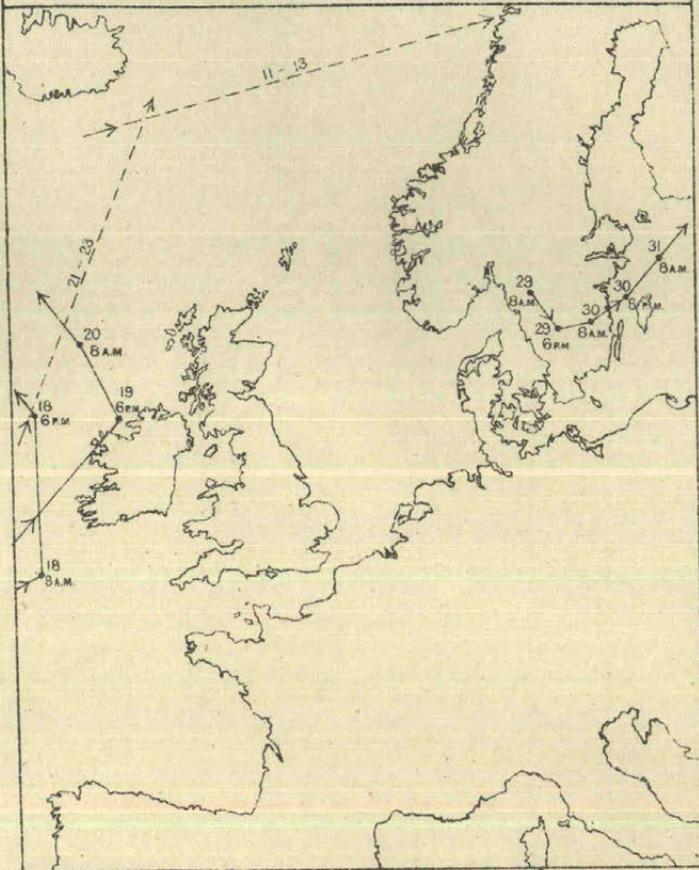
Monthly Summary.

Plate V.

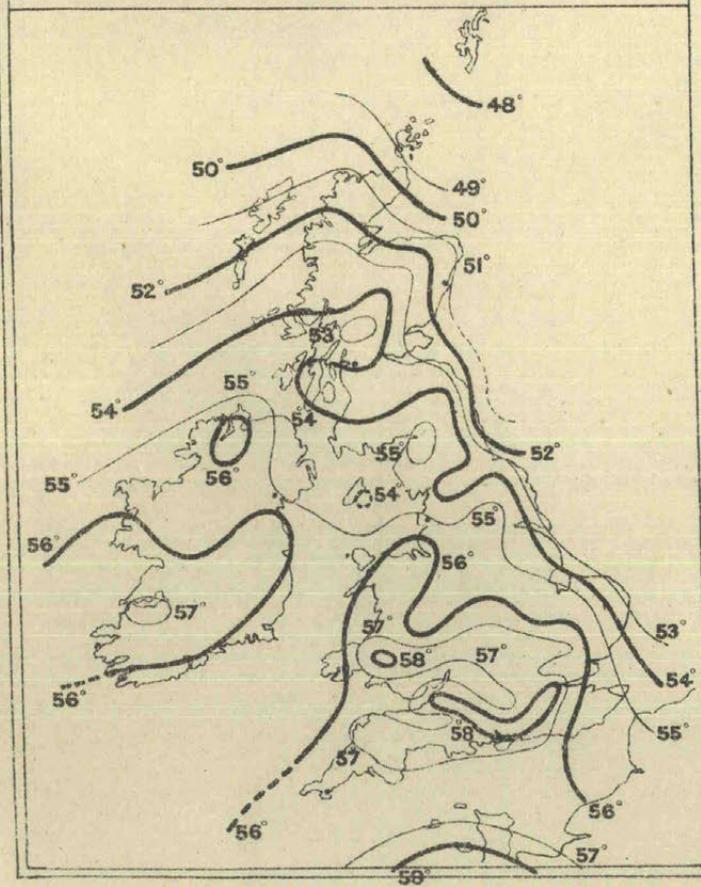
1. BAROMETER AND WIND.



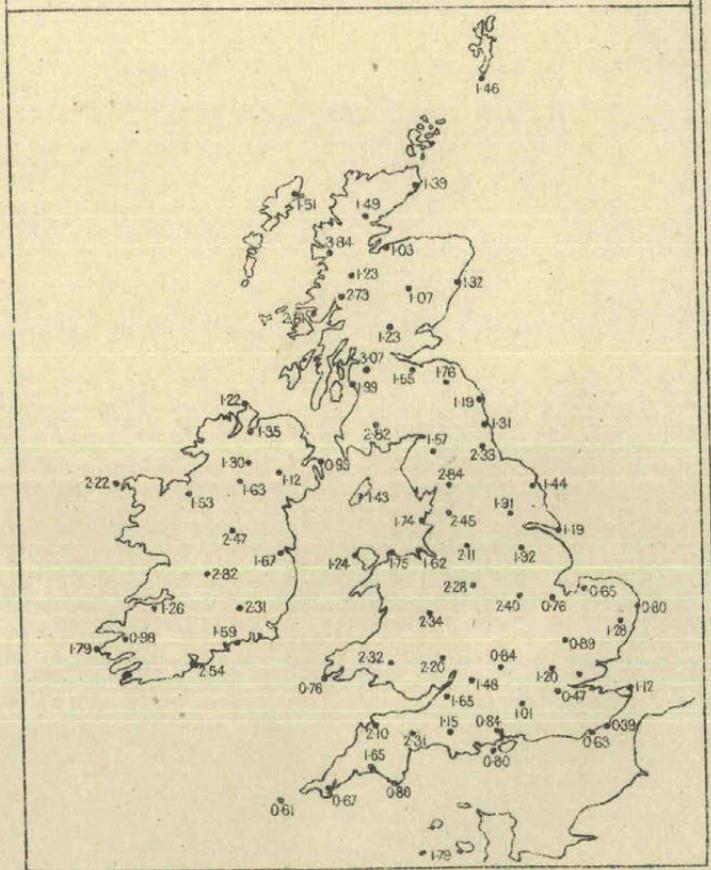
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



OFFICIAL COPY.

**SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS, for the
CALENDAR MONTH,**

JUNE 1893.

(Issued as a Supplement to the Weekly Weather Report, 1893.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—With the exception of a few local thunderstorms the weather during the earlier half of the month was generally fine and dry. Towards the middle of the period, however, a decided change set in, and for the remainder of the time frequent showers were experienced in nearly all districts, with occasional thunderstorms. Pressure and temperature were above the average; the winds were variable in the north, but mostly Easterly in the south; rainfall was again deficient in most places, but in excess of the average in the east of Scotland; and bright sunshine was unusually prevalent especially in the southern and south-western parts of the Kingdom.

Pressure.—Mean at 8 a.m. ranged from between 30·00 ins. and 30·03 ins. over the greater part of England and Ireland to 29·95 ins. and less in the Shetlands and Hebrides. The values were everywhere a little above the average,* and, as the excess was somewhat larger in the north and north-west than it was in the south, the mean gradient was slighter than usual, the greatest difference between the readings at any two stations in our islands being less than one-tenth of an inch. *Highest* readings were observed between the 6th and 10th, when they exceeded 30·3 ins. in all districts and exceeded 30·4 ins. in the north-eastern parts of Great Britain. *Lowest* readings were recorded either between the 22nd and 24th or on the 27th, the barometer on one or other of these dates falling below 29·4 ins. in nearly all places. On the earlier occasion readings below 29·3 ins. were observed in the east of England, while on the later date similarly low values were recorded in many parts of Ireland and Scotland. *Range* was moderate.

Depressions.—Very few depressions of importance were observed in our immediate neighbourhood, the only systems worthy of note being (1) a shallow disturbance which formed over Scotland on the 22nd and which ultimately passed away over the North Sea and Norway, and (2) a rather deeper system which travelled north-eastwards across the north of Scotland between the 28th and 29th. Between the 12th and 15th a complex area of low pressure, with several distinct minima, spread over our islands from France, the movements of the various centres being, however, too irregular to be shown on Map 2, Plate VI.

Anticyclones.—Two well defined areas were noticed. The first spread over our islands from the southward on the 4th and remained with us until the 11th, when it passed away to the north-eastward. The second was developed over the United Kingdom and the neighbouring parts of the Continent on the 15th and continued in force until the 19th, when it passed away to the Atlantic.

Winds were very variable in the western and northern parts of the Kingdom, but mainly from the Eastward and North-eastward on our south and south-east coasts. One or two gales were experienced in all the districts excepting the east of Scotland and the Channel Islands, where none were reported.

Temperature.—*Mean at Sea Level* ranged from a little above 63° in the Channel Islands and from between 60° and 63° over the southern and midland parts of England to between 55° and 57° at most of our north-east and east coast stations, to about 54° in the Orkneys, and to 52° or less in the Shetlands. The general distribution showed a fair agreement with the normal, but the actual values were in nearly all cases above the average,* the excess amounting as a rule to between two and four degrees. *Highest* readings were recorded on the 18th or 19th, when the thermometer rose to 80°, or more, in most districts and to 85° and upwards in several of the inland parts of Great Britain. At Ochtertyre, Strathfield Turgiss, and Bristol the absolute maxima were as high as 90°, while that at Southampton reached 91°. *Lowest* readings occurred over Great Britain on the 1st or 2nd, but in Ireland they were observed mostly during the closing week. At some of the English inland stations the absolute shade minima recorded at the commencement of the month were only a degree or two above the freezing point. *Range* was large—considerably over 40° in many places, and over 50° in several parts of England, the highest values of all being 57° at Strathfield Turgiss, and 54° at Llandoverly. *Vapour Tension* ranged from between 0·42 in. and 0·44 in. on our extreme western and southern coasts to 0·36 in. or less in the east of Scotland. *Relative Humidity* was below 75 per cent. in the Channel Islands and the central parts of England, but above 85 per cent. in the north of Scotland and as high as 94 per cent. in the Shetlands.

Rainfall was less than the average* in most districts, but was in excess in the eastern and central parts of Scotland, as well as at Llandudno and Parsonstown. In the west and north of Scotland and the central and southern parts of England the total fall was in most cases less than half the average, and at Laudale less than one-eighth. The largest falls in the month were 3·5 ins. at Aberdeen, 3·2 ins. at Ochtertyre, and 3·1 ins. at Marchmont, the smallest 0·4 in. at Dungeness, 0·5 in. at the North Foreland, and 0·6 in. at Sumburgh Head, Laudale, Scilly, and Jersey. There were less than 10 rainy days at many of the English stations, as well as in the south of Ireland, and less than 15 days at all stations excepting Glencarron and Stowell.

Bright Sunshine was again very abundant, the amount being in excess of the average* in nearly all places. More than half the possible duration was recorded at most stations in the south of England and more than 60 per cent. on the coasts of Devon and Cornwall, while at Jersey there was as much as 72 per cent. Over the northern half of the United Kingdom the per-centage values were below 40, the lowest of all being 26 at Fort Augustus.

* The averages employed are—*Pressure* and *Temperature* for the 20 years, 1871–90; *Rainfall* for the 25 years, 1866–90; *Bright Sunshine* for the 10 years 1881–90.

TABLE XI.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								
				Means of				Absolute Extremes.				
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.
0. SCOTLAND, N.	Sumburgh Head	ins. 29°942	+0°059	51°2	46°9	55°8	51°4	+1°6	41	1st	67	16th
	Wick	29°972	+°074	55°8	47°4	61°0	54°2	+2°0	40	5th	76	16th
	Stornoway	29°952	+°076	56°0	47°5	61°4	54°5	+2°5	40	5th	76	18th
1. SCOTLAND, E.	Nairn	29°960	+°056	57°4	47°9	65°8	56°9	+1°9	38	3rd, 11th	83	18th
	Aberdeen	29°980	+°064	55°8	49°4	61°0	55°2	+1°0	45	6th	77	16th
	Leith	29°972	+°042	57°9	50°3	66°4	58°4	+2°5	45	26th	83	18th
2. ENGLAND, N.E.	Shields	29°983	+°035	56°7	49°2	63°0	56°1	+1°4	45	1st, 6th	75	18th
	York	30°007	+°038	56°8	49°5	69°0	59°3	+2°0	41	1st	85	18th
	Spurn Head	29°987	+°023	56°1	50°8	60°7	55°8	-0°1	44	2nd	73	27th
3. ENGLAND, E.	Yarmouth	30°003	+°026	57°5	51°6	62°3	57°0	+0°4	41	1st	74	27th
	Cambridge	30°019	+°034	59°1	48°7	73°9	61°3	+2°7	36	1st	88	19th
4. MIDLAND COUNTIES	Loughborough	30°023	+°043	58°5	48°6	71°7	60°2	+1°4	34	1st	86	18th
	Oxford	30°021	+°035	58°6	50°5	71°5	61°0	+2°8	35	1st	86	19th
5. ENGLAND, S.	London	30°028	+°036	59°9	51°4	72°7	62°1	+2°2	39	1st, 3rd	88	19th
	North Foreland	29°997	+°017	58°7	52°3	63°4	57°9	+1°1	43	1st	72	19th, 28th
	Dungness	29°999	+°017	60°0	52°7	65°4	59°1	+1°3	37	1st	72	17th, 19th
	Hurst Castle	30°023	+°025	61°2	54°0	68°7	61°4	+3°3	43	5th	84	18th, 19th
6. SCOTLAND, W.	Ardrossan	29°972	+°040	57°7	49°9	65°2	57°6	+1°8	44	2nd	75	14th, 15th
7. ENGLAND, N.W.	Hawes Junction*	28°768	?	53°7	45°6	64°2	54°9	?	37	1st, 11th	81	18th
	Liverpool	30°002	+°036	60°0	53°4	68°5	61°0	+3°6	48	1st, 2nd	85	18th
	Holyhead	29°999	+°033	59°8	52°4	65°1	58°8	+2°2	44	2nd	73	15th
8. ENGLAND, S.W.	Pembroke	30°016	+°042	59°0	54°0	64°5	59°3	+3°4	46	2nd	79	18th
	Prawle Point	30°019	+°012	60°7	53°6	65°6	59°6	+3°6	48	1st	76	17th, 19th
9. IRELAND, N.	Malin Head	29°981	+°051	56°6	53°1	61°6	57°4	+2°0	48	1st, 25th	71	30th
	Donaghadee	29°998	+°052	57°2	54°4	64°7	59°6	+4°3	49	22nd, 23rd	74	16th
	Belmullet	30°003	+°068	60°0	53°6	65°3	59°5	+4°1	47	26th	75	14th
10. IRELAND, S.	Parsonstown	30°013	+°041	59°3	50°4	68°5	59°5	+3°0	44	22nd, 23rd	80	18th
	Valencia (Cahiriveen)	30°031	+°056	60°9	52°3	66°8	59°6	+2°9	45	1st, 3rd	80	18th, 19th
	Roche's Point	30°028	+°055	60°6	54°1	65°7	59°9	+2°1	50	7th, 23rd, 24th, 29th.	73	18th, 19th
CHANNEL ISLANDS	Scilly (St. Mary's)	30°014	+°018	61°8	55°7	66°1	60°9	+3°7	50	1st, 2nd	75	19th
	Jersey	30°029	+°019	63°9	55°5	69°5	62°5	+3°9	43	1st	84	19th

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

SUMMARY OF OBSERVATIONS, JUNE 1893.

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REPORTING STATIONS in the BRITISH ISLANDS, during the Month of JUNE 1893.

Thunderstorms, and Gales are counted irrespective of the hours at which they occurred.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD.	RAINFALL.			Date.	WEATHER.							WIND.								
			Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.		No. of Days of							No. of Observations of								
							Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
0'355	94	8'4	ins. 0'60	ins. -1'38	ins. 0'21	27th	10	0	0	0	0	17	0	5	4	2	3	3	0	4	5	4
*383	86	6'5	1'09	-0'65	0'30	26th	12	0	0	1	6	15	1	7	2	0	3	8	0	2	7	1
*399	89	6'3	1'24	-1'61	0'22	23rd	14	0	0	0	6	14	0	5	3	2	0	5	2	2	1	10
*403	86	5'9	1'91	+0'21	0'58	22nd	11	0	0	2	5	10	0	0	1	4	0	0	3	7	1	14
*340	76	6'9	3'52	+1'75	1'57	22nd	12	0	1	2	0	11	0	1	3	6	4	7	1	2	6	0
*361	75	5'8	1'76	-0'04	0'68	23rd	8	0	1	0	8	11	0	3	6	4	0	1	2	7	3	4
*373	81	7'6	1'04	-0'67	0'27	23rd	9	0	0	1	2	13	1	3	3	5	3	1	5	6	3	1
*372	80	6'3	1'25	-0'92	0'44	26th	9	0	0	2	8	11	0	3	4	5	4	5	2	4	3	0
*387	85	6'6	1'13	-0'41	0'54	4th	8	0	0	3	4	14	1	6	5	2	4	4	2	5	2	0
*385	81	4'1	1'10	-0'78	0'27	23rd	11	0	0	5	13	2	0	4	9	4	3	0	4	4	2	0
*379	75	6'7	1'06	-1'17	0'35	19th	9	0	1	2	7	16	1	6	3	8	1	3	4	3	2	0
*363	74	6'2	0'89	-1'33	0'30	26th	7	0	0	1	5	9	1	1	5	4	4	1	2	4	8	1
*364	74	6'2	0'77	-1'44	0'53	4th	11	0	1	4	10	14	0	1	9	3	3	2	3	3	4	2
*378	74	6'4	0'87	-1'24	0'34	22nd	9	0	0	2	8	13	1	1	6	6	3	1	4	4	1	4
*395	80	6'5	0'52	?	0'18	19th	5	0	0	3	7	15	1	6	8	5	0	1	4	2	4	0
*432	84	6'9	0'37	-1'22	0'09	24th	10	0	0	1	2	12	2	1	9	9	0	2	3	5	1	0
*434	81	4'5	0'84	-1'08	0'41	27th	7	0	0	2	7	2	3	1	9	7	1	1	4	5	2	0
*391	82	5'6	1'26	-1'23	0'26	22nd	8	0	0	0	7	11	0	1	8	1	3	2	2	5	5	3
*333	81	5'1	2'66	?	0'72	28th	12	0	0	1	9	11	0	7	2	8	2	4	2	1	3	1
*369	71	6'0	1'54	-0'35	0'59	26th	8	0	0	1	10	12	1	0	0	6	7	0	3	9	2	3
*403	78	4'3	1'25	-0'73	0'60	26th	12	0	0	2	2	2	0	3	1	2	1	4	6	3	4	6
*427	86	4'2	0'65	-1'29	0'47	26th	7	0	0	0	4	3	2	2	5	7	3	2	2	4	5	0
*403	77	4'5	0'73	-0'87	0'27	26th	6	0	0	1	1	4	0	1	5	8	1	2	5	5	3	0
*386	84	7'2	1'40	?	0'72	27th	11	0	0	3	4	17	2	6	2	3	5	5	4	1	4	0
*417	89	6'6	1'65	-0'27	0'87	28th	12	0	0	1	2	7	2	4	2	3	5	2	3	4	7	0
*423	82	5'4	2'07	?	0'37	23rd	15	0	0	2	6	10	0	4	5	5	1	3	5	3	4	0
*415	82	6'4	2'54	+0'15	1'19	9th	8	0	0	1	7	15	0	0	0	0	2	0	12	1	1	14
*446	84	6'2	2'07	-1'20	0'71	26th	13	0	0	2	3	9	2	1	4	4	2	4	3	4	3	5
*418	80	4'8	1'87	-1'26	1'10	26th	6	0	0	1	0	3	0	7	1	6	4	1	3	2	6	0
*432	79	5'7	0'63	-1'21	0'31	25th	5	0	0	0	3	0	0	4	3	11	1	2	2	4	3	0
*421	71	3'4	0'58	-1'33	0'28	25th	5	0	0	1	9	3	0	1	5	9	1	0	3	6	4	1

Barometer at this station is not reduced for altitude.

TABLE XII.

OBSERVATIONS OF TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT for the Month of JUNE 1893.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	°	°	°	°	*	*	*	*	*	ins.	ins.	ins.	*	180°3	+1°4	34	%
LAIRG	46°6	65°5	56°1	+2°8	36	5th	80	18th	12	1°10	-1°30	0°19	3rd	—	—	—	—
GLENCARRON	48°1	64°8	56°5	+4°0	42	2nd, 5th	76	11th, 13th	19	2°24	-3°03	0°36	22nd, 28th	—	—	—	—
FORT AUGUSTUS	49°6	66°4	58°0	+3°4	42	11th	79	18th	13	1°26	-0°94	0°44	27th	135°2	?	26	?
FORT WILLIAM	50°2	64°4	57°3	+2°0	42	2nd	74	14th	12	1°89	-2°15	0°47	22nd	174°1	?	33	?
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	*	*	173°3	-22°1	33	-4
BRAEMAR	45°4	64°1	54°8	+2°3	35	1st	83	18th	11	2°73	+0°34	0°90	22nd	186°0	?	35	?
EDINBURGH	—	—	—	—	—	—	—	—	—	—	—	—	—	185°0	?	36	?
OCHTERTYRE	48°2	70°4	59°3	+4°2	42	11th, 20th	90	18th	7	3°15	+0°43	0°88	28th	—	—	—	—
MARCHMONT	47°8	65°4	56°6	+2°4	40	3rd	84	18th	10	3°08	+0°57	1°60	23rd	222°0	?	43	?
ALNWICK CASTLE	50°6	62°8	56°7	+2°6	42	5th	75	16th, 19th	11	1°41	-0°45	0°52	23rd	—	—	—	—
DURHAM	49°0	67°1	58°1	+2°3	40	1st	86	18th	11	0°81	-1°09	0°22	26th	194°2	+32°2	38	+6
SCARBOROUGH	53°7	63°0	56°9	+1°3	43	18th	79	18th	12	1°65	-0°26	0°46	23rd	—	—	—	—
OSWALDEKIRK	—	—	—	—	—	—	—	—	—	—	—	—	—	169°7	?	34	?
YORK	*	*	*	*	*	*	*	*	*	*	*	*	*	197°4	+28°8	39	+6
HILLINGTON	48°7	69°9	59°3	+1°6	36	1st	86	19th	8	1°56	-0°61	0°66	4th	230°3	+37°8	46	+7
GELDESTON	48°0	66°1	57°1	-0°1	35	3rd	83	19th	10	1°17	-0°46	0°46	4th	244°4	+32°6	50	+7
CAMBRIDGE	*	*	*	*	*	*	*	*	*	*	*	*	*	237°7	+46°0	48	+9
ROTHAMSTED	48°6	71°0	59°8	+2°4	34	1st	86	19th	8	0°97	-1°26	0°23	6th	224°7	?	46	?
BAWTRY	47°8	71°2	59°5	+1°9	39	11th	87	18th	7	1°24	-1°02	0°57	26th	—	—	—	—
WORKSOP	—	—	—	—	—	—	—	—	—	—	—	—	—	178°1	+21°5	36	+5
STAMFORD (KETTON HALL).	48°4	71°9	60°2	+1°6	36	1st	87	19th	9	1°00	-0°93	0°31	22nd	—	—	—	—
THURCASTON	—	—	—	—	—	—	—	—	—	—	—	—	—	207°9	+49°0	42	+10
CHEADLE	49°3	67°3	58°3	+2°9	42	1st	82	17th	8	1°40	-1°49	0°59	26th	—	—	—	—
CHURCHSTOKE	47°4	69°2	58°3	+2°6	33	1st	82	17th	11	1°14	-1°02	0°29	26th	227°3	+49°8	46	+10
HEREFORD	49°9	71°6	60°8	+2°5	36	1st	85	16th	10	1°07	-1°07	0°35	22nd	—	—	—	—
CHRENCESTER	49°7	70°8	60°3	+3°6	36	1st	85	19th	13	1°05	-1°30	0°31	22nd	214°2	+26°8	43	+5
OXFORD	*	*	*	*	*	*	*	*	*	*	*	*	*	217°3	+30°0	44	+6
LONDON	*	*	*	*	*	*	*	*	*	*	*	*	*	212°5	+38°7	43	+7
MARGATE	—	—	—	—	—	—	—	—	—	—	—	—	—	208°5	?	43	?
STRATHFIELD TURGISS	47°8	73°2	60°5	+2°0	33	1st	90	19th	14	0°80	-1°19	0°21	22nd	—	—	—	—
HASTINGS	52°4	67°5	60°0	+1°7	43	1st	82	18th, 19th	9	0°91	-0°75	0°19	24th	280°5	+61°4	57	+12
EASTBOURNE	—	—	—	—	—	—	—	—	—	—	—	—	—	262°8	?	54	?
BRIGHTON	—	—	—	—	—	—	—	—	—	—	—	—	—	247°5	?	51	?
WESTBOURNE (SUSSEX)	—	—	—	—	—	—	—	—	—	—	—	—	—	245°2	?	50	?
SOUTHAMPTON	52°7	72°7	62°7	+3°6	40	1st	91	19th	8	1°03	-0°86	0°26	5th, 27th	229°2	+25°0	47	+5
STOWELL	50°9	70°2	60°6	+3°0	39	1st	86	19th	15	1°63	?	0°50	23rd	—	—	—	—
LAUDALE	49°2	65°1	57°2	+2°4	41	21st, 22nd	74	15th	9	0°60	-4°24	0°18	6th	—	—	—	—
GLASGOW	50°8	67°1	59°0	+3°6	43	2nd	80	18th	7	1°56	-1°14	0°54	22nd	214°8	+55°4	42	+11
GLENLEE	47°2	68°0	57°6	+2°9	35	2nd, 26th	81	18th, 19th	10	2°03	-1°19	0°57	9th	—	—	—	—
DOUGLAS	49°6	65°1	57°4	+2°3	42	2nd, 3rd, 30th	76	18th	8	1°45	-0°70	0°70	23rd	262°5	+45°3	52	+9
NEWTON REIGNY	47°2	68°3	57°8	+3°1	39	3rd, 12th	85	19th	9	2°08	0°00	0°46	23rd	233°4	+41°7	46	+8
STONYHURST	50°4	66°9	58°7	+2°2	43	11th	82	18th	11	2°40	-0°85	0°61	26th	207°4	+22°3	41	+4
BLACKPOOL	52°9	67°6	60°3	+3°9	46	2nd	80	15th, 18th	7	1°27	-0°83	0°50	26th	227°9	+38°8	45	+8
MANCHESTER	50°1	68°5	59°3	+2°7	45	2nd, 30th	84	18th	11	1°92	-1°09	0°73	26th	189°3	?	58	?
LLANDUDNO	52°8	66°2	59°5	+2°1	43	1st	74	15th, 18th	7	2°14	+0°32	0°69	26th	264°0	+85°5	53	+17
LLANDOVERY	47°5	73°5	60°5	+2°7	34	2nd	88	19th	12	2°43	-0°53	0°64	26th	—	—	—	—
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	*	*	271°7	+38°2	55	+8
BRISTOL (MONTPELLIER)	52°9	73°3	63°1	+4°7	41	1st	90	19th	13	1°45	—	0°46	22nd	—	—	—	—
TENBY	—	—	—	—	—	—	—	—	—	—	—	—	—	270°6	?	55	?
ARLINGTON	49°2	68°9	59°1	+3°1	41	1st	84	18th	7	1°43	-1°85	0°39	13th	—	—	—	—
CULLOMPTON	48°8	72°1	60°5	+2°8	40	3rd	89	19th	8	0°93	-1°41	0°26	26th	274°7	+81°0	56	+16
TORQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	294°3	?	61	?
NEWQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	330°8	?	68	?
FALMOUTH	54°0	67°0	60°5	+3°1	48	1st, 2nd	80	19th	8	1°21	-1°34	0°39	26th	313°6	+88°2	65	+18
PLYMOUTH	52°8	68°5	60°7	+1°4	44	1st	85	19th	7	0°84	-1°18	0°33	26th	307°8	+105°3	64	+22
GUERNSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	330°7	?	69	?
JERSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	343°8	+110°1	72	+23
LONDONDERRY	51°1	70°4	60°8	+4°0	42	26th	82	17th	11	2°06	-0°48	0°39	27th	—	—	—	—
EDENFEL (OMAGH)	50°5	67°9	59°2	+3°4	44	7th, 11th	79	18th	14	1°87	-0°74	0°65	27th	—	—	—	—
MARKREE CASTLE	47°0	67°0	57°0	+2°0	39	2nd, 30th	77	17th	12	2°54	-0°50	0°42	27th	214°7	+56°4	43	+12
BROOKBOROUGH	49°5	67°3	58°4	+3°0	43	30th	80	18th	13	2°83	-0°05	0°85	27th	—	—	—	—
ARMAGH	49°7	67°1	58°4	+2°4	43	20th	78	18th	9	1°59	-0°54	0°51	28th	190°7	+19°6	38	+4
EDGEWORTHSTOWN	49°3	67°8	58°6	+2°6	42	26th	81	18th	12	2°68	-0°32	0°71	28th	—	—	—	—
ARLEY COTTAGE (COUNTY CAVAN).	—	—	—	—	—	—	—	—	—	—	—	—	—	180°2	?	36	?
DUBLIN	55°4	66°3	59°9	+2°4	47	2nd, 23rd	75	19th	12	1°72	-0°13	0°49	26th	218°2	+33°3	44	+7
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	*	*	159°2	-15°4	32	-3
KILKENNY CASTLE	50°5	68°1	59°3	+2°5	43	26th	81	18th	9	1°83	-0°38	0°80	26th	—	—	—	—
WATERFORD	50°2	69°4	59°8	+2°7	40	1st	81	19th	8	1°66	-0°76	1°12	26th	—	—	—	—
VALENCIA (CAHIR-CIVREH).	*	*	*	*	*	*	*	*	*	*	*	*	*	227°4	+29°6	46	+6
KILLARNEY	50°0	68°5	59°3	+2°9	42	4th	81	18th	12	1°53	?	0°63	26th	—	—	—	—
FOYNES	53°5	69°4	61°5	+5°1	46	1st, 12th	80	18th	12	1°51	?	0°45	26th	—	—	—	—

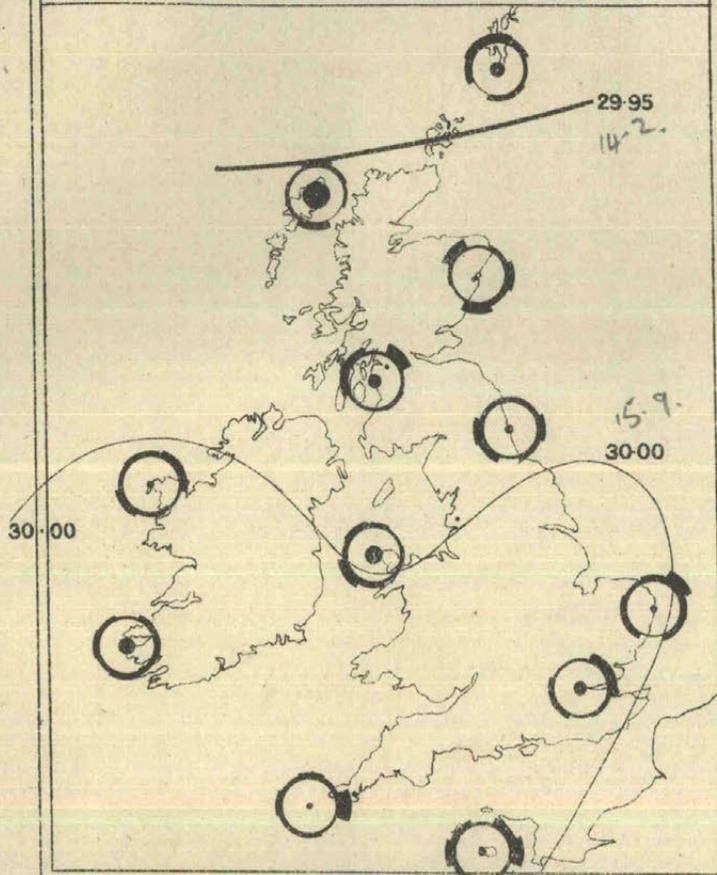
* For information see Table XI.

MONTHLY WEATHER CHART, JUNE, 1893.

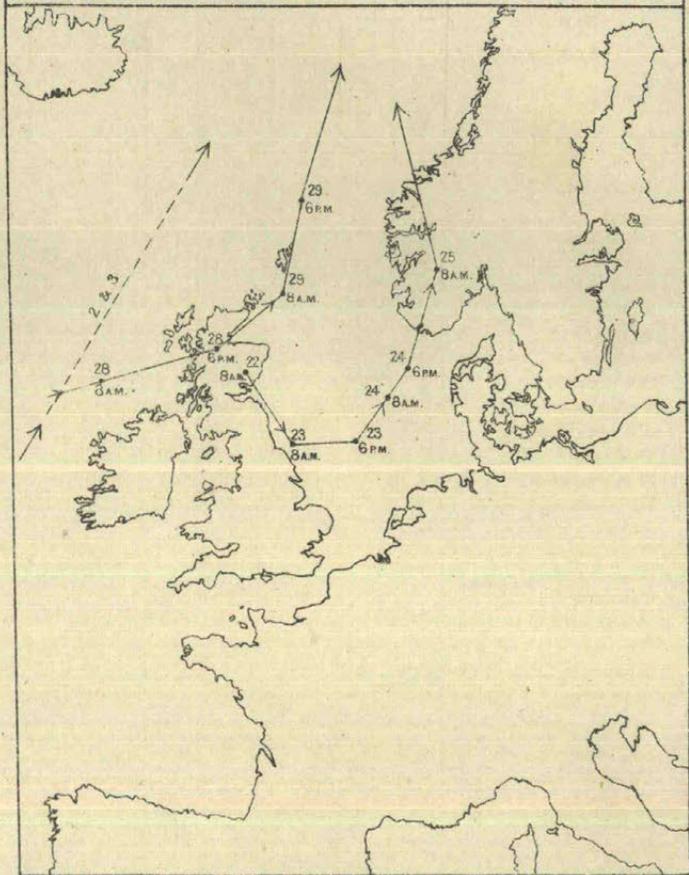
Monthly Summary.

Plate VI.

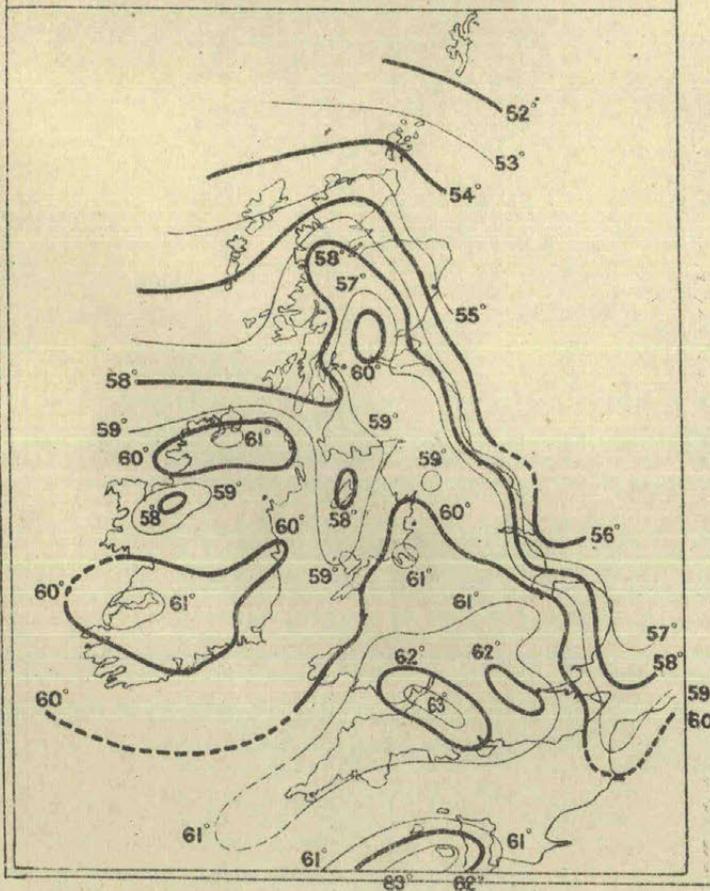
1. BAROMETER AND WIND.



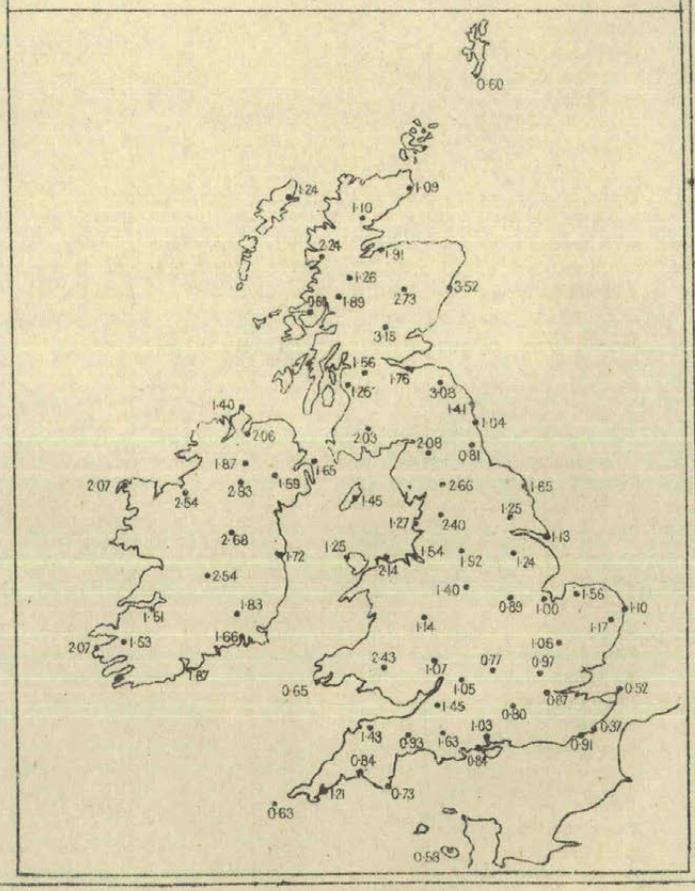
2. MOVEMENTS OF DEPRESSIONS.

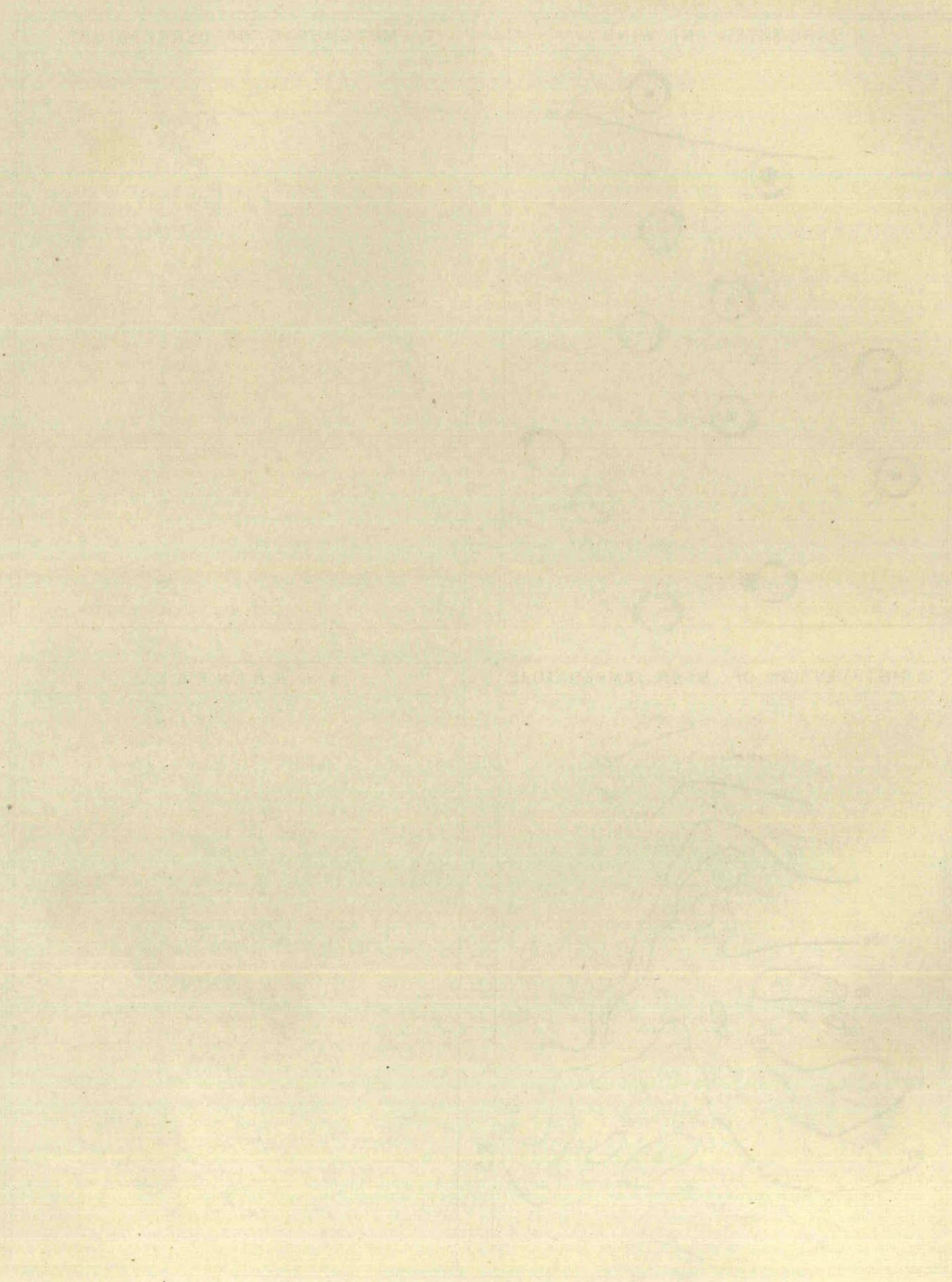


3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.





**SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS, for the
CALENDAR MONTH,**

JULY 1893.

(Issued as a Supplement to the Weekly Weather Report, 1893.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of July was exceedingly changeable and showery, and severe thunderstorms occurred in nearly all parts of the kingdom. Pressure was below the average in all but the extreme western and northern districts; temperature was rather low in the eastern parts of Great Britain but above the average* elsewhere; the winds were variable in the north and east, but Westerly in the west and south; rainfall was in excess of the normal, especially in the extreme south of England; and the amount of bright sunshine showed as a rule no great difference from the average.

Pressure.—*Mean for the month at 8 a.m.* ranged from between 29·93 ins. and 29·96 ins. on our extreme south-west coasts to about 29·81 ins. in the Shetlands and Hebrides, the values being a little above the average* in the extreme west and north, but below it in all other parts of the kingdom. The gradient was somewhat slighter than usual, and the distribution of pressure favourable for winds from a Westerly rather than from a South-westerly quarter. *Highest* readings occurred on the 27th or 28th when the barometer rose to between 30·2 ins. and 30·3 ins. in all districts. *Lowest* readings were observed as a rule on the 20th, when the mercury fell below 29·2 ins. in the north of Scotland and below 29·6 ins. in all but the extreme southern parts of our islands. *Range* was moderate in the northern, but slight in the southern districts.

Depressions were rather numerous for the time of the year, and moved in various directions as will be seen from Map 2, Plate VII. The systems which visited the southern parts of the kingdom during the early part of the month were mostly small and shallow, but the disturbances which appeared in the north later in the period were larger, and in some cases of moderate depth.

Anticyclones.—Two such systems were observed. The first of these was formed over Western Europe at the close of June and remained in our neighbourhood until the 4th, when it passed away to the northward. The second advanced over our islands from the westward on the 26th and 27th, but subsequently receded to the south-westward as some depressions travelled south-eastwards across Scandinavia and the North Sea.

Winds were very variable on our north and east coasts, but mostly from some Westerly quarter in the west and south-west. One or two gales were experienced at some of our western stations and as many as four at Hurst Castle, but none at all in the northern and eastern parts of the United Kingdom.

Temperature.—*Mean at sea level* ranged from between 63° and 65° over the central and southern parts of England, with the Channel Islands, and from 61° and upwards in the south and east of Ireland to a little below 57° in Caithness and the Hebrides, and to very little above 54° in the Shetlands. The general distribution was of a fairly normal character, but the actual values were a little above the average* in all but the eastern parts of Great Britain, where there was a slight deficit. *Highest* readings were observed over Great Britain mostly on the 7th or 8th, but in Ireland they occurred as a rule between the 1st and 3rd, while in the east of Scotland and the north-east of England they were registered either on the 19th or 24th. In Ireland the absolute maxima were mostly below 75° but in the inland parts of Great Britain the thermometer exceeded 80°, the highest readings of all being 92° at Cambridge and 90° at Hillington. *Lowest* readings occurred at various times in the different districts but mostly on the 15th and 16th or on the 27th and 28th. At many of the western and southern stations the thermometer did not fall as low as 50°, but in the northern and eastern districts it went as a rule below 45°, and at Ochtertyre to below 40°. *Range* was moderate generally, but rather large (40° or more) at some of the inland stations over England; at Bawtry and Stamford it amounted to 47°, and at Hillington and Cambridge to 48°. *Vapour Tension* ranged from 0·38 in. or less in the Shetlands and the east of Scotland to between 0·47 in. and 0·49 in. on our extreme southern coasts. *Relative Humidity* was below 80 per cent. in the east of Scotland and also in the more central parts of England. At many of our western and extreme northern stations however it exceeded 85 per cent., the highest values of all being 91 per cent. at Sumburgh Head and 90 per cent. at Donaghadee and Hawes Junction.

Rainfall varied considerably in different parts of the kingdom, but was upon the whole ^{in excess of} ~~exceeded~~ the average,* the excess being large in the extreme south of England. At Prawle Point and Hurst Castle the total fall amounted to more than twice as much as the normal. The largest aggregates for the month were 7·2 ins. at Arlington, 5·9 ins. at Hawes Junction, and 5·8 ins. at Glencarron, the smallest being 1·3 ins. at Holyhead, 1·6 ins. at Waterford, and 1·7 ins. at Churchstoke. Amounts exceeding an inch in 24 hours were recorded in many places, the largest falls of all being 2·8 ins. at Malin Head on the 9th, 2·4 ins. at Durham on the 8th, and 2·1 ins. at Prawle Point on the 4th.

Bright Sunshine was rather deficient in the east of Scotland and also in the south of Ireland, but in most other localities the duration was either normal or a trifle in excess of the average. Over the southern portions of the kingdom the per-centage of the possible amount was mostly above 40, the highest value of all being 49 at Guernsey. In Scotland however the per-centage was below 30 and at Fort Augustus it was as low as 13.

* The averages employed are—*Pressure* and *Temperature* for the 20 years, 1871–90; *Rainfall* for the 25 years, 1866–90; and *Bright Sunshine* for the 10 years, 1881–90.

TABLE XIII.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								
				Means of				Absolute Extremes.				
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.
0. SCOTLAND, N.	Sumburgh Head	ins. 29° 8'13	in. +0° 0'29	54° 2	49° 6	58° 4	54° 0	+1° 3	46	1st, 16th	69	8th
	Wick	29° 8'40	+ 0° 0'34	56° 5	51° 1	61° 6	56° 4	+1° 1	41	27th	71	23rd
	Stornoway	29° 8'58	+ 0° 0'13	57° 5	50° 2	62° 3	56° 3	+1° 7	42	27th	70	7th, 8th
1. SCOTLAND, E.	Nairn	29° 8'15	0° 0'00	57° 7	50° 3	66° 4	58° 4	+0° 8	42	28th	81	8th
	Aberdeen	29° 8'49	+0° 0'23	56° 6	51° 4	61° 8	56° 6	-0° 7	47	23rd, 27th, 28th	71	19th, 24th
	Leith	29° 8'46	+ 0° 0'02	57° 7	51° 5	64° 4	58° 0	-1° 0	46	23rd, 28th	72	24th
2. ENGLAND, N.E.	Shields	29° 8'56	- 0° 0'11	57° 6	51° 0	63° 2	57° 1	-1° 1	45	28th	70	19th, 24th
	York	29° 8'87	- 0° 0'14	59° 4	52° 5	69° 5	61° 0	+0° 7	45	28th	87	8th
	Spurn Head	29° 8'70	- 0° 0'30	59° 5	54° 5	63° 6	59° 1	-1° 1	49	15th	69	10th, 19th, 24th
3. ENGLAND, E.	Yarmouth	29° 8'83	- 0° 0'46	61° 0	55° 4	65° 7	60° 6	-0° 2	49	31st	75	24th
	Cambridge	29° 9'05	- 0° 0'32	61° 8	53° 3	73° 2	63° 3	+1° 2	44	28th	92	8th
4. MIDLAND COUNTIES	Loughborough	29° 9'08	- 0° 0'20	60° 5	53° 6	72° 0	62° 8	+0° 7	45	23rd, 28th	88	7th
	Oxford	29° 9'08	- 0° 0'38	60° 9	54° 8	71° 3	63° 1	+1° 6	49	18th	84	7th
5. ENGLAND, S.	London	29° 9'16	- 0° 0'41	62° 7	55° 5	72° 6	64° 1	+0° 9	47	15th	87	7th
	North Foreland	29° 8'87	- 0° 0'68	62° 4	56° 3	67° 5	61° 9	+0° 7	52	23rd	84	8th
	Dungeness	29° 8'99	- 0° 0'58	62° 8	56° 4	67° 6	62° 0	+0° 4	48	28th	73	6th
	Hurst Castle	29° 9'21	- 0° 0'47	62° 8	57° 4	69° 3	63° 4	+1° 7	53	15th, 27th	77	1st
6. SCOTLAND, W.	Ardrossan	29° 8'38	- 0° 0'18	58° 5	52° 5	65° 0	58° 8	+0° 6	45	23rd	74	1st, 7th
7. ENGLAND, N.W.	Hawes Junction*	28° 6'61	?	54° 2	48° 0	63° 3	55° 7	?	40	16th	77	7th
	Liverpool	29° 8'85	- 0° 0'21	61° 0	55° 6	68° 3	62° 0	+1° 9	52	15th, 28th	84	7th
	Holyhead	29° 8'89	- 0° 0'21	60° 3	55° 3	66° 4	60° 9	+1° 8	52	1st, 28th	75	7th
8. ENGLAND, S.W.	Pembroke	29° 9'13	- 0° 0'23	60° 1	56° 5	65° 0	60° 8	+2° 1	54	15th, 16th, 27th	74	3rd
	Prawle Point	29° 9'37	- 0° 0'50	61° 0	55° 6	65° 8	60° 7	+1° 6	49	15th, 16th	74	3rd
9. IRELAND, N.	Malin Head	29° 8'50	- 0° 0'05	57° 5	54° 2	62° 5	58° 4	+1° 0	50	1st	74	1st, 7th
	Donaghadee	29° 8'75	- 0° 0'02	58° 2	55° 6	64° 9	60° 3	+2° 8	53	5th, 6th, 14th	72	8th
	Belmullet	29° 8'97	+ 0° 0'32	60° 3	54° 7	64° 6	59° 7	+1° 8	48	22nd	75	5th
10. IRELAND, S.	Parsonstown	29° 9'06	- 0° 0'07	59° 5	51° 9	68° 0	60° 0	+1° 0	41	21st	74	1st, 7th
	Valencia (Cahirciveen)	29° 9'54	+ 0° 0'19	61° 2	55° 4	64° 8	60° 1	+1° 3	44	21st	71	3rd
	Roche's Point	29° 9'34	+ 0° 0'02	60° 8	55° 6	66° 5	61° 1	+1° 4	51	21st	70	6th
CHANNEL ISLANDS	Scilly (St. Mary's)	29° 9'40	- 0° 0'34	62° 3	57° 8	66° 2	62° 0	+1° 7	56	1st, 9th, 14th, 22nd, 23rd.	71	8th
	Jersey	29° 9'60	- 0° 0'41	64° 3	58° 4	69° 3	65° 9	+1° 6	51	28th	85	1st

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

SUMMARY OF OBSERVATIONS, JULY 1893.

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REPORTING STATIONS in the BRITISH ISLANDS during the Month of JULY 1893.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.
beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD.	RAINFALL.				Date.	WEATHER, No. of Days of							WIND, No. of Observations of								
			Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.			Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
0.380	91	8.3	2.46	+0.19	0.94	24th	16	0	0	0	0	22	0	5	8	3	5	1	2	3	2	2	
.406	89	7.5	3.61	+1.27	1.05	20th	21	0	0	2	4	19	0	3	0	1	2	11	2	1	9	1	
.419	88	7.7	3.39	+0.37	0.85	20th	21	0	0	2	0	16	0	2	6	1	3	3	5	2	4	5	
.383	81	7.5	2.55	-0.04	0.52	18th	18	0	0	1	0	13	0	1	1	6	0	0	2	7	4	10	
.365	79	7.6	3.14	+0.36	0.58	11th	19	0	0	2	0	15	0	3	2	3	3	3	6	2	9	0	
.375	79	8.2	1.95	-0.90	0.49	8th	15	0	0	3	0	18	0	5	6	6	1	0	4	8	0	1	
.387	81	7.8	2.76	+0.10	1.22	8th	18	0	0	4	1	13	0	5	4	1	2	2	8	6	2	1	
.405	81	5.6	3.70	+1.00	1.38	3rd	17	0	1	4	8	10	0	5	1	3	5	5	2	5	5	0	
.407	80	6.5	2.40	+0.66	1.06	8th	18	0	0	5	1	8	0	3	5	2	5	3	3	5	5	0	
.433	81	5.5	1.94	-0.91	0.41	9th	17	0	1	7	5	6	0	1	3	4	3	3	4	2	10	1	
.429	78	5.7	3.84	+1.42	0.71	21st	17	0	0	4	5	11	0	7	2	3	2	3	3	4	7	0	
.406	78	7.5	2.36	+0.02	0.78	11th	17	0	0	5	1	11	0	3	2	3	4	2	6	7	4	0	
.406	77	7.4	3.73	+1.15	0.69	19th	18	0	0	3	4	16	0	5	2	1	4	3	4	7	4	1	
.427	76	6.3	2.10	-0.28	0.34	23rd	17	0	0	5	8	13	0	1	4	5	3	3	6	6	3	0	
.431	77	5.7	2.41	?	0.65	12th	13	0	0	9	5	9	0	6	1	5	0	6	3	5	4	0	
.465	81	6.2	2.64	+0.69	1.17	16th	14	0	0	4	2	7	0	4	2	7	0	0	5	9	4	0	
.490	85	5.5	4.55	+2.35	1.26	15th	14	0	0	4	2	3	4	3	5	4	0	2	6	7	4	0	
.409	84	7.1	3.67	+0.76	1.11	7th	15	0	0	3	3	15	0	0	8	5	0	2	2	6	7	1	
.377	90	7.6	5.89	?	1.73	18th	22	0	1	2	1	19	0	4	6	4	3	4	4	5	1	0	
.402	76	6.8	3.16	+0.20	1.40	8th	16	0	0	0	4	14	0	2	2	3	7	1	1	10	3	2	
.431	82	6.5	1.29	-1.11	0.35	18th	15	0	0	0	0	7	0	5	2	1	1	3	5	5	6	3	
.443	85	6.0	2.32	-0.22	0.53	15th	11	0	0	0	1	4	1	7	1	1	4	4	1	6	7	0	
.473	89	7.2	4.89	+2.65	2.05	4th	19	0	0	2	0	11	0	3	3	2	1	1	10	7	4	0	
.391	83	8.5	5.23	?	2.81	9th	17	0	0	1	1	22	1	6	1	4	4	4	4	2	6	0	
.439	90	6.5	2.83	+0.01	0.92	9th	17	0	0	3	1	11	0	5	2	3	4	1	5	7	4	0	
.422	81	7.4	3.17	?	0.65	18th	23	0	0	1	1	15	0	4	2	2	3	1	5	5	9	0	
.436	86	8.3	2.05	-0.91	0.59	9th	16	0	0	0	0	18	0	0	2	0	5	0	9	0	4	12	
.464	86	8.2	2.97	-0.93	0.68	6th	23	0	0	0	0	18	2	7	2	0	1	3	6	4	5	3	
.433	82	6.2	2.65	-0.64	0.60	10th	14	0	0	2	0	7	0	5	1	1	4	2	2	5	11	0	
.477	85	6.4	3.76	+1.30	0.90	20th	17	0	0	1	1	3	0	3	1	1	2	2	6	6	10	0	
.479	79	6.7	2.68	+0.28	1.15	4th	19	0	0	2	1	9	0	0	0	2	1	2	7	11	6	1	

barometer at this station is not reduced for altitude.

TABLE XIV.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT for the Month of JULY 1893.

STATIONS.	AIR TEMPERATURE.				RAINFALL.				BRIGHT SUNSHINE.								
	Means of				Absolute Extremes.				Nc. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	Nc. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	°	°	°	°	°	*	*	*	ins.	ins.	ins.	*	155°0	+ 9°9	°/29	°/2	
LAIRG	50°2	63°9	57°1	+ 1°5	40	1st, 18th	79	7th	24	4°08	+ 1°13	0°66	18th	—	—	—	
GLENCARRON	50°3	64°3	57°3	+ 2°4	43	27th	79	8th	20	5°77	- 0°33	0°69	16th	—	—	—	
FORT AUGUSTUS	51°4	65°6	58°5	+ 1°5	44	27th	81	8th	22	3°08	- 0°06	0°73	11th	70°2	?	13	
FORT WILLIAM	52°4	64°8	58°6	+ 1°4	42	27th	78	8th	19	4°65	- 0°72	0°90	18th	110°3	?	21	
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	*	*	120°1	- 51°1	23	- 10
BRAEMAR	48°0	62°6	55°3	+ 0°3	42	1st	74	7th	23	3°16	+ 0°25	0°72	18th	145°8	?	28	
EDINBURGH	—	—	—	—	—	—	—	—	—	—	—	—	—	114°2	?	22	
OCHTERTYRE	49°6	67°4	58°5	+ 1°0	39	22nd	79	2nd	13	2°90	- 0°46	0°85	18th	—	—	—	
MARCHMONT	50°1	64°6	57°4	0°0	42	1st	80	7th	19	2°69	- 0°80	1°06	8th	162°5	?	31	
ALNWICK CASTLE	51°5	62°9	57°2	- 0°5	44	27th	68	19th, 24th	15	2°68	- 0°24	1°25	8th	—	—	—	
DURHAM	50°4	68°0	59°2	- 0°3	41	28th, 29th	81	2nd, 7th	18	4°48	+ 1°50	2°42	8th	135°9	- 26°9	27	- 5
SCARBOROUGH	52°8	64°7	58°8	- 0°6	47	28th	72	2nd, 10th	16	2°57	- 0°21	1°04	8th	—	—	—	
OSWALDKIRK	—	—	—	—	—	—	—	—	—	—	—	—	—	158°3	?	31	
YORK	*	*	*	*	*	*	*	*	*	*	*	*	*	172°2	+ 10°6	34	+ 2
HILLINGTON	52°7	70°6	61°7	+ 0°5	42	28th	90	8th	18	4°32	+ 1°35	1°18	10th	190°7	- 2°0	38	- 1
GELDESTON	52°7	69°3	61°0	- 0°2	44	28th	85	8th	20	1°83	- 0°83	0°24	8th, 11th	212°7	+ 6°1	43	+ 3
CAMBRIDGE	*	*	*	*	*	*	*	*	*	*	*	*	*	184°6	- 10°4	37	- 2
ROTHAMSTED	53°1	70°6	61°9	+ 1°1	45	28th	84	7th, 8th	18	2°89	+ 0°10	0°42	8th, 12th	187°1	?	38	?
BAWTRY	50°4	70°9	60°7	- 0°1	41	27th	88	8th	20	3°38	+ 0°62	0°88	12th	—	—	—	
WORKSOP	—	—	—	—	—	—	—	—	—	—	—	—	—	153°9	- 6°0	31	- 1
STAMFORD (KETTON HALL)	52°6	71°9	62°3	+ 0°3	40	28th	87	7th	20	2°41	- 0°31	0°50	2nd	—	—	—	
THURCASTON	—	—	—	—	—	—	—	—	—	—	—	—	—	162°2	- 1°5	32	- 1
CHEADLE	52°6	67°1	59°9	+ 1°5	47	22nd	82	7th	19	4°96	+ 1°83	1°97	3rd	—	—	—	
CHURCHSTOKE	52°0	68°5	60°5	+ 1°8	44	15th	82	7th	14	1°73	- 0°93	0°40	11th	171°5	- 3°4	34	- 1
HEREFORD	54°4	71°5	63°0	+ 2°1	48	18th	86	1st	16	2°25	- 0°13	0°39	12th	—	—	—	
CIRENCESTER	53°5	69°9	61°7	+ 1°8	46	18th	83	7th	18	2°85	- 0°20	0°48	19th	185°4	+ 2°1	38	+ 1
OXFORD	*	*	*	*	*	*	*	*	*	*	*	*	*	191°5	+ 2°3	39	+ 1
LONDON	*	*	*	*	*	*	*	*	*	*	*	*	*	169°1	- 6°0	34	- 2
MARGATE	—	—	—	—	—	—	—	—	—	—	—	—	—	191°1	?	39	?
STRATHFIELD TURGISS	52°3	72°9	62°6	+ 0°7	46	1st, 28th, 29th	86	7th	16	2°34	- 0°02	0°54	11th	—	—	—	
MASTINGS	55°9	68°7	62°3	+ 0°5	48	18th	79	7th	16	4°06	+ 1°84	1°29	16th	227°2	+ 4°8	46	+ 1
EASTBOURNE	—	—	—	—	—	—	—	—	—	—	—	—	—	204°2	?	42	?
BRIGHTON	—	—	—	—	—	—	—	—	—	—	—	—	—	212°8	?	43	?
WESTBOURNE (SUSSEX)	—	—	—	—	—	—	—	—	—	—	—	—	—	205°9	?	42	?
SOUTHAMPTON	55°9	71°5	63°7	+ 1°4	50	18th	81	2nd, 6th	14	4°01	+ 1°35	1°01	13th	206°0	- 0°5	42	0
STOWELL	54°3	68°2	61°3	+ 1°4	48	27th	81	1st	21	3°92	?	0°75	15th	—	—	—	
LAUDALE	52°1	65°4	58°8	+ 1°5	43	27th	77	1st	20	5°26	- 0°31	0°74	20th	—	—	—	
GLASGOW	52°1	65°6	58°9	+ 1°1	44	23rd	78	7th	11	2°62	- 0°92	0°97	18th	150°3	+ 16°3	29	+ 3
GLENLEE	49°6	67°0	58°3	+ 1°1	40	18th, 23rd	76	7th	16	3°48	- 0°80	1°03	18th	—	—	—	
DOUGLAS	52°5	65°6	59°1	+ 1°6	46	23rd, 28th	73	2nd, 3rd, 5th, 7th	19	3°68	+ 0°63	0°90	18th	212°3	+ 16°0	42	+ 3
STONYHURST	53°6	66°5	60°1	+ 1°1	50	6th, 22nd, 23rd, 28th	80	7th	20	5°05	+ 0°51	1°06	18th	172°8	+ 6°5	34	+ 1
BLACKPOOL	55°9	68°2	62°1	+ 2°4	50	6th	84	7th	19	3°15	- 0°09	0°96	8th	195°1	+ 16°5	39	+ 4
MANCHESTER	53°6	68°7	61°2	+ 2°1	48	22nd	83	7th	17	3°49	- 0°37	0°76	12th	148°1	?	30	?
LLANDUDNO	55°5	67°4	61°5	+ 1°2	52	15th, 29th	79	6th	12	2°50	- 0°16	1°21	8th	182°4	+ 17°9	36	+ 3
LLANDOVERY	52°8	71°6	62°2	+ 2°6	42	22nd, 28th	84	7th	20	3°79	- 0°19	0°59	18th	—	—	—	
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	*	*	213°1	+ 11°0	43	+ 2
BRISTOL (MONTPELLIER)	56°7	72°1	64°4	+ 3°3	51	18th	85	3rd	16	3°60	?	0°96	19th	—	—	—	
TENBY	—	—	—	—	—	—	—	—	—	—	—	—	—	209°0	?	42	?
ARLINGTON	53°2	66°7	60°0	+ 1°0	45	28th	80	1st	15	7°20	+ 2°45	1°53	23rd	—	—	—	
CULLOMPTON	54°1	69°8	62°0	+ 1°6	45	15th, 28th	80	3rd	19	5°67	+ 2°70	1°70	15th	164°9	- 12°2	34	- 2
TORQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	202°4	?	42	?
NEWQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	224°0	?	46	?
FALMOUTH	56°7	66°5	61°6	+ 1°4	53	15th, 28th	75	3rd	14	5°13	+ 1°85	1°33	4th	223°9	+ 13°0	46	+ 3
PLYMOUTH	56°0	67°2	61°6	0°0	48	28th	77	1st	20	5°03	+ 2°20	1°33	4th	192°0	- 0°2	40	0
GUERNSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	235°3	?	49	?
JERSEY	*	*	*	*	*	*	*	*	*	*	*	*	*	227°7	- 2°7	47	- 1
LONDONDERRY	52°1	68°7	60°4	+ 1°7	48	21st, 22nd, 23rd, 27th	79	1st	20	3°93	+ 0°47	1°12	9th	—	—	—	
BENFEL (OMAGH)	51°2	66°5	58°9	+ 0°8	43	20th	76	1st	18	3°64	+ 0°27	0°73	18th	—	—	—	
MARKREE CASTLE	51°2	66°0	58°6	+ 1°3	42	3rd, 21st	73	5th, 23rd	23	2°51	- 0°77	0°64	18th	152°8	+ 23°9	30	+ 4
BROOKBOROUGH	50°9	66°8	58°9	+ 1°4	45	3rd, 4th, 22nd	74	1st, 3rd	17	4°66	+ 1°07	0°82	10th	—	—	—	
ARMAGH	51°4	66°9	59°2	+ 0°9	45	27th	74	1st	17	2°19	- 1°00	0°53	9th	183°9	+ 45°1	36	+ 9
EDGEWORTHSTOWN	50°8	67°1	59°0	+ 0°9	43	21st	74	1st, 3rd	19	3°71	+ 0°03	1°14	12th	—	—	—	
ARLEY COTTAGE (COUNTY CAVAN)	—	—	—	—	—	—	—	—	—	—	—	—	—	173°9	?	34	?
DUBLIN	55°0	68°1	61°6	+ 1°5	50	22nd	75	23rd	14	2°04	- 0°33	0°87	12th	190°3	+ 20°9	38	+ 6
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	*	*	121°9	+ 25°2	24	- 5
KILKENNY CASTLE	52°7	68°1	60°4	+ 1°3	44	21st	76	3rd	15	1°93	- 0°59	0°48	10th	—	—	—	
WATERFORD	53°1	70°7	61°9	+ 2°0	46	15th	77	3rd	17	1°63	- 1°29	0°55	10th	—	—	—	
VALENCIA (CAHIR-CIVREN)	*	*	*	*	*	*	*	*	*	*	*	*	*	150°5	- 7°0	30	- 2
KILLARNEY	54°0	66°3	60°2	+ 1°4	42	21st	75	5th	24	3°44	?	1°56	8th	—	—	—	
FOYNES	55°4	66°5	61°0	+ 2°3	47	20th	75	3rd, 6th	22	2°89	?	0°76	8th	—	—	—	

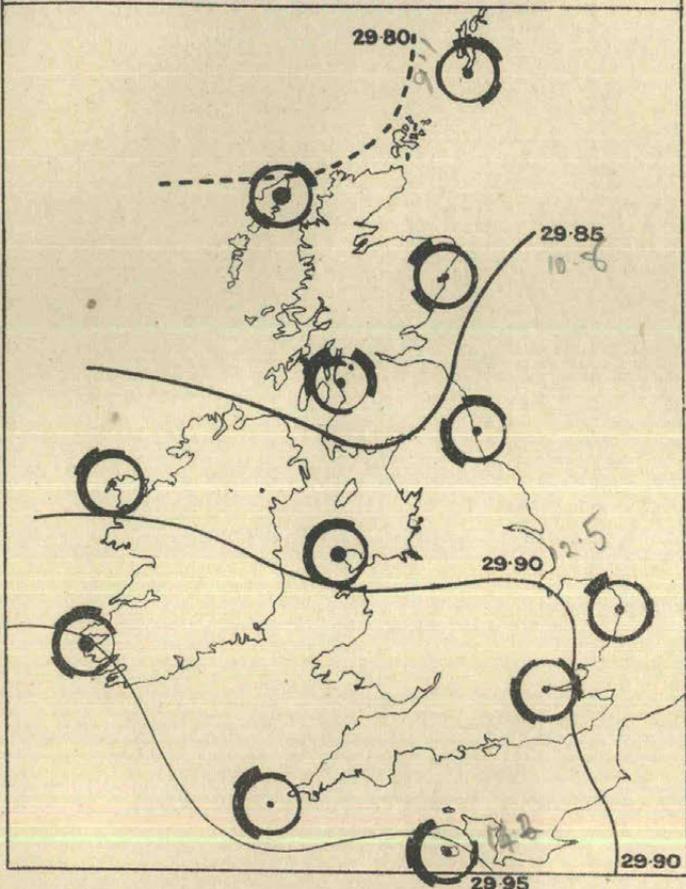
* For information see Table XIII

MONTHLY WEATHER CHART, JULY, 1893.

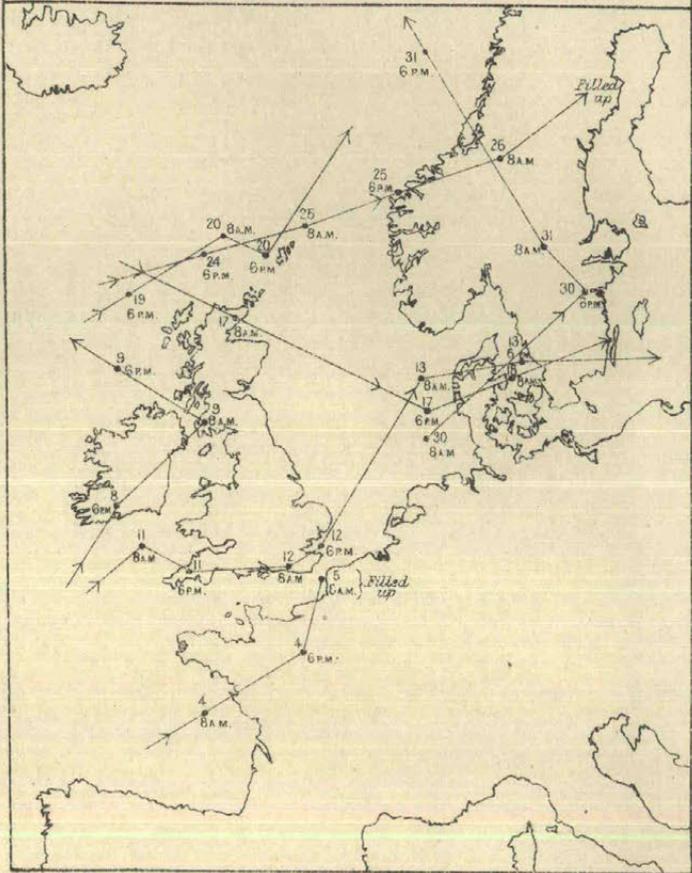
Monthly Summary.

Plate VII.

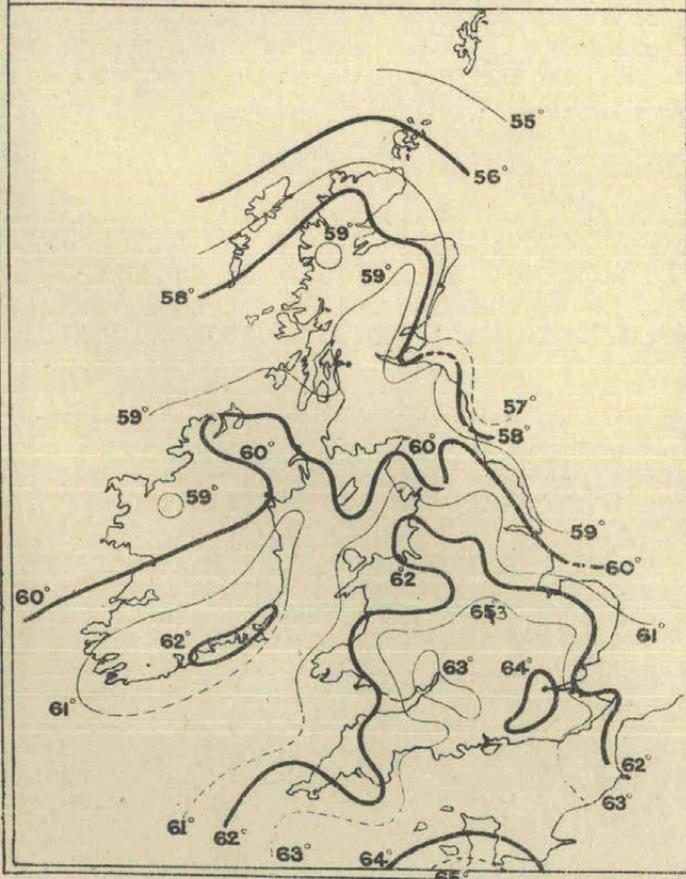
1. BAROMETER AND WIND.



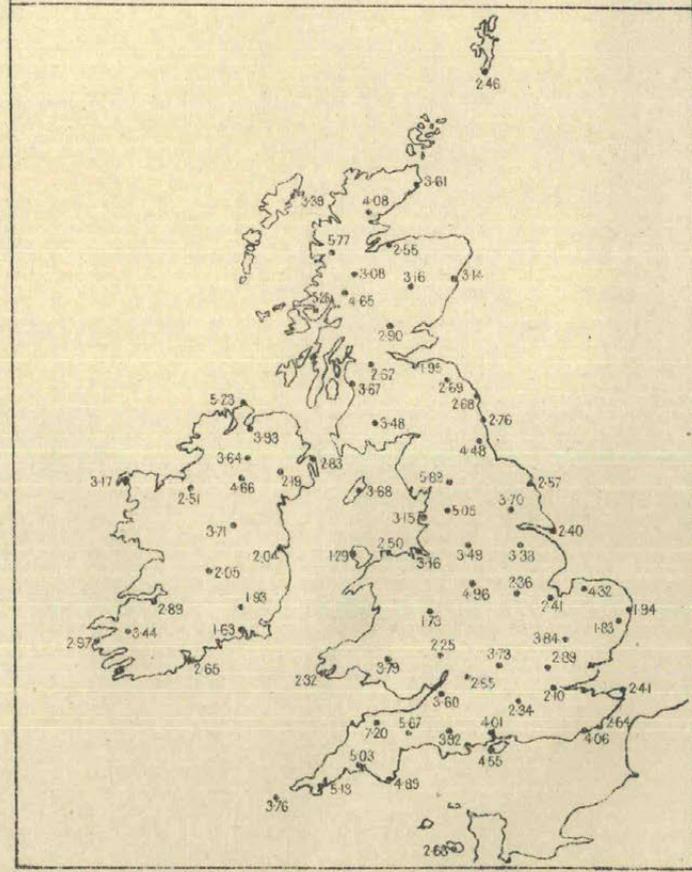
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



**SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS, for the
CALENDAR MONTH,**

AUGUST 1893.

(Issued as a Supplement to the Weekly Weather Report, 1893.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of August was changeable and showery in the western and northern parts of the kingdom, but mostly fine in the eastern and southern districts. Thunderstorms were of frequent occurrence over Great Britain. Pressure and temperature were each in excess of the average; the winds were chiefly South-westerly; rainfall showed a deficiency in nearly all the eastern, central, and southern districts, but was in excess of the normal in the west and north; bright sunshine was unusually prevalent in most places.

Pressure.—Mean for the month at 8 a.m. ranged from 30·05 ins. and upwards, over the English Channel to a little below 29·85 ins. in the Shetland and Hebrides. The general distribution was in close agreement with the normal, but the actual values were a little above the average,* the excess being greatest (0·09 in. or more) over the central and south-eastern parts of England, and least (0·04 in. or less) on the west coasts of Ireland and Scotland. *Highest* readings were recorded on the 28th or 29th, when the barometer rose to between 30·3 ins. and 30·4 ins. over the entire kingdom. *Lowest* readings were observed as a rule on the 21st, when the mercury fell below 28·8 ins. in the extreme north of Scotland, below 29·5 ins. over the northern parts of our islands generally, and below 29·7 ins. in the southern and south-eastern districts. *Range* was small in the south, but rather large for the time of year in the extreme north.

Depressions.—The tracks of the depressions lay as a rule to the westward or north-westward of our Islands, but on the 21st and 22nd an Atlantic disturbance came sufficiently near to our coast to enable its course to be laid down on Map 2, Plate VIII. During the concluding week numerous depressions were observed over Scandinavia and northern Russia, but the systems were mostly ill-defined, and their movements very erratic; their tracks cannot therefore be drawn on Map 2.

Anticyclones.—During the early part of the month the highest pressures were found over the more central parts of Europe, but on the 12th they spread westwards over our Islands, a definite anticyclone being observed in our neighbourhood until the 16th, when it moved away to the eastward. A second anticyclone spread over the United Kingdom from the south-westward on the 24th and remained with us until the close of the month, its central area being situated for the most part off our western coasts.

Winds although chiefly South-westerly, were rather variable on our south-western and extreme northern coasts; at Valencia there was a somewhat undue prevalence of calms. The number of gales was, as a rule, small, but at Stornoway there were four such occasions, while at Hurst Castle there were as many as six. The Southerly gale which occurred in Scotland on the 21st was rather severe for the time of year.

Temperature.—*Mean at Sea Level* ranged from about 68° in the Channel Islands, 66° in London, and 65°, or more in several parts of central and southern England, to 57° in the Hebrides and 54° in the Shetlands. The general distribution was fairly normal, but the actual values were everywhere above the average,* the excess ranging in most places between three and four degrees. *Highest* readings were observed on the 9th in the west of Scotland, on the 14th or 15th in other parts of Scotland and in Ireland, and on the 18th at most of the English stations. On one or other of these dates the thermometer exceeded 80° in nearly all districts, and in many parts of England it exceeded 90°, the highest readings of all being 93° at Stamford and in London. *Lowest* readings occurred either on the 6th or between the 27th and 29th, but presented no features of special interest excepting at Braemar, where the thermometer on the 28th fell to 31°. *Range* was large,—over 40° at many of our stations, and over 50° in several parts of our midland and south-eastern counties. *Vapour Tension* ranged from between 0·40 in. and 0·45 in. over the northern and central parts of the United Kingdom, but exceeded 0·49 in. on our extreme south and south-west coasts, and was as high as 0·51 in. at Hurst Castle. *Relative Humidity* was lowest (80 per cent. or less) over the central parts of England and in the Channel Islands, and highest (94 per cent.) in the Shetlands and Hebrides.

Rainfall was in excess of the average* in Ireland, the north-west of England and many parts of Scotland, but showed a deficiency in most other districts. At some of the extreme southern stations the aggregate fall was less than half the average. The largest totals recorded were 7·0 ins. at Hawes Junction, 6·6 ins. at Fort William, and 6·1 ins. at Stonyhurst; while the smallest amounts were 0·7 in. at Hurst Castle, 0·8 in. at Hastings, and 1·1 in. at Geldeston and Oxford. The number of rainy days was small over England, but large in the extreme western and northern parts of the kingdom; at Lairg and Glencarron there were 27 such occasions, and at Stornoway and Londonderry as many as 28. Amounts exceeding an inch in 24 hours were recorded on various dates at several of our western and northern stations, the largest of all being 1·9 ins. at Stonyhurst on the 2nd.

Bright Sunshine was unusually prevalent in all districts excepting the north of Scotland and the south of Ireland, where the aggregate amount differed very little from the normal. At many stations situated in the southern parts of England the per-centage of the possible duration exceeded 55, and in the Channel Islands it ranged between 71 and 72. In Ireland and Scotland, however, there was less than 40 per cent. of the possible amount, and the smallest value of all was 18 per cent. at Fort Augustus.

* The averages employed are—*Pressure* and *Temperature* for the 20 years, 1871–90; *Rainfall* for the 25 years, 1866–90; and *Bright Sunshine* for the 10 years, 1881–90.

TABLE XV.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								
				At 8 a.m.	Means of				Absolute Extremes.			
					Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.
0. SCOTLAND, N.	Sumburgh Head	ins. 29°838	ins. +0°057	53°9	49°5	57°8	53°7	+0°6	42	6th	65	18th
	Wick	29°878	+0°068	57°7	50°0	64°6	57°3	+2°6	38	28th	85	15th
	Stornoway	29°834	+0°038	57°5	51°6	62°0	56°8	+2°5	40	5th, 6th	72	10th
1. SCOTLAND, E.	Nairn	29°866	+0°047	59°1	51°3	67°0	59°2	+2°3	38	6th	77	15th
	Aberdeen	29°901	+0°069	59°2	52°1	65°7	58°9	+2°3	39	28th	78	15th
	Leith	29°900	+0°051	59°8	53°2	70°0	61°6	+3°1	42	28th	85	15th
2. ENGLAND, N.E.	Shields	29°933	+0°061	61°0	54°0	68°7	61°4	+3°6	44	28th	83	18th
	York	29°976	+0°070	61°2	54°8	72°1	63°5	+3°9	43	6th	86	18th
	Spurn Head	29°967	+0°062	62°3	56°9	68°5	62°7	+3°0	50	6th	87	18th
3. ENGLAND, E.	Yarmouth	30°013	+0°085	63°3	56°9	69°0	63°0	+2°4	49	27th	85	16th
	Cambridge	30°029	+0°092	62°6	54°7	75°4	65°1	+3°5	44	28th, 29th	92	18th
4. MIDLAND COUNTIES	Loughborough	30°019	+0°091	61°9	54°3	75°5	64°9	+3°8	42	28th, 29th	91	18th
	Oxford	30°035	+0°087	62°4	55°2	74°2	64°7	+3°5	42	29th	89	17th, 18th
5. ENGLAND, S.	London	30°048	+0°094	64°6	55°8	76°1	66°0	+3°3	42	29th	93	18th
	North Foreland	30°023	+0°073	64°4	58°3	70°4	64°4	+3°8	51	1st	89	18th
	Dungeness	30°035	+0°086	64°1	57°3	70°8	64°1	+2°1	45	29th	79	18th
	Hurst Castle	30°058	+0°093	65°1	58°2	72°2	65°2	+3°2	48	6th, 22nd, 26th, 29th.	82	15th
6. SCOTLAND, W.	Ardrossan	29°901	+0°044	60°6	54°7	65°7	60°2	+2°0	43	6th, 28th	78	9th
7. ENGLAND, N.W.	Hawes Junction*	28°739	?	57°0	50°5	65°2	57°9	?	38	6th	77	14th, 15th, 18th
	Liverpool	29°981	+0°075	62°7	57°7	69°5	63°6	+3°6	48	28th	85	17th
	Holyhead	29°972	+0°065	61°4	57°1	67°1	62°1	+2°6	48	6th	83	9th
8. ENGLAND, S.W.	Pembroke	30°007	+0°079	61°5	58°2	65°6	61°9	+2°5	52	29th	75	14th, 15th
	Prawle Point	30°056	+0°081	62°4	57°4	67°6	62°5	+2°6	50	6th	76	16th
9. IRELAND, N.	Malin Head	29°870	+0°015	58°9	56°0	64°5	60°3	+2°6	49	6th	79	15th
	Donaghadee	29°937	+0°058	59°6	56°3	66°3	61°3	+4°1	41	5th	73	7th
	Belmullet	29°904	+0°034	61°1	55°4	65°5	60°5	+1°3	46	21st, 26th	77	9th
10. IRELAND S.	Parsonstown	29°961	+0°041	59°8	54°6	69°7	62°2	+3°5	41	26th	82	14th, 15th, 16th
	Valencia (Cahiriveen)	29°975	+0°048	62°3	56°7	67°5	62°1	+2°7	46	29th	80	14th
	Roche's Point	29°994	+0°067	61°3	56°6	66°5	61°6	+1°6	49	27th	72	14th
CHANNEL ISLANDS	Scilly	30°028	+0°066	64°1	58°7	68°5	63°6	+2°6	54	29th	75	18th
	Jersey	30°076	+0°092	67°8	59°7	74°1	66°9	+3°9	50	6th	89	17th

Hawes Junction is 1,135 feet above mean sea level, and the

REPORTING STATIONS in the BRITISH ISLANDS during the Month of AUGUST 1893.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

(beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD.	RAINFALL.				WEATHER.							WIND.										
			Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Days of							No. of Observations of										
							Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.		
in. 0.390	% 94	8.7	ins. 3.23	ins. +0.07	ins. 0.81	3rd	26	0	0	0	0	21	0	6	5	4	1	3	1	4	2	5	5	5
434	91	6.1	2.01	-0.36	0.30	3rd, 31st	21	0	0	2	6	12	1	8	1	0	2	9	2	3	3	3	3	3
443	94	7.7	5.27	+1.60	1.00	21st	28	0	0	0	2	16	4	1	2	1	3	4	9	2	4	5	5	5
401	80	6.3	3.33	+0.58	0.88	15th	20	0	0	1	2	7	0	0	0	0	2	1	8	6	1	1	1	1
436	88	6.3	2.39	-0.64	0.79	15th	19	0	0	2	0	8	1	1	1	2	3	7	4	5	8	0	0	0
417	81	7.5	2.79	+0.23	0.53	4th	17	0	0	1	0	15	0	2	2	1	2	2	5	12	2	2	3	3
430	81	6.8	2.43	-0.42	0.67	18th	15	0	0	2	2	9	1	2	0	1	2	7	11	6	1	1	1	1
452	84	3.7	2.81	+0.27	0.79	5th	16	0	0	2	16	2	0	3	0	2	2	9	3	10	2	0	0	0
458	81	6.0	2.02	+0.16	1.05	5th	13	0	0	5	2	5	0	2	0	2	5	4	6	7	5	0	0	0
461	79	3.8	2.32	+0.17	0.76	4th	16	0	2	5	17	2	1	3	2	1	1	3	7	8	4	2	2	2
464	82	5.5	3.29	+1.10	1.21	11th	11	0	0	2	4	9	5	3	0	1	1	10	6	5	5	0	0	0
440	80	6.2	1.87	-0.66	0.49	3rd	16	0	0	3	3	4	3	1	1	1	4	5	7	7	3	2	2	2
434	77	6.2	1.07	-1.17	0.35	3rd	10	0	0	1	10	14	0	3	0	0	1	9	7	5	5	1	1	1
438	73	4.7	1.66	-0.55	0.73	4th	15	0	0	2	13	7	1	2	2	2	2	4	9	5	5	0	0	0
489	81	5.1	1.42	?	0.48	27th	13	0	0	3	8	9	1	3	2	1	3	6	6	6	4	0	0	0
494	83	5.7	1.95	-0.09	0.72	1st	10	0	0	0	1	5	0	4	3	3	0	2	8	6	3	2	2	2
509	82	4.8	0.69	-1.57	0.38	23rd	8	0	0	1	4	3	6	3	4	3	2	3	8	5	3	0	0	0
451	85	7.4	3.25	-0.53	0.66	20th	18	0	0	3	0	14	1	1	2	1	4	6	5	7	3	2	2	2
414	89	7.2	7.02	?	1.39	2nd	20	0	0	0	1	18	0	4	1	4	7	10	4	1	0	0	0	0
447	79	5.6	2.34	-0.49	0.46	3rd	17	0	0	0	8	9	0	1	1	1	6	3	8	8	2	1	1	1
458	85	6.4	2.88	+0.11	0.75	19th	16	0	0	3	0	10	0	3	0	1	1	8	8	4	5	1	1	1
473	87	6.4	2.51	-0.26	0.45	3rd	18	0	0	0	0	9	3	2	2	4	5	6	3	5	4	0	0	0
485	87	5.7	1.63	-0.51	0.76	1st	10	0	0	0	1	8	0	1	2	7	1	2	10	6	2	0	0	0
420	85	8.7	4.19	?	0.73	6th, 9th	24	0	0	2	1	24	2	4	0	2	2	11	3	3	6	0	0	0
450	88	6.5	4.18	+1.14	0.91	6th	19	0	0	1	1	7	1	1	0	1	5	5	8	4	7	0	0	0
450	83	7.2	4.96	?	1.38	17th	19	0	0	0	2	16	2	4	1	2	2	2	12	5	3	0	0	0
423	82	7.3	3.51	+0.13	0.77	20th	19	0	0	1	2	16	0	0	3	0	5	3	9	0	1	10	10	10
490	87	7.8	5.67	+0.97	1.06	10th	21	0	0	0	0	16	2	1	1	1	4	9	5	4	1	5	5	5
460	85	5.9	5.22	+1.60	1.05	10th	17	0	0	0	0	10	1	3	2	0	7	4	5	7	3	0	0	0
501	84	6.8	1.55	-0.84	0.53	3rd	13	0	0	1	1	7	0	1	2	6	2	7	4	6	3	0	0	0
489	72	5.3	1.30	-0.94	0.37	22nd	9	0	0	0	4	3	0	2	5	3	3	2	5	5	3	3	3	3

barometer at this station is not reduced for altitude

TABLE XVI.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of AUGUST 1893.

NAMES OF STATIONS.	AIR TEMPERATURE.				RAINFALL.				BRIGHT SUNSHINE.						
	Means of		Min. and Max. combined.	Difference from Average.	Absolute Extremes.		No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Percentage of possible Duration.	Difference from Average.
	Minima.	Maxima.			Minimum.	Date.									
STORNOWAY	°	°	°	°	°	*	*	ins.	ins.	ins.	*	117'1	- 5'6	25	- 1
LAIRG	49'5	66'1	57'8	+ 2'7	35	6th	79	16th, 17th	27	4'10	+ 1'30	0'90	4th	—	—
GLENCARRON	51'3	64'4	57'9	+ 3'3	37	6th	77	9th, 15th	27	5'48	- 1'12	1'58	21st	—	—
FORT AUGUSTUS	52'7	67'2	60'0	+ 3'7	37	6th	81	15th	23	3'29	+ 0'24	1'00	21st	83'2	18
FORT WILLIAM	53'3	65'0	59'2	+ 2'5	39	6th	81	9th	22	6'60	+ 0'90	1'16	21st	92'5	20
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	163'6	+ 8'3	35	+ 11
BRAEMAR	49'4	63'6	56'5	+ 2'6	31	28th	76	14th	24	2'99	- 0'75	0'52	21st	157'6	34
EDINBURGH	—	—	—	—	—	—	—	—	—	—	—	178'0	?	39	?
OCHTERTYRE	51'2	69'3	60'3	+ 3'4	38	27th	82	14th, 15th	18	4'17	+ 0'68	1'21	20th	—	—
MARCHMONT	52'9	68'4	60'7	+ 4'3	42	28th	83	15th	20	2'30	- 1'16	0'30	20th	198'3	43
ALNWICK CASTLE	53'9	67'1	60'5	+ 3'5	45	27th	80	18th	16	1'78	- 1'27	0'31	19th	—	—
DURHAM	52'9	71'7	62'3	+ 3'8	44	28th	86	15th	19	2'14	- 0'63	0'31	2nd	194'8	+ 42'1
SCARBOROUGH	55'5	71'1	63'3	+ 4'7	46	6th	91	18th	15	1'35	- 1'32	0'46	2nd	—	—
OSWALDKIRK	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
YORK	*	*	*	*	*	*	*	*	*	*	*	189'1	?	42	?
HILLINGTON	53'8	73'7	63'8	+ 3'3	41	29th	89	18th	14	1'41	- 1'31	0'32	3rd	211'6	+ 37'5
GELDESTON	53'9	73'5	63'7	+ 3'0	43	29th	90	18th	16	1'14	- 0'75	0'28	4th	202'0	+ 10'3
CAMBRIDGE	*	*	*	*	*	*	*	*	*	*	*	227'3	+ 50'7	51	+ 11
ROTHAMSTED	53'8	72'8	63'3	+ 3'0	41	29th	91	18th	11	2'32	- 0'10	0'35	3rd	224'4	?
BAWTRY	52'5	74'0	63'3	+ 3'5	40	5th	91	18th	14	1'62	- 0'78	0'39	9th	—	—
WORKSOP	—	—	—	—	—	—	—	—	—	—	—	198'6	+ 49'9	44	+ 11
STAMFORD (KETTON HALL).	53'5	75'4	64'5	+ 3'5	40	29th	93	18th	12	1'62	- 0'64	0'43	11th	—	—
THURCASTON	—	—	—	—	—	—	—	—	—	—	—	228'8	+ 71'8	51	+ 16
CHEADLE	53'9	70'3	62'1	+ 4'3	43	6th	83	18th	15	2'80	- 0'76	1'12	31st	—	—
CHURCHSTOKE	52'6	71'7	62'2	+ 3'9	38	29th	86	15th	12	1'93	- 0'78	0'37	22nd	215'7	+ 48'9
HEREFORD	53'5	74'9	64'2	+ 3'7	41	6th, 29th	87	15th, 17th, 18th	13	1'62	- 0'80	0'54	10th	—	—
CIRENCESTER	52'2	73'0	62'6	+ 3'6	41	6th	85	18th	11	2'29	- 0'75	1'34	3rd	230'8	+ 51'1
OXFORD	*	*	*	*	*	*	*	*	*	*	*	234'2	+ 51'6	53	+ 12
LONDON	*	*	*	*	*	*	*	*	*	*	*	216'3	+ 52'0	48	+ 11
MARGATE	—	—	—	—	—	—	—	—	—	—	—	228'0	?	52	?
STRATHFIELD TURGISS	52'5	75'7	64'1	+ 2'6	37	29th	91	17th	16	1'66	- 0'47	0'43	4th	—	—
HASTINGS	57'4	71'4	64'4	+ 2'7	49	6th, 28th, 29th	82	18th	10	0'82	- 1'56	0'18	23rd	262'7	+ 58'8
EASTBOURNE	—	—	—	—	—	—	—	—	—	—	—	247'4	?	56	?
BRIGHTON	—	—	—	—	—	—	—	—	—	—	—	258'6	?	58	?
WESTBOURNE (SUSSEX)	—	—	—	—	—	—	—	—	—	—	—	242'2	?	55	?
SOUTHAMPTON	56'3	74'2	65'3	+ 3'2	45	6th, 26th, 29th	87	16th	9	1'29	- 1'33	0'43	20th	235'5	+ 32'6
STOWELL	53'9	71'1	62'5	+ 2'4	42	6th	85	17th	13	2'04	?	0'47	3rd	—	—
LAUDALE	53'1	65'5	59'3	+ 2'4	41	6th	80	9th	25	4'97	- 0'27	0'74	23rd	—	—
GLASGOW	53'7	66'5	60'1	+ 3'2	42	28th	80	9th	16	3'12	- 0'65	0'74	20th	152'8	+ 22'9
GLENLEE	51'3	67'8	59'6	+ 3'1	34	28th	81	9th	17	5'54	+ 1'14	1'21	20th	—	—
DOUGLAS	53'7	65'5	59'6	+ 2'4	41	6th	76	15th	18	3'78	+ 0'21	0'83	6th	200'6	+ 29'9
STONYHURST	54'6	67'8	61'2	+ 2'6	44	6th, 28th	79	15th, 17th, 18th	19	6'09	+ 1'38	1'94	2nd	192'6	+ 42'9
BLACKPOOL	57'7	69'0	63'4	+ 4'0	46	28th	83	9th	17	4'33	+ 1'27	0'80	19th	192'1	+ 33'2
MANCHESTER	54'6	70'5	62'6	+ 3'7	45	28th	84	15th	17	2'49	- 1'04	0'39	22nd	156'4	?
LLANDUDNO	57'7	69'0	63'4	+ 3'2	46	28th	82	9th, 15th	12	1'45	- 1'22	0'26	2nd	203'0	+ 46'8
LLANDOVERY	52'5	73'2	62'9	+ 3'2	38	29th	88	15th, 17th	16	3'04	- 1'52	0'65	11th	—	—
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	211'4	+ 10'1	47	+
BRISTOL (MONTPELLIER)	56'6	79'9	65'8	+ 5'1	45	26th, 28th	88	17th	10	2'49	—	0'85	3rd	—	—
TENBY	—	—	—	—	—	—	—	—	—	—	—	213'0	?	48	?
ARLINGTON	54'5	68'8	61'7	+ 2'9	45	6th	82	17th	16	5'07	+ 0'10	1'42	19th	—	—
CULLOMPTON	53'2	72'7	63'0	+ 3'3	42	27th	84	16th	11	1'45	- 1'30	0'54	3rd	226'7	+ 42'9
TORQUAY	—	—	—	—	—	—	—	—	—	—	—	246'7	?	56	?
NEWQUAY	—	—	—	—	—	—	—	—	—	—	—	235'8	?	53	?
FALMOUTH	57'5	68'2	62'9	+ 2'4	50	27th	74	18th	13	1'21	- 2'37	0'37	3rd	229'6	+ 23'4
PLYMOUTH	56'7	68'9	62'8	+ 1'1	48	27th	79	15th	15	1'96	- 0'83	0'34	19th	212'5	+ 17'7
GUERNSEY	—	—	—	—	—	—	—	—	—	—	—	311'9	?	71	?
JERSEY	—	—	—	—	—	—	—	—	—	—	—	316'2	+ 73'3	72	+ 17
LONDONERRY	54'3	69'6	62'0	+ 3'7	43	6th	84	15th	28	4'98	+ 1'19	0'69	23rd	—	—
EDENFEL (OMAGH)	53'5	67'5	60'5	+ 3'2	41	5th, 29th	81	14th	21	3'62	+ 0'03	1'50	9th	—	—
MARKREE CASTLE	53'0	67'8	60'4	+ 3'3	41	26th	80	14th, 15th	23	4'29	+ 0'69	0'89	6th	148'1	+ 20'3
BROOKEBOROUGH	53'5	67'6	60'6	+ 3'6	40	29th	81	15th	21	5'11	+ 1'67	1'63	6th	—	—
ARMAGH	52'9	67'6	60'3	+ 2'4	43	29th	79	15th	19	4'55	+ 1'64	0'81	20th	169'3	+ 50'9
EDGEWORTHSTOWN	52'8	68'3	60'6	+ 3'0	40	26th	81	14th, 15th	19	4'37	+ 0'94	0'65	6th	—	—
ARLEY COTTAGE (COUNTY CAVAN).	—	—	—	—	—	—	—	—	—	—	—	173'7	?	38	?
DUBLIN	56'4	69'6	63'0	+ 3'5	48	26th, 28th	80	15th	16	2'71	- 0'08	0'52	18th	224'8	+ 63'2
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	163'4	+ 18'0	36	+ 4
KILKENNY CASTLE	54'6	69'7	62'2	+ 3'2	45	29th, 31st	80	14th, 15th	14	3'58	+ 0'23	0'85	20th	—	—
WATERFORD	54'7	69'9	62'3	+ 2'5	44	29th	77	14th	17	4'40	+ 0'83	1'14	10th	—	—
VALENCIA (CAHIR-CIVERN).	*	*	*	*	*	*	*	*	*	*	*	166'3	+ 5'0	37	+
KILLARNEY	55'3	67'7	61'5	+ 2'2	41	27th	80	14th	20	4'34	?	0'67	10th	—	—
FOYNES	55'8	69'1	62'5	+ 3'9	46	26th	82	14th	16	2'97	?	0'54	3rd	—	—

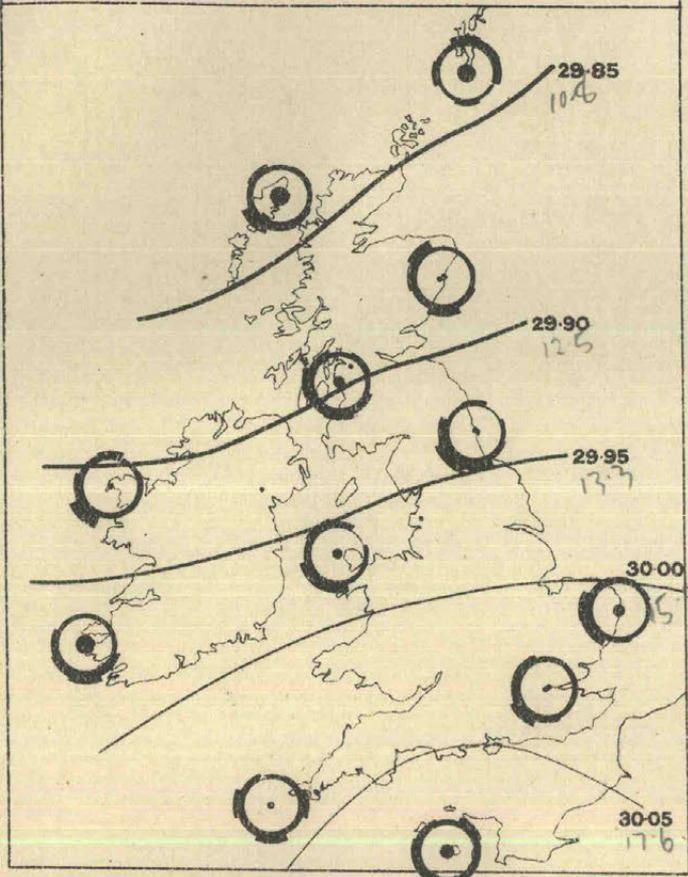
* For information see Table XV.

MONTHLY WEATHER CHART, AUGUST, 1893.

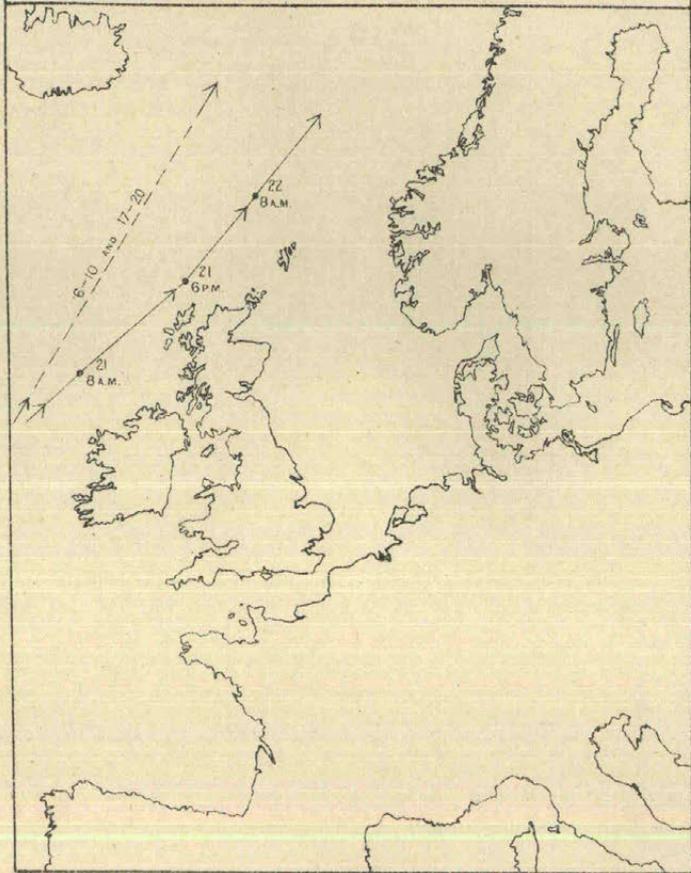
Monthly Summary.

Plate VIII.

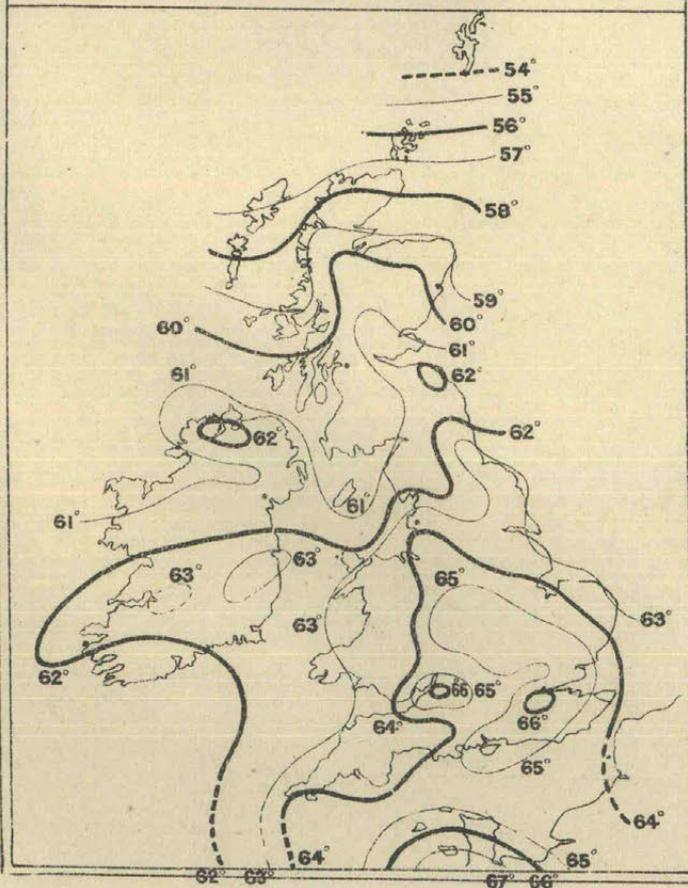
1. BAROMETER AND WIND.



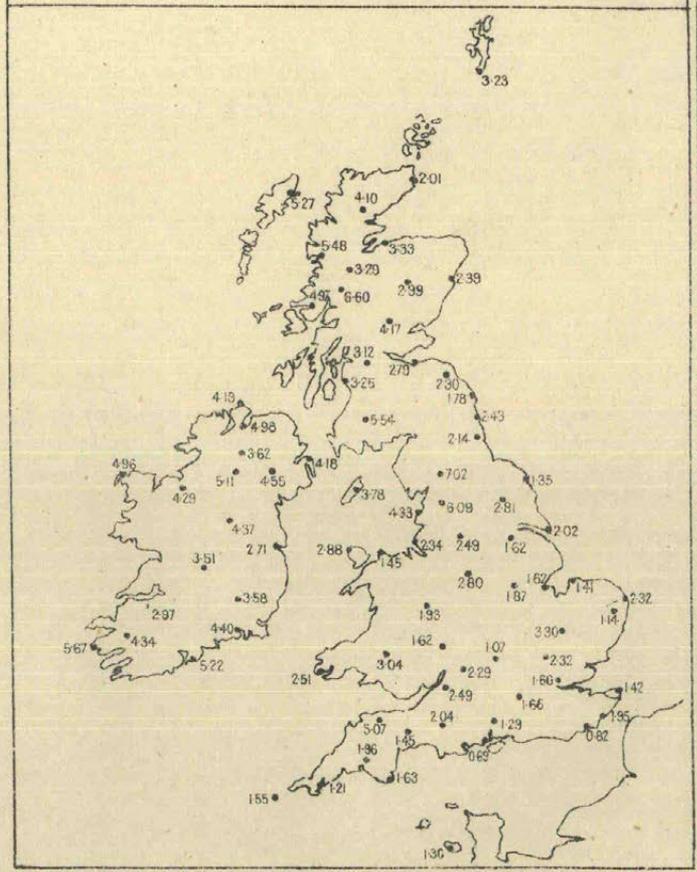
2. MOVEMENTS OF DEPRESSIONS.

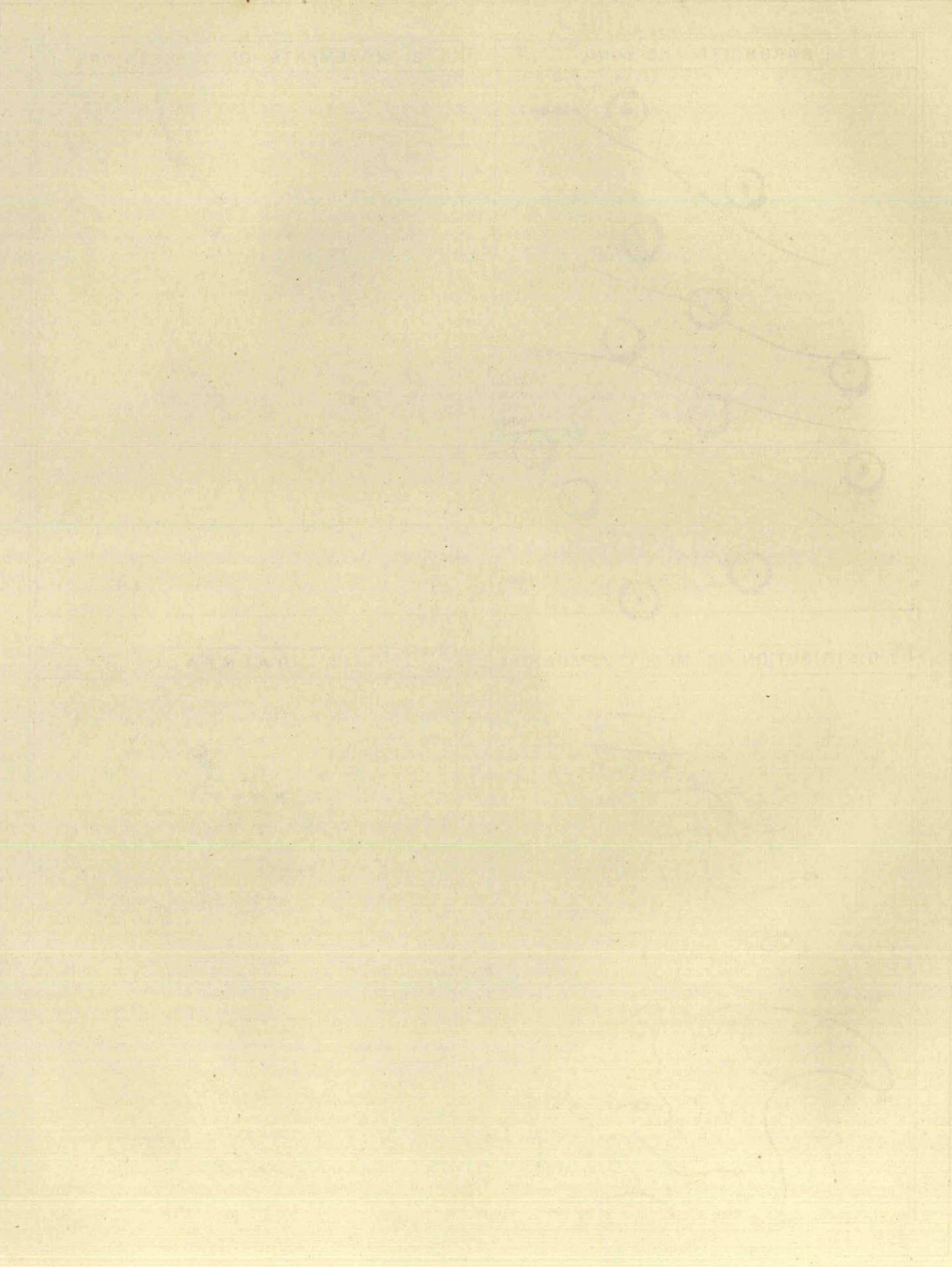


3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.





SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS, for the
CALENDAR MONTH,

SEPTEMBER 1893.

(Issued as a Supplement to the Weekly Weather Report, 1893.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of September was rainy and unsettled in the northern and also in the extreme southern parts of the United Kingdom, but mostly fair and dry in the intermediate districts. Snow or sleet was experienced at many of the northern stations between the 22nd and 24th. Pressure was low, the deficiency being greatest in the north; temperature differed but little from the normal; the winds were chiefly Westerly; rainfall was less than the average in most places, but showed a considerable excess in the north of Scotland as well as at some of the English Channel stations. The duration of bright sunshine was in excess of the normal.

Pressure.—*Mean for the Month at 8 a.m.* ranged from 29·90 ins. and upwards in the extreme southern and south-western parts of our Islands to a little above 29·55 ins. in the Shetlands. The values were below the average* in all districts, the deficit being greatest (0·15 in. to 0·20 in.) in Scotland and least (about 0·02 in.) in the south of Ireland. The mean gradient was therefore steeper than usual, and the general distribution of pressure was favourable for winds from a more Westerly quarter than is shown by the map of normal values. *Highest* readings were observed mostly on the 12th, when the barometer rose to between 30·1 ins. and 30·2 ins. in Scotland and to 30·3 ins. or more over the greater part of Ireland and England. *Lowest* readings occurred on the 29th or 30th, when the mercury fell to a little below 28·7 ins. in the Hebrides to 29·0 ins., or less, over Scotland generally, and to about 29·3 ins. on our extreme southern coasts. *Range* was moderate in the south, but rather larger in the north.

Depressions.—Throughout the greater part of the month a series of large cyclonic systems passed from the westward across the northern parts of Scandinavia, their tracks lying in most cases outside the limits of Map 2, Plate IX. In some few instances, however, secondary disturbances were developed over the North Sea and the south of Scandinavia, the path followed by the system of the 21st and 23rd being somewhat irregular. The only depression of note which appeared in the neighbourhood of our southern coasts was a rather well-defined system which advanced towards the mouth of the Channel on the 10th, and which afterwards travelled south-eastwards and southwards to the Bay of Biscay and Spain.

Anticyclones.—The only anticyclones observed over our Islands were:—(1.) An area of moderate intensity, which moved eastwards across the United Kingdom on the 2nd and 3rd, and which afterwards travelled south-eastwards to the Continent; and (2.) A large system which spread over from the north-westward on the 10th and 11th, and which finally passed away to the southward on the 15th.

Winds were chiefly from the Westward, and a considerable number of gales occurred on our southern and extreme northern coasts. At Stornoway the wind reached the force of a gale on as many as 11 days.

Temperature.—*Mean at Sea Level* ranged from a little below 62° at Jersey and from between 58° and 59° over the south-east counties and on the extreme south-western coasts of England, to a little below 50° in the Shetlands, the general distribution agreeing very closely with the normal. The actual values were slightly above the average* in the western, central, and southern parts of England, and also in the north of Ireland, but a trifle below it in nearly all other districts. *Highest* readings were observed mainly between the 4th and 6th, when the thermometer rose to 70° or more in Ireland and Scotland, and to 75° or more over the inland parts of England; at Cambridge the reading on the 6th was as high as 80°, and that in London 81°. *Lowest* readings occurred in most instances between the 21st and 24th, when slight frost was observed in many parts of the kingdom. *Range* amounted to over 40° at a large number of the inland stations, the highest values of all being 48° at Lairg and Cullompton and 47° at Bawtry. *Vapour Tension* was least (0·30 in. to 0·32 in.) in the north-eastern parts of Great Britain and about 0·35 in. over central Ireland, and greatest (0·40 in. to 0·41 in.) on our extreme southern coasts. *Relative Humidity* ranged from 76 per cent. at Jersey and 77 per cent. at Aberdeen to 89 at Valencia, 90 and more in the north of Scotland, and to 96 per cent. at Hawes Junction.

Rainfall was in excess of the average* over the northern parts of Scotland, as well as at some stations in the north-west of Ireland, and the north-west and extreme south of England. Elsewhere there was a deficit, the amounts over the east of Ireland and a considerable portion of England being less than half the average. The largest aggregates were 15·4 ins. at Glencarron, 9·4 ins. at Fort William, and 7·9 ins. at Stornoway, the smallest 0·6 in. at Oxford and Cirencester, and 0·7 in. at Cambridge, Geldeston, Dublin, and Roche's Point. Falls exceeding 1 in. in 24 hours were recorded at several of the extreme northern stations, and also in the Scilly and Channel Islands, the largest of such amounts being 3·6 ins. at Glencarron, and 2·9 ins. at Fort William on the 12th, and 1·9 ins. at Jersey on the 16th.

Bright Sunshine exceeded the normal quantity in nearly all places, but the amount of excess varied greatly in different localities. More than 40 per cent. of the possible duration was registered over nearly the whole of England, the highest values of all being 51 per cent. at Jersey, and 50 per cent. at Torquay. In Scotland less than 30 per cent. was recorded at the majority of the stations, the smallest value being 23 per cent. at Fort Augustus.

* The averages employed are—*Pressure* and *Temperature* for the 20 years 1871–90; *Rainfall* for the 25 years 1866–90; *Bright Sunshine* for the 10 years 1881–90.

TABLE XVII.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								
				Means of					Absolute Extremes.			
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.
0. SCOTLAND, N.	Sunburgh Head	ins. 29°563	ins. -0°234	49°7	45°1	53°8	49°5	-1°1	35°	23rd, 25th	60°	5th, 6th
	Wick	29°633	-1°196	52°0	44°4	56°3	50°4	-1°2	30°	23rd	70°	5th
	Stornoway	29°641	-1°174	51°6	45°2	56°7	51°0	-0°1	34°	23rd	65°	4th
1. SCOTLAND, E.	Nairn	29°661	-1°182	51°3	44°1	59°0	51°6	-1°3	30°	26th	71°	4th
	Aberdeen	29°685	-1°173	52°2	45°4	59°1	52°3	-0°7	33°	26th	72°	15th
	Leith	29°721	-1°160	52°9	46°3	61°5	53°9	-0°8	35°	23rd	73°	2nd, 4th
2. ENGLAND, N.E.	Shields	29°759	-1°144	53°3	46°7	61°3	54°0	-0°3	34°	23rd, 24th	73°	5th
	York	29°810	-1°129	52°6	46°7	63°4	55°1	-0°2	34°	12th	74°	4th, 5th
	Spurn Head	29°806	-1°123	55°1	50°7	61°3	56°0	-0°6	41°	24th	70°	6th
3. ENGLAND, E.	Yarmouth	29°835	-1°113	53°9	49°6	62°9	56°3	-0°5	38°	24th	73°	6th, 7th
	Cambridge	29°872	-1°093	53°9	45°5	67°0	56°3	-0°6	36°	13th	80°	6th
4. MIDLAND COUNTIES	Loughborough	29°866	-1°093	52°1	45°4	66°7	56°1	-0°3	31°	12th	77°	4th, 5th, 6th
	Oxford	29°888	-1°083	53°5	47°5	65°8	56°7	+0°2	37°	24th	78°	6th
5. ENGLAND, S.	London	29°889	-1°089	55°7	48°7	66°4	57°6	-0°4	35°	24th	81°	6th
	North Foreland	29°860	-1°110	58°4	52°7	63°7	58°2	+0°5	39°	24th	75°	5th
	Dungeness	29°869	-1°101	58°1	51°6	64°6	58°1	-0°1	36°	24th	72°	6th
	Hurst Castle	29°906	-1°085	57°5	51°9	66°0	59°0	+0°8	40°	24th	74°	5th
6. SCOTLAND, W	Ardrossan	29°738	-1°147	54°1	49°1	59°7	54°4	-0°1	37°	23rd	67°	4th, 15th
7. ENGLAND N.W.	Hawes Junction*	28°567	?	48°2	42°8	55°6	49°2	?	30°	23rd	65°	4th, 5th
	Liverpool	29°830	-1°105	55°4	50°8	61°6	56°2	+0°2	41°	23rd	76°	15th
	Holyhead	29°836	-1°093	56°8	52°2	61°7	57°0	+0°3	45°	21st, 23rd, 24th, 25th.	67°	5th, 7th, 8th
8. ENGLAND, S.W.	Pembroke	29°881	-1°067	57°0	53°4	61°3	57°4	+0°8	43°	24th	67°	2nd, 3rd, 4th, 5th
	Prawle Point	29°911	-1°087	58°1	51°9	63°5	57°7	+0°4	41°	22nd, 24th	72°	1st, 2nd
9. IRELAND, N.	Malin Head	29°740	-1°140	53°9	51°3	58°0	54°6	+1°0	41°	23rd	69°	4th
	Donaghadee	29°795	-1°110	53°9	50°4	61°5	56°0	+1°6	40°	23rd, 24th	71°	14th
	Belmullet	29°836	-1°054	56°5	51°1	60°1	55°6	-1°1	42°	11th	72°	4th
10. IRELAND, S.	Parsonstown	29°870	-1°067	51°9	45°4	62°0	53°7	-0°8	31°	21st, 22nd, 23rd, 24th.	72°	4th
	Valencia(Cahirciveen)	29°923	-1°024	56°4	50°4	62°0	56°2	-0°5	38°	21st	72°	3rd, 4th
	Roche's Point	29°912	-1°034	55°9	51°3	62°7	57°0	+0°6	39°	21st	69°	1st
CHANNEL ISLANDS	Scilly	29°911	-1°060	59°0	55°2	62°7	59°0	+0°7	46°	21st, 22nd	72°	6th
	Jersey	29°929	-1°059	61°3	55°5	66°2	60°9	+0°8	45°	23rd	77°	5th, 15th

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

SUMMARY OF OBSERVATIONS, SEPTEMBER 1893.

XXXV

REPORTING STATIONS in the BRITISH ISLANDS during the Month of SEPTEMBER 1893.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

(beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD	RAINFALL.				Date.	WEATHER. No. of Days of							WIND. No. of Observations of								
			Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.			Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
			ins.	ins.	ins.																		
0.311	87	7.4	5.18	+1.86	0.92	21st	25	1	0	0	0	12	0	10	0	0	2	3	0	9	3	3	
.558	92	8.1	4.72	+2.19	1.05	21st	23	1	0	0	1	15	8	2	1	0	0	5	4	3	15	0	
.348	91	8.2	7.92	+3.82	1.00	12th	25	0	0	0	1	21	11	4	3	1	0	3	3	6	3	7	
.319	84	6.6	3.48	+0.90	1.08	20th	21	0	0	0	0	8	0	2	0	0	0	0	11	7	4	6	
.301	77	5.8	3.47	+0.50	0.95	21st	22	1	2	0	0	5	3	1	0	0	0	5	11	7	6	0	
.312	78	7.2	1.41	-0.93	0.52	28th	16	1	0	0	0	13	0	1	0	1	2	2	11	8	4	1	
.318	78	7.2	1.81	-0.69	0.28	23rd	16	1	0	2	1	12	2	1	0	0	2	2	13	10	1	1	
.337	85	4.1	1.51	-1.19	0.70	26th	12	0	0	1	15	5	0	5	0	0	2	7	5	8	3	0	
.351	81	5.6	0.81	-1.21	0.15	6th	12	0	0	1	2	7	1	2	2	0	0	5	6	8	7	0	
.369	83	4.3	1.01	-1.90	0.37	27th	15	1	0	1	13	4	0	1	2	1	0	0	6	11	7	2	
.353	85	6.7	0.65	-1.61	0.18	26th	8	0	0	2	5	15	2	3	4	0	1	4	11	3	4	0	
.337	86	6.5	1.13	-1.63	0.34	8th	12	0	0	2	1	7	0	1	0	1	2	1	7	8	5	5	
.334	81	5.5	0.57	-2.09	0.23	29th	10	0	0	0	10	9	0	2	4	1	1	2	11	4	3	2	
.361	81	5.8	0.93	-1.42	0.21	16th	10	0	0	2	8	11	2	2	4	3	0	0	6	10	2	3	
.412	84	5.7	2.72	?	0.78	29th	13	0	1	2	3	7	0	6	1	3	1	0	2	15	2	0	
.414	85	7.1	3.33	+0.69	0.74	29th	14	0	0	1	0	8	3	5	3	2	2	0	3	11	4	0	
.396	84	5.1	1.19	-1.82	0.36	28th	15	0	2	2	4	0	5	2	8	3	0	0	2	11	3	1	
.349	83	6.5	2.40	-1.27	0.36	29th	20	0	0	0	4	11	2	3	3	3	0	3	5	9	3	1	
.320	96	8.0	5.11	?	0.96	8th	20	1	0	0	0	21	0	3	4	1	0	2	10	5	5	0	
.348	80	6.4	3.37	+0.07	0.64	8th	18	0	0	0	6	12	1	1	1	2	2	5	0	7	5	1	
.391	84	6.2	1.61	-1.62	0.41	28th	17	0	0	0	0	7	0	3	0	2	1	0	6	6	9	3	
.391	84	5.9	1.43	-2.15	0.43	28th	14	0	0	0	0	3	4	3	3	3	1	1	3	8	8	0	
.406	83	6.1	1.81	-0.65	0.31	28th	17	0	0	0	0	9	0	4	2	6	0	1	6	7	4	0	
.345	83	7.4	4.18	?	0.80	25th	25	0	2	1	1	16	3	5	1	1	0	6	6	6	5	0	
.370	89	6.1	1.44	-1.60	0.47	25th	21	0	0	0	3	9	0	1	0	1	1	2	9	10	6	0	
.371	61	7.0	4.38	?	0.70	21st	21	0	1	0	3	13	0	2	3	0	1	0	9	8	7	0	
.336	87	7.4	2.01	-1.15	0.42	7th	13	0	1	1	2	13	0	1	1	1	3	2	10	4	3	5	
.402	89	7.6	3.49	-1.04	0.53	29th	19	0	0	1	3	16	3	5	4	2	3	3	6	5	0	2	
.384	86	5.5	0.70	-3.38	0.30	6th	11	0	0	0	0	8	0	8	1	1	2	1	1	10	6	0	
.410	83	6.4	4.80	+1.39	1.07	9th	19	0	1	1	1	4	5	4	2	5	1	0	2	9	7	0	
.413	76	6.4	5.37	+2.32	1.86	16th	19	0	0	2	2	10	6	0	3	5	2	0	6	8	6	0	

Barometer at this station is not reduced for altitude.

TABLE XVIII.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of SEPTEMBER 1893.

Table with columns: STATIONS, AIR TEMPERATURE (Means of, Absolute Extremes), RAINFALL (No. of Rainy Days, Total Fall in the Month, Difference from Average, Maximum Fall in One Day, Date), BRIGHT SUNSHINE (No. of Hours recorded, Difference from Average, Percentage of possible Duration, Difference from Average). Rows list various stations like STORKOWAY, LAIRG, GLENCARRON, etc.

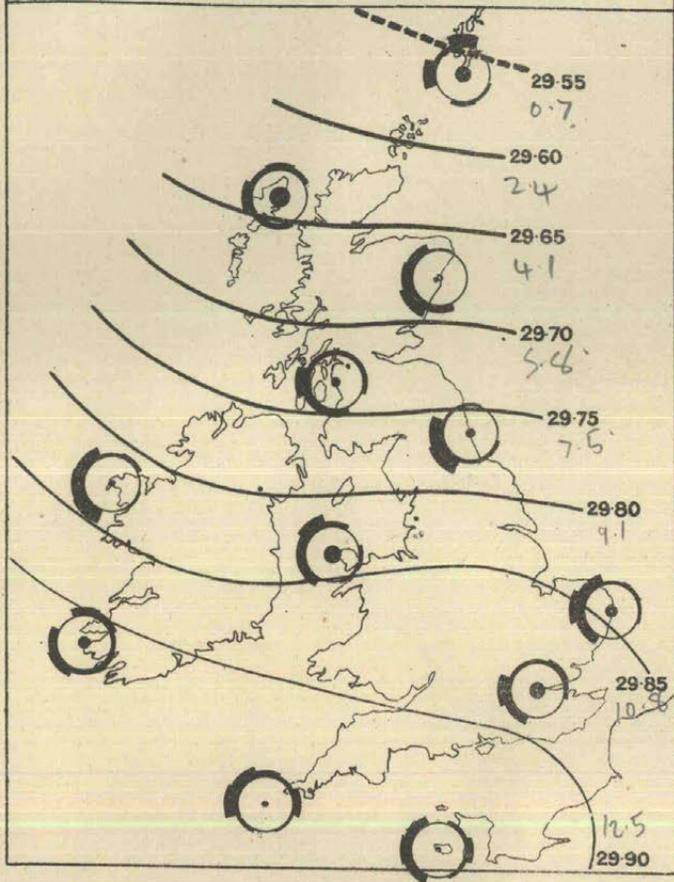
For information, see Table XVII. † Observations incomplete. ‡ Maximum thermometer out of order.

MONTHLY WEATHER CHART, SEPTEMBER, 1893.

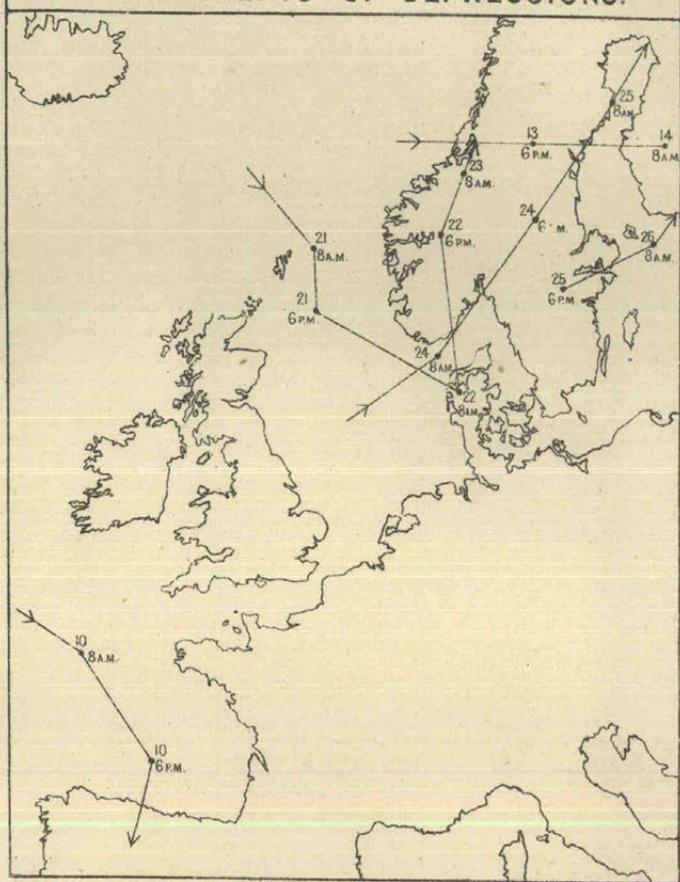
Monthly Summary.

Plate IX.

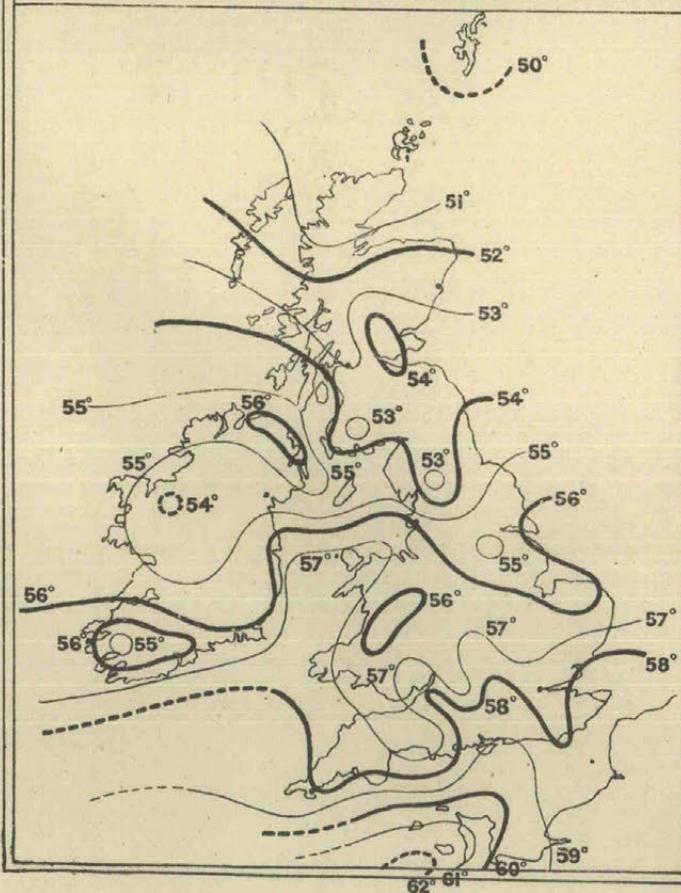
1. BAROMETER AND WIND.



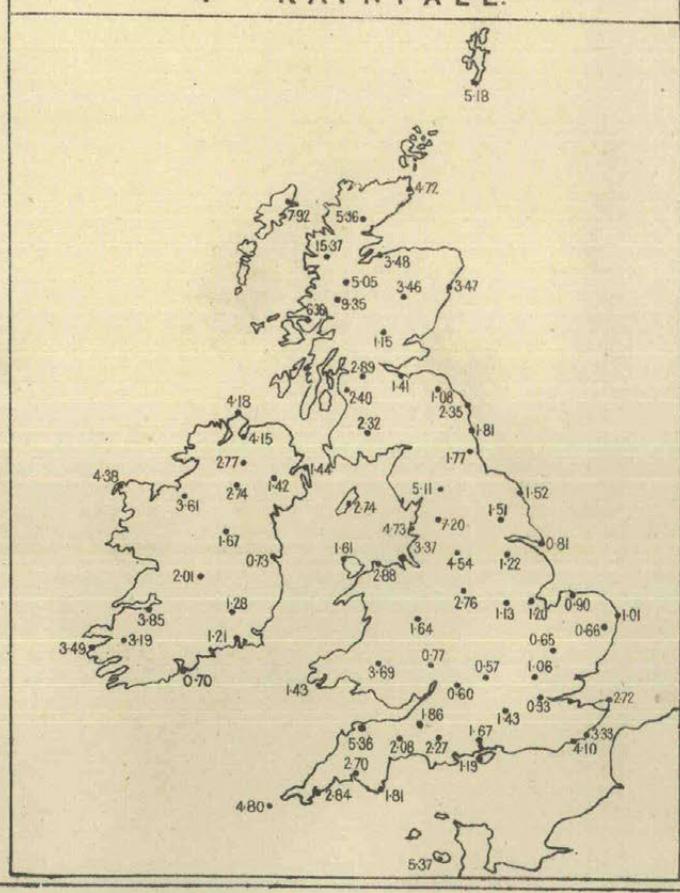
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



To face p. xxxvi

OFFICIAL COPY.

SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS, for the
CALENDAR MONTH,

OCTOBER 1893.

(Issued as a Supplement to the Weekly Weather Report, 1893.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of October was exceedingly changeable, with heavy falls of rain in the extreme northern and southern parts of the United Kingdom, and with snow in Scotland at the close of the period. Thunder and lightning were unusually prevalent during the early part of the month, especially in the south of England. Pressure was below the average in all but the southern districts; temperature was high; the winds were mostly from the Westward; rainfall was in excess of the normal in the northern and north-western, and also in many parts of the southern districts; and bright sunshine was abundant, especially in the northern and eastern parts of England.

Pressure.—*Mean for the month at 8 a.m.* ranged from 29·95 ins. and upwards over the English Channel to about 29·52 ins. in the Shetlands, the general distribution being very similar to that noticed in September. The actual values were a little above the average* in the southern parts of England and Ireland, but considerably below it in the north, the deficit being greatest (0·21 in.) in the Shetlands; the mean gradient (for Westerly winds) was therefore steeper than usual. *Highest* readings were recorded on the 23rd, when the barometer rose to between 30·3 ins. and 30·6 ins. in all parts of the Kingdom. *Lowest* readings were observed very generally on the 4th, when the mercury fell below 29·0 ins. over the northern parts of our islands, and below 29·2 ins. on all but our extreme southern coasts. *Range* was moderate.

Depressions.—In the majority of cases the Atlantic depressions passed well to the northward of our islands in the tracks shown by the generalised arrows A and B in Map 2, Plate X. During the early part of the month, however, some shallow disturbances advanced directly over the United Kingdom, the most important of these being a small system which travelled north-eastwards across England on the night of the 7th and which afterwards moved northwards along the east coast of Scotland.

Anticyclones.—The anticyclones noticed over Western Europe lay as a rule to the southward of our islands. In three instances however, viz., between the 18th and 20th, the 22nd and 24th, and the 30th and 31st, a well-marked high-pressure area advanced over us from the Atlantic, the system in each case passing away quickly in a southerly direction.

Winds were chiefly Westerly, but rather variable in the extreme north, as well as at the two south-western stations, Valencia and Scilly. The gales experienced were mostly slight, but rather numerous on our northern and also on our extreme southern coasts; at Aberdeen there were as many as 10, at Dungeness 7, and at Stornoway and Hurst Castle 6.

Temperature.—*Mean at Sea Level* ranged from between 54° and 56° over the English Channel to 48° or less over the central parts of Ireland and Scotland, and to 47° or less in the north of Scotland. The general distribution in the western and northern districts was of a more wintry type than is usual in October, but the actual values were in nearly all cases above the average*, the excess being greatest (2° or more) in the central and south-eastern parts of England. *Highest* readings were observed mainly between the 14th and 16th, or on the 20th and 21st, when the thermometer rose to 65° or more at most of the English stations, and to 70° at Llandudno. *Lowest* readings occurred in nearly all places on the 31st, when frost occurred at all but the west coast stations; at Llandovery the thermometer fell to 23° and in several parts of England and Scotland to 25°. *Range* was moderate. *Vapour Tension* ranged from between 0·34 in. and 0·36 in. over the English Channel to 0·28 in. or less over central Ireland, the east of Scotland and the northern and central parts of England. *Relative Humidity* was very irregularly distributed, the per-centages varying from 80 at Liverpool and the North Foreland, 81 at Jersey and 82 at Aberdeen and Holyhead to 91 at Cambridge, 94 at Wick, and 96 at Stornoway and Hawes Junction.

Rainfall was in excess of the average* over the greater part of Scotland, the north of Ireland, and the north-west of England, as well as in some parts of our midland and southern counties. Elsewhere the amounts were less than the normal, the deficiency being large in the extreme north of England. The largest aggregates measured were 14·9 ins. at Glencarron, 12·7 ins. at Fort William, 11·2 ins. at Laudale, and 8·4 ins. at Arlington, the smallest being 0·7 in. at Durham, and 1·0 in. at Shields and Dublin. Rainy days were frequent at most of the western and northern stations, and especially so in the north of Scotland; at Stornoway a measurable quantity was recorded on every day in the month. The largest falls in 24 hours were registered in the west and north of Scotland on the 24th, when 3·4 ins. were measured at Glencarron, and 3·3 ins. at Fort William. Heavy falls occurred at times in the south of England, the largest of all being 1·6 ins. at Rothamsted on the 9th, and at Hurst Castle on the 17th.

Bright Sunshine exceeded the average amount at all stations excepting Stornoway, Pembroke, and Plymouth, the excess being considerable over the northern, eastern, and central parts of England. The percentage of the possible duration ranged from 47 at Durham and 46 at Rothamsted to 21 at Manchester, 20 at Stornoway, 14 at Fort William, and to only 10 at Fort Augustus.

* The averages employed are—*Pressure* and *Temperature* for the 20 years, 1871–90; *Rainfall* for the 25 years, 1866–90; *Bright Sunshine* for the 10 years 1881–90.

TABLE XIX.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.									
				At 8 a.m.	Means of				Absolute Extremes.				
					Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.	
0. SCOTLAND, N.	Sumburgh Head -	ins. 29°519	ins. -0°207	46°9	43°0	50°8	46°9	+1°2	33	31st	58	2nd, 3rd, 4th, 21st, 20th	
	Wick -	29°582	-181	46°9	42°2	51°9	47°1	+1°0	30	31st	60	20th	
	Stornoway -	29°602	-154	46°1	41°7	51°4	46°6	+0°8	31	31st	57	15th, 19th	
1. SCOTLAND, E.	Nairn -	29°619	-160	46°4	40°4	53°3	46°9	+0°5	28	4th	62	15th, 20th, 21st	
	Aberdeen -	29°653	-140	47°1	42°0	54°2	48°1	+1°1	31	31st	64	16th	
	Leith -	29°699	-123	47°7	42°5	56°1	49°3	+1°0	30	31st	64	15th	
2. ENGLAND, N.E.	Shields -	29°747	-099	47°2	41°3	56°5	48°9	+0°9	30	31st	65	15th, 21st	
	York -	29°812	-070	46°3	41°3	57°0	49°2	+1°2	27	31st	67	21st	
	Spurn Head -	29°806	-061	49°9	46°5	56°1	51°3	+1°8	34	31st	64	1st	
3. ENGLAND, E.	Yarmouth -	29°850	-044	50°1	45°6	56°8	51°2	+1°7	34	30th	65	15th, 16th	
	Cambridge -	29°899	-013	48°3	43°0	59°4	51°2	+2°4	28	31st	68	16th	
4. MIDLAND COUNTIES	Loughborough -	29°879	-025	46°6	42°3	58°9	50°6	+2°2	25	31st	68	16th, 21st	
	Oxford -	29°918	-006	47°5	43°2	58°1	50°7	+1°8	29	31st	68	21st	
5. ENGLAND, S.	London -	29°956	+033	49°8	44°5	59°0	51°8	+2°1	31	31st	66	1st, 16th	
	North Foreland -	29°875	-035	52°6	48°9	58°1	53°5	+2°8	36	31st	65	14th, 15th, 16th, 21st.	
	Dungeness -	29°911	-005	52°6	47°5	59°0	53°3	+2°1	29	31st	66	1st	
	Hurst Castle -	29°947	+025	52°0	47°0	59°6	53°3	+1°8	31	31st	65	1st, 21st	
6. SCOTLAND, W.	Ardrossan -	29°723	-108	49°1	45°0	54°5	49°8	+1°1	31	31st	60	7th	
7. ENGLAND, N.W.	Hawes Junction* -	28°556	?	43°3	38°5	49°8	44°2	?	23	31st	58	21st	
	Liverpool -	29°846	-033	50°0	46°8	56°2	51°5	+2°2	33	31st	66	21st	
	Holyhead -	29°840	-032	51°9	48°7	56°4	52°6	+1°6	40	31st	62	1st, 14th	
8. ENGLAND, S.W.	Pembroke -	29°897	+009	52°5	49°7	56°4	53°1	+1°6	38	31st	60	5th	
	Prawle Point -	29°952	+021	52°7	48°1	57°6	52°9	+1°4	33	31st	64	9th	
9. IRELAND, N.	Malin Head -	29°718	-107	49°3	46°4	52°9	49°7	+2°1	37	31st	60	20th	
	Donaghadee -	29°791	-059	47°5	43°7	56°1	49°9	+1°3	38	10th, 11th, 30th	64	1st, 14th	
	Belmullet -	29°805	-035	50°9	46°6	54°5	50°6	-0°3	37	31st	58	13th, 14th, 15th, 20th, 21st.	
10. IRELAND, S.	Parsonstown -	29°861	-036	44°9	39°6	56°2	47°9	0°0	25	31st	65	20th	
	Valencia (Cahiriveen) -	29°920	+024	50°6	45°6	56°9	51°3	-0°4	35	8th, 31st	62	16th, 20th	
	Roche's Point -	29°922	+030	49°8	46°2	56°9	51°6	+0°5	34	31st	62	16th	
CHANNEL ISLANDS	Scilly (St. Mary's) -	29°939	+029	54°7	50°9	58°2	54°6	+1°2	43	31st	64	21st	
	Jersey -	29°988	+063	55°1	50°1	60°6	55°4	+2°0	41	25th	69	8th	

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

REPORTING STATIONS in the BRITISH ISLANDS, during the Month of OCTOBER 1893.

Thunderstorms, and Gales are counted irrespective of the hours at which they occurred.

Latitude, beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD.	RAINFALL.				Date.	WEATHER.							WIND.							
			Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	No. of Days of							No. of Observations of									
						Rain.		Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calm.
0'278	88	8'0	6'49	+2'22	0'82	8th	28	2	0	0	0	19	2	5	4	2	0	3	3	9	2	3
'299	94	8'4	4'86	+1'84	0'70	4th	27	3	1	0	1	20	5	0	0	1	2	4	5	8	11	0
'298	96	8'2	6'37	+1'33	0'76	8th	31	1	1	0	0	18	6	6	4	1	0	0	4	9	3	4
'273	87	7'3	3'57	+1'19	0'72	8th	21	0	0	0	0	9	0	0	0	0	0	0	11	7	1	12
'265	82	6'1	2'49	-0'38	0'47	13th	21	2	0	0	0	9	10	0	0	1	0	7	9	11	3	0
'276	84	6'0	2'25	+0'28	0'81	7th	13	0	0	0	1	10	0	0	1	0	0	1	15	12	0	2
'277	86	6'5	0'96	-1'52	0'25	14th	9	0	0	0	1	9	2	0	0	0	0	3	14	11	1	2
'279	90	5'1	2'09	-0'51	0'68	7th	14	0	0	0	14	10	0	3	0	0	0	7	8	10	3	0
'303	85	5'9	1'48	-0'79	0'53	9th	14	0	0	0	3	9	1	0	1	1	0	4	10	9	6	0
'318	88	4'5	1'93	-0'99	0'33	21st	20	0	2	0	12	3	0	0	1	1	0	0	11	15	3	0
'306	91	5'0	3'30	+1'03	0'78	9th	17	0	0	1	9	11	3	2	0	0	1	6	12	6	4	0
'278	88	5'9	1'72	-1'08	0'50	7th	12	0	0	1	4	7	4	1	1	0	3	2	8	10	4	2
'290	89	5'5	2'65	+0'09	0'87	7th	15	0	0	1	11	10	0	1	1	0	0	7	12	5	5	0
'307	86	4'5	3'90	+1'33	1'10	9th	16	0	0	2	16	10	1	1	1	0	1	3	9	14	2	0
'318	80	5'5	2'84	?	0'92	11th	15	1	1	0	6	9	1	2	0	2	0	0	4	18	5	0
'345	87	6'9	4'05	+0'85	1'12	11th	18	0	0	1	1	10	7	6	1	1	1	0	4	11	7	0
'338	87	5'8	4'74	+1'48	1'57	17th	18	0	1	3	3	6	6	4	5	1	0	0	7	10	4	0
'311	89	6'7	4'81	+0'94	0'77	13th	27	0	3	0	2	11	3	0	6	1	0	4	8	6	5	1
'269	96	8'0	6'01	?	0'95	15th	24	1	0	0	1	20	0	2	1	2	5	4	7	7	3	0
'286	80	6'4	2'59	-0'87	0'45	2nd	17	0	0	0	7	13	1	1	1	0	3	5	9	8	2	2
'316	82	6'0	3'41	-0'90	0'91	7th	20	0	1	3	0	7	0	1	2	1	0	1	10	8	6	2
'329	83	6'5	3'72	-0'24	0'65	10th	20	0	2	0	0	4	4	6	3	2	0	0	6	7	7	0
'351	88	6'5	3'28	-0'32	0'54	11th	20	0	1	1	0	8	1	2	3	0	1	0	12	8	5	0
'301	86	8'6	4'31	?	0'84	13th	27	0	4	0	2	23	3	2	0	0	0	9	9	4	7	0
'290	89	5'9	1'71	-1'43	0'28	25th	21	0	0	0	1	6	0	2	1	0	1	2	14	8	3	0
'312	84	7'8	4'49	?	0'83	24th	27	0	1	2	1	18	0	2	0	1	2	0	12	7	7	0
'265	90	6'7	3'29	+0'13	0'53	17th	19	0	0	0	6	15	0	0	0	0	3	10	11	3	2	2
'332	90	7'8	3'58	-2'30	0'59	13th	26	0	3	0	1	19	5	1	4	2	1	6	6	2	5	4
'320	89	5'7	2'99	-1'10	0'70	17th	17	0	0	1	0	10	1	10	0	1	0	3	2	10	5	0
'358	84	6'6	2'27	-1'43	0'62	10th	23	0	1	4	1	5	3	5	4	2	3	5	4	4	4	0
'351	81	6'1	4'23	-0'22	1'28	11th	22	0	2	1	4	11	3	3	3	1	2	3	10	6	2	1

Barometer at this station is not reduced for altitude.

TABLE XX.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT for the Month of OCTOBER 1893.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STONOWAY	°	°	°	°	*	*	*	*	ins.	ins.	ins.	*	62.4	-24.0	20	-	8
LAIRG	39.5	51.2	45.4	-0.2	29	31st	59	15th, 16th, 21st	28	5.60	+1.53	0.78	24th	-	-	-	-
GLENCARRON	40.0	51.2	45.6	+0.5	28	31st	59	21st	29	14.85	+5.96	3.38	24th	-	-	-	-
FORT AUGUSTUS	41.3	53.1	47.2	+1.0	30	30th, 31st	60	21st	26	7.54	+3.44	2.32	24th	30.3	?	10	?
FORT WILLIAM	43.2	52.1	47.7	+0.2	33	31st	58	15th, 21st	28	12.70	+4.83	3.25	24th	45.0	?	14	?
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	*	*	118.7	+27.5	38	+9
BRAEMAR	38.2	50.1	44.2	+0.8	29	31st	60	15th	18	2.90	-0.97	1.26	8th	85.0	?	27	?
EDINBURGH	-	-	-	-	-	-	-	-	-	-	-	-	-	121.0	?	38	?
OCHTERTYRE	39.2	56.0	47.6	+1.5	25	30th	63	15th, 17th	14	2.52	-1.73	0.55	25th	-	-	-	-
MARCHMONT	39.4	54.6	47.0	+1.4	29	30th, 31st	66	17th	12	1.55	-1.77	0.33	4th, 25th	121.3	?	38	?
ALNWICK CASTLE	42.1	53.8	48.0	+0.8	32	30th, 31st	63	14th	12	1.28	-1.38	0.65	7th	-	-	-	-
DURHAM	40.7	56.6	48.7	+1.5	27	31st	66	16th	11	0.71	-2.20	0.36	7th	150.6	+67.2	47	+21
SCARBOROUGH	41.2	55.6	48.4	-0.4	30	31st	65	21st	13	1.78	-1.29	0.34	7th	-	-	-	-
OSWALDKIRK	-	-	-	-	-	-	-	-	-	-	-	-	-	123.5	?	38	?
YORK	-	-	-	-	-	-	-	-	-	-	-	-	-	136.0	+55.5	42	+17
HILLINGTON	42.6	57.9	50.3	+1.8	28	30th	66	1st, 16th	18	1.96	-0.65	0.63	9th	129.6	+35.2	40	+11
GELDESTON	43.3	59.1	51.2	+1.7	31	31st	67	1st	18	1.79	-0.83	0.40	21st	123.3	+12.0	38	+4
CAMBRIDGE	*	*	*	*	*	*	*	*	*	*	*	*	*	140.6	+35.0	43	+10
ROTHAMSTED	42.8	57.3	50.1	+2.2	30	31st	65	16th	17	4.33	+1.40	1.61	9th	149.8	?	46	?
BAWTRY	40.3	57.9	49.1	+1.4	26	31st	69	21st	11	1.42	-1.33	0.67	7th	-	-	-	-
WORKSOP	-	-	-	-	-	-	-	-	-	-	-	-	-	119.6	+36.7	37	+11
STAMFORD (KETTON HALL).	42.5	58.7	50.6	+2.3	29	31st	67	16th, 21st	15	2.48	-0.46	0.69	7th	-	-	-	-
THURCASTON	-	-	-	-	-	-	-	-	-	-	-	-	-	117.9	+34.8	37	+11
CHEADLE	42.1	55.4	48.8	+2.1	27	31st	65	16th, 21st	14	1.73	-1.82	0.52	10th	-	-	-	-
CHURCHSTOKE	40.7	56.5	48.6	+1.4	25	31st	69	21st	19	3.72	+0.29	0.75	13th	111.4	+22.6	35	+7
HEREFORD	41.9	58.1	50.0	+1.6	25	31st	68	21st	17	1.41	-1.37	0.30	10th	-	-	-	-
GIRENCESSTER	41.4	56.4	48.9	+1.4	27	30th	65	21st	17	2.88	-0.15	0.42	4th	130.6	+33.0	40	+10
OXFORD	*	*	*	*	*	*	*	*	*	*	*	*	*	137.4	+35.9	42	+11
LONDON	*	*	*	*	*	*	*	*	*	*	*	*	*	118.3	+41.1	37	+13
MARGATE	-	-	-	-	-	-	-	-	-	-	-	-	-	127.7	?	39	?
STRATHFIELD TURGIS-	42.3	57.8	50.1	+1.3	26	31st	64	14th, 16th, 21st	24	3.17	+0.52	0.59	9th	-	-	-	-
HASTINGS	47.2	58.4	52.8	+1.5	32	31st	63	1st, 8th, 14th, 16th, 21st	17	5.31	+1.71	1.16	11th	126.4	+4.1	39	+11
EASTBOURNE	-	-	-	-	-	-	-	-	-	-	-	-	-	125.6	?	39	?
BRIGHTON	-	-	-	-	-	-	-	-	-	-	-	-	-	141.4	?	43	?
WESTBOURNE (SUSSEX)	-	-	-	-	-	-	-	-	-	-	-	-	-	128.1	?	39	?
SOUTHAMPTON	44.9	59.8	52.4	+1.9	29	31st	66	21st	19	3.43	+0.20	0.53	5th	126.9	+14.6	39	+5
STOWELL	43.1	56.6	49.9	+1.4	29	31st	65	16th	20	3.40	?	0.44	14th	-	-	-	-
LAUDALE	42.8	54.9	48.9	+1.7	32	5th, 31st	61	20th, 21st	29	11.15	+3.32	1.56	24th	-	-	-	-
GLASGOW	42.4	52.4	47.4	+0.5	29	31st	60	15th, 21st	20	5.10	+1.32	0.85	25th	79.3	+15.9	25	+5
GLENLEE	40.3	54.5	47.4	+1.2	25	31st	62	14th	26	5.88	+0.35	0.64	25th	-	-	-	-
DOUGLAS	42.7	54.9	48.8	+0.2	28	31st	63	14th	20	4.57	+0.42	0.88	7th	127.3	+27.5	40	+9
STONHURST	43.1	53.2	48.2	+0.5	29	31st	60	14th, 15th, 21st	22	7.04	+2.83	1.42	3rd	110.5	+30.6	34	+9
BLACKPOOL	45.5	56.8	51.2	+2.4	28	31st	66	22nd	20	4.38	+0.47	1.14	4th	96.1	+13.8	30	+4
MANCHESTER	43.2	55.7	49.5	+1.5	30	31st	63	14th, 15th, 16th	20	3.52	-0.56	0.52	4th	66.8	?	21	?
LLANDUDNO	47.5	57.0	52.3	+1.8	32	31st	70	21st	21	3.40	-0.36	0.34	14th	97.7	+23.2	30	+7
LLANDEVERY	39.8	57.9	48.9	-0.1	23	31st	65	1st, 16th, 21st	27	6.01	+0.58	0.80	17th	-	-	-	-
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	*	*	98.4	-0.9	30	-1
BRISTOL (MONTPELLIER)	44.4	57.9	51.2	+2.3	28	31st	66	21st	17	5.18	?	0.93	17th	-	-	-	-
TENBY	-	-	-	-	-	-	-	-	-	-	-	-	-	108.0	?	33	?
ARLINGTON	43.7	55.9	49.8	+0.5	29	31st	65	21st	24	8.42	+2.62	1.02	4th	-	-	-	-
CULLOMPTON	41.2	58.4	49.8	+0.4	27	31st	65	15th, 16th	22	2.89	-1.00	0.36	10th	112.8	+20.2	35	+7
TORQUAY	-	-	-	-	-	-	-	-	-	-	-	-	-	121.4	?	37	?
NEWQUAY	-	-	-	-	-	-	-	-	-	-	-	-	-	111.9	?	34	?
FALMOUTH	47.8	57.4	52.0	+0.8	35	31st	62	15th, 16th, 21st	21	4.70	-0.69	1.40	6th	116.7	+1.4	36	+1
PLYMOUTH	46.4	58.0	52.2	+0.9	33	31st	63	9th	21	3.29	-0.44	0.51	17th	101.1	-2.2	31	-1
GUERNSEY	-	-	-	-	-	-	-	-	-	-	-	-	-	128.5	?	39	?
JERSEY	-	-	-	-	-	-	-	-	-	-	-	-	-	141.5	+16.6	43	+5
LONDONDERRY	42.4	55.4	48.9	+0.7	32	31st	62	7th, 20th	27	4.87	+0.67	0.58	24th	-	-	-	-
EDINEL (OMAGH)	40.4	52.7	46.6	-0.1	28	31st	61	14th, 15th, 20th	27	4.47	+0.80	0.47	25th	-	-	-	-
MARKEE CASTLE	39.2	55.1	47.2	-0.5	25	31st	64	14th	24	4.01	+0.13	0.76	24th	89.9	+5.5	28	+2
BROOKBOROUGH	38.7	54.9	46.8	+0.2	28	31st	62	20th	23	3.71	-0.43	0.57	24th	-	-	-	-
ARMAGH	41.1	54.7	47.9	+0.6	29	31st	62	14th, 15th, 20th, 21st	21	2.71	-0.28	0.35	25th	105.8	+28.0	33	+9
EDGEWORTHSTOWN	38.5	53.7	46.1	-1.1	29	30th, 31st	62	20th	16	3.71	+0.66	0.86	14th	-	-	-	-
ARLEY COTTAGE (COUNTY CAVAN).	-	-	-	-	-	-	-	-	-	-	-	-	-	90.6	?	28	?
DUBLIN	43.9	56.0	50.0	+0.5	32	31st	68	21st	16	1.03	-2.00	0.32	14th	114.8	+14.6	36	+5
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	*	*	101.7	+10.3	32	+4
KILKENNY CASTLE	39.3	55.8	47.6	-1.2	28	30th	63	21st	19	2.74	-0.37	0.69	17th	-	-	-	-
WATERFORD	40.5	56.7	48.6	-2.2	28	30th	65	16th	18	2.32	-1.67	0.45	17th	-	-	-	-
VALENCIA (CAHIR-OIVEEN).	*	*	*	*	*	*	*	*	*	*	*	*	*	107.2	+8.5	33	+3
KILLARNEY	42.0	56.8	49.4	-0.7	28	31st	63	14th	25	3.92	?	0.60	16th	-	-	-	-
FOYNES	45.4	56.0	50.7	+2.3	33	30th	64	20th, 21st	22	4.88	?	1.06	3rd	-	-	-	-

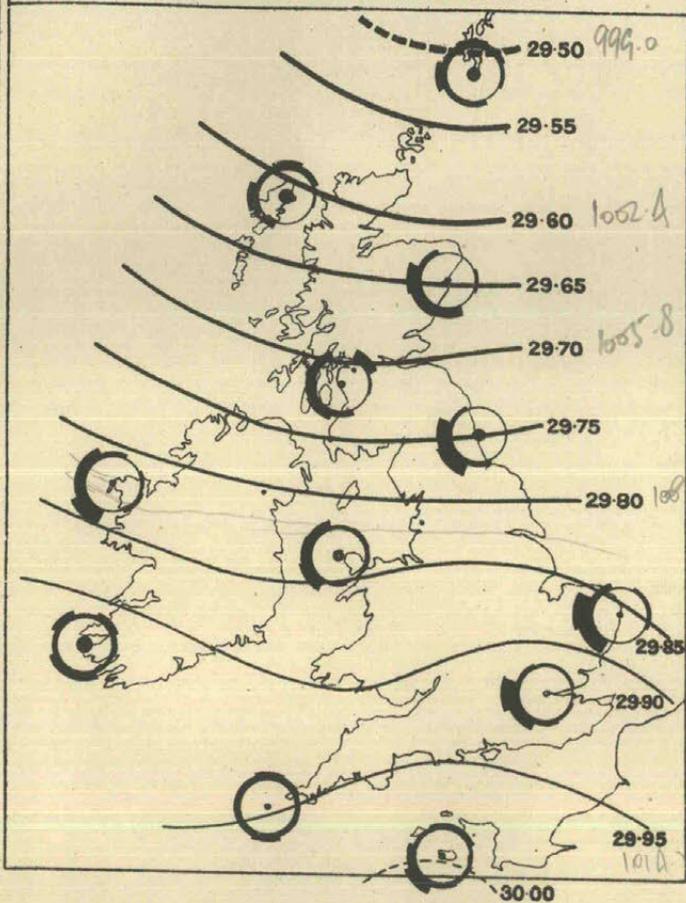
* For information see Table XIX.

MONTHLY WEATHER CHART, OCTOBER, 1893.

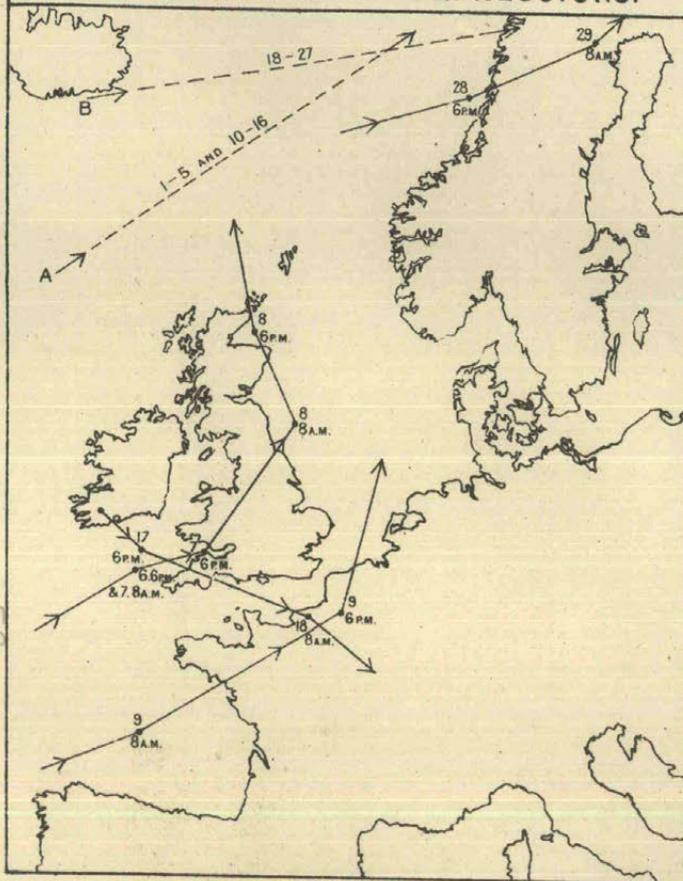
Monthly Summary.

Plate X.

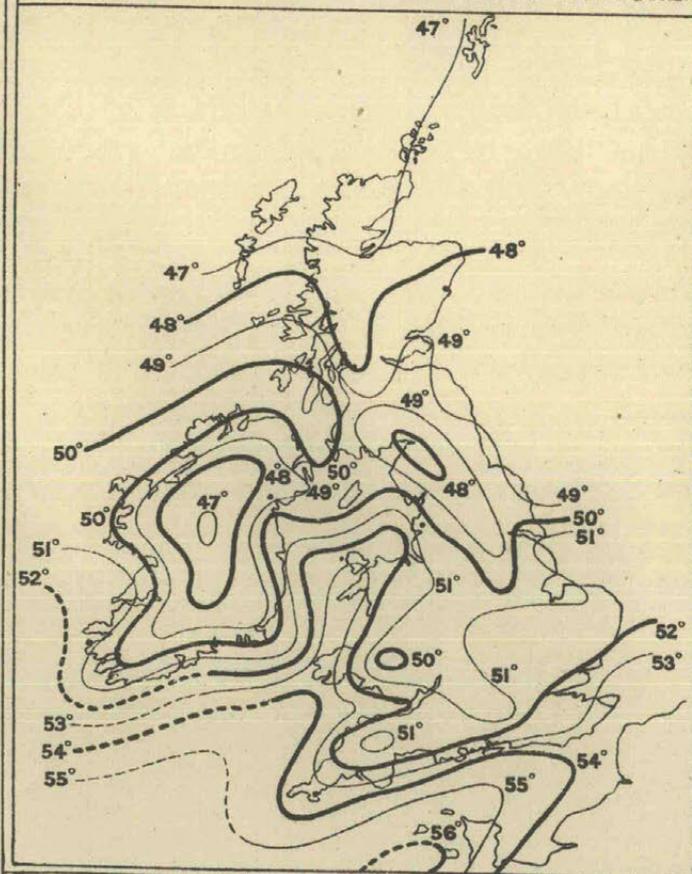
1. BAROMETER AND WIND.



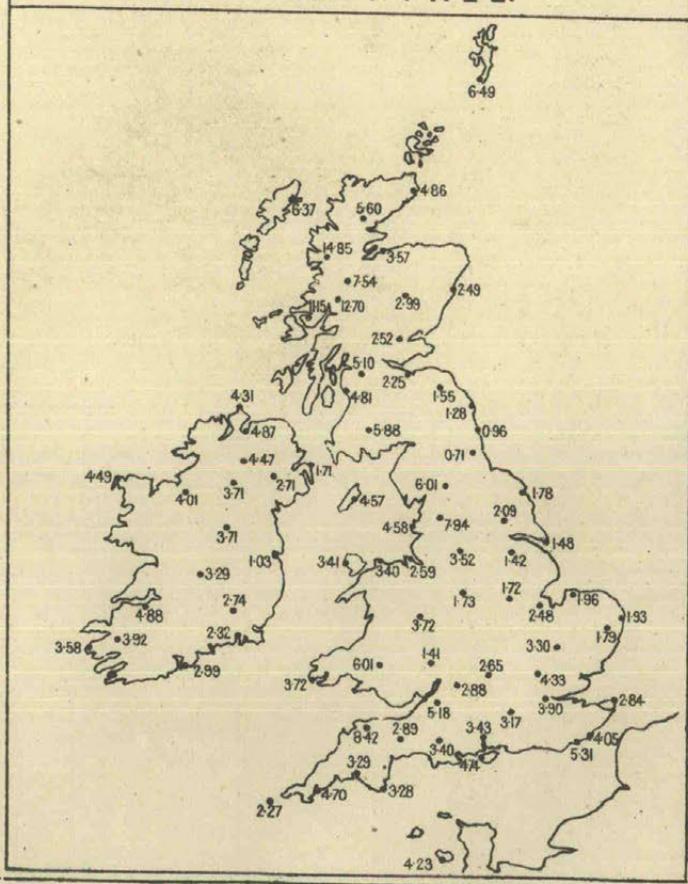
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.

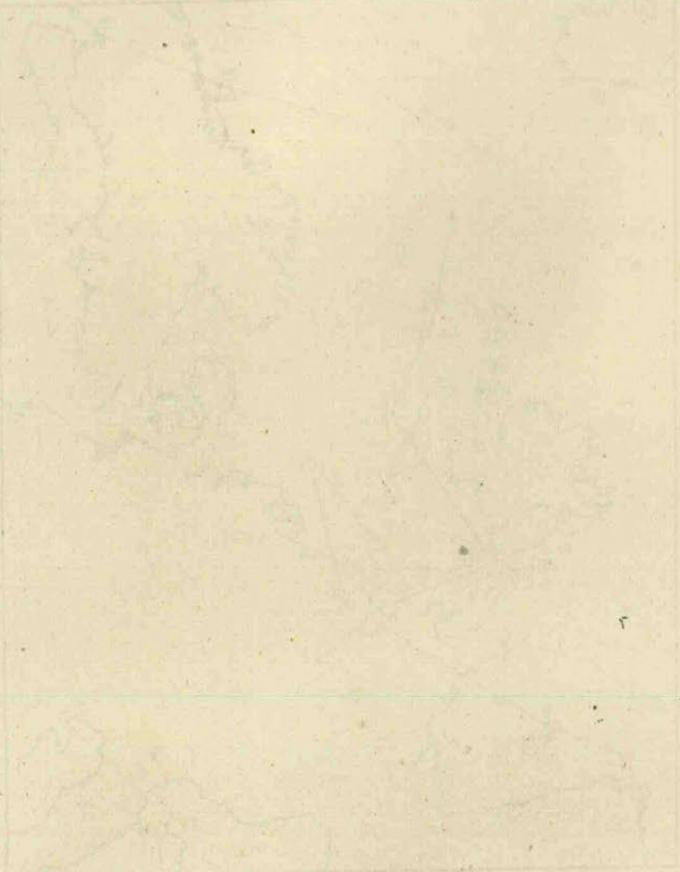


4. RAINFALL.

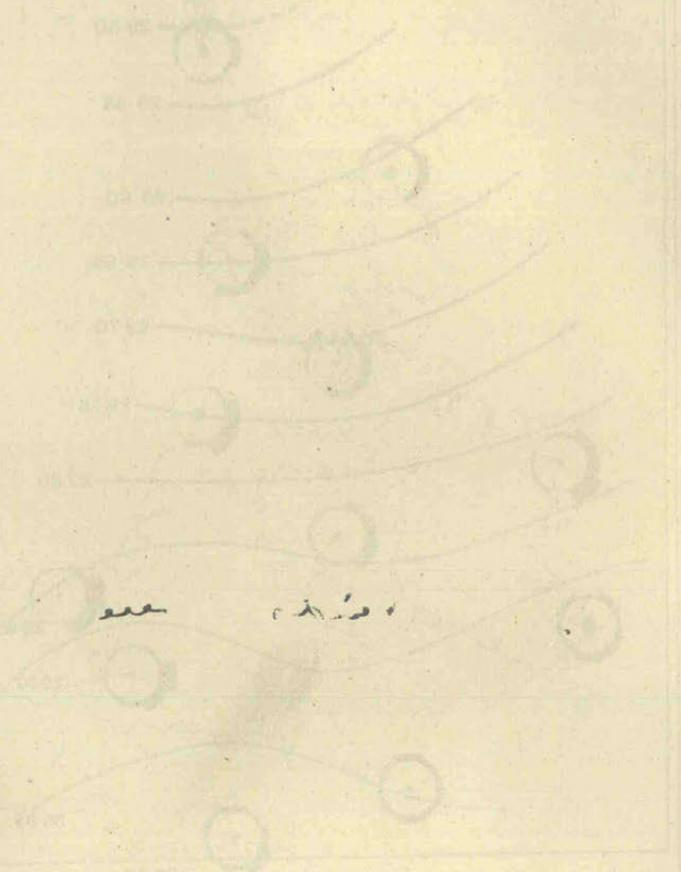


To face p. xi.

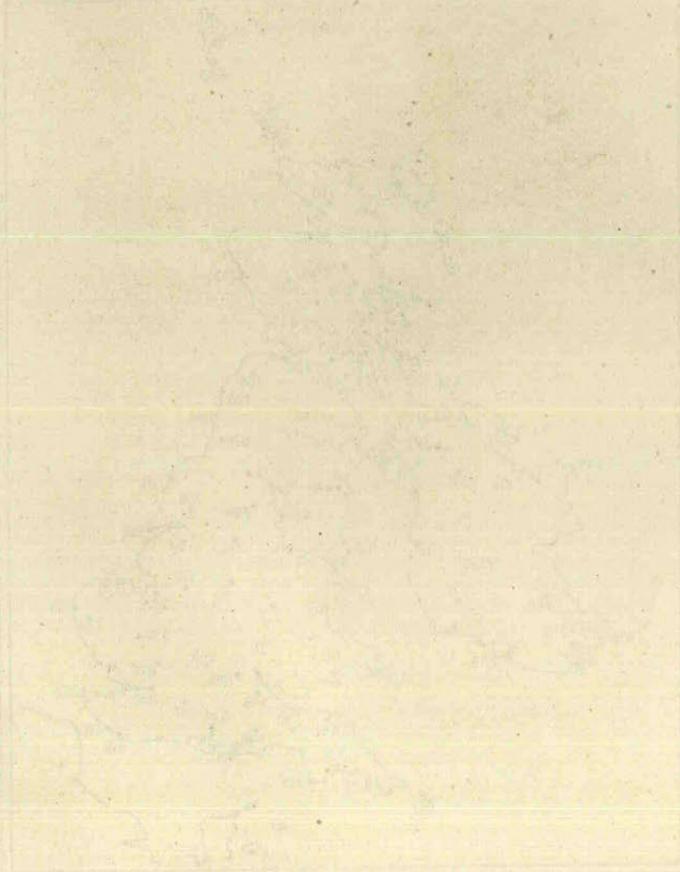
1. MOVEMENTS OF DEPRESSIONS



2. BAROMETRIC AND WIND



3. RAINFALL



4. DISTRIBUTION OF MEAN TEMPERATURE



**SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS, for the
CALENDAR MONTH,**

NOVEMBER 1893.

(Issued as a Supplement to the Weekly Weather Report, 1893.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of November was cold and changeable, with frequent falls of rain, sleet or snow. A Northerly gale of exceptional violence was experienced over our Islands and their immediate neighbourhood between the 17th and 19th. Pressure was high, especially in the west; temperature was below the average; the winds were chiefly Northerly or North-westerly in the more northern districts, but rather variable in the south; rainfall was less than the normal in all localities excepting the north of Scotland and the east of England; and bright sunshine was a little in excess of the average at a large majority of the stations.

Pressure.—*Mean for the month at 8 a.m.* ranged from 30·10 ins. and upwards in the west of Ireland to 29·95 ins. or less on the north and east coasts of Great Britain generally, and to about 29·85 ins. in the Shetlands, the distribution being favourable for winds from the North-westward. The mean values were above the average* in all places, the excess being greatest (0·25 in. to 0·32 in.) on the west coasts of Ireland and Scotland, and least (0·07 in. to 0·10 in.) on the east and south-east coasts of England. *Highest* readings were recorded on the 21st, when the barometer rose to 30·6 ins. and upwards in the west of Ireland, and to 30·4 ins. and upwards in nearly all other parts of the kingdom. In the more northern districts, however, the mercury was equally high, and in some places slightly higher, between the 8th and the 11th. *Lowest* readings were recorded generally on the 17th, when the barometer fell below 28·6 ins. in many parts of Scotland and below 29·0 ins. on all but our extreme southern coasts. *Range* was moderate in the south and south-east, but large in the west and north.

Depressions.—Several large depressions travelled eastwards or south-eastwards across Northern Europe, their secondaries in many instances passing across the more southern parts of Scandinavia, Denmark, and the North Sea. The most important depression observed in the immediate neighbourhood of our Islands was that of the 16th to 19th. The centre of this disturbance advanced in the first instance north-eastwards across Ireland and Scotland, but on the night of the 17th it entirely changed its course, the system ultimately moving in a south-south-easterly direction along our east coasts to Belgium and the east of France, where it apparently broke up. The depression was preceded by a shallower system, which moved east-north-eastwards along the English Channel on the night of the 14th, and which afterwards travelled on to Germany and Poland.

Anticyclones.—Three such areas were observed. The first extended over our Islands from the north-westward on the 6th, its central portion being situated over Scotland until the 11th, when the entire system moved away in a south-easterly direction. The second spread over from the westward on the 19th and 20th, its gradual advance from the Atlantic occasioning the sudden change in the movement of the deep depression noticed above; the central portion of the anticyclone remained over Ireland until the 23rd, when it passed away to the south-westward. The third appeared over our western coasts on the 26th, but quickly moved away to the southward.

Winds were chiefly Northerly or North-westerly on our northern coasts, but rather variable over the more southern parts of the kingdom. The per-centage of winds from the Southward and South-eastward was in all places very slight. Gales were numerous, the most important being the severe storm from the Northward, which sprang up on our northern coasts on the night of the 17th and which afterwards extended over the entire kingdom. At Deerness (Orkneys) the wind blew with an hourly velocity of 90 miles or more for five consecutive hours, the maximum of 96 miles registered between 8.30 and 9.30 p.m. on the 17th being five miles in excess of anything previously recorded in our Islands.

Temperature.—*Mean at sea level* ranged from between 47° and 48° in the Scilly and Channel Islands to 41° or less over central Ireland, and to 37° or less over the inland parts of the north of Scotland, the values being below the average* at all stations excepting one or two situated in the north-east of England and the north of Ireland. *Highest* readings were observed over England and Ireland on the 3rd, but in Scotland on the 28th or 29th. *Lowest* readings occurred at various times in the different districts, sharp frost being experienced in all parts of the Kingdom; at Braemar and Loughborough the sheltered thermometer fell to 19°, and at Lairg and Markree Castle to 20°. *Range* was moderate for the time of year. *Vapour Tension* ranged from about 0·27 in. on our extreme south-west coasts to 0·22 in. or less in the east of Scotland and the central parts of England and Ireland. *Relative Humidity* varied from 79 per cent. at Belmullet and 80 per cent. at Scilly and Jersey to 91 per cent. at Cambridge, 92 per cent. at Prawle Point, and 97 per cent. at Stornoway.

Rainfall was in excess of the average* in the north of Scotland and also in the east of England. Elsewhere the amounts were less than the normal, the deficiency being considerable at many of our western stations. The largest aggregates were 15·4 ins. at Glencarron, 8·0 ins. at Fort William, and 7·1 ins. at Stornoway, the smallest being 0·9 in. at Donaghadee, 1·1 ins. at Hereford, and 1·4 ins. at Leith and Edgeworthstown. Amounts exceeding an inch in 24 hours were recorded at several of the western and northern stations, the largest of all being 3·9 ins. at Glencarron on the 28th, and 2·2 ins. at Fort William on the 29th.

Bright Sunshine was in excess of the normal in most places, but showed a deficiency in Scotland and Central Ireland. The per-centage of the possible duration ranged from 29 at several of our south-western stations and at Arley Cottage (County Cavan) to 10 at Manchester, 9 at Braemar, and only 4 at Fort Augustus.

* The averages employed are—*Pressure* and *Temperature* for the 20 years, 1871–90; *Rainfall* for the 25 years, 1866–90; and *Bright Sunshine* for the 10 years, 1881–90.

TABLE XXI.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail. (The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.		Difference from Average.	AIR TEMPERATURE.							
		ins.	in.		Means of				Absolute Extremes.			
					At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.
0. SCOTLAND, N.	Sumburgh Head	29'849	+0'166	38'8	34'6	43'3	39'0	-2'7	26	23rd	51	28th
	Wick	29'889	+1'67	38'8	34'0	43'3	38'7	-2'2	26	14th, 15th	55	29th
	Stornoway	29'954	+2'55	40'0	34'8	43'8	39'3	-2'3	28	19th	53	28th, 29th
1. SCOTLAND, E.	Nairn	29'949	+2'11	39'2	33'9	43'3	38'6	-1'9	24	27th	59	29th
	Aberdeen	29'938	+1'80	39'4	35'7	44'2	40'0	-1'4	28	19th, 27th	56	28th, 29th
	Leith	29'970	+1'81	40'9	35'6	46'3	41'0	-1'6	28	1st	56	28th
2. ENGLAND, N.E.	Shields	29'943	+1'30	43'4	36'7	48'1	42'4	-0'2	27	19th, 23rd	58	28th
	York	29'973	+1'27	40'9	35'4	47'9	41'7	-0'3	26	5th	57	3rd
	Spurn Head	29'940	+0'98	43'1	38'7	47'1	42'9	-0'6	30	23rd, 24th	54	3rd
3. ENGLAND, E.	Yarmouth	29'940	+0'75	42'5	37'1	46'9	42'0	-1'3	28	24th	54	3rd, 17th, 28th
	Cambridge	29'990	+1'03	39'2	32'9	48'6	40'8	-1'4	24	5th, 6th	61	3rd
4. MIDLAND COUNTIES	Loughborough	30'007	+1'30	38'9	33'6	47'8	40'7	-1'6	19	5th	63	3rd
	Oxford	30'009	+1'13	39'4	34'8	47'3	41'1	-1'8	24	14th	60	3rd
5. ENGLAND, S.	London	29'992	+0'94	40'8	35'9	47'7	41'8	-1'9	27	1st	59	3rd
	North Foreland	29'964	+0'84	43'4	37'8	47'8	42'8	-1'5	31	1st, 23rd	58	3rd
	Dungeness	29'958	+0'65	42'4	37'3	48'2	42'8	-2'2	28	1st, 24th	59	3rd, 4th
	Hurst Castle	30'007	+1'05	43'0	38'2	48'6	43'4	-2'2	29	1st, 23rd, 27th	59	3rd, 4th
6. SCOTLAND, W.	Ardrossan	29'989	+1'98	41'3	36'3	46'5	41'4	-2'1	28	21st	54	28th
7. ENGLAND, N.W.	Hawes Junction*	28'719	?	37'7	31'0	42'3	37'1	?	22	23rd, 27th	52	16th
	Liverpool	30'015	+1'64	42'0	37'4	47'2	42'3	-1'4	31	15th, 19th, 23rd	58	3rd
	Holyhead	30'019	+1'84	45'5	41'7	48'8	45'3	-1'0	34	19th, 20th, 23rd	57	3rd
8. ENGLAND, S.W.	Pembroke	30'033	+1'69	45'0	40'9	48'7	44'8	-2'2	31	19th	56	1st
	Prawle Point	30'025	+1'11	43'3	38'4	48'9	43'7	-2'8	28	23rd, 24th, 28th	57	3rd
9. IRELAND, N.	Malin Head	30'010	+2'35	44'3	41'5	46'9	44'2	+1'0	36	19th, 20th	53	3rd
	Donaghadee	30'029	+2'19	44'6	40'9	48'3	44'6	+0'8	32	20th	57	3rd
	Belmullet	30'102	+3'22	44'7	39'0	48'4	43'7	-2'9	32	5th, 7th, 8th	56	3rd
10. IRELAND, S.	Parsonstown	30'099	+2'52	39'3	33'2	46'9	40'1	-3'0	22	7th	56	3rd
	Valencia (Cahiriveen)	30'127	+2'62	46'0	40'2	49'8	45'0	-2'7	28	22nd	57	3rd, 16th
	Roche's Point	30'092	+2'27	45'0	41'0	49'3	45'2	-1'4	33	20th	58	and
CHANNEL ISLANDS	Silly (St. Mary's)	30'038	+1'41	48'4	43'0	51'2	47'1	-2'5	34	18th	58	2nd
	Jersey	30'015	+0'87	46'7	41'8	51'3	46'6	-1'4	32	1st	60	2nd, 3rd

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

REPORTING STATIONS in the BRITISH ISLANDS during the Month of NOVEMBER 1893.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

(beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD.	RAINFALL.				Date.	WEATHER, No. of Days of							WIND, No. of Observations of							
			Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Rain.		Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.
0'207	88	9'1	5'11	+0'95	1'75	17th	23	6	0	0	0	24	3	10	4	0	0	2	5	3	5	3
'218	93	8'6	6'44	+3'51	2'10	17th	22	6	1	0	1	21	8	10	3	1	0	2	2	3	8	1
'230	97	9'3	7'11	+2'41	1'50	16th	23	7	1	0	0	24	10	9	3	0	1	1	3	3	5	5
'214	89	7'6	3'10	+0'81	0'75	17th	20	4	0	0	0	15	2	3	2	0	1	2	4	8	4	6
'205	85	7'5	4'20	+1'06	1'22	16th	22	8	1	0	0	13	11	3	2	0	0	4	5	6	10	0
'216	85	7'1	1'38	-0'82	0'80	3rd	14	1	0	0	0	14	0	6	1	1	1	0	6	8	5	2
'238	84	8'5	2'54	-0'07	0'37	18th	19	7	3	0	0	18	11	6	5	1	0	2	7	4	5	0
'224	88	7'5	2'19	0'00	0'55	18th	19	2	0	0	4	16	2	8	3	2	1	4	4	4	4	0
'239	85	7'6	2'63	+0'23	0'70	18th	21	2	2	0	2	14	6	5	7	1	1	3	8	3	2	0
'235	87	5'4	2'99	-0'07	0'73	18th	23	2	2	0	6	5	6	3	6	3	2	1	7	5	3	0
'218	91	7'1	2'50	+0'49	0'80	18th	13	2	0	0	4	18	9	8	3	2	2	2	8	3	2	0
'208	88	8'1	1'59	-0'65	0'47	18th	17	5	0	0	2	17	4	4	3	3	1	1	5	4	7	2
'216	90	7'8	1'63	-0'68	0'32	25th	15	5	0	0	5	21	1	8	6	0	1	2	8	3	2	1
'219	87	7'8	2'20	+0'06	0'72	14th	13	2	0	0	4	18	5	3	5	5	1	1	6	5	3	1
'247	85	5'9	2'64	?	0'67	14th	17	2	3	2	4	9	7	5	4	4	3	1	3	9	1	0
'239	88	7'5	2'23	-1'25	0'35	18th	19	1	2	0	0	13	7	7	2	5	4	0	1	6	5	0
'247	89	6'0	1'57	-1'44	0'28	14th	17	1	0	0	1	5	8	7	7	2	0	1	5	6	2	0
'226	88	6'3	2'19	-1'69	0'75	16th	16	1	0	2	8	14	7	5	8	1	1	1	2	7	4	1
'210	93	9'0	3'65	?	0'86	25th	21	7	0	0	0	23	1	7	9	1	0	1	7	3	2	0
'229	86	6'8	1'47	-1'49	0'45	25th	16	0	0	0	6	15	3	8	4	3	2	0	7	3	3	0
'263	87	7'6	2'05	-1'83	0'43	17th	17	0	0	0	1	14	9	5	6	6	0	1	3	6	2	1
'268	90	6'9	3'17	-0'87	0'80	17th	15	0	2	0	0	9	8	4	9	5	1	0	2	5	4	0
'256	92	7'1	1'49	-1'71	0'30	30th	13	1	0	0	0	13	7	4	7	5	1	0	5	5	3	0
'247	84	8'4	2'02	?	0'45	16th	16	0	6	0	3	23	12	6	2	4	3	1	6	2	6	0
'245	83	6'5	0'93	-2'27	0'25	25th	17	1	0	0	0	8	10	4	8	4	1	1	6	4	2	0
'234	79	7'5	2'70	?	0'94	16th	22	0	1	0	4	18	6	5	4	8	2	0	5	1	5	0
'207	87	7'8	1'71	-1'12	0'23	1st, 17th, 25th.	12	0	0	0	3	20	2	1	4	0	1	2	7	0	7	8
'269	87	7'6	2'32	-3'10	0'68	30th	17	1	2	0	4	18	8	4	9	5	1	2	3	2	3	1
'253	85	6'3	1'69	-2'93	0'65	16th	7	0	0	0	0	9	6	7	6	3	2	1	1	6	4	0
'271	80	7'1	1'48	-2'24	0'44	16th	13	1	3	0	0	3	13	7	4	6	2	1	2	5	3	0
'254	80	7'7	3'10	-1'20	0'46	14th	22	4	5	0	0	13	10	2	6	5	2	0	3	8	4	0

barometer at this station is not reduced for altitude.

TABLE XXII.

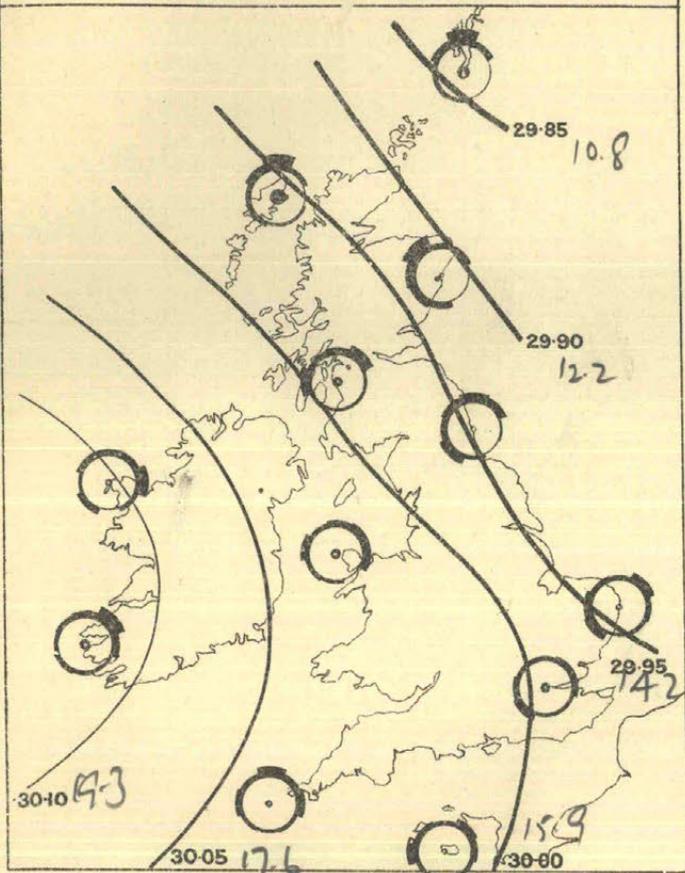
OBSERVATIONS OF TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT for the Month of NOVEMBER 1893.

STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	°	°	°	°	°	*	*	*	ins.	ins.	ins.	*	26.5	-14.9	12	10	
LAIRG	30.8	40.2	35.5	-4.1	20	26th	59	28th	4.50	+0.68	0.92	17th	—	—	—	—	
GLENCARRON	32.1	42.5	37.3	-2.7	23	14th	51	28th, 29th	15.38	+5.66	3.94	28th	—	—	—	—	
FORT AUGUSTUS	33.5	43.4	38.5	-2.3	23	14th	55	29th	4.37	+0.09	0.79	29th	10.2	?	4	?	
FORT WILLIAM	34.6	44.3	39.5	-2.1	27	14th	54	28th	8.03	+0.26	2.15	29th	31.4	?	13	?	
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	*	46.5	-8.8	20	-4	
BRAEMAR	30.3	40.2	35.3	-2.5	19	27th	53	28th	3.16	-0.73	0.51	5th	21.7	?	9	?	
EDINBURGH	—	—	—	—	—	—	—	—	—	—	—	—	36.0	?	15	?	
OCHTERTYRE	32.3	45.3	38.8	-1.4	25	20th, 30th	57	28th	2.88	-1.47	1.71	16th	—	—	—	—	
MARCHMONT	34.0	44.1	39.1	-1.1	25	5th	56	28th	3.64	+0.07	0.92	5th	44.5	?	19	?	
ALNWICK CASTLE	37.9	45.5	41.7	-0.1	28	22nd	53	3rd	2.94	-0.39	0.46	17th	—	—	—	—	
DURHAM	35.1	46.8	41.0	0.0	25	1st	57	28th	2.36	-0.60	0.33	7th	51.9	-3.3	21	-2	
SCARBOROUGH	38.2	48.1	43.2	+0.1	28	4th, 5th	56	17th	3.96	+0.94	0.67	18th	—	—	—	—	
OSWALDKIRK	—	—	—	—	—	—	—	—	—	—	—	—	43.8	?	18	?	
YORK	*	*	*	*	*	*	*	*	*	*	*	*	44.3	+2.2	18	+1	
HILLINGTON	35.9	47.6	41.8	-0.1	23	5th	58	3rd	4.16	+1.45	0.95	18th	53.7	+0.6	21	0	
GELDESTON	36.3	47.6	42.0	-1.2	26	24th	57	3rd	3.49	+0.77	0.80	18th	67.6	+3.0	26	+1	
CAMBRIDGE	—	—	—	—	—	—	—	—	—	—	—	—	63.3	-0.8	25	0	
ROTHAMSTED	34.2	46.7	40.5	-1.3	26	1st, 14th	59	3rd	2.58	-0.13	0.71	25th	52.0	?	20	?	
BAWTRY	34.7	48.0	41.4	-0.5	24	4th	59	3rd	1.60	-0.55	0.38	17th	—	—	—	—	
WORKSOP	—	—	—	—	—	—	—	—	—	—	—	—	37.1	-13.1	15	-5	
STAMFORD (KETTON HALL).	34.4	47.5	41.0	-1.1	21	5th	60	3rd	1.93	-0.73	0.40	18th	—	—	—	—	
THURCASTON	—	—	—	—	—	—	—	—	—	—	—	—	52.3	+1.4	21	+1	
CHEADLE	33.7	45.4	39.6	-1.4	25	18th, 19th, 23rd	58	3rd	1.47	-1.72	0.29	25th	—	—	—	—	
CHURCHSTOKE	33.5	45.8	39.7	-2.0	25	1st, 23rd	56	3rd	1.60	-1.92	0.29	25th	29.4	-21.2	12	-8	
HEREFORD	35.4	47.4	41.4	-1.7	22	1st	60	3rd	1.09	-1.47	0.28	25th	—	—	—	—	
CIRENCESTER	34.3	46.5	40.4	-1.1	21	1st	58	3rd	1.88	-1.15	0.38	17th	62.9	+9.2	24	+3	
OXFORD	*	*	*	*	*	*	*	*	*	*	*	*	61.2	+5.8	24	+2	
LONDON	*	*	*	*	*	*	*	*	*	*	*	*	34.1	-3.6	13	-1	
MARGATE	—	—	—	—	—	—	—	—	—	—	—	—	59.3	?	23	?	
STRATHFIELD TURGISS	34.6	46.7	40.7	-1.9	25	1st	61	3rd	2.09	-0.46	0.57	14th	—	—	—	—	
HASTINGS	37.5	47.2	42.4	-2.7	30	23rd, 24th, 27th	57	17th	2.60	-0.70	0.37	1st	64.7	-2.7	25	-1	
EASTBOURNE	—	—	—	—	—	—	—	—	—	—	—	—	62.3	?	24	?	
BRIGHTON	—	—	—	—	—	—	—	—	—	—	—	—	60.5	?	27	?	
WESTBOURNE (SUSSEX).	—	—	—	—	—	—	—	—	—	—	—	—	55.1	?	21	?	
SOUTHAMPTON	36.6	48.4	42.5	-2.0	27	1st	63	3rd	2.35	-0.61	0.38	14th, 16th	62.2	+5.4	24	+2	
STOWELL	36.3	47.1	41.7	-1.5	24	1st	59	3rd	2.28	?	0.66	14th	—	—	—	—	
LAUDALE	34.1	45.5	39.8	-2.4	26	6th	57	29th	5.12	-4.00	1.20	24th	—	—	—	—	
GLASGOW	35.8	45.2	40.5	-1.0	27	21st	54	28th, 29th	3.43	-0.36	1.70	3rd	50.8	+24.1	21	+10	
GLENLEE	34.1	46.5	40.3	-0.2	23	5th	55	3rd	3.89	-2.36	1.01	16th	—	—	—	—	
DOUGLAS	38.6	48.1	43.4	-0.8	27	5th	55	3rd, 4th	2.22	-2.54	0.63	25th	62.7	+1.7	25	+1	
STONRHURST	35.7	45.3	40.5	-1.7	28	5th, 19th, 23rd, 24th.	54	17th	4.56	-0.07	1.38	25th	55.4	+10.3	22	+4	
BLACKPOOL	37.2	47.8	42.5	-0.4	28	1st, 5th	55	4th, 17th	1.55	-1.96	0.54	26th	49.7	+5.1	20	+2	
MANCHESTER	35.0	46.7	40.9	-1.2	26	5th	56	3rd, 4th, 17th	2.81	-0.79	0.94	25th	24.6	?	10	?	
LLANDUDNO	39.2	48.2	43.7	-1.6	30	18th	57	4th	3.33	-0.18	0.52	16th	40.0	-4.7	16	-2	
LLANDOVERY	34.3	47.7	41.0	-2.3	21	1st	57	3rd	3.30	-1.81	0.82	25th	—	—	—	—	
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	*	68.3	+9.0	27	+4	
BRISTOL (MONTPELIER)	37.2	47.5	42.4	-1.2	28	1st	56	3rd, 16th	2.57	?	0.75	17th	—	—	—	—	
TENBY	—	—	—	—	—	—	—	—	—	—	—	—	66.1	?	26	?	
ARLINGTON	37.2	47.2	42.2	-1.6	27	1st	56	16th	4.53	-1.80	1.28	17th	—	—	—	—	
CULLOMPTON	37.1	48.5	42.8	-1.4	23	1st	59	4th	2.74	-0.79	0.40	1st	69.4	+21.4	26	+8	
TORQUAY	—	—	—	—	—	—	—	—	—	—	—	—	62.8	?	24	?	
NEWQUAY	—	—	—	—	—	—	—	—	—	—	—	—	78.4	?	29	?	
FALMOUTH	41.0	49.5	45.3	-2.3	33	23rd, 27th	58	2nd	4.27	-1.16	1.04	17th	77.4	+8.0	29	+3	
PLYMOUTH	39.1	49.0	44.1	-2.3	29	1st	58	2nd, 3rd	1.63	-1.99	0.32	16th	77.0	+19.8	29	+7	
GUERNSEY	—	—	—	—	—	—	—	—	—	—	—	—	?	?	?	?	
JERSEY	*	*	*	*	*	*	*	*	*	*	*	*	79.6	+14.2	29	+5	
LONDONDERRY	37.1	47.5	42.3	-0.6	30	15th	55	3rd	3.34	-0.96	0.70	16th	—	—	—	—	
EDENFEL (OMAGH)	34.1	45.7	39.9	-1.7	21	14th	54	3rd, 28th	2.37	-1.24	0.60	16th	—	—	—	—	
MARKREE CASTLE	34.2	47.7	41.0	-1.7	20	8th	56	3rd, 28th	2.95	-0.58	0.51	16th	61.5	+7.6	25	+3	
BROOKEBOROUGH	34.5	47.2	40.9	-0.5	22	15th, 21st	56	28th	2.98	-1.30	0.89	16th	—	—	—	—	
ARMAGH	35.1	46.7	40.9	-1.0	24	7th	55	3rd	1.58	-1.31	0.57	16th	65.1	+8.4	26	+3	
EDGEWORTHSTOWN	33.8	45.4	39.6	-2.7	25	5th	55	3rd	1.41	-2.25	0.30	29th	—	—	—	—	
ARLEY COTTAGE (COUNTY CAVAN).	—	—	—	—	—	—	—	—	—	—	—	—	72.4	?	29	?	
DUBLIN	38.9	48.7	43.8	-1.0	31	5th, 7th	58	3rd	1.87	-0.61	0.82	16th	51.7	-19.2	20	-8	
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	*	50.1	-12.9	20	-5	
KILKENNY CASTLE	36.6	47.3	42.0	-2.7	26	5th	61	1st	1.68	-0.99	0.49	16th	—	—	—	—	
WATERFORD	37.5	48.0	42.8	-3.4	28	1st, 5th, 27th	59	3rd	2.34	-1.43	0.67	16th	—	—	—	—	
VALENCIA (CAHR-OVEREN).	*	*	*	*	*	*	*	*	*	*	*	*	72.8	+12.7	28	+5	
KILLARNEY	36.0	49.1	42.6	-3.0	23	7th	61	3rd	3.37	?	0.90	16th	—	—	—	—	
FOYNES	37.5	47.7	42.6	-2.0	29	14th	58	3rd	2.70	?	0.58	16th	—	—	—	—	

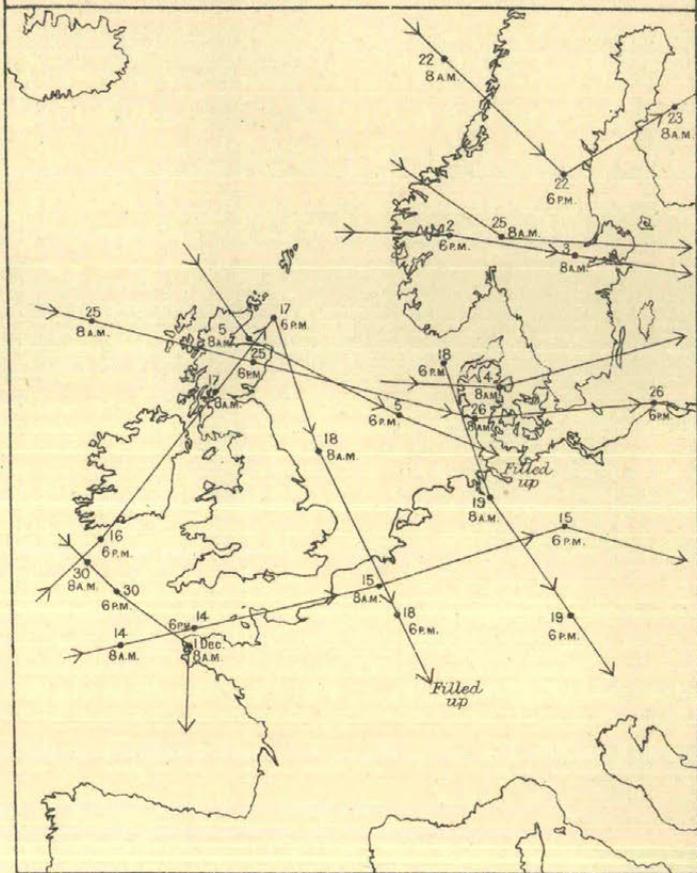
* For information see Table XXI.

† Records incomplete.

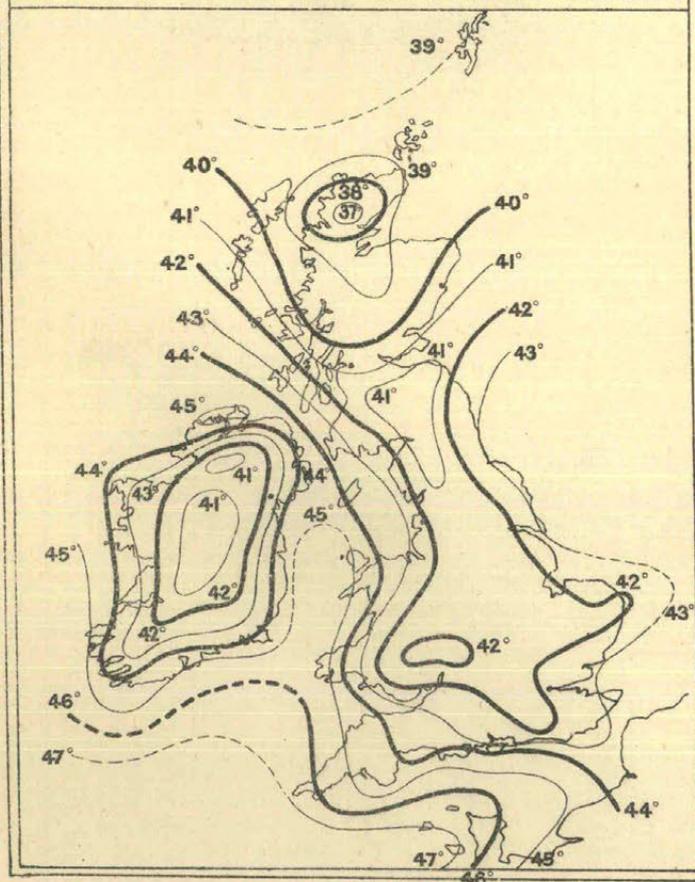
1. BAROMETEF AND WIND.



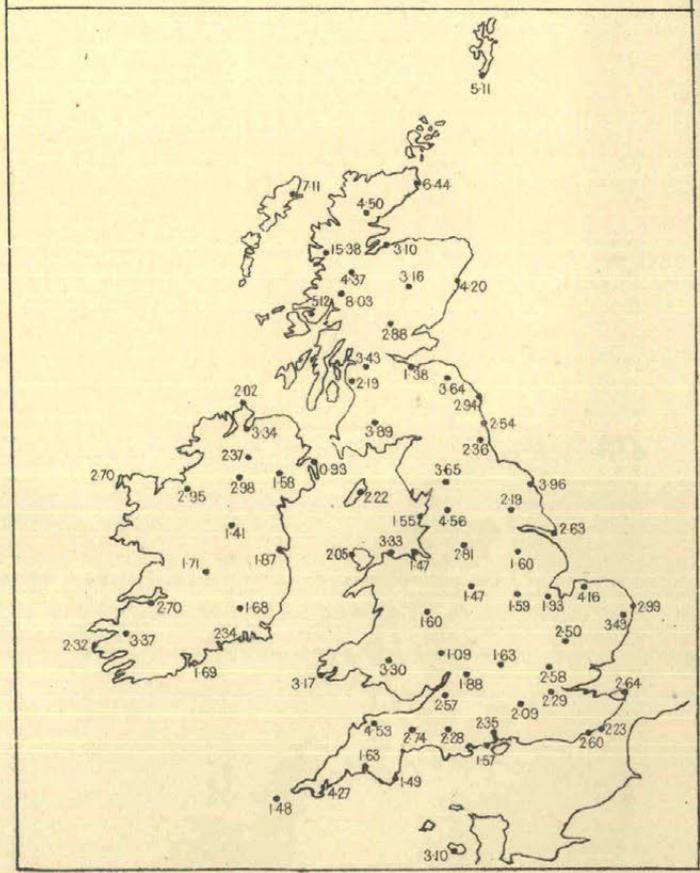
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS, for the
CALENDAR MONTH,

DECEMBER 1893.

(Issued as a Supplement to the Weekly Weather Report, 1893.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of December was generally mild, wet, and stormy, with heavy gales at times on nearly all our coasts. Thunder and lightning were of somewhat frequent occurrence in the western districts, and thick fogs were experienced in the south-east of England at the close of the month. Pressure was considerably below the average in the north, but slightly above it in the south; temperature was high, especially in the north-west; the winds were chiefly Westerly or South-westerly; rainfall was in excess of the average; and the amount of bright sunshine, though small in Scotland, was abnormally large in most parts of England and Ireland.

Pressure.—*Mean at 8 a.m.* ranged from 30·07 ins. at Jersey, and from 30·0 ins. and upwards over the Channel and South of England generally to about 29·5 ins. in the Shetlands and Hebrides. The general distribution was therefore in close agreement with the normal, but as the actual values were a little above the average* over the central and southern parts of England, while they were considerably below it in the more northern districts, the mean gradient over our islands was much steeper than usual. *Highest* readings were recorded on the 29th, when the barometer rose to 30·7 ins. and upwards over the eastern and central parts of England, and to 30·6 ins. or more in all but the extreme northern parts of the kingdom. *Lowest* readings were observed in Scotland on the 8th, when the mercury fell to 27·97 ins. at Stornoway and to between 28·1 ins. and 28·5 ins. in other parts of the country. Over England and Ireland the absolute minima occurred either on the 13th or 20th, the barometer falling to between 28·6 ins. and 28·7 ins. in nearly all places. *Range* was large, amounting as it did to two inches or more over a considerable portion of the country, and to nearly two inches and a half in the north of Scotland.

Depressions were numerous and in many cases of great depth. The most important systems were: (1.) The disturbance of the 8th, which skirted the north of Scotland; and (2.) Those of the 12th, 13th, and 20th, each of which advanced in an easterly or a north-easterly direction over the central or southern parts of the United Kingdom.

Anticyclones.—Three such systems were observed. The first advanced from the Atlantic on the 1st, and remained over Western Europe until the 5th, when it passed away to the southward. The second spread temporarily over the southern parts of our islands from France on the 15th, but moved away to the eastward on the 17th. The third also extended from the southward on the 25th, and increased in size until it embraced nearly the entire Continent. At the close of the month the system was beginning to give way under the influence of some large depressions which were advancing eastwards over Northern Europe.

Winds were chiefly Westerly or South-Westerly, with a large number of gales, especially on our western and northern coasts; at Roche's Point the wind blew with gale force on 14 days and at Stornoway and Malin Head on as many as 16 days. The storms experienced in Scotland on the 8th, in the south of England on the 12th, and over the western parts of the Channel on the 20th, were of great severity.

Temperature.—*Mean at Sea Level* ranged from 47° and upwards in the Scilly Islands, and 45° and upwards on our extreme south-west coasts generally to 40° or less over central Ireland, and to 39° or less in the north of Norfolk, the distribution being fairly normal, excepting in Scotland, where, owing to the continued prevalence of W. and S.W. winds, the ordinary wintry conditions were less clearly marked than usual. The mean values were everywhere above the average,* the excess being greatest in the north of Ireland and in the western and central parts of Scotland, where it amounted to between three and five degrees. *Highest* readings were registered on the 13th, 15th or 16th, when the thermometer rose to 55° or more in nearly all districts. *Lowest* readings were observed between the 1st and 3rd, when sharp frost prevailed very generally, minimum values below 20° being recorded in many parts of Great Britain. At Lairg the sheltered thermometer fell to 12°, at Glenlee to 13°, and at Nairn, Cirencester, and Llandoverly to 15°. *Range* was somewhat large,—over 35° at many of the inland stations in Great Britain, and as much as 40° at Nairn and Glenlee, and 42° at Lairg. *Vapour Tension* ranged from 0·28 in. on our south-west coasts to 0·21 in. or less over central England and the east of Scotland. *Relative Humidity* exceeded 90 per cent. on our extreme north and north-west coasts, and also over the southern parts of Ireland and England, the lowest values (85 per cent. or less) being reported in the east of Scotland and the Scilly Islands.

Rainfall varied greatly in different parts of the kingdom, but was mostly above the average,* the excess being large in the west and north-west of Scotland. The largest aggregates recorded were 16·3 ins. at Fort William, 15·8 ins. at Glencarron, and 11·9 ins. at Laudale; the smallest were 1·0 in. at Cambridge, 1·3 ins. at Shields, Durham, and Stamford, and 1·5 ins. at Dungeness. The number of rainy days was very large in the extreme western and northern districts; at Sumburgh Head, Stornoway, and Glencarron, there were 29, and at Fort William and Belmullet as many as 30; while at Laudale a measurable quantity fell every day in the month.

Bright Sunshine was deficient in the extreme north, but exceeded the average* in nearly all other parts of the kingdom, the excess being in many places very considerable. The per-centage of the possible amount ranged from 37 at Jersey, 34 at Margate, and 32 at Dublin, to 6 at Stornoway, 3 at Fort William and Manchester, and 2 at Fort Augustus.

* The averages employed are—*Pressure and Temperature* for the 20 years, 1871–90; *Rainfall* for the 25 years, 1866–90; and *Bright Sunshine* for the 10 years, 1881–90.

TABLE XXIII.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 39° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								
				Means of				Absolute Extremes.				
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.
0. SCOTLAND, N.	Sumburgh Head	ins. 29'499	ins. -0'174	42'0	37'0	45'1	41'1	+2'2	21	1st	49	5th, 6th, 15th
	Wick	29'544	-0'174	40'9	35'4	44'8	40'1	+2'6	23	1st, 2nd	54	16th, 15th
	Stornoway	29'511	-0'194	42'2	36'1	46'1	41'1	+2'4	20	2nd	53	6th, 15th
1. SCOTLAND, E.	Nairn	29'587	-0'156	41'2	34'5	46'9	40'7	+3'3	15	2nd	55	6th, 24th
	Aberdeen	29'672	-0'095	39'5	35'0	44'9	40'0	+2'7	22	2nd	53	5th
	Leith	29'709	-0'098	42'1	36'4	47'4	41'9	+3'0	25	3rd	55	15th
2. ENGLAND, N.E.	Shields	29'795	-0'050	41'4	35'4	46'7	41'1	+2'7	22	2nd	55	15th
	York	29'882	-0'058	39'3	34'6	45'4	40'0	+2'7	20	2nd	54	13th
	Spurn Head	29'891	+0'018	39'7	36'3	44'2	40'3	+1'4	28	2nd, 3rd	52	13th
3. ENGLAND, E.	Yarmouth	29'968	+0'052	39'0	34'4	44'0	39'2	+1'4	23	3rd	54	13th
	Cambridge	29'992	+0'051	37'5	31'9	46'2	39'1	+1'9	19	23rd	58	13th
4. MIDLAND COUNTIES	Loughborough	29'949	+0'025	38'2	33'2	46'2	39'7	+2'2	17	2nd, 3rd	55	13th
	Oxford	29'993	+0'038	38'0	34'1	45'7	39'9	+1'7	21	3rd	56	13th
5. ENGLAND, S.	London	30'012	+0'058	39'0	34'4	46'0	40'2	+1'2	20	3rd, 4th	57	13th
	North Foreland	30'022	+0'082	41'5	35'3	45'8	40'6	+1'1	24	4th	55	13th
	Dungeness	30'021	+0'068	41'4	36'3	46'8	41'6	+1'5	22	31st	54	13th
	Hurst Castle	30'020	+0'062	42'2	37'7	47'5	42'6	+1'6	24	3rd	56	12th, 13th
6. SCOTLAND, W.	Ardrossan	29'718	-0'102	43'7	39'6	46'7	43'2	+3'0	24	2nd	51	4th, 5th, 6th, 15th.
7. ENGLAND, N.W.	Hawes Junction*	28'591	?	37'2	32'7	42'2	37'5	?	16	3rd	48	4th, 16th, 24th
	Liverpool	29'882	-0'013	42'0	37'7	47'2	42'5	+2'9	27	2nd, 3rd	54	13th, 15th
	Holyhead	29'855	-0'024	44'8	41'4	48'4	44'9	+2'1	34	2nd	52	12th, 13th, 15th, 16th.
8. ENGLAND, S.W.	Pembroke	29'900	-0'016	46'2	41'6	49'1	45'4	+1'8	32	2nd, 31st	53	12th, 13th
	Prawle Point	30'004	+0'034	43'5	39'2	48'5	43'9	+1'3	26	2nd, 3rd	54	13th
9. IRELAND, N.	Malin Head	29'654	-0'156	43'4	40'2	46'5	43'4	+3'7	32	1st	53	16th
	Donaghadee	29'768	-0'080	42'1	36'7	47'0	41'0	+0'9	31	11th	54	15th
	Belmullet	29'747	-0'073	45'2	40'5	48'0	44'3	+0'5	33	2nd	53	15th
10. IRELAND S.	Parsonstown	29'832	-0'069	41'1	35'6	47'8	41'7	+2'8	21	3rd	55	15th
	Valencia (Cahirciveen)	29'879	-0'026	45'7	40'2	50'5	45'4	+0'5	29	3rd	56	15th
	Roche's Point	29'853	-0'029	44'9	40'5	49'0	44'8	+1'4	29	2nd	54	15th
CHANNEL ISLANDS	Seilly	29'951	0'000	48'4	43'4	51'2	47'3	+0'8	33	3rd	55	12th, 15th
	Jersey	30'066	+0'081	44'5	39'9	49'2	44'6	+1'3	30	31st	58	13th

* Hawes Junction is 1,135 feet above mean sea level, and the

REPORTING STATIONS in the BRITISH ISLANDS during the Month of DECEMBER 1893.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

(beginning in each case with the Station lying furthest North.)

TENSION OF VAPOUR.	RELATIVE HUMIDITY.	AMOUNT OF CLOUD.	RAINFALL.				WEATHER.							WIND.									
			Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Days of							No. of Observations of									
							Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.	
0.237	89	9.3	ins. 5.58	ins. +1.33	ins. 0.54	8th	20	2	0	0	0	27	7	3	1	0	3	7	3	8	3	3	0
.236	93	8.1	2.79	-0.31	0.50	2nd	23	4	0	0	0	16	10	2	1	0	1	11	4	2	10	0	0
.254	94	8.9	7.53	+1.90	1.20	8th	29	7	0	0	0	20	16	2	0	0	4	3	6	10	5	1	0
.211	82	5.8	1.74	-0.21	0.24	6th	23	3	0	0	0	6	1	0	0	1	1	1	12	11	1	4	0
.204	84	7.6	2.14	-1.10	0.53	24th	22	2	0	0	0	13	12	0	0	0	4	7	12	6	2	0	0
.226	85	6.6	1.96	+0.10	0.43	24th	17	6	0	0	1	12	3	1	0	1	2	3	13	8	0	3	0
.225	87	7.1	1.26	-1.31	0.34	10th, 12th	14	2	1	0	0	11	4	0	0	0	2	6	18	4	1	0	0
.213	89	6.6	2.46	+0.18	0.52	12th	19	0	0	0	9	16	0	2	0	1	2	14	6	5	1	0	0
.212	87	6.8	1.68	-0.46	0.56	20th	16	1	0	0	1	13	3	1	0	0	1	10	9	7	3	0	0
.218	92	5.4	2.01	-0.65	0.41	20th	21	2	0	0	10	8	6	0	1	0	0	6	13	7	4	0	0
.207	92	6.4	0.98	-0.90	0.25	20th	12	1	0	0	6	16	8	3	0	0	1	11	13	1	2	0	0
.204	89	7.2	2.46	+0.22	0.55	20th	17	1	1	0	3	14	10	1	0	0	6	7	8	7	2	0	0
.208	91	7.5	1.72	-0.38	0.43	10th	17	2	0	0	7	19	2	3	1	0	3	10	8	3	2	1	0
.214	90	6.2	2.25	+0.15	0.43	13th	16	2	1	0	7	12	8	3	1	0	2	10	10	2	1	2	0
.228	88	6.4	2.31	?	0.48	8th	15	1	0	0	1	11	8	2	1	1	0	10	11	5	1	0	0
.238	91	7.5	1.49	-1.51	0.43	8th	15	0	1	0	0	13	7	3	2	0	2	3	9	8	4	0	0
.247	92	6.3	2.91	+0.13	0.78	13th	15	0	0	0	1	9	8	4	4	1	0	5	9	8	0	0	0
.262	92	8.2	4.10	+0.37	0.87	24th	24	4	3	1	2	19	10	1	1	2	1	11	10	4	1	0	0
.218	98	8.5	7.51	?	0.99	12th	25	7	2	0	0	23	0	0	1	1	1	7	16	5	0	0	0
.225	85	5.9	3.04	+0.45	0.49	12th	19	2	0	0	12	15	2	1	0	1	8	5	7	6	1	2	0
.264	89	7.1	3.70	-0.12	0.65	24th	22	0	0	0	2	11	4	1	1	1	1	9	8	4	6	0	0
.281	91	6.8	4.39	+0.40	0.95	10th	24	2	2	0	0	11	12	2	3	3	1	5	8	7	2	0	0
.267	94	7.2	2.67	-1.09	0.45	13th	17	0	0	0	0	11	9	1	3	2	1	5	7	8	4	0	0
.251	89	8.7	3.13	?	0.43	6th	25	2	8	0	2	25	16	1	0	0	1	11	9	5	4	0	0
.251	93	6.3	2.74	-0.10	0.41	24th	25	1	0	0	0	9	12	1	0	0	1	6	13	7	3	0	0
.258	86	7.2	5.44	?	0.58	18th	30	2	3	0	3	16	13	3	0	1	2	4	13	3	5	0	0
.230	89	7.3	3.71	+0.67	0.57	24th	18	1	0	0	8	22	1	0	1	0	5	5	11	1	3	5	0
.281	92	8.0	8.38	+2.39	1.57	27th	24	1	7	1	1	18	11	2	2	2	3	7	8	6	0	1	0
.269	91	7.2	5.56	+0.61	0.75	8th	24	1	0	0	0	15	14	5	1	0	2	3	8	5	7	0	0
.283	84	7.4	3.90	-0.12	0.75	11th, 19th	17	0	0	0	0	7	7	2	3	3	1	9	5	6	2	0	0
.253	87	6.9	3.20	-0.62	0.77	12th	21	1	3	0	4	13	8	1	3	2	7	6	3	3	6	0	0

Barometer at this station is not reduced for altitude.

TABLE XXIV.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of DECEMBER 1893.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	°	°	°	°	°	°	°	°	ins.	ins.	ins.	°	10.8	-16.8	0	-8	
LAIRG	33.5	45.2	39.4	+4.0	12	1st	54	16th	26	4.17	+0.22	0.50	and 8th	—	—	—	
GLENCARRON	35.0	44.6	39.8	+2.7	19	1st	53	16th	29	15.75	+6.20	1.30	6th	4.3	?	2	
FORT AUGUSTUS	36.5	46.1	41.3	+3.6	21	1st, 2nd	54	6th	26	8.89	+4.18	1.27	15th	5.6	?	3	
FORT WILLIAM	38.3	46.3	42.3	+3.1	23	1st	53	16th	30	16.26	+7.10	1.93	15th	37.0	-0.9	18	
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	*	*	17.7	?	9	
BRAEMAR	33.8	42.2	38.0	+3.8	20	1st	50	6th, 16th	25	3.82	+0.84	0.73	10th	33.6	?	16	
EDINBURGH	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
OCHTERTYRK	36.7	45.5	41.1	+5.1	20	1st	54	15th	23	4.06	-0.11	0.82	24th	—	—	—	
MARCHMONT	33.1	44.1	38.6	+2.4	20	2nd	51	15th	16	1.89	-1.26	0.35	13th	41.3	?	20	
ALNWICK CASTLE	36.5	45.1	40.8	+3.2	25	1st	53	15th	19	1.58	-1.57	0.26	1st	—	—	—	
DURHAM	34.7	45.6	40.2	+3.4	22	2nd	52	15th, 16th	16	1.29	-1.66	0.30	12th	51.9	+10.4	24	
SCARBOROUGH	34.9	45.7	40.3	+1.7	25	2nd	53	15th	17	2.08	-0.75	0.58	12th	—	—	—	
OSWALDKIRK	*	*	*	*	*	*	*	*	*	*	*	*	*	36.7	?	16	
YORK	*	*	*	*	*	*	*	*	*	*	*	*	*	32.9	+8.4	15	
HILLINGTON	32.6	44.3	38.5	+1.8	20	3rd	56	13th	18	1.90	-0.53	0.33	1st	56.9	+20.0	25	
GILDESTON	33.2	45.5	39.4	+1.6	20	3rd	57	13th	19	1.91	-0.29	0.45	20th	54.8	+8.4	23	
CAMBRIDGE	*	*	*	*	*	*	*	*	*	*	*	*	*	51.7	+12.4	22	
ROTHAMSTED	32.6	45.2	38.9	+1.5	18	3rd	55	13th	17	2.50	+0.07	0.49	12th	58.6	?	25	
BAWTRY	32.8	45.4	39.1	+1.9	21	1st	53	13th, 16th	19	2.62	+0.36	0.89	12th	—	—	—	
WORKSOP	—	—	—	—	—	—	—	—	—	—	—	—	—	38.9	+7.0	17	
STAMFORD (KETTON HALL).	32.5	45.9	39.2	+2.2	18	3rd	56	13th	19	1.34	-0.99	0.25	12th	—	—	—	
THURCASTON	—	—	—	—	—	—	—	—	—	—	—	—	—	45.5	+22.3	20	
CREADLE	33.0	45.0	39.0	+2.6	20	2nd	52	13th	19	3.10	-0.03	0.95	12th	—	—	—	
CHURCHSTONE	34.2	46.2	40.2	+2.5	17	2nd	53	15th	20	4.72	+1.65	0.88	12th	43.0	+5.5	19	
HEREFORD	34.2	46.8	40.5	+2.2	18	3rd	55	15th	17	3.62	+1.26	1.11	12th	—	—	—	
CIRENCESTER	31.5	46.0	38.8	+1.6	15	3rd	54	13th	18	2.39	-0.44	0.59	12th	42.2	+3.6	18	
OXFORD	*	*	*	*	*	*	*	*	*	*	*	*	*	54.2	+16.8	23	
LONDON	*	*	*	*	*	*	*	*	*	*	*	*	*	33.1	+13.7	14	
MARGATE	—	—	—	—	—	—	—	—	—	—	—	—	—	80.7	?	34	
STRATHFIELD TURGISS	32.4	44.6	38.5	+0.8	17	3rd	54	12th, 13th	22	3.80	+1.66	0.67	12th	—	—	—	
HASTINGS	36.0	47.6	41.8	+1.8	28	2nd, 3rd	56	13th	11	2.06	-0.88	0.40	8th	56.8	+2.1	24	
EASTBOURNE	—	—	—	—	—	—	—	—	—	—	—	—	—	64.7	?	27	
BRIGHTON	—	—	—	—	—	—	—	—	—	—	—	—	—	66.3	?	28	
WESTBOURNE (SUSSEX)	—	—	—	—	—	—	—	—	—	—	—	—	—	57.8	?	24	
SOUTHAMPTON	34.7	47.2	41.0	+1.2	21	3rd	56	13th	17	3.09	-0.02	0.68	19th	60.1	+13.8	25	
STOWELL	34.0	46.5	40.3	+2.0	16	3rd	54	13th	21	3.66	?	0.89	19th	—	—	—	
LAUDALE	38.5	47.9	43.2	+3.4	22	2nd	55	16th	31	11.90	+2.56	1.26	2nd	—	—	—	
GLASGOW	38.4	45.8	42.1	+4.2	25	2nd	52	15th, 16th	22	4.17	+0.13	0.78	24th	19.0	+3.8	9	
GLENLEE	35.4	46.8	41.1	+4.0	13	2nd	53	16th	25	8.60	+2.41	1.54	24th	—	—	—	
DOUGLAS	39.1	48.0	43.6	+2.5	23	2nd	59	17th	28	4.92	+0.40	0.48	24th	43.3	-0.1	19	
STONYHURST	35.9	45.1	40.5	+2.9	21	2nd	50	13th, 15th, 16th	25	4.92	+0.32	0.78	12th	29.7	+2.0	13	
BLACKPOOL	36.3	47.9	42.1	+3.3	19	2nd	58	15th	25	3.44	+0.24	0.58	13th	33.7	+7.9	15	
MANCHESTER	34.6	45.8	40.2	+2.8	20	2nd	53	13th, 15th, 16th	25	3.78	+0.23	0.77	12th	8.0	?	3	
LLANDUDNO	39.6	48.6	44.1	+2.5	32	2nd	55	24th	19	3.57	+0.44	0.60	12th	41.0	+16.3	18	
LLANDOVERY	32.9	47.3	40.1	-0.6	15	3rd	54	13th	24	6.00	+0.68	0.94	18th	—	—	—	
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	*	*	53.8	+7.6	23	
BRISTOL (MONTPELLIER)	37.2	47.8	42.5	+3.4	21	3rd	56	13th	15	2.80	?	0.72	12th	—	—	—	
TENBY	—	—	—	—	—	—	—	—	—	—	—	—	—	56.1	?	24	
ARLINGTON	35.4	46.8	41.1	+0.8	21	3rd	54	13th	18	5.67	-0.06	1.30	12th	—	—	—	
CULLOMPTON	34.3	47.8	41.1	+1.8	17	3rd	56	13th	18	3.74	+0.22	0.98	12th	51.1	+17.2	21	
TORQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	66.9	?	28	
NEWQUAY	—	—	—	—	—	—	—	—	—	—	—	—	—	66.9	?	28	
FALMOUTH	40.1	49.1	44.6	+0.5	27	3rd	55	13th	15	5.76	+0.51	1.28	11th	76.1	+22.1	31	
PLYMOUTH	38.2	49.0	43.6	+1.5	24	3rd	55	13th	16	4.34	+0.50	0.85	18th	64.6	+13.2	27	
GUERNSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	74.0	?	30	
JERSEY	*	*	*	*	*	*	*	*	*	*	*	*	*	91.9	+34.8	37	
LONDONDERRY	37.1	46.1	41.6	+2.3	29	2nd	54	16th	28	3.92	-0.03	0.45	6th	—	—	—	
EDENFEL (OMAGH)	35.5	45.6	40.6	+2.9	22	2nd	55	15th	26	4.85	+1.51	0.66	27th	—	—	—	
MARKREE CASTLE	35.3	46.1	40.7	+2.1	23	2nd	54	15th	27	4.77	+1.30	0.70	27th	43.9	+7.5	20	
BROOKEBOROUGH	35.7	45.7	40.7	+3.5	20	2nd	54	15th	24	4.40	+0.33	0.68	27th	—	—	—	
ARMAGH	36.5	45.9	42.2	+3.3	27	2nd	54	15th, 16th	21	2.80	0.00	0.29	7th, 24th	53.2	+17.9	24	
EDGEWORTHSTOWN	34.1	43.8	39.0	+1.1	24	2nd	52	15th	23	3.74	+0.52	0.45	27th	—	—	—	
ARLEY COTTAGE (COUNTY CAVAN).	—	—	—	—	—	—	—	—	—	—	—	—	—	50.3	?	23	
DUBLIN	38.9	48.1	43.5	+2.7	28	2nd	57	15th	19	2.48	+0.09	0.50	24th	72.3	+23.4	32	
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	*	*	53.3	+8.9	23	
KILKENNY CASTLE	34.6	47.5	41.1	+1.2	20	2nd	56	15th	23	3.15	-0.02	0.61	24th	—	—	—	
WATERFORD	36.2	48.3	42.3	+0.3	25	2nd, 3rd	52	4th, 6th, 12th, 15th, 16th, 17th.	20	4.33	+0.19	1.09	19th	—	—	—	
VALENCIA (CAHIR-CIVEEN).	*	*	*	*	*	*	*	*	*	*	*	*	*	50.2	+5.1	21	
KILLARNEY	37.6	49.7	43.7	+1.4	21	2nd	55	13th, 15th	23	7.79	?	0.87	12th	—	—	—	
FOYNES	38.5	†	†	†	27	1st, 30th	†	†	22	4.99	?	0.90	19th	—	—	—	

* For information see Table XXIII. † Observations incomplete; thermometer out of order.

