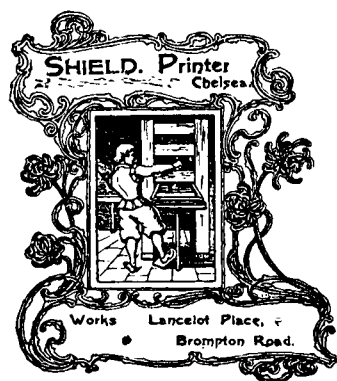


**BRITISH RAINFALL,  
1904.**







*Photograph supplied by R. T. Omond, Esq.*

**BEN NEVIS OBSERVATORY.**

*Engraved by Bale & Danielsson.*



BRITISH RAINFALL, 1904.

FORTY-FOURTH ANNUAL VOLUME.

ON

THE DISTRIBUTION OF RAIN

OVER THE

BRITISH ISLES,

DURING THE YEAR

1904,

AS OBSERVED AT ABOUT 4000 STATIONS IN  
GREAT BRITAIN AND IRELAND,

WITH ARTICLES UPON VARIOUS BRANCHES OF RAINFALL WORK.

COMPILED BY

HUGH ROBERT MILL,

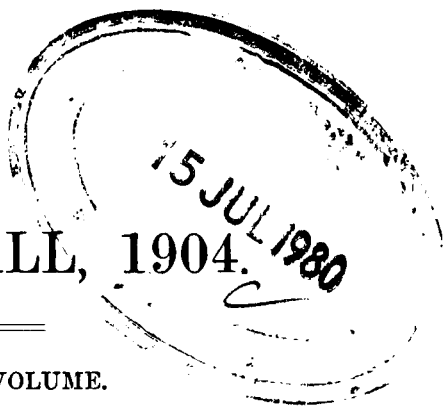
D.Sc., LL.D., F.R.S.E.,

*Secretary of the Royal Meteorological Society ; Member of the Scottish Meteorological  
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Corresponding Member of the Geographical Societies in London, Edinburgh,  
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One of the British Representatives to the International  
Council for the Study of the Sea.*

LONDON :

EDWARD STANFORD, 12, 13 & 14, LONG ACRE, W.C.

1905.



#### ERRATA IN BRITISH RAINFALL, 1903.

Plate facing page 21. Third line of title. *For 15th only read 14th only.*

Page 13. Survivors of 1861, *delete* Col. McInroy.

„ [99]. Line 20. *For* September, 1896 *read* September, 1866.

„ [225]. St. Albans (Gorhambury). *For* 36·34 *read* 37·34.

„ [244]. Stonehouse (Parklands). *Delete the record.*

„ [261]. Barnsley (Beckett Square). *Delete the record.*

„ [278]. Castletown (Langness). *Delete the record.*



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## PREFACE.

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THE volume is completed four days later than last year, a fact largely due to the absence, from illness, of one or other of my assistants, and it is only their whole-hearted devotion to the work of *British Rainfall*, and their cheerful sacrifice of much time beyond reasonable working hours, that has made the delay so slight.

I have to acknowledge, first of all, that the co-authors of this volume are the Observers, whose 3982 rain gauges supplied the records which are included and discussed. My labours as Editor have been lightened by the constant help of MRS. H. R. MILL, and the burden of the vast amount of arithmetical computation has been borne, as in former years, by my assistants—MR. R. LAMPORT, MR. J. M. PHILLPOTT, and MR. C. SALTER.

The book contains:—(1) a Report touching on the work of the Rainfall Organization; (2) Original articles discussing the Rainfall of Ben Nevis, the Driest Octobers on record, and the Twenty-four years' records of Duration of Rainfall at Camden Square; (3) Tables of duration of rainfall, amount of evaporation, and representative records of daily rainfall (a new feature) at selected stations during 1904; (4) an Account of the Staff of Observers, and a list of the changes in the stations; (5) a record of the losses of Observers by death, with a few biographical notes. This completes Part I.

Part II. deals exclusively with 1904, and includes—(6) The Observers' Remarks on rainfall and weather; (7) a discussion of heavy falls of rain with a minute investigation of the distribution of rainfall on the wettest days; (8) discussions of droughts, rainy spells, number of rainy days, and intensity of rainfall at selected stations; (9) a general discussion of the relation of the monthly and annual rainfall to the average, and (10) the General Table of annual rainfall at all stations, together with the names of the Observers or responsible authorities.

No safeguard of accuracy has been relaxed, and I trust that the volume will be found worthy to stand by the side of its forty-three predecessors.

HUGH ROBERT MILL.

62, CAMDEN SQUARE, LONDON, N.W.

25th July, 1905.



## REPORT.

---

**The Observers.**—It is to the Observers, whose work I have been privileged to edit and discuss, that this annual report is addressed. I have endeavoured to do justice to every record of rainfall which I have received, and I have applied to every Observer whose name it was possible to ascertain. It is gratifying to find that the stimulus of the remarkably wet year 1903 has been operative throughout the somewhat common-place rainfall year 1904, and has resulted in a considerable increase in the number of good records.

Welcome as new Observers are, and doubly welcome where stations are few, the oldest Observers are the most welcome of all, and more welcome every year, since the scientific value of a carefully kept record grows with its age. The list of survivors of 1861 printed last year has been slightly altered. One name then given was that of a relative of the original Observer, and it has been withdrawn accordingly, one old Observer had been overlooked and is now included, two have been removed by death, and two still remain in uncertainty. The survivors of those whose records appeared in the volume for 1861 are, to the best of my knowledge :—

\*Dr. A. Buchan.  
\*Mr. R. Burrell.  
\*Mr. W. S. Clark.  
Mr. D. Doncaster.  
Mr. H. S. Eaton.  
Mr. W. D. Howard.  
\*Dr. W. C. Lake.

Mr. G. Washington Moon.  
\*Rev. C. B. Mount.  
\*Mr. A. Peckover.  
\*Mr. E. P. Phillips.  
\*Mr. W. B. Pugh.  
Colonel M. F. Ward.  
Mr. J. G. Wood.

I should be glad to receive any information regarding :—

Mr. J. R. Mann .....Osborne.  
Mr. J. Silver .....White Waltham.

While most of the observers are responsible for one record taken by themselves personally there are others who supervise a number of gauges and send in many returns. The latter group includes the Water Works engineers of all the large towns and of many railways and canals in Great Britain and Ireland, the representatives of

---

\* Records were received from these observers for 1904.

County organizations and local scientific societies including Mr. F. Campbell Bayard of Croydon, the Dorset Field Club, Mr. C. A. Markham of Northampton, Mr. A. W. Preston for Norfolk, Mr. John Hopkinson for Hertfordshire, Mr. T. Wainwright for North Devon, Mr. H. Warren for Cambridge, and Miss Marshall for the Lake District. The Meteorological Office, the Royal Observatory at Greenwich, the Royal Meteorological Society, the Scottish Meteorological Society, and the Board of Northern Lights have, as they have always done, rendered the readiest and most ungrudging help. It would be impossible to single out for special thanks the names of all the individual workers who devote themselves enthusiastically to the work of observing rainfall; but that of Mr. Gethin Jones stands out on account of the difficulty of the task with which it is associated. His efforts to solve the question of the distribution of rainfall on the slopes of Snowdon have met with much success, and have induced him to turn his attention also to other mountainous districts of high rainfall.

**The Observations and their Discussion.**—It is my endeavour to keep up the traditional joint responsibility of the Observer and the Editor for every figure quoted in *British Rainfall*. With the aid of experienced assistants I examine every return as it is received, and find about one in eight which requires some special consideration or explanation. When any serious discrepancy arises it is referred to the Observer in the hope of clearing it up, and this is a somewhat delicate matter, for while many of the most careful observers welcome a query and are even grateful for a positive correction, there are some who resent the suggestion that they could possibly make a mistake, and are seriously displeased by their returns being questioned. To such I can only say that it is my duty to satisfy myself that every entry published in *British Rainfall* is as nearly correct as it can be made, and that comparisons impossible for an individual observer often throw light on a misreading. Every year the enquiries addressed to observers elicit such explanations as these:—(1) snow was not properly measured, (2) a temporary observer entered the readings to the wrong day, (3) in measuring a heavy fall the number of times the glass was filled was not correctly counted, (4) the gauge was read at an hour other than 9 a.m., thereby altering the proportion of rain falling on two consecutive rainy days, (5) in a rainy month the fall up to a certain date was ascertained by adding up the entries, jotting



the amount down in pencil then adding it up as if it were the rainfall of a day, so giving a wrong figure for the month, (6) a glass graduated for a different diameter of rain gauge was used inadvertently, (7) the reading of a thermometer was entered by mistake in the rainfall column, (8) the figures for the wrong month were copied from the original, (9) the digits of the figure were transposed and, *e.g.*, .90 written instead of .09, (10) the Editor has made the mistake. Of these explanations I may without vanity say that No. 10, though often suggested, is rarely found to be correct. In dealing with such masses of figures a mistake may, indeed, occur easily enough, but it is my rule never to refer any apparent discrepancy or to publish any discussion of figures unless it is verified by two separate computers.

After the preliminary criticism has been finished for all the returns and not sooner, the tested data are used for the purpose of discussing the distribution of rainfall and its variation from the average both in place and time. The number of returns dealt with has doubled since 1880, the number of hands engaged on the work has only increased by one third, so that it is no wonder that the volume is published no earlier.

The present body of Observers is not only more numerous, but also more efficient than any in the past. It is now possible to arrive at a fair approximation even of the number of rainy days, but improvement will continue to be shown in this particular for many years to come before perfection is in sight.

In order to facilitate the work which my assistants and I have to do, I earnestly request all Observers to follow as closely as possible the Rules drawn up for ensuring uniformity in observations, a copy of which can always be obtained by return of post without any charge.

**Inspection of Stations.**—I can never hope to see all the rain gauges, the records of which are sent to Camden Square, nor can I possibly make the personal acquaintance of all my correspondents; but whenever an opportunity presents itself, that opportunity is taken advantage of, as the increasing number of † signs in the General Table shows. The chief difficulty in the way is the utterly inadequate railway service in country districts, and the consequent impossibility of visiting so many as half-a-dozen stations half-a-dozen miles apart in the course of a day. A few years ago the bicycle

supplied a quick and easy means of overcoming the difficulty, but now, except for the fact that it is not prohibited by law, cycling on the high roads of England scarcely differs in point of danger from walking on the railways. The gauges ought to be inspected for several reasons. For one thing an exposure once perfect may have been entirely altered by the imperceptible growth of trees; for another thing a gauge may be on the verge of becoming worn out, and the timely discovery of the fact might prevent the loss of a year's record, and it is always of immense advantage in discussing the records for me to know the exact conditions in which they are taken. My work is too constant and exacting to leave many days in the year free for inspecting; but if any observer possessed of modern means of locomotion cares to devote a few hours now and again to visiting neighbouring gauges along with me, I should appreciate his collaboration.

**Desiderata for British Rainfall.**—Perhaps the most interesting question now before the scientific meteorologist is that of the long period variations of weather and climate, and the relation between them and influences external to the Earth. The study of long rainfall records at individual stations irresistibly suggests that there is some sort of recurrence of similar conditions, but the attempt to divide up wet and dry spells according to any clear and definite rule has hitherto failed. I feel that there are at least two ways in which the observations sent in for *British Rainfall* could help towards a better understanding of the case. One is the study of individual rains associated with weather types, and a beginning in this direction has been made in the more exact treatment of heavy rains on rainfall days. The second is the comparison of the total rainfall of one year or month with another. I should like, if it were possible, to have a complete rainfall map compiled, and the volume of the rain calculated for each year since 1861, before *British Rainfall* attains its Jubilee five years hence. In no other way can the work of an irregular and shifting multitude of Observers be made strictly comparable, and by no other means can a true standard for the comparison of one year or season with another be arrived at. The labour involved is enormous, and if justice is to be done to this branch of the work there must be an increase in the number of my assistants, which is dependent on a large increase in the funds.

These, as well as the maintenance of current routine, are among the aims which the Editor has before him.

**National Meteorology.**—The Meteorological Office has recently been reorganized, and an opportunity thus arises to remind readers of the constitution and the function of the various bodies dealing with meteorology in this country :

(1) THE METEOROLOGICAL OFFICE is charged (*a*) with the collection and discussion of data bearing on the meteorology of the oceans ; (*b*) with the collection and discussion of data bearing on the meteorology of the land surface of the British Isles ; (*c*) with the preparation of daily Weather Reports and Forecasts, and with the issue of storm warnings. The publications include a daily and weekly Weather Report, the latter with a monthly supplement, and also a series of Reports on the meteorological observatories maintained by the Meteorological Office, on the Climatological stations reporting to the Office, an annual administration report, and extra publications on various meteorological researches. The director is Dr. W. N. Shaw, who is appointed by the Treasury, and assisted by a consultative committee, consisting of the Hydrographer of the Navy, two members nominated by the Royal Society, and one nominated by each of the following Government Departments : The Board of Trade, the Board of Agriculture and Fisheries, and the Treasury. It is supported by a grant from Parliament of £15,300 per annum, and its office is 63, Victoria Street, S.W.

(2) THE ROYAL METEOROLOGICAL SOCIETY, founded in 1850, and incorporated by Royal Charter, is a society formed for the purpose of advancing the science of meteorology, and numbering between 600 and 700 Fellows. It holds monthly meetings for the reading and discussion of papers, and publishes (*a*) a *Quarterly Journal*, and (*b*) a *Meteorological Record*, containing the observations made at about 100 stations, which are regularly inspected by an officer of the society. The society's headquarters are at 70, Victoria Street, S.W., and anyone wishing particulars as to conditions of membership should apply to the Assistant Secretary, Mr. W. Marriott, at that address.

(3) THE SCOTTISH METEOROLOGICAL SOCIETY fulfils similar functions in Scotland, and publishes an annual *Journal*. The Meteorological Secretary is Dr. A. Buchan, and the society's office is at 122, George Street, Edinburgh.

(4) THE BRITISH RAINFALL ORGANIZATION is an informal and purely voluntary association of about 4000 Observers of rainfall, who send in their returns to the Editor of *British Rainfall* and *Symons's*

*Meteorological Magazine* for publication in these periodicals. It enters into no sort of rivalry with anyone or with any institution, and the best proof of this is the fact that the three formally constituted bodies described above send in the returns of rainfall, for which they are responsible, to be published with the rest. The headquarters are in the old residence of the founder, G. J. Symons, an address that has almost become historic, 62, Camden Square, London, N.W.

**Finance.**—I heartily wish that I had not to write this paragraph, and if I could see any way of obtaining the necessary funds from a public source, without sacrificing the distinctive character of the Organization, I would never pen such a paragraph again. Old supporters are dying fast, and it is necessary to explain to new Observers why they are given an opportunity of taxing themselves to keep up a work, national indeed in its scope, and in its representation of all classes of the community, from the King downwards. The work is, however, only made possible by the avoidance of all methods of red tape.

The case is simply this : the records of 4000 rain gauges are of no great worth if each is kept by itself, buried as it were under the gauge that recorded it ; but when the 4000 are brought together, compared with each other and with the tens of thousands previously taken, they acquire a high scientific value. If every Observer were able—I make bold to say that if every Observer who *is* able were willing—to subscribe for both publications, nothing more would be required. It is the rule to supply *British Rainfall* at half-price to those Observers who cannot afford to pay the full price, or who, from any motive, do not desire to do so. In addition to this a copy of the General Table is sent to every Observer who cares for it enough to spend a halfpenny in asking for it, and to some who do not even care so much. The expense of maintaining a work of such magnitude is not small, the responsibility of doing it without a penny of fixed income is very great ; and the number of promising pieces of research that are kept in abeyance because there is no money to pay for more assistance is a miserable thing to think of.

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## THE RAINFALL OBSERVATIONS ON BEN NEVIS.

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OUR frontispiece this year is a view of the summit of Ben Nevis in winter, showing the Meteorological Observatory which has occupied the highest possible site in the British Isles for nearly twenty years, and rendered a unique service to our knowledge of rainfall. This Observatory, it may be useful to recall, was founded by the Scottish Meteorological Society in 1883, and was managed by a board of directors nominated by that society and by other learned societies. The expense of building the Observatory was defrayed by funds raised in Scotland by private subscription, and the cost of maintenance was met in the same way, although important assistance was given by the Meteorological Council especially in the upkeep of a low-level Observatory 4,400 feet below that on the summit and four miles distant from it. The low-level station was equipped with the usual self-recording instruments supplied to First Order stations including a Beckley rain gauge; and the record of rainfall may be taken as continuous with that kept up for many years at the Public School, Fort William. At the Observatory on the summit of Ben Nevis automatic records could not be obtained on account of the severity of the weather, and throughout the whole period of its activity direct readings of all the instruments were made every hour both by day and night. In this way the record of rainfall is of singular value as the observers were able to keep account of the snow as it fell and largely to overcome the difficulties due to drifting.

The observations were initiated by Dr. A. Buchan, F.R.S., who has continued to watch over the interests of the Observatory and to work out the results as they accumulated. He and the other members of the board of directors endeavoured, unfortunately in vain, to obtain an increase in the pecuniary support afforded by the Meteorological Council, or even to secure its continuance. Funds were not forthcoming and the Observatory was closed on 1st October, 1904. *De mortuis nil nisi bonum*: the Meteorological Council also has had its day and ceased to be. Whatever be the merits of the case we

can honestly say that from the point of view of *British Rainfall* the loss of the records from Ben Nevis and Fort William is an unmitigated calamity. This year for the first time since 1875, no record of rainfall of any kind is available from Fort William.

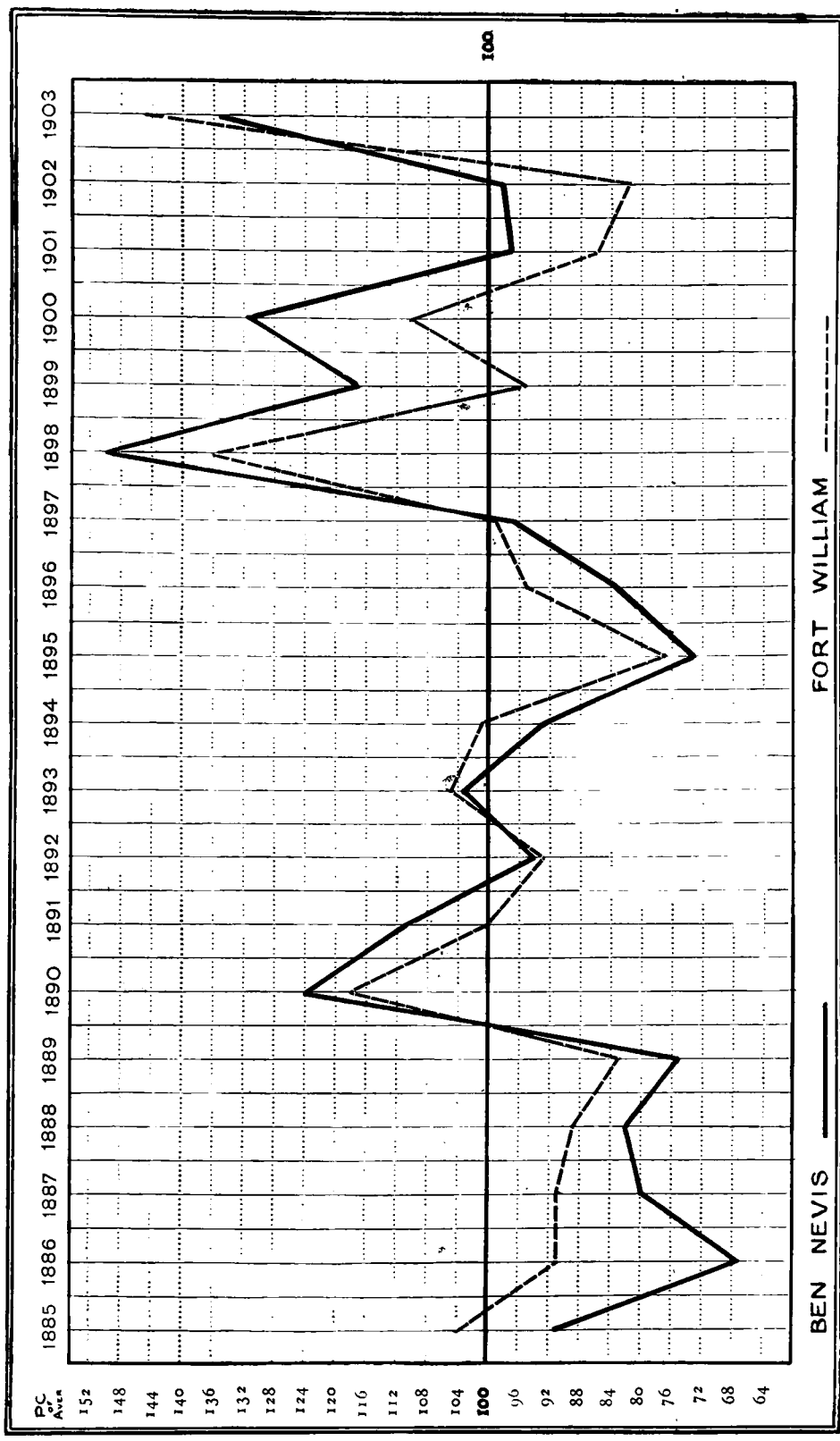
We consider that the occasion should not be allowed to pass without an expression of regret for the loss of the Ben Nevis and Fort William records and of gratitude for the gain to knowledge which they brought during their existence. Mr. R. T. Omond, the first superintendent of Ben Nevis Observatory, and now honorary secretary of the Scottish Meteorological Society, has the credit of having set the fine example of enthusiastic and conscientious work in the worst conditions of life which became the tradition on "the Ben." Year after year he and his assistants endured all the discomforts and many of the dangers of polar explorers without the excitement, the honours or the emoluments that console the seekers of the poles.

We had intended to discuss the Ben Nevis rainfall record on this occasion ; but before our work was well commenced Mr. Andrew Watt, of the Scottish Meteorological Society, published so comprehensive a paper on the subject that we felt our time could be more profitably spent in breaking ground elsewhere than in repeating work already well done and fully published. While referring to Mr. Watt's paper\* for the detailed discussion, we subjoin in Tables I. and II. the monthly and annual totals of rainfall as observed at the Ben Nevis Observatory and at Fort William. The latter record from 1885 to 1890, was taken at the Public School by Mr. Colin Livingston, the height of his station above sea-level being 36 feet ; from 1891 to the end it was taken at the low-level Observatory 31 feet above the sea under the superintendence of Mr. A. Rankin.

The precipitation at Fort William was on the whole rather less than half as great as that on the summit of Ben Nevis. In Table III. we have set out the annual rainfalls expressed in each case as the percentage of the average together with the difference, and these are also shown as curves in the accompanying figure. The average difference is seen not to be constant but to vary with the amount, although the curves as a whole run together fairly well. If any attempt were to be made to compute the average rainfall on the summit of Ben Nevis (or any mountain where a similar relationship

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\* The Rainfall of the Ben Nevis Observatories by Andrew Watt, M.A., *Journal of the Scottish Meteorological Society*—3rd series, Nos. xx. & xxi. p. 14.



THE VARIATIONS OF RAINFALL AT BEN NEVIS AND FORT WILLIAM EXPRESSED AS PERCENTAGES OF THE RESPECTIVE AVERAGES.



existed) from the observations of a few years at a base station, it is evident that a correction would have to be made to allow for the fact that in years of high rainfall the high station is relatively wetter and in years of low rainfall relatively drier with respect to the low station than the average difference between the two would suggest.

This is brought out more clearly in the following little table.

	Average 19 yrs.	Ben Nevis below aver. 12 years.	Ben Nevis above aver. 7 years
Mean diff. in inches	82·20	66·80	108·73
„ „ percentage	0	— 5	+ 9

Curiously enough the only seriously anomalous years in the record were the three last.

TABLE III.—*Annual Rainfall at Ben Nevis and Fort William, expressed as percentage of the Nineteen Years' Average.*

	Ben Nevis.		Fort William.		Mean.	Difference.	
1885 .....	91	.....	104	.....	97	.....	—13
1886 .....	67	.....	91	.....	79	.....	—24
1887 .....	80	.....	91	.....	85	.....	—11
1888 .....	82	.....	89	.....	86	.....	— 7
1889 .....	75	.....	83	.....	79	.....	— 8
1890 .....	124	.....	118	.....	121	.....	+ 6
1891 .....	111	.....	100	.....	106	.....	+11
1892 .....	94	.....	93	.....	93	.....	+ 1
1893 .....	103	.....	105	.....	104	.....	— 2
1894 .....	93	.....	101	.....	97	.....	— 8
1895 .....	73	.....	77	.....	75	.....	— 4
1896 .....	83	.....	95	.....	89	.....	—12
1897 .....	97	.....	99	.....	98	.....	— 2
1898 .....	150	.....	136	.....	143	.....	+14
1899 .....	117	.....	95	.....	106	.....	+22
1900 .....	131	.....	110	.....	121	.....	+21
1901 .....	97	.....	86	.....	92	.....	+11
1902 .....	98	.....	82	.....	90	.....	+16
1903 .....	135	.....	145	.....	140	.....	—10
Mean	<hr/>		<hr/>		<hr/>	<hr/>	
	100		100		100	0	

TABLE I.—*Rainfall on Ben Nevis.*

YEAR.	Jan.	Feb.	March	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1885.....	7.33	16.94	12.81	4.86	8.37	6.84	7.53	7.68	20.87	19.03	9.82	24.33	146.41
1886.....	12.76	2.85	5.91	4.59	6.25	7.60	10.99	10.16	13.03	8.16	14.57	10.98	107.85
1887.....	17.80	13.30	5.90	7.53	3.97	7.51	14.54	8.71	10.99	12.19	8.99	17.58	129.01
1888.....	16.03	8.79	7.45	6.89	12.87	3.76	7.82	12.37	6.90	17.21	20.60	11.77	132.46
1889.....	17.69	14.86	12.11	3.89	4.34	1.94	4.09	18.32	7.28	6.62	11.48	18.04	120.66
1890.....	29.42	4.57	27.31	8.09	6.01	14.66	13.22	14.33	20.71	37.30	18.96	3.75	198.33
1891.....	14.20	15.09	14.78	2.50	7.00	7.51	10.53	19.16	43.54	14.34	11.88	17.48	178.01
1892.....	22.32	12.30	5.42	5.92	14.07	9.56	10.83	15.47	21.90	9.53	13.86	9.73	150.91
1893.....	12.23	10.33	12.58	5.99	5.48	5.88	12.32	14.79	19.25	22.84	18.43	25.67	165.79
1894.....	15.96	33.55	14.58	3.50	6.66	8.33	11.34	17.70	1.32	4.67	17.40	14.93	149.94
1895.....	6.88	3.54	14.32	11.74	3.69	3.92	10.79	12.76	8.95	12.06	13.98	15.40	118.03
1896.....	16.20	11.15	19.55	10.04	2.91	9.74	6.87	11.01	10.78	13.07	9.77	12.47	133.56
1897.....	3.42	16.22	17.24	6.55	10.91	8.46	14.13	11.88	17.03	12.08	17.78	20.07	155.77
1898.....	27.08	30.09	19.07	10.76	8.74	10.37	11.74	18.60	24.90	13.86	21.27	43.65	240.13
1899.....	15.30	10.56	25.21	17.01	6.88	7.61	15.22	5.58	20.78	18.11	32.48	12.55	187.29
1900.....	35.32	7.75	3.84	20.22	14.76	6.97	13.12	11.85	16.96	20.93	10.28	48.34	210.34
1901.....	20.12	5.91	14.95	12.87	4.74	13.19	4.54	12.93	10.65	16.01	15.09	25.43	156.43
1902.....	24.75	3.36	18.73	9.87	15.81	2.91	12.22	9.37	12.45	16.31	7.86	23.42	157.06
1903.....	33.45	36.24	37.95	8.36	6.62	6.43	13.26	20.97	10.72	18.66	17.27	6.81	216.74
Mean....	18.33	13.55	15.25	8.48	7.90	7.54	10.79	13.35	15.74	15.42	15.36	19.07	160.78
Max. ...	35.32	36.24	37.95	20.22	15.81	14.66	15.22	20.97	43.54	37.30	32.48	48.34	240.13
Year ...	1900	1903	1903	1900	1902	1890	1899	1903	1891	1890	1899	1900	1898
Min. ...	3.42	2.85	3.84	2.50	2.91	1.94	4.09	5.58	1.32	4.67	7.86	3.75	107.85
Year ...	1897	1886	1900	1891	1896	1889	1889	1899	1894	1894	1902	1890	1886

TABLE II.—*Rainfall at Fort William.*

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1885.....	5·89	12·10	4·77	3·55	4·13	3·24	3·73	3·12	12·70	7·72	6·73	14·58	82·26
1886.....	7·72	4·59	5·26	5·67	3·86	3·05	5·62	4·96	8·75	5·72	8·79	7·46	71·45
1887.....	12·73	11·40	3·50	3·49	1·86	3·33	7·90	3·03	4·55	6·22	5·09	8·18	71·28
1888.....	9·35	3·06	5·33	4·03	6·39	2·52	4·35	7·19	2·71	7·12	11·08	7·09	70·22
1889.....	10·31	8·77	6·25	3·12	2·73	·84	1·35	7·58	3·88	4·72	4·91	10·90	65·36
1890.....	19·67	1·67	11·13	3·10	2·82	7·46	7·69	6·22	7·85	13·85	10·31	1·29	93·06
1891.....	7·39	7·19	4·96	·80	2·55	3·04	3·84	8·20	12·72	9·91	6·08	11·69	78·37
1892.....	8·54	2·93	1·84	1·96	5·97	3·87	5·47	8·14	14·43	5·35	9·39	5·39	73·28
1893.....	5·27	8·38	4·43	3·08	2·51	1·80	4·57	6·44	9·08	12·51	8·51	16·14	82·72
1894.....	11·79	13·62	9·36	1·37	3·78	3·13	5·70	7·72	·24	2·06	11·62	8·78	79·17
1895.....	2·70	1·08	5·55	5·26	2·07	3·04	4·89	9·37	5·52	4·78	8·47	7·65	60·38
1896.....	9·50	8·26	10·64	3·64	1·27	5·05	3·96	6·29	7·01	5·55	4·68	8·63	74·48
1897.....	1·67	8·06	8·47	4·24	4·79	4·12	6·92	5·24	9·75	6·28	6·50	11·79	77·83
1898.....	14·22	11·36	7·41	6·77	2·91	4·27	2·84	7·30	10·60	6·83	7·99	24·01	106·51
1899.....	7·38	4·91	8·65	5·37	2·56	2·05	4·45	1·77	9·11	9·11	13·27	5·96	74·59
1900.....	10·40	3·37	·71	6·27	6·24	4·32	4·27	6·56	8·91	8·95	4·72	21·68	86·40
1901.....	7·86	2·09	4·22	5·62	1·44	5·97	3·13	5·62	6·64	9·55	4·64	10·69	67·47
1902.....	10·03	1·07	7·58	3·38	4·63	1·62	3·65	4·95	5·49	9·05	3·73	9·14	64·32
1903.....	16·11	17·04	17·25	3·81	4·49	2·97	6·60	11·95	7·15	13·05	7·86	5·61	113·89
Mean...	9·40	6·89	6·70	3·92	3·53	3·46	4·78	6·40	7·74	7·81	7·60	10·35	78·58
Max. ...	19·67	17·04	17·25	6·77	6·39	7·46	7·90	11·95	14·43	13·85	13·27	24·01	113·89
Year ..	1890	1903	1903	1898	1888	1890	1887	1903	1892	1890	1899	1898	1903
Min ...	1·67	1·07	·71	·80	1·27	·84	1·35	1·77	·24	2·06	3·73	1·29	60·38
Year ...	1897	1902	1900	1891	1896	1889	1889	1899	1894	1894	1902	1890	1895

## DRY OCTOBERS.

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OCTOBER is the wettest month in the year over the greater part of England, combining much rain with long duration, and it is one of the wettest months in all parts of the British Isles, although in the west and north December and January have a fall that is heavier still. So wet is the month that the average rainfall exceeds 2 inches, even in the driest parts of England, while it exceeds 4 inches over a third of England and Wales, half of Ireland, and two-thirds of Scotland, speaking roughly and in round figures.

At first sight it appears to be easy to find the average rainfall of any month, and so to arrange each month of a long period in the order of relative wetness or dryness. This, however, is one of those things that is easier said than done. The rainfall of the whole of the British Isles has never yet been determined accurately, as the average of October for say thirty years. There is not a sufficient number of stations at which observations have been taken for that length of time to yield a distribution over the map sufficiently uniform and representative to furnish the correct average by any simple arithmetical process. The cartometric or geographical process, by which the difficulty of an unequal distribution of stations in different years may be overcome in a large degree, has never been applied, because it is laborious and consequently costly. Still, without aiming at the accuracy which we hope we may be able to reach some day, we can pursue both methods of attacking the question far enough at least to let us know whether the remarkably dry October of 1904 was, or was not, the driest in the annals of *British Rainfall*. A very brief inspection of long records shows that it certainly was at some places, and that at others it certainly was not. The problem is to find whether it was the driest for the British Isles, or for England and Wales, Scotland or Ireland.



*Comparison of the Dry Octobers of 1879, 1888, 1897 and 1904.*

Div.	STATION.	1879.		1888.		1897.		1904.	
		Fall.	Percent of av.	Fall.	Percent of av.	Fall.	Percent of av.	Fall.	Percent of av.
	ENGLAND & WALES.	in.		in.		in.		in.	
I.	St. Pancras, Camden Square .....	2·85	28	1·24	44	·56	20	1·56	55
II.	Tenterden .....	3·60	24	2·40	67	·30	8	1·99	55
"	Arundel, Patching .....	4·15	34	2·11	51	·48	12	2·66	64
"	Osborne, Newbarn Cottage .....	3·53	23	2·00	57	·48	14	2·38	67
III.	Basingstoke, Sherborne St. John .....	3·30	27	1·61	49	·91	28	1·88	57
"	Hitchin, Wratten .....	2·72	22	·80	29	·62	23	1·13	42
"	Oxford, Magdalen College .....	2·79	34	·77	28	1·32	47	·74	27
IV.	Kettering .....	2·86	22	·38	13	1·29	45	·69	24
"	Shoeburyness .....	2·43	21	1·00	41	·19	8	1·59	65
"	Bury St. Edmunds, Westley .....	2·66	37	1·07	40	·85	32	1·14	43
V.	Cawston Rectory .....	3·13	41	2·07	66	·87	28	1·45	46
"	Bishops Cannings .....	3·34	41	1·25	37	1·46	44	1·37	41
"	Cerne Abbas, Melbury .....	4·29	24	1·67	39	1·80	42	1·81	42
"	Sidmouth, Sidmount .....	3·59	28	1·61	45	1·10	31	1·82	51
"	Northam Vicarage .....	4·69	38	2·37	51	1·11	24	2·35	50
"	Phillack Rectory .....	4·49	32	2·36	53	1·54	34	2·04	45
VI.	Altarnon Vicarage .....	7·31	55	3·48	48	2·33	32	3·30	45
"	Ross, The Graig .....	3·09	27	·91	29	1·84	60	·55	18
"	Church Stretton, Woolstaston .....	3·99	40	1·27	32	1·10	28	·70	18
VII.	Warwick, Barford Rectory .....	2·72	47	·60	22	1·41	52	·45	17
"	Boston .....	2·62	27	·48	18	·91	35	·91	35
VIII.	Mickleover Manor .....	2·86	34	·62	22	1·05	37	·75	26
"	Chester, The Nurseries .....	3·35	48	·97	29	1·53	46	·99	30
IX.	Blackburn, Guide Reservoir .....	4·44	65	1·65	37	2·64	59	1·62	36
"	Barnsley, Church Street .....	3·23	29	·79	24	1·30	40	·42	13
"	Knaresborough, Farnham .....	3·07	28	·40	13	1·72	56	·61	20
"	Arncliffe Vicarage .....	6·55	66	2·45	37	2·97	45	2·92	45
"	Hull, Pearson Park .....	3·26	29	·99	30	1·37	42	·50	15
X.	Middlesbrough, Albert Park .....	2·80	21	·60	21	1·67	60	·52	19
"	Newcastle, Town Moor .....	2·94	21	·90	31	1·92	41	·81	28
XI.	Borrowdale, Seathwaite .....	13·35	60	14·51	109	8·72	65	9·21	69
"	Cardiff, Ely .....	4·81	31	1·92	40	1·91	40	2·69	56

## Comparison of the Dry Octobers of 1879, 1888, 1897 and 1904—(continued).

Div.	STATION.	1879.		1888.		1897.		1904.	
		Average 1870-99.		Percent of av.		Percent of av.		Percent of av.	
		Fall.	in. 2·27 2·17 2·80 1·63	Fall.	in. 2·63 2·15 4·49 1·94	Fall.	in. 1·96 2·54 2·17 1·46	Fall.	in. 2·25 1·98 2·97 1·29
XI.	ENGLAND & WALES—(con.)		40	47	35		40		
"	Haverfordwest, High Street.....	5·63	2·27	2·63	1·96	2·25	38		
"	Brecon, Llandefaelog-fach.....	(5·16)	2·17	2·15	2·54	1·98	42		
"	Rhayader, Nantgwillt .....	7·12	2·80	4·49	2·17	2·97	32		
"	Llandudno .....	4·08	1·63	1·94	1·46	1·29			
XII.	SCOTLAND.								
XIII.	Moffat, Eriestane.....	5·17	2·40	4·00	3·10	2·71	52		
XIV.	Marchmont House .....	3·70	1·19	1·48	2·05	1·16	31		
XV.	Girvan, Pinnmore .....	4·97	4·00	1·95	2·56	3·14	63		
"	Falkirk, Kerse .....	3·04	1·50	1·70	1·40	1·20	39		
"	Islay, Eallabus.....	5·21	2·97	3·26	3·21	4·45	85		
"	Mull, Quinish .....	6·09	4·06	4·69	3·59	5·30	87		
XVI.	Balquhiddler, Stronvar .....	7·47	2·67	7·85	5·33	4·29	57		
"	Dundee, Eastern Necropolis.....	2·71	·70	1·45	2·20	·70	26		
XVII.	Braemar .....	4·05	1·27	3·02	2·74	1·29	32		
"	Aberdeen, Cranford.....	3·18	(1·20)	1·80	2·58	1·03	32		
"	Cawdor, Budgate.....	2·85	1·57	2·93	1·13	1·33	47		
XVIII.	Glenquoich .....	10·64	7·14	11·09	9·01	10·62	100		
"	Applecross Gardens .....	6·32	(4·11)	9·21	4·25	5·02	80		
XIX.	Watten Station .....	3·21	2·51	3·45	3·22	1·70	53		
	IRELAND.								
XX.	Cork, Queen's College .....	4·06	(·75)	2·95	5·24	2·85	70		
"	Killarney .....	6·05	...	5·18	5·93	2·85	47		
"	Miltown Malbay .....	4·29	2·95	2·33	3·74	4·24	99		
XXI.	Carlow, Brown's Hill .....	3·48	·84	2·30	3·01	1·51	43		
"	Dublin, Fitz William Square .....	3·08	1·32	1·23	1·54	·45	15		
XXII.	Ballinasloe .....	3·45	1·47	1·10	3·07	2·77	80		
"	Clifden, Kylemore House .....	7·93	5·61	5·51	4·95	4·92	62		
"	Collooney, Markree Observatory.....	4·55	2·75	2·95	2·56	2·68	59		
XXIII.	Seaford .....	3·82	1·08	1·13	3·25	·85	22		
"	Omagh, Edenfel ... ..	3·72	2·10	1·35	3·43	3·51	94		
"	Buncrana, Rockfort .....	4·70	2·49	2·98	2·95	2·94	63		

Glancing through the records of the months in *British Rainfall* we found that since 1865 there were only four Octobers which could be called extremely dry over any large area. These were in 1879, 1888, 1897, and 1904.

We shall first try the arithmetical method of selecting as many stations with long records as we can distribute fairly regularly over the map, and taking the mean of their record for the four Octobers as compared with the average. Table I. is the best we can do in this way, the list including 36 stations in England and Wales, 14 in Scotland, and 11 in Ireland ; 61 altogether for the British Isles.

On looking down the column of percentages it becomes clear that October, 1888, cannot compete in dryness with the other three, and may be disregarded. As regards 1897, although some stations in England had as little as 8 per cent. of their average fall, there was one station out of the 14 in Scotland with its full average, and one out of the 11 in Ireland showing an excess of 29 per cent. In 1904 one station in Scotland touched the average, and in 1879 none of the stations had more than 80 per cent. of the average rainfall.

If rainfall stations with long records could be set out equidistantly in regular rows, like young trees in a plantation, the numerical mean of the records at all those upon a given area would give the correct average rainfall for that area. If the stations were weeded out, still leaving them equidistant, but more widely spaced, the numerical mean of the remaining records would give practically the same average rainfall as the larger number, until the spaces between became so wide that the places with different amounts of fall were no longer fairly represented. The number of stations in these tables is so small relatively to the area they cover, that their mean cannot be trusted as giving a true general fall, but they are still numerous enough and representative enough to make the mean a rough approximation, and a very fair guide to the actual conditions. If one of the four months were much drier or wetter than the others, the tables could not fail to show it. We accordingly set them forth in the following abstract, the meaning of which is plain :—

## ABSTRACT OF OCTOBER RAINFALL.

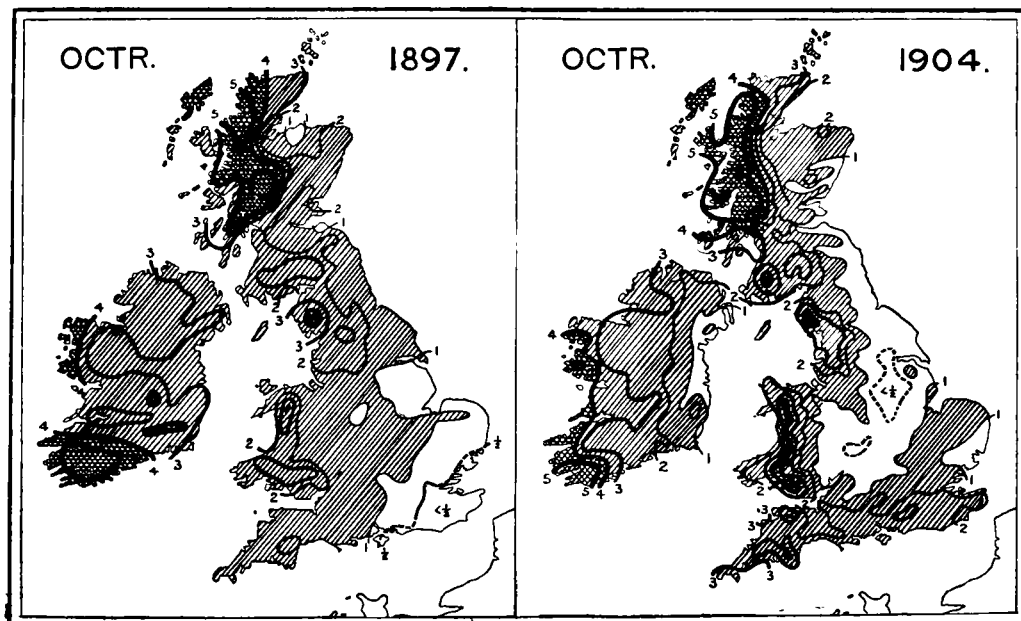
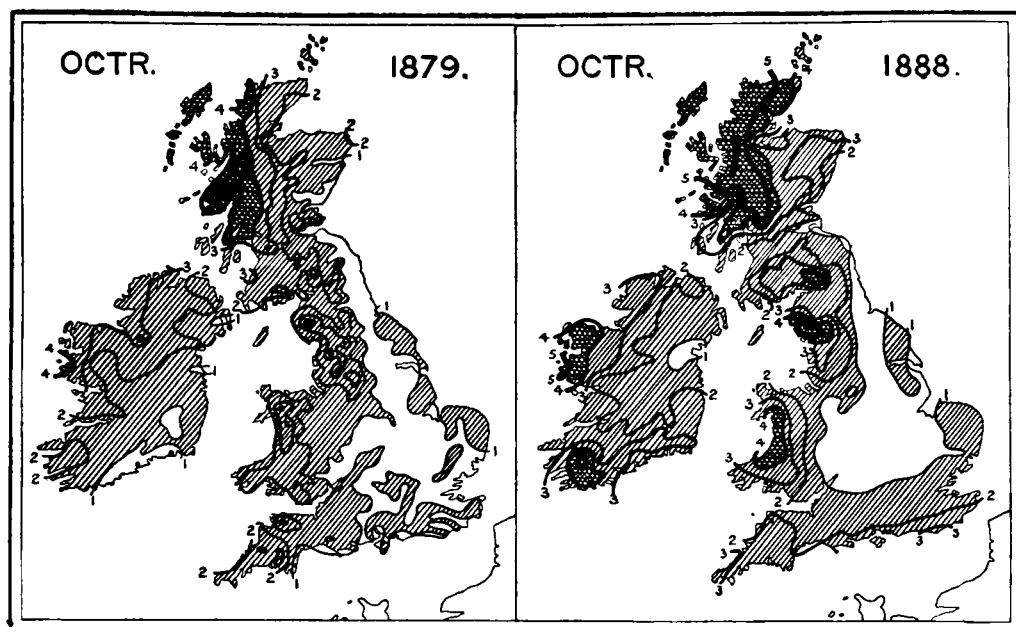
	Aver- age. 1870-99.	1879.		1888.		1897.		1904.	
		Fall.	Per cent. of aver.	Fall.	Per cent. of aver.	Fall.	Per cent. of aver.	Fall.	Per cent. of aver.
	in.	in.		in.		in.		in.	
England & Wales....	4·08	1·58	39	1·90	47	1·58	39	1·72	42
Scotland .....	4·90	2·66	54	4·13	84	3·31	68	3·14	64
Ireland .....	4·47	2·14	48	2·64	59	3·61	81	2·69	60
British Isles .....	4·34	1·93	44	2·55	59	2·34	54	2·22	51

Here we see that October, 1879, and October, 1897, were equally dry in England and Wales, a little drier than 1904 (though these three months may be viewed as equal within the limits of error), and considerably drier than October, 1888. Scotland and Ireland were much drier in October, 1879, than in any of the other months considered, and consequently the British Isles as a whole were drier in that month than in any recorded October, the total rainfall being distinctly less than half the average. In October, 1904, the rainfall for the country as a whole was perhaps a shade greater than half the average, and in 1897 and 1888 it was distinctly more, though all four were very dry months.

Hence we conclude from this line of reasoning that October, 1904, was the driest with one exception (1879) for the British Isles as a whole since 1865 at any rate.

In order to attempt the geographical method of treatment, we have prepared from observations at about 400 stations (whether they had a long record or not) a map showing the actual rainfall of each of the Octobers in question, and these are duly reproduced. The area with less than one inch of rain is left unshaded, that with more than four inches is cross-shaded, and lines are drawn for every inch, so that the general distribution over the country may be seen at a glance.

On the large scale maps from which the reproduction has been made, we measured by means of the planimeter the area of the districts with less than one inch and more than four inches of rain respectively, and the result is shown in Table II.



THE FOUR DRIEST OCTOBERS SINCE 1865.

Areas with less than 1 inch of rain unshaded.

Areas with more than 4 inches of rain cross-shaded.

Face p 28.



TABLE II.—RAINFALL OF OCTOBER.

	1879.		1888.		1897.		1904.	
	Less than 1 inch	More than 4 inches	Less than 1 inch	More than 4 inches	Less than 1 inch	More than 4 inches	Less than 1 inch	More than 4 inches
	sq. mi.	sq. mi.	sq. mi.	sq. mi.	sq. mi.	sq. mi.	sq. mi.	sq. mi.
England and Wales..	21,705	730	19,355	3,570	15,850	485	22,595	2,055
Scotland.....	1,555	6,200	270	12,720	530	8,150	2,570	7,990
Ireland.....	2,530	370	730	3,195	0	6,705	2,540	4,020
British Isles.....	25,790	7,300	20,355	19,485	16,380	15,340	27,705	14,065

In October, 1897, the area with less than an inch of rain included 3695 square miles on which less than half an inch fell, and in October, 1904, there were 2375 square miles with less than half an inch.

Looking at the country as a whole it is seen that in 1879 there was by far the smallest area with more than four inches, and in 1904 there was by a small amount the largest area with less than one inch.

From an examination of the maps we are satisfied that about 10 per cent. less water fell in the form of rain on the British Isles in October, 1879, than in October, 1904, and that for the country as a whole the former was the drier month. This is due mainly to the greater wetness of Scotland in 1904, for England and Wales seem to have been on the whole equally dry on the two occasions, the chief difference being that in October, 1879, the regions of high rainfall in the west suffered more from drought, and in October, 1904, the regions of low rainfall in the east, especially in the south-east.

The result of both branches of the enquiry is to show that October, 1904, the driest month of an exceptionally dry autumn, was only surpassed in dryness, when the whole country is considered, by October, 1879, in the last forty-five years; and that, if we consider the driest districts only, there never had been so dry an October in the centre and south-east of England, and probably in the east of Scotland also, since records began.

ON THE DURATION AND AVERAGE RATE OF  
RAINFALL AT CAMDEN SQUARE, LONDON,  
1881—1904.  
(PRELIMINARY PAPER.)

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LAST year we expressed the hope that the present volume might contain a comprehensive memoir on the duration of rainfall at Camden Square, but as the time for publication has arrived before the time for full discussion has been found, we have to offer our readers rather less than we had hoped to give, though the accompanying tables represent the labour of many months.

Mr. Symons established a Casella automatic rain gauge at 62, Camden Square, in 1880, and it has been at work ever since and the diagrams for each day on which rain fell have been duly preserved and measured. It happened occasionally, though surprisingly rarely, that the gauge failed to act or was under repair; but so far as concerns the discussion of monthly and annual totals and averages the record is continuous and complete, the few short showers which had their duration assigned from actual observation, and the scarcely more frequent instances when records of supplementary recording gauges were called into requisition on the standard being temporarily out of use, are all allowed for. In every case the amount of rain quoted was that recorded by the standard rain gauge, set within a few feet of the recorder, and read in the usual way, with a measuring glass twice daily, at 9 a.m. and 9 p.m. The rainfall as shown on the recording gauge was very nearly the same in amount; but it is advisable to keep to one type of instrument for the totals which are published from any station. The duration was measured on the record of the recording gauge, and taken in every case to the nearest tenth of an hour. As the paper on which the record is traced gives a space of half an inch to an hour, and the clock was set to the correct time every morning, the measurements as given are quite exact. It may be remarked that rain was probably falling for a slightly longer time than the record shows, as the first few drops of a shower are used up in wetting the surface of the funnel, and in a very gentle fall a few minutes may elapse before enough rain has accumulated to actuate the recording mechanism. As .002 in. is clearly



indicated on the trace it is plain that no serious error arises from this cause.

The period under consideration, from January 1st, 1881, to December 31st, 1904, consisted of 8,765 days,\* 3,828 of which had at least sufficient rain to be recorded as .01 in. Rain was falling during 9,897.8 hours, and as the total amount that fell was 577.11 in., the average rate of fall was .058 in. per hour, or to the nearest hundredth of an inch, .06 in. The average annual rainfall for the 24 years in question was 24.05 in., and as the average for the 47 years 1858-1904 is 25.18 in., the period under discussion was on the whole 1.13 in. per annum, or  $4\frac{1}{2}$  per cent. below the average. It does not follow that although below the average as to amount of rain, the period was below the average as to duration.

Table I., giving the monthly rainfall, and Table II., giving the monthly number of rainy days for the 24 years, present the results of the standard 8-inch rain gauge. Table III., giving the duration of rainfall, is the result of the recording rain gauge, while Table IV., giving the average rate at which rain fell in each month, combines the information of Tables I. and III.

With regard to the monthly means in Table I., we need only point out that July and October were considerably wetter and September considerably drier than the average for 45 years, as set out in *British Rainfall*, 1902, p. 32; hence the period now being considered exaggerates the maxima in July and October (though it preserves their relative magnitude), and it also exaggerates the intervening subsidiary minimum in September. In this respect it bears a closer resemblance to the 60 years' average for Greenwich than to the 45 years' average for Camden Square.

Table II. need not detain us, as the number of rainfall days in the month is only referred to incidentally in this article.

Table III. is almost entirely new, the duration of rainfall not having been published before 1903. The annual variations of duration may first be looked at, and, for the sake of easier handling, the figures may be quoted merely to the nearest hour. The average annual duration of rainfall for the 24 years was 412 hours; the years with least duration of rain were 1887, with 300 hours, and 1898, with 299 hours, about 73 per cent. of the average, while the year with greatest duration was 1903, with 689 hours, 167 per cent. of

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\* The 24 years include five instead of six leap years, as 1900, although, divisible by four, was a common year.

the average. This was the year of greatest annual amount of rain; but the year that comes next to it, 1904, with 492 hours, or 119 per cent. of the average, was one of the five driest years in the 24. The want of agreement between the duration and amount of rainfall is brought out clearly in Table V., where the average for the 24 years of total amount, duration, and intensity of rainfall, and the number of rainy days is represented in each case by 100.

Turning now to the monthly values. The shortest duration in any month was one hour in February, 1891, this being 3 per cent. of the average for February. The longest duration in any month was 104 hours in October, 1882, this being 231 per cent. of the average for October. The shortest duration of rainfall for three consecutive months was 21 hours for March–May, 1893, this being 22 per cent. of the average for those months, while the shortest duration for six months, 88 hours for March–August, 1896, was 50 per cent. of the average. The longest duration of rain in three consecutive months was 215 hours in April–June, 1903, this being 242 per cent. of the average for those months; and the longest duration in six consecutive months was 378 hours in June–November, 1903, this amount being 192 per cent. of the average and more than the total annual duration for nine of the years in the 24.

The average monthly duration is least in July and September, when it scarcely exceeds 25 hours, and distinctly greatest in November, when it is nearly 46 hours. Thus, although November is not the month of greatest precipitation, measured by amount, popular tradition appears to have some basis when it leads to the belief that November is the rainiest month, for so it is when measured by the time during which rain falls.

The curves of average monthly amount and duration are shown together on the accompanying diagram, where the months are corrected for their different lengths, and treated as one-twelfth of a year each. It becomes apparent at once that in the winter half-year the amount is relatively small and the duration long, while in the summer months the amount is relatively large and the duration short. This is exactly what we would expect from the well-known contrast between the long-drawn-out cyclonic rains common in winter and the short, sharp thunderstorm rains of summer. The relation is given in figures in Table VI., the monthly values being represented for the sake of easy comparison as percentages of the annual total.

TABLE I.—Monthly Rainfall at Camden Square, 1881–1904.

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1881.....	1.85	3.09	2.30	.46	1.52	1.72	1.85	4.89	2.03	2.99	2.75	2.47	27.92
1882.....	1.30	1.30	1.35	2.83	1.20	2.30	2.95	1.48	2.39	4.96	2.57	2.51	27.14
1883.....	2.07	3.62	.86	1.56	1.98	1.35	2.92	.93	3.83	1.75	2.78	.75	24.40
1884.....	2.30	1.40	1.41	1.02	.78	2.84	2.46	.89	1.77	.99	1.92	2.57	20.35
1885.....	1.43	2.86	1.65	2.32	2.63	1.99	.52	.85	4.30	3.73	3.31	1.05	26.64
1886.....	4.02	.63	1.38	1.22	4.79	.63	2.37	.76	1.73	2.43	2.71	4.34	27.01
1887.....	1.26	.48	1.65	1.41	1.45	.91	1.07	3.15	1.81	1.24	3.40	1.38	19.21
1888.....	.90	.78	3.34	2.37	1.18	2.31	4.91	3.61	1.43	1.24	4.38	1.29	27.74
1889.....	.81	2.28	1.37	2.06	3.22	2.03	2.64	1.80	1.77	3.75	.89	1.23	23.85
1890.....	2.46	1.04	1.76	2.02	1.25	2.82	4.19	1.55	.64	1.20	1.62	.68	21.23
1891.....	1.80	.01	2.01	1.13	2.72	.86	3.82	4.75	1.03	4.80	1.98	3.24	28.15
1892.....	.51	1.62	1.04	.99	1.51	2.46	1.62	3.06	2.12	3.78	2.53	1.37	22.61
1893.....	1.44	2.87	.32	.24	.80	.73	2.46	1.61	1.07	3.87	2.16	2.23	19.80
1894.....	2.87	1.74	1.18	1.74	1.85	1.84	3.25	2.85	1.04	4.45	2.85	2.28	27.94
1895.....	1.96	.12	1.42	1.34	.34	.30	3.42	3.09	1.28	2.84	3.17	2.19	21.47
1896.....	.78	.29	3.20	.55	.14	2.27	1.03	1.92	5.51	3.05	1.17	3.61	23.52
1897.....	2.05	2.75	3.42	1.57	1.08	1.87	.64	2.92	2.75	.56	1.05	2.20	22.86
1898.....	.73	1.08	1.46	1.01	2.26	1.11	1.09	1.18	.33	2.96	1.94	2.54	17.69
1899.....	2.52	2.00	.50	2.64	1.38	1.49	1.45	.70	2.65	2.03	4.13	1.05	22.54
1900.....	2.92	3.99	.79	.98	.93	2.26	1.50	2.81	.79	1.86	1.90	2.55	23.28
1901.....	.55	1.21	2.14	2.15	.84	1.25	5.04	1.79	1.62	1.92	.59	3.07	22.17
1902.....	.76	1.13	1.87	.49	2.60	3.13	1.40	3.69	1.00	1.46	1.80	1.51	20.84
1903.....	2.15	.83	2.30	2.14	2.99	6.43	5.19	4.24	2.64	6.03	1.86	1.30	38.10
1904.....	2.32	2.58	1.72	1.01	1.96	.84	2.41	1.59	1.17	1.56	1.70	1.79	20.65
Total...	41.76	39.70	40.44	35.25	41.40	45.74	60.20	56.11	46.70	65.45	55.16	49.20	577.11
Mean 24 years...	1.74	1.65	1.68	1.47	1.72	1.91	2.51	2.34	1.95	2.73	2.30	2.05	24.05
Mean reduced to months of equal length.	1.71	1.78	1.65	1.49	1.69	1.94	2.47	2.30	1.98	2.68	2.34	2.02	24.05

TABLE II.—*Monthly Number of Rainy Days at Camden Square, 1881-1904.*

Year.	Jan.	Feb.	March.	April	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1881.....	8	16	11	9	11	10	14	19	11	12	16	15	152
1882.....	7	8	11	14	11	18	18	12	9	23	18	16	165
1883.....	21	14	11	9	11	12	14	10	18	14	16	14	164
1884.....	16	14	7	14	11	7	17	10	15	10	12	17	150
1885.....	16	18	7	11	19	11	6	12	19	17	18	11	165
1886.....	23	8	14	15	19	8	11	12	11	23	14	18	176
1887.....	13	5	12	10	21	3	9	8	19	9	18	13	140
1888.....	9	14	20	13	7	20	26	14	14	7	20	9	173
1889.....	10	18	13	20	14	6	17	16	10	22	8	15	169
1890.....	21	9	14	16	13	17	14	13	5	13	17	9	161
1891.....	14	1	15	9	19	10	17	22	15	20	18	18	178
1892.....	13	17	9	9	11	13	9	17	13	21	15	11	158
1893.....	17	22	6	3	8	9	17	11	10	16	15	14	148
1894.....	25	16	9	14	16	12	17	18	11	17	14	16	185
1895.....	16	4	14	13	5	4	12	18	2	14	19	16	137
1896.....	9	8	24	11	3	11	7	14	22	18	9	21	157
1897.....	20	14	17	16	9	11	8	16	13	9	14	17	164
1898.....	9	14	10	12	21	15	7	10	4	13	13	12	140
1899.....	20	11	8	20	12	6	10	6	14	10	10	17	144
1900.....	21	20	7	15	12	14	7	17	6	15	18	21	173
1901.....	12	9	16	14	6	9	8	9	6	15	7	17	128
1902.....	11	11	11	10	22	19	11	18	9	17	11	12	162
1903.....	17	10	18	13	17	10	13	18	13	26	12	12	179
1904.....	22	19	15	10	16	6	10	10	11	11	11	19	160
Total...	370	300	299	300	314	261	299	330	280	372	343	360	3828
Mean 24 years...	15·4	12·5	12·4	12·5	13·1	10·9	12·5	13·7	11·7	15·5	14·3	15·0	159·5
Mean reduced to months of equal length.	15·1	13·5	12·2	12·7	12·9	11·1	12·3	13·4	11·9	15·2	14·5	14·7	159·5

TABLE III.—*Monthly Duration of Rainfall at Camden Square, 1881-1904.*

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1881.....	hr. 48·5	hr. 71·0	hr. 46·0	hr. 15·8	hr. 22·7	hr. 27·0	hr. 20·3	hr. 59·7	hr. 27·0	hr. 40·8	hr. 50·0	hr. 57·5	hr. 486·3
1882.....	27·0	26·0	26·2	48·3	19·5	37·2	30·3	28·5	33·2	103·5	48·3	52·7	480·7
1883.....	39·3	62·5	23·7	36·8	38·2	20·8	25·5	10·2	53·0	29·3	42·0	12·2	393·5
1884.....	44·5	24·0	33·5	19·0	9·0	33·5	23·5	17·3	32·2	19·8	35·7	44·8	336·8
1885.....	44·2	52·3	29·5	34·2	37·5	34·5	8·3	16·2	50·8	70·5	73·5	18·5	470·0
1886.....	67·7	16·5	38·0	24·0	59·5	6·3	29·0	19·5	19·0	44·2	44·0	59·5	427·2
1887.....	30·5	11·0	32·5	22·3	29·7	15·0	8·3	15·7	31·5	19·8	59·5	24·5	300·3
1888.....	19·0	20·2	70·8	37·7	21·8	33·0	58·0	32·2	20·0	20·0	81·8	21·2	435·7
1889.....	25·5	63·5	32·0	50·3	46·7	33·3	21·2	24·0	19·3	56·0	18·7	38·0	428·5
1890.....	52·5	23·5	44·2	36·3	21·2	51·5	50·3	22·5	8·0	23·0	47·2	29·3	409·5
1891.....	37·5	1·0	57·8	16·7	48·0	22·3	26·7	61·3	20·0	89·5	57·7	51·8	490·3
1892.....	18·5	37·5	25·5	22·5	16·3	31·0	27·7	28·3	26·7	68·0	40·8	29·7	372·5
1893.....	48·5	89·5	7·5	3·0	10·2	13·5	34·3	19·5	17·2	44·9	63·5	37·3	388·0
1894.....	57·5	56·5	33·0	28·5	37·5	23·5	34·2	31·5	28·0	53·8	46·5	47·2	477·7
1895.....	43·3	11·2	37·0	29·3	11·7	8·8	42·7	25·8	3·2	49·8	65·7	51·5	380·0
1896.....	23·5	8·5	66·8	17·7	4·0	29·0	13·5	26·3	60·0	50·0	29·0	76·0	404·3
1897.....	51·2	67·0	48·3	26·7	14·5	25·5	4·3	21·7	30·5	11·5	24·0	46·0	371·2
1898.....	18·0	24·2	31·0	21·5	43·8	13·2	12·0	14·5	5·3	34·7	42·5	37·8	298·5
1899.....	48·0	31·0	11·5	58·0	18·5	18·5	16·0	4·5	20·0	30·5	49·3	31·7	337·5
1900.....	56·5	70·5	11·0	18·3	22·0	26·7	10·5	30·8	11·0	23·0	38·0	48·0	366·3
1901.....	17·0	33·5	42·0	29·2	14·0	15·8	21·5	26·5	13·0	28·2	9·8	59·7	310·2
1902.....	26·5	26·0	33·5	10·5	59·0	51·5	21·7	29·0	12·8	25·5	32·5	24·0	352·5
1903.....	66·7	28·2	67·0	61·4	51·8	102·2	50·5	49·1	33·2	90·9	52·3	35·2	688·5
1904.....	79·5	57·1	41·7	18·9	58·2	16·7	20·8	31·5	34·5	54·2	39·1	39·6	491·8
Total...	990·9	912·2	890·0	686·9	715·3	690·3	611·1	646·1	609·4	1080·5	1091·4	973·7	9897·8
Mean 24 years...	41·3	38·0	37·1	28·6	29·8	28·8	25·4	26·9	25·4	45·0	45·5	40·6	412·4
Mean reduced to months of equal length.	40·5	41·0	36·4	29·0	29·2	29·2	24·9	26·4	25·8	44·1	46·1	39·8	412·4

TABLE IV.—*Monthly Average Rate of Fall of Rain per Hour at Camden Square, 1881—1904.*

Year.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1881.....	.038	.044	.050	.029	.067	.064	.091	.082	.075	.073	.055	.043	.057
1882.....	.048	.050	.051	.059	.062	.062	.098	.052	.072	.048	.053	.048	.056
1883.....	.053	.058	.036	.042	.052	.055	.114	.091	.072	.060	.066	.061	.062
1884.....	.052	.058	.042	.054	.087	.065	.105	.052	.055	.050	.054	.057	.060
1885.....	.032	.055	.056	.068	.070	.058	.063	.052	.085	.053	.045	.057	.057
1886.....	.059	.038	.036	.051	.081	.101	.082	.039	.091	.055	.062	.073	.063
1887.....	.041	.044	.051	.063	.049	.061	.130	.200	.057	.063	.057	.056	.064
1888.....	.047	.039	.047	.063	.054	.070	.085	.112	.072	.062	.054	.061	.064
1889.....	.032	.036	.043	.041	.069	.061	.124	.075	.092	.067	.047	.032	.056
1890.....	.047	.044	.040	.056	.059	.055	.083	.069	.080	.052	.034	.063	.052
1891.....	.048	.010	.035	.067	.057	.039	.143	.078	.051	.054	.034	.063	.057
1892.....	.028	.043	.041	.044	.093	.079	.058	.108	.079	.056	.062	.046	.061
1893.....	.030	.032	.043	.080	.078	.054	.072	.083	.062	.088	.034	.060	.051
1894.....	.050	.031	.036	.061	.049	.078	.095	.090	.037	.083	.061	.048	.058
1895.....	.045	.011	.038	.046	.029	.034	.080	.120	.394	.057	.048	.043	.057
1896.....	.033	.034	.048	.031	.035	.078	.076	.073	.092	.061	.040	.047	.058
1897.....	.048	.041	.071	.059	.075	.073	.151	.134	.090	.049	.044	.048	.062
1898.....	.041	.045	.047	.047	.052	.084	.091	.081	.063	.085	.046	.067	.059
1899.....	.052	.065	.043	.046	.075	.081	.091	.156	.132	.067	.084	.033	.067
1900.....	.052	.057	.072	.054	.042	.085	.143	.091	.072	.081	.050	.053	.064
1901.....	.032	.036	.051	.073	.060	.079	.234	.068	.125	.068	.061	.051	.071
1902.....	.029	.043	.056	.047	.044	.061	.064	.128	.078	.057	.055	.063	.059
1903.....	.032	.029	.034	.035	.058	.063	.103	.086	.080	.066	.036	.037	.055
1904.....	.029	.045	.041	.053	.034	.050	.116	.050	.034	.029	.044	.045	.042
Mean 24 years....	.042	.044	.045	.051	.058	.066	.099	.087	.077	.061	.051	.051	.058

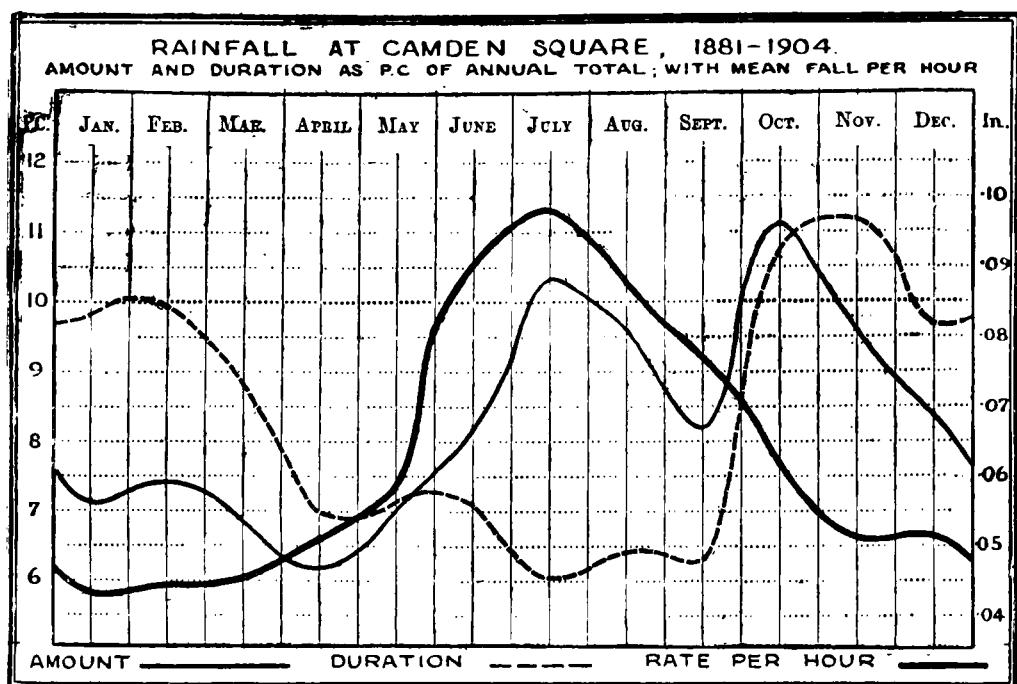
TABLE V.

*Annual Amount, Duration, and Intensity of Rainfall, and Number of Rainy Days, expressed as Percentages of the 24 Years' Averages.*

YEAR.	Amount.		Duration.		Intensity.		Rainy Days.
	%		%		%		%
1881 ...	116	...	118	...	97	...	95
1882 ...	113	...	117	...	96	...	104
1883 ...	102	...	95	...	106	...	103
1884 ...	85	...	82	...	103	...	94
1885 ...	111	...	114	...	96	...	104
1886 ...	112	...	104	...	108	...	110
1887 ...	80	...	73	...	109	...	88
1888 ...	115	...	105	...	108	...	108
1889 ...	99	...	104	...	95	...	106
1890 ...	88	...	99	...	88	...	101
1891 ...	117	...	119	...	97	...	112
1892 ...	94	...	90	...	103	...	99
1893 ...	82	...	94	...	87	...	93
1894 ...	116	...	116	...	99	...	116
1895 ...	89	...	92	...	96	...	86
1896 ...	98	...	98	...	99	...	98
1897 ...	95	...	90	...	105	...	103
1898 ...	74	...	72	...	101	...	88
1899 ...	94	...	82	...	115	...	90
1900 ...	97	...	89	...	108	...	108
1901 ...	92	...	75	...	121	...	80
1902 ...	87	...	86	...	101	...	102
1903 ...	158	...	167	...	94	...	112
1904 ...	86	...	119	...	72	...	100
	<hr/> 100		<hr/> 100		<hr/> 100		<hr/> 100

TABLE VI.—*Average Amount and Duration of Monthly Rainfall expressed as Percentage of Annual Total.*

	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Amount...	7.1	7.4	6.9	6.2	7.0	8.1	10.3	9.6	8.2	11.1	9.7	8.4	100
Duration...	9.8	9.9	8.8	7.0	7.1	7.1	6.0	6.4	6.3	10.7	11.2	9.7	100



MEAN MONTHLY RATE OF FALL OF RAIN AT CAMDEN SQUARE.

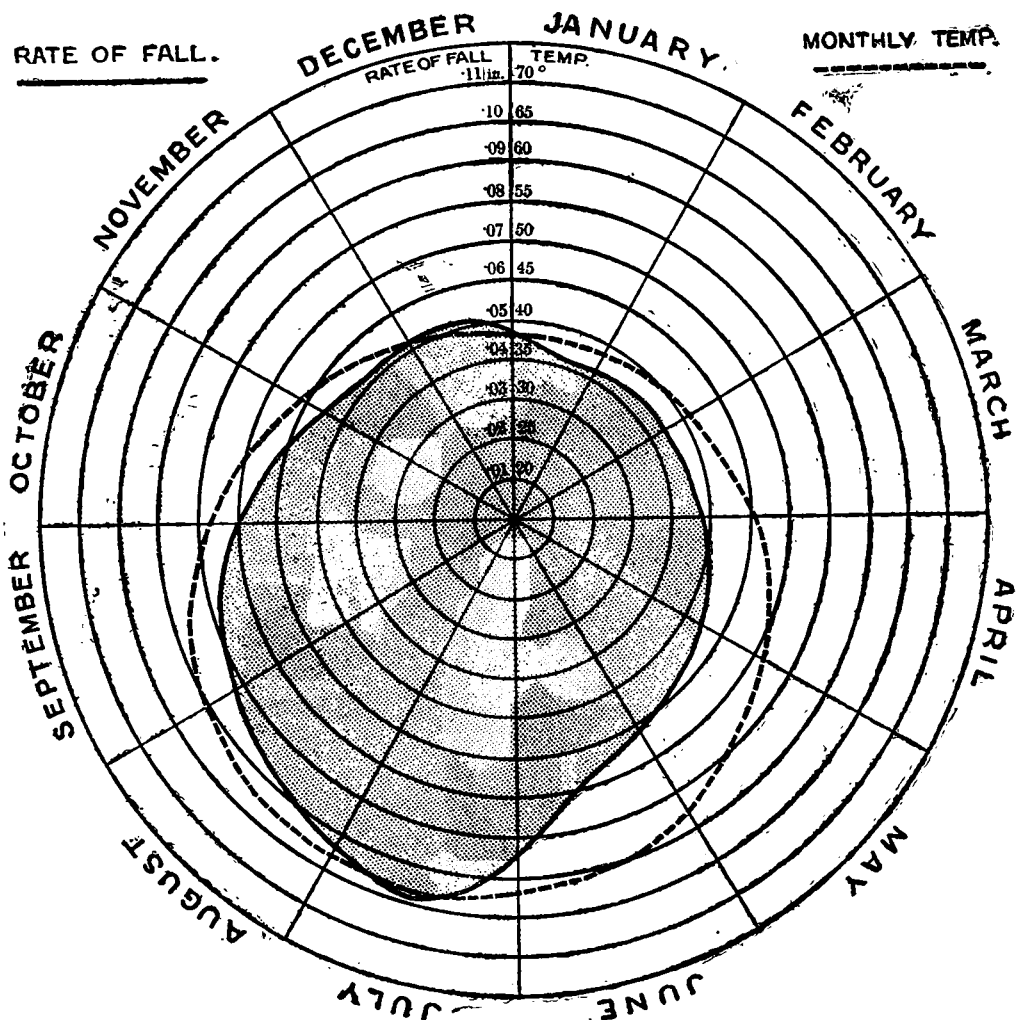
The two quantities are combined in Table IV., which gives the average rate of rainfall for each month in terms of inches per hour, each monthly figure representing the total rainfall of the month in inches divided by the number of hours during which it fell. The results of this Table are also expressed in the form of a curve, shown on the diagram in a heavy line, the regularity of which is almost startling when compared with the two irregular curves from which it is derived. The average monthly rate of rainfall increases very gradually from a minimum of .042 in. per hour in January to .066 in. per hour in June, then leaps up to .099 in. per hour in July, and falls again much more uniformly to the January minimum. The average intensity of rainfall in July and August is twice as great as in January, February, or March. In May and October the usual rate is about the average for the year.

The year of heaviest rain, that is of greatest average fall per hour, was 1901, when the amount per hour was 20 per cent. above the average; the year was below the average in total rainfall, but the duration was remarkably small, 25 per cent. below the average, and less than in any year except 1887, which, however, had a very small amount, and consequently slight intensity. The year of lightest rain was 1904, the exceptionally great duration,



19 per cent. above the average, being combined with a rainfall 14 per cent. below the average.

As regards individual months, the greatest mean rate of fall for any month was  $\cdot394$  in. per hour in September, 1895, a dry month, in which the whole rainfall of 1.28 in. fell in 3.2 hours, there being only two rainy days. The least mean rate was  $\cdot010$  in. per hour in February, 1891, but that is not an average, but an absolute value, the whole rainfall of the month, a gentle drizzle on one day, having lasted only for a single hour. The extreme intensities of rainfall for a month are thus no fair measure of the variability of the character of the rain, but the average monthly intensities for 24 years (not the mean of the intensity figures for each month, but the whole 24 years



MEAN MONTHLY TEMPERATURE AND RATE OF RAINFALL AT CAMDEN SQUARE.

rain of the month divided by the total 24 years' duration in the same months) are of great interest. They show, as the curves make very plain, a regularity of seasonal changes almost as perfect as that of mean monthly temperature. Indeed, one might well imagine that if the curve of rainfall intensity were deduced from a sufficiently long series of years to yield as smooth a curve as that of the temperature for 45 years, the two would lie very close together if the scales were so chosen as to cause the maximum and minimum to coincide. As it is the curve of intensity of rainfall shows a slower rise than that of temperature in spring, a much more rapid rise in summer, while the falling curves in autumn run very closely together.

This relationship is brought out in the accompanying diagram on which the months are represented as sectors of a circle, and the concentric circles from the centre outwards represent intervals of  $\cdot 01$  in. of rain per hour for the solid black curve of rainfall intensity, and of  $5^{\circ}$  of temperature for the dotted curve of mean monthly temperature. The curve for the year in each case becomes a closed figure, and that for intensity of rainfall is shaded so as to make it the more conspicuous.

From the indications of the recording rain gauge kept at Seathwaite from July, 1899, to December, 1900, it would appear that in the North-west of England the maximum intensity of rainfall occurs in winter, and the minimum in summer. It is greatly to be wished that more long records of automatic rain gauges were available for discussion.

**Rate of Fall of Rain at Seathwaite in 1899-1900.**

In a paper on the Rate of Fall of Rain at Seathwaite, read to the Royal Meteorological Society on April 19th, 1905,\* the following Table was published, which it may be convenient to reprint here:—

*Rainfall at Seathwaite.*

1899. MONTH.	Amount. in.		Duration. hours.		Rate per hour.		Rainy Days.
July 9th—31st	(5·05)	...	(65)	...	·078	...	(16)
August .....	3·69	...	38½	...	·096	...	15
September.....	12·34	...	87½	...	·141	...	(24)
October .....	12·75	...	81½	...	·157	...	13
November .....	14·62	...	129	...	·113	...	25
December .....	8·24	...	100¾	...	·082	...	17
Total .....	56·69		501½		·113		110
1900.							
January.....	16·35	...	163½	...	·100	...	28
February .....	9·91	...	127¾	...	·078	...	23
March .....	·98	...	17½	...	·056	...	12
April ..	8·12	...	77	...	·105	...	18
May .....	7·26	...	65¾	...	·110	...	13
June .....	7·93	...	83	...	·096	...	19
July .....	4·04	...	58½	...	·069	...	19
August .....	12·24	...	105½	...	·116	...	19
September.....	9·98	...	87½	...	·114	...	16
October .....	13·87	...	134	...	·104	...	24
November .....	9·71	...	99¾	...	·097	...	21
December .....	25·83	...	174¾	...	·148	...	28
Total .....	126·22		1193¾		·106		240

\* On the Rate of Fall of Rain at Seathwaite, by Hugh Robert Mill, *Quart. Journ. R. Met. Soc.*, July, 1905.

## THE DURATION OF RAINFALL IN 1904.

WE are glad to be able to give records of monthly duration of rainfall from seven stations this year, and we hope to be able to give a larger number in future. The Camden Square record is from the Casella recording gauge, most of the others from Halliwell's recording gauge. We have made the records comparable by giving the rainfall in each case to the hundredth of an inch and the duration to the tenth of an hour, the rate per hour alone being given to the third place of decimals.

The differences in the duration shown by the various gauges are somewhat surprising, but so little is known as to the average conditions that we content ourselves at present with placing the facts on record.

### *Duration of Rainfall at Camden Square in 1904.*

DR. H. R. MILL.

1904.	Rainfall.	Duration.	Rate per hour.	Number of rainy days.	Rate per rainy day.	Duration per rainy day.
	in.	hours.	in.		in.	hours.
January .....	2·32	79·5	·029	22	·11	3·6
February .....	2·58	57·1	·045	19	·14	3·0
March .....	1·72	41·7	·041	15	·11	2·8
April .....	1·01	18·9	·053	10	·10	1·9
May .....	1·96	58·2	·034	16	·12	3·6
June .....	·84	16·7	·050	6	·14	2·8
July .....	2·41	20·8	·116	10	·24	2·1
August .....	1·59	31·5	·050	10	·16	3·2
September .....	1·17	34·5	·034	11	·11	3·1
October .....	1·56	54·2	·029	11	·14	4·9
November .....	1·70	39·1	·044	11	·15	3·6
December .....	1·79	39·6	·045	19	·09	2·1
Year .....	20·65	491·8	·042	160	·13	3·1

*Duration of Rainfall at Duppas House, Croydon, in 1904.*

MR. BALDWIN LATHAM, M.Inst.C.E.

1904.	Rainfall.	Duration.	Rate per hour.	Number of rainy days.	Rate per rainy day.	Duration per rainy day.
	in.	hours.	in.		in.	hours.
January .....	3·63	122·2	·030	22	·17	5·6
February .....	3·05	71·6	·043	19	·16	3·8
March .....	1·52	46·9	·032	16	·10	2·9
April .....	1·26	27·0	·047	11	·11	2·5
May .....	2·44	61·5	·040	16	·15	3·8
June .....	·80	20·3	·039	9	·09	2·3
July .....	1·26	20·0	·063	11	·11	1·8
August.. .....	1·66	31·9	·052	10	·17	3·2
September .....	1·21	43·1	·028	12	·10	3·6
October .....	1·89	58·6	·032	15	·13	3·9
November .....	1·40	37·9	·037	14	·10	2·7
December .....	2·44	57·3	·043	19	·13	3·0
Year .....	22·56	598·3	·038	174	·13	3·4

*Duration of Rainfall at Timsbury, Hants, in 1904.*

MR. BALDWIN LATHAM, M.Inst.C.E.

1904.	Rainfall.	Duration.	Rate per hour.	Number of rainy days.	Rate per rainy day.	Duration per rainy day.
	in.	hours.	in.		in.	hours.
January .....	4·12	157·8	·026	25	·16	6·3
February .....	3·93	117·6	·033	22	·18	5·8
March .....	1·42	77·0	·018	15	·09	5·1
April .. .....	1·32	63·0	·021	11	·12	5·7
May .....	3·36	100·2	·034	15	·22	6·7
June .....	·74	51·2	·014	9	·08	5·7
July .....	2·31	58·2	·040	11	·21	5·3
August.....	3·50	73·1	·048	13	·27	5·6
September .....	1·90	54·1	·035	10	·19	5·4
October .....	2·03	64·9	·031	9	·23	7·2
November .....	1·17	38·5	·030	10	·12	3·8
December .....	3·95	82·3	·048	18	·22	4·6
Year .....	29·75	937·9	·032	168	·18	5·6

*Duration of Rainfall at Twyford, Hants, in 1904.*

MR. BALDWIN LATHAM, M.Inst.C.E.

1904.	Rainfall.	Duration.	Rate per hour.	Number of rainy days.	Rate per rainy day.	Duration per rainy day.
	in.	hours.	in.		in.	hours.
January .....	4·95	144·6	·034	19	·25	7·6
February .....	4·12	113·7	·036	21	·20	5·4
March .....	1·69	51·7	·033	13	·13	4·0
April .....	1·42	54·0	·026	11	·13	4·9
May .....	3·90	85·1	·046	15	·26	5·7
June .....	·94	44·8	·021	8	·12	5·6
July .....	1·33	39·5	·034	9	·15	4·4
August .....	3·33	67·7	·049	12	·28	5·6
September .....	2·01	51·6	·039	10	·20	5·2
October .....	2·00	68·3	·029	8	·25	5·5
November .....	1·18	35·9	·033	8	·15	4·5
December .....	3·74	67·4	·055	18	·21	3·7
Year .....	30·61	824·3	·037	152	·20	5·4

*Duration of Rainfall at Melbury Reservoir, Parkham, Devon, in 1904.*

MR. BALDWIN LATHAM, M.Inst.C.E.

1904.	Rainfall.	Duration.	Rate per hour.	Number of rainy days.	Rate per rainy day.	Duration per rainy day.
	in.	hours.	in.		in.	hours.
January ..	7·35	231·3	·032	25	·29	9·3
February .....	6·94	243·2	·029	25	·28	9·7
March .....	2·23	122·2	·018	16	·14	7·6
April .....	2·57	120·9	·021	19	·14	6·4
May .....	4·07	143·0	·028	20	·20	7·1
June .....	2·02	71·9	·028	10	·20	7·2
July .....	5·25	157·1	·033	22	·24	7·1
August .....	3·99	95·8	·042	21	·19	4·6
September .....	4·13	112·0	·037	13	·32	8·6
October .....	3·90	128·5	·030	21	·19	6·1
November .....	4·79	168·4	·028	24	·20	7·0
December .....	4·99	149·0	·033	21	·24	7·1
Year .....	52·23	1743·3	·030	237	·22	7·4

*Duration of Rainfall at Hesketh Park, Southport, in 1904.*

MR. J. BAXENDELL.

1904.	Rainfall.	Duration.	Rate per hour.	Number of rainy days.	Rate per rainy day.	Duration per rainy day.
	in.	hours.	in.		in.	hours.
January .....	2·86	62·3	·046	20	·14	3·1
February.....	3·74	99·7	·038	19	·20	5·2
March .....	2·06	64·0	·032	17	·12	3·8
April .....	1·75	48·0	·037	18	·10	2·7
May .....	1·74	40·7	·043	13	·13	3·1
June.....	1·19	29·5	·040	10	·12	3·0
July .....	1·09	26·2	·042	15	·07	1·8
August .....	3·11	57·3	·054	19	·16	3·0
September .....	2·14	36·7	·058	11	·19	3·3
October .....	2·05	49·3	·042	15	·14	3·3
November .....	1·99	54·5	·037	17	·12	3·2
December .....	2·29	54·3	·042	20	·11	2·7
Year.....	26·01	622·5	·042	194	·13	3·2

*Duration of Rainfall at Cauldhame, Falkirk, Stirlingshire, in 1904:*

MR. DAVID RONALD, C.E.

1904.	Rainfall.	Duration.	Rate per hour.	Number of rainy days.	Rate per rainy day.	Duration per rainy day.
	in.	hours.	in.		in.	hours.
January .....	3·11	72·1	·043	19	·16	3·8
February.....	2·80	71·1	·039	20	·14	3·6
March .....	1·96	49·4	·039	21	·09	2·3
April .....	3·98	59·6	·067	22	·18	2·7
May .....	3·14	37·4	·084	18	·17	2·1
June.....	1·43	13·0	·110	12	·12	1·1
July .....	2·46	23·8	·103	17	·14	1·4
August .....	4·16	46·9	·088	21	·19	2·2
September .....	2·62	14·0	·186	12	·22	1·2
October .....	1·31	30·2	·043	14	·09	2·2
November .....	1·62	50·8	·032	14	·12	3·6
December .....	3·99	83·9	·048	20	·19	4·2
Year.....	32·58	552·2	·059	210	·16	2·6

## RECORDS OF EVAPORATION.

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THE table dealing with this section contains records from the same stations as were included in 1903. Ten of these are distributed fairly equally over England ; Scotland is represented by one station only, while no record of evaporation is, so far as we know, kept in either Wales or Ireland. Eight of the eleven stations included in the table are equipped with tanks of standard size, six feet square and capacity 450 gallons, and the remaining three we believe to be fairly comparable with the standard, and we know that they are so in the hands of careful observers. Mr. Baxendell during the year has maintained a comparison between the standard tank at Downholland and one three feet square with one quarter the capacity and it is satisfactory to find the results fairly accordant. The difference for the year amounted to .47 in., the smaller quantity being registered by the larger tank ; the records of several months were practically identical and the largest monthly difference shown was .20 in. in April. We believe, however, that the large tank is less likely to lead to error in very dry hot weather.

With the record for 1904, twenty years observations become available for Camden Square, and we think this is long enough to yield a close approximation to the normal curve for that station. The monthly results for the whole period are given in the following table and, generally speaking, they appear to show some relation to the amount of sunshine. The absence of summer sun, certainly shows a marked effect in the case of the well known inclement summers of 1888, 1891 and 1894, these being the only years in the record giving totals of less than 13 inches. Particulars of wind velocity are unfortunately not available. A Robinson cup anemometer was however erected in November, 1904, close to the tank, and about one foot above the surface of the water, and as a sunshine recorder is also at work we hope in the future to be able to make some interesting comparisons. The curve of evaporation resembles the curve of water temperature in having the falling portion steeper than the rising



portion, and the period seems to be almost a month earlier than that of the air temperature.

The average amount of evaporation at the eleven stations included in the main table was 17·32 in. or ·38 in. less than in 1903. Individual stations, however, show larger divergencies as in the case of Mr. Haworth's tank at Stanley Grange, Wakefield, which was 1·81 in. in excess of the 1903 record and Falkirk which was 1·80 in. below it. Taking those stations only at which a complete record for the past seven years is available, the 1904 figures show a deficiency when compared with that average amounting to ·59 in. The mean of the longer period at Camden Square, however, appears to show that this short average is much too high, still it is the best standard of comparison we have. All the stations in the south of England were below the seven years mean in 1904, though in the cases of Camden Square and Southwold the deficiencies were trifling. Revesby was practically at the average and Downholland alone showed anything like an excess. The remaining stations have not been established sufficiently long to admit of a similar comparison, but such records as we possess appear to indicate that they were somewhat deficient. Among the anomalies in this section for 1903 was the great disparity between the neighbouring stations of Ardsley and Stanley Grange, and it is satisfactory to find that these records are much more accordant in 1904. Downholland and Southwold, in the order given, were again the stations showing the maximum amount of evaporation, and it is noteworthy that one or other of these stations has furnished the highest amount in the lists since 1900. As explained last year the position and exposure of these stations is such as might be expected to be favourable to large evaporation, being exposed both to sunshine and wind. The range between the highest and lowest amounts in the table is 7·58 in. against 8·49 in. in 1903.

Turning to the monthly amounts we find the six winter months between them contributing only 2·36 in. of the total amount given by the mean of eleven stations. In both January and December the atmosphere was frequently in a saturated state and evaporation was consequently at a standstill, in fact, in the former month, four of the stations reported condensation, which in two instances was of considerable amount. This was probably partly due to the action of ice upon the surface of the water, cooling the air immediately above it. Evaporation was particularly active in July and the amount recorded

at Camden Square was only once exceeded in any month in the 20 years over which the observations extend. On the whole, the results as shown in the tables for the past two years are more nearly alike than would be expected considering the different conditions. Excess of rain relatively to the average in 1903 accompanied an evaporation similar to that in the present year when the rain was generally below the average, and this would appear to dispose of the inverse relationship sometime supposed to exist between the amount of rainfall and evaporation.

The comparison of the 12 inch and 5 inch evaporators at Croydon has been continued, the record of the latter instrument showing an evaporation of 3·85 in. more of water than fell as rain and again afforded a good example of a form of exposure to be carefully avoided. The mean temperature of the water in the evaporators at 9 a.m. shows a difference of less than 1°·5, but it is probable that were observations of the temperature of the water possible at mid-day they would show a much more striking difference.

*Evaporation at Camden Square, 1885-1904.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1885.	·20	·38	·86	1·71	1·98	2·77	3·29	2·25	1·13	·77	·17	·11	15·62
1886.	·23	·13	·53	1·59	1·78	2·93	3·12	1·86	1·46	·63	·27	·12	14·65
1887.	c·07	·29	·76	1·72	1·79	3·68	3·76	2·54	1·25	·78	·21	·07	16·78
1888.	·07	·37	·48	1·16	2·71	2·24	1·44	1·90	1·17	·60	·43	·03	12·60
1889.	·03	·18	·62	1·07	1·76	2·97	2·34	1·96	1·52	·42	·29	c·13	13·03
1890.	·08	·19	·50	1·44	2·63	2·14	2·33	2·02	1·27	·79	·31	·04	13·74
1891.	·03	·16	·73	1·35	1·66	2·83	2·34	1·67	1·00	·62	·20	·22	12·81
1892.	·05	·09	·60	1·88	2·65	3·05	2·84	2·20	1·01	·36	·02	·20	14·95
1893.	c·03	·01	·92	2·33	3·06	3·62	3·12	2·85	1·48	·70	·11	·01	18·18
1894.	c·04	·28	·83	1·17	2·10	2·48	2·49	1·91	·97	·37	·20	·11	12·87
1895.	·14	·64	·36	1·26	3·06	3·31	3·07	2·12	1·27	·54	·19	·07	16·03
1896.	·16	·24	·64	1·57	3·06	3·21	3·63	1·96	·68	·47	·18	·00	15·80
1897.	·23	·21	·76	1·23	2·99	2·48	3·60	2·49	·99	·63	·26	c·14	15·73
1898.	·19	·37	·51	1·28	1·56	2·10	2·96	2·53	1·73	·45	·11	·16	13·95
1899.	·04	·28	·52	1·24	2·34	3·67	4·03	3·78	2·01	·45	·41	·11	18·88
1900.	·03	·16	·80	1·46	2·35	2·85	4·25	2·61	1·61	·89	·24	·15	17·40
1901.	·13	·24	·60	1·98	3·25	3·85	3·37	3·19	1·42	·64	·31	c·05	18·93
1902.	·16	·15	·71	1·75	1·78	2·33	3·30	1·71	1·47	·69	·28	·27	14·60
1903.	·26	·39	·97	1·57	2·24	2·79	3·35	2·53	1·51	·86	·29	·12	16·88
Mean	·09	·24	·64	1·44	2·24	2·77	2·93	2·20	1·25	·58	·22	·07	14·67
1904.	c·09	·26	·54	1·68	1·81	3·32	4·06	2·86	1·20	·50	·26	·02	16·42
Diff.	—·18	+·02	—·10	+·24	—·43	+·55	+1·13	+·66	—·05	—·08	+·04	—·05	+1·75

*Observations made at Duppas House, Croydon, by Mr. Baldwin Latham, M.Inst.C.E.*

1904	Evaporation from 12 in. Evaporator floating in Water.	Condensation in 12 in. Evaporator floating in Water.	Average daily Temperature of Water at 9 a.m. in 12 in. Evaporator floating in Water.	Evaporation from 5 in. Evaporator fully exposed in Air.	Condensation in 5 in. Evaporator fully exposed in Air.	Average daily Temperature of Water at 9 a.m. in 5 in. Evaporator fully exposed in Air.	Temperature of the Dew Point at 9 a.m.
	in.	in.	°	in.	in.	°	°
Jan. ...	·110	·170	36·46	·420	·120	37·52	35·94
Feb. ...	·350	·010	38·50	·640	·010	37·54	34·63
March	·620	—	38·51	1·260	—	38·61	35·83
April .	1·560	—	48·67	2·840	—	52·17	43·29
May...	1·760	—	56·09	2·950	—	59·26	47·69
June..	2·720	—	60·80	4·260	—	64·49	49·63
July...	3·320	—	67·50	5·560	—	72·14	57·00
Aug. ..	2·385	—	63·52	4·205	—	66·20	54·21
Sept...	1·315	—	56·08	1·975	—	56·56	50·51
Oct. ...	·675	—	50·35	1·055	—	48·81	47·92
Nov. ...	·365	·010	40·97	·595	—	40·07	37·82
Dec...	·255	·040	39·03	·650	—	39·71	37·47
Total .	15·435	·230	596·48	26·410	·130	613·08	531·94
Mean .	...	...	49·71	...	...	51·09	44·33

*Table of Rainfall and Percolation at Duppas House, Croydon, also at the South Hants Water Company's Pumping Stations, at Timsbury and Twyford, Hants. Mr. Baldwin Latham, M.Inst.C.E.*

NOTE.—The percolation gauges are covered with the natural growth of grass.  
Size of percolation gauges 3 ft. square and 3 ft. deep.

1904	DUPPAS HOUSE, CROYDON.			TIMSBURY.		TWYFORD.	
	Rainfall. Level of Gauge 158·00 ft. above O.D.	Percolation Gauge. Chalk. Level of Gauge 157·00 ft. above O.D.	Percolation Gauge. Gravel. Level of Gauge 157·00 ft. above O.D.	Rainfall. Level of Gauge 96·39 ft. above O.D.	Percolation Gauge. Chalk. Level of Gauge 89·75 ft. above O.D.	Rainfall. Level of Gauge 138·72 ft. above O.D.	Percolation Gauge. Chalk. Level of Gauge 137·49 ft. above O.D.
	in.	in.	in.	in.	in.	in.	in.
Jan. ....	3·63	3·4088	3·2969	4·12	3·6023	4·95	4·4698
Feb. ...	3·05	3·3234	3·1743	3·93	4·6385	4·12	4·3250
March ...	1·52	·8886	·7537	1·42	·7364	1·69	·7829
April ...	1·26	·2721	·1779	1·32	·1476	1·42	·7120
May. ....	2·44	·1195	·0273	3·36	·8106	3·90	1·3031
June ...	·80	·2551	—	0·74	·0634	·94	·0509
July. ....	1·26	—	—	2·31	·0084	1·33	—
Aug. ...	1·655	—	—	3·50	·0104	3·33	—
Sept. ...	1·215	—	—	1·90	·0124	2·01	—
Oct. ....	1·885	—	—	2·03	·0443	2·00	—
Nov. ...	1·405	—	·0004	1·17	·4950	1·18	—
Dec. ....	2·435	1·3017	2·1289	3·95	3·7672	3·74	2·6457
Total ...	22·555	9·5692	9·5594	29·75	14·3365	30·61	14·2894

## EVAPORATION IN 1904.

County .....	London, Camden Sq.	Surrey, Croydon, Duppas Ho.	Hampshire, Otterbourne	Suffolk, Southwold	Devon, Christow, Kennick	Lincoln, Revesby Water Works
Station .....	51° 32' 20" N. 0 8 0 W. 111 ft. H. R. Mill	51° 22' 5" N. 0 6 13 W. 158 ft. Baldwin Latham, C.E.	51° 0' 28" N. 1 19 55 W. 112 ft. W. Matthews, C.E.	52° 20' N. 1 41 E. 44 ft. A. C. Herbert	50° 38' 30" N. 3 41 20 W. 842 ft. S. C. Chapman, C.E.	53° 9' N. 0 3 W. 130 ft. J. Shaw
Latitude .....	0 8 0 W.	0 6 13 W.	1 19 55 W.	1 41 E.	3 41 20 W.	0 3 W.
Longitude .....	111 ft.	158 ft.	112 ft.	44 ft.	842 ft.	130 ft.
Altitude .....	6 ft. × 6 ft.	1 ft. diameter	6 ft. × 6 ft.	4 ft. × 4 ft.	6 ft. × 6 ft.	6 ft. × 6 ft.
Observer .....	450	5	450	200	450	450
Size of tank .....	3 inches	4 in. above water	3 inches	3 inches	3 inches	2 inches.
Capacity (galls.) ...						
Height of lip above ground .....						
January .....	in. 0·09	in. 0·06	in. 0·48	in. ·34	in. 0·43	in. ·19
February .....	·26	·34	·07	·79	·09	·19
March .....	·54	·62	·97	·98	1·09	·58
April .....	1·68	1·56	2·06	1·96	2·07	1·67
May .....	1·81	1·76	1·67	2·17	2·31	2·14
June .....	3·32	2·72	3·28	3·26	3·68	2·73
July .....	4·06	3·32	3·93	3·87	3·41	3·81
August .....	2·86	2·39	3·01	2·94	3·06	2·44
September .....	1·20	1·31	1·63	2·10	1·97	1·64
October .....	·50	·68	·78	1·08	·97	·57
November .....	·26	·35	·41	·60	·23	·27
December .....	·02	·22	·00	·60	·05	0·01
Year, 1904 .....	16·42	15·21	17·33	20·69	18·50	16·22
Mean, 1898-1904	16·72	16·11	19·23	20·93	19·95	16·17
Difference .....	— ·30	— ·90	— 1·90	— ·24	— 1·45	+ ·05
Year, 1904 .....	20·65	22·56	26·89	20·91	39·98	22·53
Mean, 1898-1904	23·61	24·71	27·64	21·60	40·84	23·96
Difference .....	— 2·96	— 2·15	— ·75	— ·69	— ·86	— 1·43

Note.—C indicates condensation.

EVAPORATION IN 1904—(continued).

EVAPORATION.

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County Station	Lancashire, Downholland	Lancashire, Bolton, Heaton	Yorkshire, Wakefield, Stanley Grange.	Yorkshire, Ardsey Reservoir	Sirling, Falkirk, Cauldham.	Mean of Eleven Stations.
Latitude .....	53° 34' 38" N.	53° 34' 55" N.	53° 45' N.	53° 43' 10" N.	56° 0' 37" N.	
Longitude .....	3 1 12 W.	2 28 21 W.	1 28 W.	1 33 20 W.	3 48 3 W.	
Altitude .....	14 ft.	521 ft.	234 ft.	390 ft.	73 ft.	
Observer .....	J. Baxendell.	R. H. Swindelhurst, C.E.	H. Stanley Haworth	C. C. Smith, C.E.	David Ronald, C.E.	
Size of tank .....	6 ft. x 6 ft.	6 ft. x 6 ft.	6 ft. x 6 ft.	6 ft. x 6 ft.	8 in. diameter.	
Capacity (galls.) ...	450	450	450	450	1½	
Height of lip above ground .....	3 inches	3 inches		3 inches	2 in. above water	
January .....	in. .31	in. .15	in. .17	in. .04	in. .21	in. .03
February .....	.35	.10	.24	.16	.10	.24
March .....	.94	.45	.54	.54	.75	.73
April .....	2.50	1.59	1.50	2.03	1.71	1.85
May .....	2.86	1.97	1.82	2.09	2.36	2.09
June .....	3.57	3.20	2.50	2.71	3.06	3.09
July .....	3.90	3.54	2.95	3.15	2.42	3.49
August .....	3.61	2.76	2.29	2.68	1.99	2.73
September .....	2.24	2.05	1.67	1.81	1.19	1.71
October .....	1.15	1.02	1.06	.74	.72	.84
November .....	.63	.26	.38	(.40)	.24	.37
December .....	.44	.01	.11	.01	.17	.15
Year, 1904.....	22.50	17.10	15.23	(16.36)	14.92	17.32
Mean, 1898-1904 }	21.91	...	...	...	...	...
Difference .....	+ .59	...	...	...	..	...
Year, 1904.....	26.49	35.65	21.10	22.02	32.58	26.49
Mean, 1898-1904 }	28.47	41.08	23.61	...	...	...
Difference .....	-1.98	-5.43	-2.51	...	...	...

## REPRESENTATIVE RECORDS OF DAILY RAINFALL IN 1904.

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IT is sometimes said by journalists in their expansive moments that science has annihilated space and time. To the Editor of *British Rainfall*, however, space and time continue to exist and to resist his best efforts towards the improvement of this volume. Records of daily rainfall certainly ought to be published for a large number of stations representing all parts of the country ; but every such record requires a whole page. Again, the number of entries in a daily return for a year averages nearly 200, and the "reading" of such a mass of figures involves four or five times the number of minutes required for "reading" a page of letter-press. The two bugbears, Space and Time, accordingly forbid the publication of a complete set of daily returns ; but we have endeavoured to make a compromise, and now include the complete daily records at ten stations showing a wide range in amount of rainfall and representative of different natural regions. This section might be extended if it should meet with approval, but only by the reduction of other parts of the volume.

We ask our readers whether the daily records at say fifty stations would be more interesting or useful to them than 50 pp. of Notes by Observers.

REGISTER OF RAINFALL IN 1904

*Kept at St. Pancras, Camden Square, in the County of London,*

Lat. 51° 32' 20" N. Long. 0° 8' 0" W.

BY DR. H. R. MILL.

RAIN GAUGE... { Diameter, 8 in.  
Height of top above Ground, 1 ft. 8 in.  
" " " Sea Level, 111 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·09	·18	·07	...	·15	·23	·03	...	·12	·03	...	...	1
2	·01	·29	·25	·03	·17	...	·11	...	·08	·16	...	·04	2
3	·11	·27	·12	·04	...	...	·05	...	·02	...	...	...	3
4	·04	·02	...	·07	...	...	...	·14	...	...	...	·08	4
5	...	...	·06	·15	·03	...	...	...	...	·14	...	·20	5
6	...	·06	·02	...	·01	...	...	...	·11	·35	·34	·64	6
7	·03	·22	·15	·02	·06	...	...	...	·11	...	·52	·01	7
8	·01	...	...	...	...	...	...	...	·09	...	·17	·01	8
9	·02	·48	...	...	·07	·12	...	...	...	...	·04	·15	9
10	·14	·24	...	...	·25	...	...	...	...	...	·40	·04	10
11	·02	...	...	...	·03	...	...	·13	...	...	...	·16	11
12	·32	·31	...	·15	...	...	·01	...	·14	...	...	·01	12
13	·07	·02	...	...	...	...	...	...	...	...	·01	·01	13
14	·09	·07	·02	·01	...	·27	...	·03	·16	...	...	·28	14
15	...	...	...	·08	...	...	...	...	...	...	...	·02	15
16	...	·13	...	...	...	...	...	·13	...	·21	...	...	16
17	·04	·07	...	...	...	...	...	·14	...	·03	...	...	17
18	·03	...	...	...	...	...	...	...	...	...	...	·04	18
19	·04	·14	·04	...	...	...	·03	...	...	...	·02	...	19
20	·04	·03	...	...	·33	...	...	...	...	...	...	...	20
21	...	·02	·08	...	·04	...	...	·04	...	·30	·05	·01	21
22	...	...	...	·37	...	...	...	·20	...	·17	·01	·01	22
23	...	...	...	...	·09	...	...	·01	·10	·09	·13	...	23
24	...	·01	·03	...	·09	·11	...	...	·06	...	...	...	24
25	...	...	·01	...	...	·08	1·71	·01	...	...	...	...	25
26	·02	...	...	...	·01	·03	·04	...	...	...	...	...	26
27	·24	...	...	...	·10	...	·01	...	...	...	...	·01	27
28	·23	·01	·23	...	...	...	...	...	...	...	...	·02	28
29	·11	·01	·21	·09	...	...	·21	...	...	...	...	·05	29
30	·35	...	·36	...	·17	...	·21	...	·18	·03	·01	...	30
31	·27	...	·07	...	·36	...	...	·76	...	·05	...	...	31
Totals	2·32	2·58	1·72	1·01	1·96	·84	2·41	1·59	1·17	1·56	1·70	1·79	Totals
Totals from Jan. 1	2·32	4·90	6·62	7·63	9·59	10·43	12·84	14·43	15·60	17·16	18·86	20·65	Totals from Jan. 1

## REGISTER OF RAINFALL IN 1904

*Kept at Penzance, Morrabs, in the County of Cornwall,*

Lat. 50° 7' 0" N. Long. 5° 32' 12" W.

By CHARLES H. BENN, Esq.

RAIN GAUGE... { Diameter, 5 in.  
 Height of top above Ground, 1 ft.  
 " " " Sea Level, 55 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·04	·61	·01	·04	·47	...	·03	...	...	...	...	·07	1
2	·34	·95	·19	·07	·06	...	·05	...	·25	·69	...	·13	2
3	·23	·04	·01	·06	·02	...	...	...	...	...	...	·07	3
4	·22	·20	·08	·07	·01	..	·06	·09	...	·03	...	·27	4
5	·02	·36	·05	·28	·06	...	...	·02	·13	·55	...	·73	5
6	·78	·02	·05	...	·27	·10	·04	·02	·52	·65	·28	·47	6
7	·15	·50	·49	·04	·11	·22	·01	·46	·22	·07	·18	·11	7
8	·14	·40	·01	·04	·14	...	...	...	·03	·04	·01	·55	8
9	·54	·20	·05	·02	·35	...	...	·01	...	·03	·05	·28	9
10	·08	·59	...	...	·08	·05	...	·30	...	...	·26	·12	10
11	·35	·23	...	...	·03	...	·51	·01	·15	...	·03	·43	11
12	·27	·36	...	...	...	·36	...	...	·02	...	...	·06	12
13	·29	·20	...	·26	...	·05	·04	·32	·49	...	·03	·64	13
14	·20	·50	...	·02	...	·28	·05	·11	·12	·04	...	·17	14
15	·09	·23	...	...	...	·10	·01	...	·04	·57	·04	·11	15
16	·04	·84	...	...	...	...	...	·87	...	·12	...	·01	16
17	·08	·32	...	·36	...	...	...	·01	...	·04	...	·07	17
18	·01	·09	·01	...	...	...	...	...	...	·01	...	·04	18
19	·01	·25	·02	...	...	...	·20	...	...	·07	·01	...	19
20	·09	·05	·04	...	·16	...	·02	...	...	·01	·12	...	20
21	...	·02	·02	·16	·14	...	·16	·48	...	·11	·16	...	21
22	...	...	...	·02	...	...	·52	·03	...	·01	·35	...	22
23	...	...	...	...	·93	...	·03	...	...	·03	·50	...	23
24	...	...	...	...	·30	·17	·01	...	...	·01	·39	·04	24
25	·27	·26	·02	...	·02	...	·33	·27	·02	...	·63	...	25
26	·45	·25	...	...	·32	...	·05	·04	...	...	·02	...	26
27	·25	·02	·26	...	...	...	...	...	·04	...	·06	·01	27
28	·19	...	·28	·19	...	...	·27	...	·23	...	·17	·01	28
29	·14	·31	·16	·09	...	...	·14	·01	·03	...	·01	·13	29
30	·31	...	·05	...	·05	·19	·07	·41	·61	...	·02	...	30
31	·04	...	·49	...	·07	...	...	...	...	...	...	·03	31
Totals	5·62	7·80	2·29	1·72	3·59	1·52	2·60	3·46	2·90	3·08	3·32	4·55	Totals
Total from Jan. 1	5·62	13·42	15·71	17·43	21·02	22·54	25·14	28·60	31·50	34·58	37·90	42·45	Total from Jan. 1



# REGISTER OF RAINFALL IN 1904

*Kept at North Cadbury Rectory, in the County of Somerset, S.,*

Lat. 51° 2' 30" N. Long. 2° 31' 0" W.

By REV. H. A. BOYS.

RAIN GAUGE... { Diameter, 8 in.  
Height of top above Ground, 1 ft. 3 in.  
,, ,, ,, Sea Level, 256 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
1	in. ·02	in. ·31	in. ·01	in. ...	in. ·21	in. ·12	in. ·14	in. ...	in. ...	in. ·02	in. ·01	in. ·01	1
2	·14	·45	·10	·08	·13	...	·15	...	·17	·18	...	·07	2
3	·08	·04	·07	...	...	...	·02	·01	·02	...	...	·03	3
4	·27	·28	·26	·04	...	...	·01	·12	...	·01	...	·13	4
5	...	·27	·06	·28	·03	...	·02	...	·02	·35	...	·54	5
6	...	·10	·01	...	·22	·06	...	·01	...	·88	·17	·55	6
7	·06	·28	·43	·09	·03	...	...	·04	·19	·19	·33	·16	7
8	·14	·13	...	·01	·14	...	...	...	·02	·01	·32	·23	8
9	·06	·32	...	·01	·16	...	...	...	...	·03	·09	·51	9
10	·27	·48	...	...	·22	...	...	·66	...	·06	·53	·09	10
11	·04	·15	...	...	·01	...	...	·08	·25	...	·03	·25	11
12	·21	·44	...	·09	·01	...	·02	...	·29	...	·01	·09	12
13	·24	·04	...	·17	...	·02	...	...	·25	...	...	·30	13
14	·21	·12	...	·20	...	·21	...	·10	·63	...	·01	·08	14
15	·04	·04	...	·30	...	·03	...	·02	...	·01	·02	·01	15
16	·04	·21	...	...	...	...	...	·30	...	·65	·01	·01	16
17	·12	·19	...	...	...	·06	...	·31	...	·07	·02	·01	17
18	...	...	...	...	...	...	...	·01	...	·01	·03	·01	18
19	·02	·11	·01	...	...	...	·12	...	...	·01	...	...	19
20	·02	·01	·01	...	·37	...	...	...	...	·01	...	·01	20
21	...	·04	...	...	·03	...	...	·47	...	·15	·07	·02	21
22	...	...	...	·12	...	...	·20	·42	...	·01	...	·01	22
23	...	...	...	...	·41	...	·17	·02	...	·07	...	·01	23
24	...	...	...	...	·14	·18	...	·16	·02	·01	...	...	24
25	·04	·10	·01	...	...	...	1·22	·08	...	...	...	·01	25
26	·33	·09	...	...	·11	...	·76	·06	·01	·01	·03	...	26
27	·24	...	...	...	·54	...	·03	...	...	...	·01	...	27
28	·02	...	·16	·01	...	...	·15	...	...	·01	...	·01	28
29	·46	·01	·24	·03	...	...	·72	·02	...	...	·01	·11	29
30	·21	...	·06	·02	·20	·02	·07	·08	·40	·02	·03	·01	30
31	·12	...	·10	...	·10	...	...	·30	...	...	...	...	31
Totals	3·40	4·21	1·53	1·45	3·06	·70	3·80	3·27	2·27	2·77	1·73	3·27	Totals
Totals from Jan. 1	3·40	7·61	9·14	10·59	13·65	14·35	18·15	21·42	23·69	26·46	28·19	31·46	Totals from Jan. 1

## REGISTER OF RAINFALL IN 1904

*Kept at Worksop, Hodsock Priory, in the County of Nottinghamshire,*

Lat. 53° 21' 35" W. Long. 1° 6' 15" W.

By HENRY MELLISH, Esq., J.P.

RAIN GAUGE... { Diameter, 8 in.  
 Height of top above Ground, 1 ft.  
 „ „ „ Sea Level, 56 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	...	·05	·01	·06	·04	...	...	...	...	·01	...	...	1
2	·03	·05	·12	·05	...	...	...	...	·25	...	·01	·03	2
3	·03	·95	...	·09	...	...	...	·02	...	...	·07	...	3
4	·13	·05	·02	...	...	...	·04	·29	...	...	...	·07	4
5	...	·05	·07	·03	...	...	...	·05	...	·01	·01	...	5
6	·07	·07	·06	...	·32	...	...	...	...	...	·11	...	6
7	·33	·27	·44	·03	·13	...	...	...	·01	·02	·05	·16	7
8	...	·06	...	·02	·01	...	...	...	...	...	·06	...	8
9	...	·27	...	·05	...	·17	...	...	...	·06	·03	·16	9
10	·12	...	...	...	·04	...	...	...	...	...	·08	·03	10
11	...	·01	...	...	...	...	...	...	...	...	...	·14	11
12	·12	·35	...	·12	...	...	·45	...	·17	...	...	·01	12
13	·05	·02	·17	·04	...	...	...	·04	...	...	·01	·10	13
14	·02	·07	·24	·29	·04	·10	...	·05	...	...	·01	·06	14
15	·08	·02	...	·25	...	·02	...	...	...	...	...	·30	15
16	...	·33	·01	...	...	...	...	·10	...	·06	...	...	16
17	·03	·01	...	...	...	...	...	1·37	...	...	...	·08	17
18	·02	...	...	...	·01	...	...	...	...	...	·01	...	18
19	...	·13	·07	...	...	...	...	·01	...	...	...	·01	19
20	...	·33	...	...	...	·01	...	...	...	...	·01	...	20
21	...	·01	...	...	...	...	...	·60	...	·01	·29	...	21
22	...	·02	·03	·12	...	...	...	·64	·12	...	·12	...	22
23	...	...	...	...	·04	...	·46	·20	·04	...	·08	·01	23
24	...	...	·02	·02	·01	...	·13	...	·03	·03	...	...	24
25	...	·03	·05	...	·11	·01	·77	...	·02	...	...	...	25
26	·09	·01	...	...	·02	·06	·05	...	·15	...	...	...	26
27	·04	·05	...	...	·41	...	·05	...	...	...	...	...	27
28	·01	·01	·22	...	...	...	...	...	...	...	...	·01	28
29	·03	·01	·09	·01	...	...	·21	...	...	...	·02	·03	29
30	·18	...	·09	...	·17	...	·07	...	·42	·03	·01	...	30
31	·58	...	·01	...	·61	...	...	·08	...	·09	...	...	31
Totals	1·96	3·23	1·72	1·18	1·96	·37	2·23	3·45	1·21	·32	·98	1·20	Totals
Total from Jan. 1	1·96	5·19	6·91	8·09	10·05	10·42	12·65	16·10	17·31	17·63	18·61	19·81	Total from Jan. 1

# REGISTER OF RAINFALL IN 1904

*Kept at Borrowdale, Seathwaite, in the County of Cumberland,*

Lat. 54° 29' 35" N. Long. 3° 10' 40" W.

FOR THE ROYAL METEOROLOGICAL SOCIETY.

RAIN GAUGE... { Diameter, 5 in.  
Height of top above Ground, 1 ft.  
" " " Sea Level, 423 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	...	·13	...	·21	1·42	·61	·11	·14	·02	·50	...	·35	1
2	·33	·07	...	2·60	·28	...	·39	...	2·00	·04	·27	·19	2
3	·19	·13	...	·19	·10	...	·17	·53	...	...	·05	2·04	3
4	...	...	...	1·19	·02	...	1·50	·32	·24	·10	·09	1·94	4
5	...	·13	...	1·67	·64	...	·03	1·69	·52	1·40	·25	·37	5
6	·66	·24	...	·80	·03	...	·38	1·14	·09	·50	·47	·33	6
7	2·06	·33	·29	·04	·03	...	...	·15	·43	·10	1·29	·60	7
8	·03	·05	·38	·30	·15	...	...	...	·38	·02	3·98	·25	8
9	2·84	...	...	·07	...	...	...	·04	·61	·69	·80	...	9
10	·45	...	...	...	·09	...	...	·57	...	·58	·24	...	10
11	1·11	...	...	...	...	...	...	1·25	...	·52	·37	1·15	11
12	1·60	1·43	·59	·23	·19	·24	·12	...	·66	...	...	·39	12
13	1·05	2·44	·59	·35	·91	·90	·05	2·00	...	...	...	·56	13
14	·30	·65	...	1·14	·65	1·10	1·32	1·03	...	...	...	·05	14
15	...	·10	·17	...	...	·45	3·00	·01	...	...	·21	1·20	15
16	...	...	·42	·04	...	·10	...	·16	...	4·03	...	2·84	16
17	...	·24	·11	...	...	·11	...	·90	...	·19	...	1·66	17
18	·80	...	·13	...	·44	·02	...	·39	...	...	1·08	...	18
19	·03	2·29	·37	...	...	·04	·02	...	...	...	·10	...	19
20	·10	·35	3·73	...	...	·33	...	...	...	...	·59	...	20
21	...	1·24	·79	1·07	...	...	...	·06	...	·38	1·10	...	21
22	...	...	·45	·60	...	...	...	·10	...	...	...	...	22
23	...	...	...	·21	1·99	...	·44	·04	...	·06	...	...	23
24	...	...	...	...	·07	·13	·41	...	·02	...	...	...	24
25	·05	...	...	·07	·03	·21	...	·32	·10	·10	...	...	25
26	2·47	·31	...	·43	...	...	...	·04	·65	...	...	...	26
27	·84	...	·07	·65	·15	...	...	...	...	...	1·36	...	27
28	...	...	3·36	1·87	...	...	...	...	...	...	...	·15	28
29	1·02	...	·37	·87	...	...	·06	·06	·15	...	·12	·62	29
30	...	...	·31	...	...	·15	·14	...	1·61	...	·15	...	30
31	·44	...	·38	...	·49	...	·15	...	...	...	...	...	31
Totals	16·37	10·13	12·51	14·60	7·68	4·39	8·29	10·94	7·48	9·21	12·52	14·69	Totals
Total from Jan 1.	16·37	26·50	39·01	53·61	61·29	65·68	73·97	84·91	92·39	101·60	114·12	128·81	Total from Jan. 1

## REGISTER OF RAINFALL IN 1904

*Kept at Rhayader, Nantgwillt, in the County of Radnor,*

Lat. 52° 15' N. Long. 3° 17' W.

By G. N. YOURDI, Esq., C.E.

RAIN GAUGE... { Diameter, 5 in.  
 Height of top above Ground, 11 in.  
 " " " Sea Level, 754 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	...	·22	...	·02	·91	·25	...	...	...	·01	...	·05	1
2	·37	·16	...	·78	·03	...	·16	...	·42	...	...	·03	2
3	·40	·09	·02	·12	·01	...	...	·20	...	...	...	·14	3
4	·27	·21	·03	·45	...	...	·09	·10	...	...	·01	1·04	4
5	...	·13	·02	·65	·09	...	·03	·21	·05	·21	·18	·50	5
6	·25	·45	·02	·01	·21	...	...	...	·40	·03	·62	·13	6
7	·45	·63	·59	·15	·01	...	...	...	·38	·18	·37	·15	7
8	·30	·38	·06	·09	·03	...	...	...	·05	·04	1·22	·05	8
9	·70	·49	...	·10	·05	·19	...	...	·01	·04	·65	·75	9
10	·20	·32	...	...	...	·02	...	·11	...	·25	·34	·07	10
11	·11	·09	...	...	...	...	...	·09	...	·02	·01	·47	11
12	1·00	1·22	...	·30	...	·06	·08	...	·78	...	...	·31	12
13	·64	·20	...	·61	...	·25	·09	·50	·11	...	...	·11	13
14	·40	·46	·02	·24	·01	·45	·03	·25	·05	...	...	·10	14
15	·09	·25	...	...	...	·22	·09	·04	·01	...	·01	·05	15
16	·12	·35	...	...	·01	·03	...	·06	...	1·67	...	·27	16
17	·07	·07	·01	...	...	·20	...	·76	...	·50	...	·41	17
18	...	·11	·01	...	...	...	...	·05	...	·01	·05	...	18
19	·03	·74	·01	...	...	...	·05	·02	...	...	·04	·01	19
20	·01	·13	·12	...	·07	...	...	...	...	·01	·02	...	20
21	...	·35	...	·02	·07	...	...	·92	...	·02	·34	...	21
22	...	...	·13	·39	·02	...	·48	·30	·02	...	·05	...	22
23	...	...	...	...	·27	...	·30	·01	...	...	...	...	23
24	...	...	...	...	·06	·33	...	·03	·02	·02	·05	...	24
25	·24	·24	...	...	·11	...	·78	·05	·04	...	·02	·10	25
26	1·25	·23	...	·08	·09	...	·06	...	·02	...	...	...	26
27	·50	...	·02	·01	·67	...	·01	...	...	...	·14	·05	27
28	·17	...	·96	·26	...	...	·03	...	·27	...	...	·02	28
29	1·41	...	·41	·15	...	...	·02	·02	·01	...	·01	·43	29
30	·18	...	·73	...	·05	·06	·01	·15	·56	...	...	·11	30
31	·01	...	·09	...	·05	...	·25	·10	...	·02	...	...	31
Totals	9·17	7·52	3·25	4·43	2·82	2·06	2·56	3·97	3·20	3·03	4·13	5·35	Totals
Total from Jan. 1	9·17	16·69	19·94	24·37	27·19	29·25	31·81	35·78	38·98	42·01	46·14	51·49	Total from Jan. 1

# REGISTER OF RAINFALL IN 1904

*Kept at Aberdeen, Cranford, in the County of Aberdeen,*

Lat. 57° 8' 45" N. Long. 2° 8' 0" W.

By DAVID McHARDY, Esq.

RAIN GAUGE... { Diameter, 5 in.  
Height of top above Ground, 1 ft.  
" " " Sea Level, 120 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·05	·23	·06	·01	·07	...	...	...	·03	...	...	...	1
2	·18	·37	·05	·21	·40	...	·60	...	·89	...	·02	·01	2
3	·01	·11	·03	·02	·05	...	·07	...	...	·10	...	·05	3
4	·28	·25	...	·02	·02	...	·12	...	·09	...	...	·39	4
5	·01	·04	·12	·09	·75	...	...	·19	·14	·30	...	...	5
6	·03	·04	·23	...	·15	...	·13	·31	...	·06	...	·12	6
7	·22	·06	·24	·09	·04	...	...	...	·17	·04	·01	·08	7
8	...	·50	·33	...	·57	...	...	·10	·02	·07	·10	...	8
9	·23	·21	·01	...	·10	...	...	·03	·01	·08	·13	·70	9
10	·01	·17	...	·05	·01	...	...	·29	·03	·01	·02	...	10
11	...	·01	...	...	...	...	...	·28	...	...	...	·27	11
12	·05	·65	...	...	·03	...	·03	·10	·24	...	...	·50	12
13	·11	·01	...	·51	·05	·02	...	·15	·09	...	·02	·09	13
14	·04	...	...	·22	·08	·23	·05	·14	·03	...	...	·03	14
15	·05	...	...	...	...	·04	·03	·03	...	...	...	·07	15
16	·02	...	·02	...	...	...	...	...	...	·14	...	...	16
17	·09	·29	·02	...	...	·05	·05	·01	...	...	...	·03	17
18	·04	...	·05	...	·18	·04	...	·10	...	...	...	...	18
19	...	·06	·03	...	...	...	...	...	...	...	...	...	19
20	·03	...	·38	...	...	·02	·20	...	...	·03	·01	...	20
21	...	·46	...	·03	...	·05	...	·04	...	·02	...	...	21
22	...	·01	·03	·02	...	·02	...	·09	...	...	·67	·02	22
23	...	...	...	·23	·17	·25	...	·04	...	·01	·14	·01	23
24	...	...	...	...	·08	·10	...	·06	·16	...	·10	·07	24
25	·02	·30	·16	·03	...	·05	...	·03	·30	·04	...	·02	25
26	·01	·16	...	...	·05	·02	...	·02	·03	...	...	...	26
27	·03	·01	...	·13	·06	...	...	...	...	...	·03	...	27
28	·03	...	1·00	·10	...	...	...	·04	...	·05	·01	·13	28
29	·08	·13	·01	·07	...	...	...	...	·04	·05	...	·11	29
30	·31	...	...	...	...	·02	...	·04	·15	...	·15	·10	30
31	·39	...	·17	...	...	...	·04	·13	...	·03	...	...	31
Totals	2·32	4·07	2·94	1·83	2·86	·91	1·32	2·31	2·33	1·03	1·41	2·80	Totals
Total from Jan. 1	2·32	6·39	9·33	11·16	14·02	14·93	16·25	18·56	20·89	21·92	23·33	26·13	Total from Jan. 1

## REGISTER OF RAINFALL IN 1904

*Kept at Loch Shiel, Glenfinnan, in the County of Inverness, W.,*

Lat. 56° 52' 10" N. Long. 5° 26' 25" W.

By COL. J. A. MACDONALD.

RAIN GAUGE... { Diameter, 5 in.  
 Height of top above Ground, 1 ft. 2 in.  
 " " " Sea Level, 50 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	...	...	...	1·00	1·42	...	·42	·12	·83	·52	...	·35	1
2	·42	·04	...	1·36	·96	...	·33	·06	·30	·74	·72	1·17	2
3	·07	...	...	·99	·38	...	·12	·46	·07	·19	·12	·90	3
4	...	...	...	1·04	·26	...	·54	...	1·83	·79	·04	1·32	4
5	...	·17	...	1·36	·12	·02	·51	...	1·33	1·25	·08	·84	5
6	1·49	·65	...	1·26	·02	...	·46	·02	·46	...	·62	·08	6
7	·90	·54	·07	·34	·10	...	·62	...	·14	·36	·10	·04	7
8	·34	...	...	·56	·02	...	·18	·40	·26	·56	1·25	·08	8
9	1·04	...	...	·80	...	...	·06	·26	·54	·60	·42	...	9
10	·92	...	...	·37	...	·11	·04	...	·90	·20	·14	...	10
11	·24	·04	...	·06	...	·52	...	...	·04	·24	·12	·38	11
12	·46	·80	·46	...	·68	·22	·23	·94	·14	...	...	·05	12
13	1·06	1·51	·04	·28	·88	1·08	·51	·75	...	·04	·52	·22	13
14	·36	·05	..	·21	·67	·62	·39	1·45	...	·18	·06	1·31	14
15	·24	·43	...	·16	·10	·54	·02	·15	...	1·00	·27	1·43	15
16	·40	·34	·02	·12	·03	·46	...	...	·26	·04	·02	1·13	16
17	·62	·04	·52	·01	1·02	·04	...	...	...	·16	·60	·66	17
18	·52	·03	·38	...	·06	·35	...	·40	...	·18	·20	·16	18
19	·41	1·56	1·20	...	...	·56	·18	...	...	·24	·42	...	19
20	·36	·14	·26	·02	...	·44	·02	...	...	·04	·14	...	20
21	·14	·98	...	·12	·21	·79	...	·12	...	·18	·02	·04	21
22	·06	...	...	·52	·12	1·22	·16	...	...	·83	...	...	22
23	...	·02	...	·31	...	·02	...	·46	...	·26	...	·62	23
24	...	·23	...	·50	·02	1·26	...	·76	...	·49	·04	...	24
25	·25	·50	...	·54	...	·24	...	...	·26	·51	·26	...	25
26	·56	...	...	·43	·11	·03	...	...	·63	·49	·03	·46	26
27	·44	...	·23	·56	·26	...	·03	·02	·29	·38	·09	·16	27
28	·57	...	·50	1·06	...	...	...	·03	...	·02	·06	·14	28
29	·80	...	·46	·54	·02	...	...	...	1·54	...	·51	·42	29
30	...	...	...	·66	...	·26	...	·26	·40	...	·26	·14	30
31	...	...	1·03	...	...	...	·94	·06	...	...	...	1·95	31
Totals	12·67	8·07	5·17	15·18	7·46	8·78	5·76	6·72	10·22	10·49	7·11	14·05	Totals
Total from Jan. 1	12·67	20·74	25·91	41·09	48·55	57·33	63·09	69·81	80·03	90·52	97·63	111·68	Total from Jan. 1

## REGISTER OF RAINFALL IN 1904

*Kept at Miltown Malbay, in the County of Clare,*

Lat. 52° 51' N. Long. 9° 24' W.

By M. MOLOHAN, Esq.

RAIN GAUGE ... { Diameter, 5 in.  
Height of top above Ground, 1 ft.  
" " " Sea Level, 400 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	...	·01	...	·11	·05	...	·25	·08	·50	·10	...	·23	1
2	·01	...	·01	·33	·09	...	·05	·15	·60	...	...	·15	2
3	·40	...	...	·04	·06	...	...	2·03	...	·01	...	·51	3
4	·23	...	·01	·24	·60	...	·40	·40	·48	·02	·02	·05	4
5	·01	·26	...	·23	·45	...	·02	·21	·19	·09	·10	·15	5
6	...	·14	·01	·01	·12	...	·08	...	·02	·04	·58	·26	6
7	·32	·55	·03	·27	·03	...	...	·04	·55	·12	·02	·04	7
8	·11	·15	...	·13	·06	...	...	·14	·03	·07	·40	·14	8
9	·60	·17	...	·21	·02	·10	...	·04	·05	·08	·06	·01	9
10	·15	·25	...	·01	...	·06	...	·33	...	·49	·26	·21	10
11	·25	·16	...	·01	·05	...	...	·13	·28	·05	·01	·42	11
12	·70	·28	·17	·08	·03	·35	·39	·06	·27	...	...	...	12
13	·15	·30	·53	·52	·10	·02	·10	·75	·03	...	...	·30	13
14	·10	·39	...	·06	...	·31	·44	·18	...	...	...	·14	14
15	·12	·22	·14	...	·01	·01	·06	·02	·50	·12	·26	·33	15
16	·04	·04	·04	·28	·02	·07	...	·55	·08	2·03	...	1·06	16
17	·17	·05	...	...	·01	·02	...	·03	...	·20	·09	·04	17
18	·23	·17	·10	...	·01	·01	...	·05	...	·07	·20	...	18
19	·03	·21	·51	·23	...	...	·32	...	...	·01	·06	...	19
20	·01	·20	·54	·01	·01	...	·07	·10	...	·14	·20	...	20
21	·02	·02	·01	·27	·01	·03	·42	·45	...	·16	·10	...	21
22	·01	·01	...	...	·01	...	·10	...	...	·17	·29	...	22
23	...	·30	...	·06	...	·12	·45	...	...	...	·12	...	23
24	...	·01	...	·01	...	·03	·05	·04	...	...	...	...	24
25	·03	·33	...	·03	...	...	2·85	·15	·04	·01	·30	...	25
26	·16	·11	·05	·08	...	·06	·04	·01	·14	...	·08	...	26
27	1·02	·41	·15	·06	...	...	...	·04	·01	·25	·13	·03	27
28	·12	1·14	·49	·24	...	·05	·09	...	...	·01	...	·05	28
29	·50	·21	·26	·11	...	...	·05	...	·60	...	·05	·01	29
30	·18	...	·22	·16	·05	·44	·12	·02	·15	...	·12	·02	30
31	·02	...	·08	...	·04	...	·33	·01	...	...	...	·05	31
Totals	5·69	6·09	3·35	3·79	1·83	1·68	6·68	6·01	4·52	4·24	3·45	4·20	Totals
Total from Jan. 1	5·69	11·78	15·13	18·92	20·75	22·43	29·11	35·12	39·64	43·88	47·33	51·53	Total from Jan. 1

## REGISTER OF RAINFALL IN 1904

*Kept at Stewartstown, The Square, in the County of Tyrone,*

Lat. 54° 35' N. Long. 6° 45' W.

By A. JOHNSTON, Esq.

RAIN GAUGE... { Diameter, 5 in.  
 Height of top above Ground, 1 ft. 4 in.  
 " " " Sea Level, 300 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	...	·14	...	·16	·22	...	·04	·44	·08	·05	...	·03	1
2	·36	·32	...	·28	·04	...	·36	...	1·95	...	·12	...	2
3	·44	...	...	·27	...	...	·10	·22	·03	·02	·02	·06	3
4	·02	...	...	·10	·09	...	·33	·16	·61	...	...	·19	4
5	...	·20	...	·43	·33	...	·07	·60	·23	·11	...	·06	5
6	·16	·05	·02	·04	·02	...	·07	·16	·19	...	·90	·15	6
7	·27	·10	·10	·10	...	...	...	·02	·37	·06	·07	·07	7
8	...	·03	...	·11	·13	...	...	·27	·02	·03	·31	·08	8
9	·18	...	...	·25	...	·33	...	·08	·03	·04	·07	·23	9
10	·09	...	...	...	...	...	...	·64	...	·14	·44	·05	10
11	·19	·03	...	...	·02	...	...	·08	...	·02	·04	·24	11
12	·47	·23	...	·13	...	·21	·31	·05	·39	...	...	·10	12
13	·04	·24	·10	...	·23	...	·07	·41	...	...	...	·32	13
14	·11	...	...	...	...	·38	·48	·15	...	...	...	·03	14
15	·28	·02	·06	·04	...	·05	·28	·04	·30	·02	·07	·20	15
16	·06	·01	·05	...	...	·09	...	·13	...	·48	...	·21	16
17	·06	·05	·05	·05	·08	·07	...	·18	...	·06	...	·21	17
18	...	·07	·09	...	·06	...	...	·15	...	...	·05	·03	18
19	...	·23	·24	...	...	·02	·58	·02	...	...	·03	...	19
20	·03	·38	·48	...	...	·04	·08	·03	...	·08	·20	...	20
21	...	·08	·04	·19	·14	...	·08	·20	...	...	·12	...	21
22	...	...	...	·11	·07	...	·11	·08	...	·20	·15	...	22
23	...	·32	...	...	·41	...	...	·16	...	·09	...	...	23
24	·02	·91	...	...	·12	·04	...	...	...	...	·05	...	24
25	·10	·22	...	·03	...	...	·13	·14	...	·04	·45	...	25
26	·17	...	...	·09	...	...	...	...	·02	...	·03	...	26
27	·24	·07	·39	...	...	...	...	·03	...	·08	...	...	27
28	...	·04	·27	·14	...	...	·18	...	...	·03	...	·02	28
29	·24	·06	·12	·13	...	...	·14	...	·58	...	·03	·12	29
30	...	...	·08	...	...	·17	·67	·78	·03	...	...	...	30
31	...	...	·24	...	·55	...	·27	...	...	...	...	·13	31
Totals	3·53	3·80	2·33	2·65	2·51	1·40	4·35	5·22	4·83	1·55	3·15	2·53	Totals
Total from Jan. 1	3·53	7·33	9·66	12·31	14·82	16·22	20·57	25·79	30·62	32·17	35·32	37·85	Total from Jan. 1



# RAINFALL AT THE ROYAL OBSERVATORY, GREENWICH.

Lat., 51° 28' 38" N.

Long., 0° 0' 0"

Communicated by SIR W. H. M. CHRISTIE, K.C.B., D.Sc., F.R.S.,  
Astronomer Royal.

1904	No. of Rainy Days.	MONTHLY AMOUNT OF RAIN COLLECTED IN EACH GAUGE.							
		Osler's Anemometer		On roof of Octagon Room.	On roof of Magnet House.	On roof of Photographic Thermometer Shed.	Gauges partly sunk in the ground.		
		Self-registering Gauge.	Second Gauge.				In Magnetic Pavilion enclosure.	In Observatory Grounds.	
Height above Ground.	...	50ft. 8in.	50ft. 8in.	38ft. 4in.	21ft. 6in.	10ft. 0in.	5in.	5in.	5in.
Height above Mean Sea Level.	...	205ft.	205ft.	193ft.	176ft.	165ft.	155ft.	155ft.	155ft.
January .....	16	in. 1·160	in. 1·192	in. 1·816	in. 2·080	in. 2·422	in. 2·515	in. 2·442	in. 2·485
February .....	19	1·348	1·436	1·810	2·175	2·456	2·546	2·403	2·423
March .....	12	0·523	0·655	0·920	1·203	1·320	1·362	1·190	1·214
April .....	13	0·376	0·383	0·707	0·800	0·943	1·005	0·952	0·983
May .....	14	1·030	1·131	1·568	1·773	1·897	1·923	1·867	1·892
June .....	8	0·525	0·562	0·778	0·865	0·909	0·871	0·884	0·895
July .....	14	1·481	2·024	2·212	2·347	2·246	2·231	2·408	2·411
August .....	8	0·766	0·829	1·085	1·232	1·265	1·235	1·237	1·283
September .....	11	0·731	0·890	1·189	1·352	1·434	1·340	1·404	1·449
October .....	10	0·802	0·989	1·406	1·601	1·682	1·740	1·687	1·727
November .....	10	0·880	1·046	1·419	1·400	1·600	1·646	1·610	1·637
December .....	18	1·325	1·588	1·948	2·068	2·252	2·249	2·243	2·272
Yearly Sums. ...	153	10·947	12·725	16·858	18·896	20·426	20·663	20·327	20·671
No. of Gauge ...	...	1	2	3	4	5	6	7	8

The monthly record terminates at midnight on the last day of the month.

A rainy day is considered to be one on which 0·005 in., or more, is collected in gauge No. 6.

Of the ground gauges 6, 7, and 8, No. 6 is taken as *standard*, No. 7 is the old monthly gauge, and No. 8 is a check gauge added in 1881.

F. W. DYSON,  
*for Astronomer Royal.*

## THE STAFF OF OBSERVERS.

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THIS section may be termed our annual redistribution bill, only its scheme is formulated by the constituencies themselves and not by the existing representatives, who perhaps flatter themselves that they could produce a better.

While there have been very serious losses during the year, some of them calamitous and irreparable, there have also been numerous gains, and the net increase of numbers has very rarely been exceeded. We print this year the total annual rainfall of 3982 stations in the British Isles, but that is by no means the whole number of the returns we have received. Some 200 records are in our hands marked "imperfect," on account of some breach of continuity, or held over because our enquiries as to some doubtful point remain unanswered, and although we still print "about 4000" records, we know that considerably more than 4000 Observers are at work.

The net increase for the year for the whole country is just under 4 per cent. England and Ireland show what we must consider a fairly healthy rate of increase of nearly 3 per cent. ; Wales, for a special reason, has taken a remarkable leap forward, the increase being more than 17 per cent. ; but, to our profound regret, the rate of increase in Scotland has dropped to nearly 1 per cent. This is the more deplorable because no part of the British Isles is so poorly supplied with rain gauges, and in no part is the distribution of rainfall more varied or more interesting. The outlook is depressing, and the retrospect of recent years not much more cheering—

" . . . We backward cast our eye o'er prospects drear,  
And forward, though we cannot see, we guess and fear."

The excess of gains over losses is, as usual, greatest in the residential districts of the south of England, in the quarters where the centrifugal force of London life deposits those who fly from its whirl

to seek refreshment in horticulture and pure air. In truth the number of rain gauges in the county of London, already too small, has diminished somewhat, and it is unfortunate that in the 120 square miles where the minute investigation of the phenomena of thunder-storm rains might be expected to be most easily undertaken, and where it would certainly be of the greatest practical utility to undertake it, the position in 1904 was worse than in 1903. It is some satisfaction, however, to know that several imperfect returns have been received, most of which should ripen into useful records by next year.

A most satisfactory improvement appears in Kent, especially in the east of that county. Huntingdon retains its bad eminence as the most backward county in England as regards rainfall observations. Although it is no worse than last year, it has grown no better. Bedford and Northampton, on the other hand, have neither of them to record a single loss; one of them can boast of six and the other of eight gains. The west of Oxfordshire, to the poor representation of which we called attention last year, has been enriched by the return of Ringwood Farm, Witney, after many years of regretted absence. Devonshire also is highly progressive, while Cornwall is stationary, and greatly wants reinforcement in the north-west. We are sorry to lose Simonsbath again, the return of which was warmly greeted last year; a change of Vicar led to the record being dropped, but we have strong hopes that it will be resumed. Meanwhile the accession of North Ley, Exford, supplies another station of great importance on Exmoor.

A series of new records from the Forest of Dean supplied by the courtesy of the Meteorological Office, gives us information as to an interesting region of the rainfall of which little was formerly known.

The Midland and Northern Counties have comparatively little progress to show. North Lancashire indeed has gone forward, but the East and North Ridings of Yorkshire are in a most serious condition. Last year we had a regretful note on this subject, this year we raise our voice in alarm. We would have parted with almost any other station in the county rather than Aysgarth Vicarage, but it has ceased to record rainfall with the death of the enthusiastic Vicar, whose splendid services we refer to on another page. Our appeals to his successor have been of no avail, but we trust that some person or society in Yorkshire will take the matter up and have a better

account of the county to lay before the British Association in 1906.

The great increase in Wales is due to the permission kindly granted by a public body to publish the results of records which were instituted for a special purpose, and we hope with the approval and support of our readers to carry on many of these records in the future, although it will be necessary to pay several of the Observers who cannot afford to undertake what is sometimes a very arduous task without some consideration. Apart from these gauges, the increase in Wales has been satisfactory, although Cardigan in particular is still in want of more stations.

The one bright spot in Scotland is Galloway, where Mr. T. R. Bruce has secured three new records, and where another friend of the Organization is also stirring up some interest in the subject. We have given an obituary notice and portrait of Ben Nevis Observatory in an early part of this volume; the splendid equipment of the Low Level Observatory may have led to the cessation of the other records at Fort William, at any rate they stopped and they have not been resumed. We appeal to the public spirit of the people of that progressive town to set the matter right.

In Ireland there has been fair progress and most satisfactory continuity. One county only shows more than one loss (though, indeed, if some of the others did, there would be nothing left) and the distribution of the stations has been improved on the whole.

We conclude with our usual statistical table, and we congratulate our fellow-workers on the progress which it shows.

*Number of complete rainfall records published in the volumes of British Rainfall for the undermentioned years.*

Years.	England.	Wales.	Scotland.	Ireland.	Gross Total.	Increase over previous year.
1860...	163	5	—	—	168	—
1861...	334	9	109	20	472	—
1871...	1038	88	311	67	1504	—
1881..	1548	131	313	153	2145	—
1891...	2091	168	359	181	2799	23
1892...	2113	178	367	192	2850	51
1893...	2205	193	389	200	2987	137
1894...	2269	184	395	195	3043	56
1895...	2304	196	398	186	3084	41
1896...	2427	209	402	181	3219	135
1897...	2492	223	419	184	3318	99
1898...	2545	237	436	186	3404	86
1899...	2615	252	446	188	3501	97
1900...	2612	248	437	196	3493	—
1901...	2616	253	442	195	3506	13
1902...	2712	248	472	204	3636	130
1903...	2847	265	502	215	3829	193
1904...	2932	321	508	221	3982	153
Difference from 1903.—						
Increase	85	56	6	6	153	—
Decrease	—	—	—	—	—	—

### Rainfall Records, Losses and Gains.

COUNTY.	RECORDS TERMINATED, OR ABSENT.	NEW RECORDS, OR OLD ONES RE-APPEARING.
<i>London</i> (56)	<i>Westminster</i> ( <i>Spring Gardens</i> ) <i>No. 2.</i> <i>Lambeth</i> ( <i>Denmark Hill</i> ). <i>Battersea</i> ( <i>Southwark W. W.</i> ) <i>Wandsworth</i> , <i>Streatham</i> ( <i>Woodfield Avenue</i> ). <i>Greenwich</i> , <i>Blackheath</i> ( <i>Ingleside Grove</i> ).	<i>Chelsea</i> ( <i>Physic Garden</i> ). <i>St. Marylebone</i> ( <i>Northwick Ter.</i> ) <i>Wandsworth Com.</i> ( <i>Macaulay Rd</i> )
<i>West Surrey</i> (72)	<i>Okewood Vicarage</i> . <i>Bramley</i> ( <i>Grafham Grange</i> ). <i>Horsley</i> , <i>West</i> . <i>Windlesham</i> ( <i>Erlwood</i> ). <i>Weybridge</i> ( <i>St. Mary's Lodge</i> ).	<i>Ewhurst</i> ( <i>Downhurst Lodge</i> ). <i>Guildford</i> ( <i>Cross Lanes</i> ). <i>Sunningdale</i> ( <i>The Camp</i> ). <i>Weybridge</i> ( <i>Field Place</i> ) 2 g.

<i>East Surrey</i> (89)	Reigate (Woodhatch Lodge). " (Ringley Mead). Earlswood (Hooley Lane). Red Hill (Oxford Road). Reigate (Leith Cottage). Merstham (Harp's Oak Cottage). <i>New Malden (Sewage Works).</i>	Dorking (Pixham Firs). Reigate (Mill Lawn). Blechingley House. Headley (The Hurst). Kenley (Place Fell). Ashtead (Hill Field). " (Oakfield Road). South Croydon (Avondale Rd.) Wimbledon Park.
<i>West Kent</i> (100)	<i>Biddenden (Sandpit Wood).</i> Ashford (Bethersden). Maidstone (The Vicarage). Farningham Hill. " Mount Pleasant. Chatham. <i>Greenhithe (H.M.S. Worcester).</i> Cliffe Lodge.	High Halden Rectory. Goudhurst (Gore Court). <i>Horsmonden (Broad Ford Ho.)</i> Maidstone (Brenchley Gardens). <i>Aylesford (Preston Hall).</i> Otford (Beechy Lees). Farnborough (Downe Lodge). Keston (Forest Lodge). Bromley (Lansdown Road). " (Kinnaird Avenue). Sidcup (Station Road).
<i>East Kent</i> (50)	Hythe. Lyminge (Greenham). Ramsgate (Thyra Villas).	Hythe (Blackrock Res. Seabrook) Folkestone (Radnor Park). <i>Acrise Place.</i> Petham (Buckholt Farm). Tilmanstone (Danefield). Eastry. Wingham (Crockshard). Ickham. Canterbury (Medical Hall). " (St. Thomas' Hill). Ramsgate (West Cliff Villas). Minster (Gas Works).
<i>West Sussex</i> (41)	Worthing (Ellesmere). Arundel (Yapton). <i>Chichester (Sewage Works).</i> Arundel (Clapham Rectory). Midhurst (St. Ann's). Crawley.	Goodwood House. Stedham (Rotherhill). Midhurst (Lodsworth). Horsham (Christ's Hospital).
<i>East Sussex</i> (84)	<i>Eastbourne (Burlington Place).</i> <i>Willington (Hill Cottage).</i> <i>Haywards Heath Asylum.</i> Bodiam Station (Ewhurst Rec.) Maresfield (Forest Lodge). <i>Etchingham (Shoyswell Manor).</i> East Grinstead (Halsford Pk.)	Eastbourne (Trevella). Seaford. Bexhill (Marina). Horeham Manor. Ardingley (Lynwood House). Wadhurst (Uplands). " ( <i>Kirkstone</i> ). Worth (Paddockhurst).

<b>Hampshire</b> (107)	<i>Ryde (Town Hall).</i> <i>Cowes (Royal Yacht Squadron).</i> Bournemouth (Kempsey, Bath Road), 8 in. gauge. Milford-on-Sea. <i>Southampton (Netley).</i> <i>Common Reservoir.</i> Botley (Fairfield). Winchester (Harestock). Farnborough (The Grange).	Winchester (Wyke). Newton Valence Vicarage. Headley House. Aldershot. Strathfieldsaye Rectory.
<b>Berkshire</b> (49)	<i>Newbury (Greenham Lodge).</i> <i>Old Windsor (The Friary).</i> <i>Reading (University College).</i>	Wokingham. Wallingford (Aston Upthorpe.) (Brightwell.) <i>Abingdon (Caldecott House).</i> (Northcourt).
<b>Middlesex</b> (51)	New Barnet (Camlot).	Laleham. Highgate (North Hill). Muswell Hill (Grand Avenue). Pinner (Hatch End). Southgate (Reservoir Road). <i>Enfield (Chace Court).</i> Trent Park [New Barnet]. <i>Risegate [Hadley, Barnet].</i> [Hadley, Barnet].
<b>Hertfordshire</b> (62)	<i>Barnet (Hadley) transferred.</i> St. Albans (Frogmore).	Rickmansworth (Croxley Green). Stanstead Abbots. <i>Tring (Elm House).</i>
<b>Buckingham-</b> <b>shire</b> (30)	Olney (Filgrave Rectory).	Oving House. M. Swanbourne House.
<b>Oxfordshire</b> (44)	<i>Thame (Tythrop House).</i> <i>Steeple Aston (Hill House).</i> Banbury (Ark House School).	Oxford (Pumping Station). Witney (Ringwood Farm). Islip. Chipping Norton. "          " ( <i>Heythrop</i> ).
<b>Northampton-</b> <b>shire</b> (60)	—	Towcester (Paulerspury). Daventry (Tunnel End). (Welton). Finedon. Naseby Reservoir. Orton (Sandy Hill Farm) Rushton Manor. Eye (Newborough).
<b>Huntingdon-</b> <b>shire</b> (10)	—	—
<b>Bedfordshire</b> (22)	—	Luton (Stockwood). Woburn (Milton Bryant). Shefford (Upper Stondon). (Clifton Bury). Sandy Rectory. Bedford (Castle Road).

<i>Cambridgeshire</i> (47)	Bourne Lodge. Cambridge, West Chatteris (Horseway Lock)	Meldreth (Chiswick Farm). ,, (Belmington Close). Stapleford House. Cambridge (Tenison Avenue). Boxworth [St. Ives].
<i>Essex</i> (88)	Billericay (Burghstead Lodge). ,, (Norsey Manor). <i>Clacton-on-Sea</i> ( <i>Jay Wick</i> ).	Leyton (Town Hall). Romford (Harold Wood). Writtle. Colchester (Berechurch). Ardleigh (Good Hall). Newport (Wood Hall).
<i>Suffolk</i> (55)	Framlingham College Lowestoft (Belle Vue Park M.)	Hadleigh (Polstead Rectory). Ipswich (Dale Hall). Southwold (Walberswick).
<i>Norfolk</i> (56)	Thetford (King's Road). Salhouse.	Thetford (Waterworks). Middleton Vicarage.
<i>Wiltshire</i> (55)	Downton College. Chippenham (Lacock).	Mere (The Limes). Ramsbury (Littlecote).
<i>Dorsetshire</i> (51)	Poole (Parkstone) 2 gauges. Wimborne (Park Homer). ,, (Chalbury Rectory).	Swanage (Worth Matravers). Upwey (Portland W.W.) Wareham (Holme) Sturminster Marshall (Bailie House) M. Wimborne (Westfield). Stoke Wake Rectory. Gillingham (Milton-on-Stour).
<i>South Devon</i> (105)	Brixton (Kitley Gardens). Dawlish. Yeolmbridge. Otterford (Otterhead).	Start Bay (Slapton). Totnes (Berry Pomeroy). <i>Bovey Tracey</i> ( <i>Colehays</i> ). Lifton (Kelly House). Lypmstone (Watton). East Budleigh (Bicton Common). Christow (Mardon). Moretonhampstead. Exeter (Manston Terrace) M. Newton St. Cyres. Silverton (Killerton). Crediton (Newcombes).
<i>North Devon</i> (42)	Marwood (Muddiford House).	Bideford (Beechcroft). ,, (North Road). Barnstaple (Newport). Stoke Rivers.
<i>Cornwall</i> (56)	<i>St. Ives</i> . St. Wenn Vicarage.	Lizard (Landewednach). Callington (Mount Lodge).



<i>South Somerset</i> (38)	Yeovil (West Coker). Ilminster (Ilton Vicarage). <i>Taunton (The Mount, Halse).</i> <i>Exmoor (Simonsbath).</i>	Ilminster (Whitelackington). Henstridge. Taunton (Ashleigh), 2nd g. Milverton (Spring Grove). Langport (The Grange). Exford (North Ley). Williton (Aller). Porlock (Bossington).
<i>North Somerset</i> (61)	Castle Cary (Pitcombe Vicarage). Bath (Fairley, Weston), 2 gauges. <i>Failand Ho. [Bristol] 12 in. g.</i>	Shepton Mallet (Pilton). <i>Glastonbury (Ynyswytryn).</i> Wells (Som. and Bath Asylum). Radstock (Hallatrow Court). Axbridge (The Down, Winscombe) M Weston-super-Mare (Town Hall).
<i>West Gloucestershire</i> (67)	Bristol (Small Street). Chipping Sodbury (Frampton Cotterell). Amberley (Highlands). Woodchester (Culver House). Lydney (Priors Mesne). <i>Gloucester (Denmark Road).</i> <i>Cheltenham (Hewletts).</i> " (Heath Lodge). <i>Tewkesbury.</i>	Bristol (Telephone Avenue). " (Ashley Down). Forest of Dean (Whitemead Park) " (Blakeney Hill Lo.). " (Worcester Lodge). " (Braceland). " (Edgehill Lodge). " (Ruardean Hill Lo.). <i>Painswick (Cotswold Sanatorium).</i> Gloucester (Barnwood Vicarage). Cheltenham (Prestbury).
<i>East Gloucestershire</i> (20)	—	Fairford (Draycott). Chipping Campden (Braithwaite Ho.)
<i>Herefordshire</i> (35)	<i>Malvern Hills (Upper Wych).</i>	Hereford (Holmer Hall). Pembroke (Burton Court).
<i>Shropshire</i> (41)	<i>Ludlow (Ashford).</i> Bromfield (Priors Halton). Church Stretton (Caradoc Ldge.)	Bishops Castle Vicarage. Shrewsbury.
<i>Staffordshire</i> (43)	Lichfield (Walsall Road). Uttoxeter (Brook House). Newcastle (Madeley Vicarage). <i>Stoke (Stanley Reservoir).</i> Alstonfield Vicarage.	Kingswinford. <i>West Bromwich.</i> Bilston (The Lunt Outfall). Stafford (Eastgate Street). <i>Rudyard Reservoir.</i>
<i>Worcestershire</i> (42)	Redditch (Oakenshaw). <i>Bromsgrove (Barnt Green).</i>	Droitwich (Himbleton Manor). Bromsgrove (Upwood Barnt Grn.) Stourport (Areley Hall). <i>Bewdley (Winterdyne).</i>
<i>Warwickshire</i> (32)	<i>Snitterfield.</i> Coventry (Priory Row).	Hampton-in-Arden (Hampton Manor)

<i>Leicestershire</i> (26)	Fleckney. <i>Lutterworth (Walcote).</i> Whitwick (Mt. St. Bernard's Abbey). <i>Waltham-le-Wolds.</i>	Wistow Hall Gardens. Newton Harcourt. Blaby. Ashby-de-la-Zouch (Coleorton Hall)
<i>Rutland</i> (5)	—	—
<i>South Lincolnshire</i> (26)	—	Welbourn.
<i>North Lincolnshire</i> (47)	Woodhall Spa. Horncastle (Hemingby). Yarborough (The Rectory). <i>Stockwith, transferred to Notts.</i>	Lincoln (Monk's Road). Gainsborough (Morton). (N. Sandsfield). Brocklesby Park. <i>Crowle (Keadby).</i>
<i>Nottinghamshire</i> (46)	Radcliffe-on-Trent (The Chestnuts). Papplewick Hall. The Gardens [Bawtry Hall].	Nottingham (Trent Lane). Lowdham (Chilwell Nurseries). <i>Newark (Averham Rectory).</i> <i>Stockwith.</i>
<i>Derbyshire</i> (63)	Breadsall Priory. M. <i>Grassmoor Colliery.</i>	Whatstandwell (Pumping Sta.)
<i>Cheshire</i> (66)	Nantwich (Dorfold Hall) <i>old g.</i> Eccleston Rectory.	Tarporley (Willington Hall). Handforth.
<i>South Lancashire</i> (161)	<i>Warrington (Howley).</i> Liverpool (St. John's Gardens). <i>Rochdale (Nayden Dean) old g.</i>	Woolton (Camp Hill Gardens). Earlestown (Newton Cemetery). Ramsbottom (Killgate Brook) ,, (Cheesden Barn) ,, (Shuttleworth Moss) <i>Over Darwen (Hoddlesden) No. 2</i> Blackburn (Samlesbury Sew. Works) <i>Beaton Fell (Barnsfold Res.) M.</i>
<i>North Lancashire</i> (61)	—	Blackpool (Met. Observatory). <i>Garstang (Fair Snape Fell).</i> Lancaster (Bailrigg). ,, (Strathspey). ,, (Brettargh House). ,, (Robert Street). Grange-over-Sands (Merlewood)
<i>Yorkshire.</i> <i>West Riding,</i> <i>Southern</i> (57)	Sheffield (West Street).	Wortley (Service Reservoir). Goole (Ardingfleet).
<i>West Riding,</i> <i>Central</i> (124)	<i>Skipton (Silsden Reservoir).</i>	Wakefield (Woolley Park Gdns.) Selby. Shipley (West Point).

<i>West Riding, Northern (124)</i>	<i>West End (Rocking Hall). Ripon (W. W. Lumley Moor) 2 Gauges.</i>	<i>Bolton-by-Bowland. York (The Retreat). Skipton (Counter Hill). Ouseburn (Thorpe Underwood Hall). Pateley Bridge (Castle Stead). Grimwith (Trunla' Hill). Sedbergh (Dent).</i>
<i>East Riding (21)</i>	<i>Middleton on-the-Wolds. Catton Rectory [York].</i>	<i>Beverley (Register House). Dunnington Hall [York].</i>
<i>North Riding (46)</i>	<i>Malton (Longster's Garden). Bedale (Thorp Perrow). Aysgarth Vicarage. 3 Gauges. Leyburn (Thornburgh House). Northallerton (The Lodge). Richmond (The Grove). Ravenscar. Fylingdales Vicarage. Whitby (Royal Crescent).</i>	<i>Alne. Hovingham Hall. Thirsk (Sowerby). ,, (Mount St. John). M. ,, (Boltby). ,, (Cliff Head, Boltby). Whitby (Park Hall, Aislaby). Kildale Hall.</i>
<i>Durham (39)</i>	<i>Darlington (Elcott, Hurworth) Hartlepool (Hart Reservoir). Wearhead, old g. Gateshead (Eighton Cottage).</i>	<i>Stanhope (Parson Byer's Quarry).</i>
<i>Northumberland (52)</i>	<i>Newcastle (Claremont Road). Rothbury (Brinkburn Priory).</i>	<i>Whittle Dean Filters (Newcastle W.W.) Hallington (,, ,) Morpeth. Ewesley (Redpath). ,, (Tod Crag). ,, (Fallowlees). ,, (Chertners).</i>
<i>Cumberland (69)</i>	<i>Eskdale. Gosforth (Steelfield Hall). Brampton (Denton House). M.</i>	<i>Eskdale Green (Gatehouse). Whitehaven (Hensingham Ho.) Penrith (Newton Rigg). Aspatria (Brayton Hall).</i>
<i>Westmorland (38)</i>	<i>Ambleside (Lesketh Howe). Grisedale (Ruthwaite Lodge).</i>	—

## MONMOUTH, WALES AND THE ISLANDS.

<i>Monmouth (26).</i>	<i>Marshfield (Llwynarthan). Abergavenny (Dyne House). M Llantillio Pertholey.</i>	<i>Bassalleg (Bryn Hedydd). Abersychan (Glansychan).</i>
<i>Glamorgan (53)</i>	<i>Porthcawl. Neath (Ynys-y-gerwn). Merthyr (Pentrebach).</i>	<i>Barry. Caerphilly (The Court House). Cwmaman Colliery.</i>

<i>Cardmarthen</i> (8)	<i>Llandovery</i> (Tonn).	—
<i>Pembroke</i> (8)	—	—
<i>Cardigan</i> (8)	—	Nantneuadd [Abergwesyn]. Lampeter (Abermeurig). Tregaron (Maes-y-bettws). Strata Florida (Towy-fechan). Plynlimon.
<i>Brecon</i> (68)	<i>Crickhowell</i> (Glannoney). Abergwesyn Vicarage.	Pont Neath Vaughan [Glyn Neath] Ebbw Vale W. W. (Carno S.) „ „ „ ( „ W.) „ „ „ ( „ N.) „ „ „ (Blaen-y-Cwm) No. 5 Torpantau Station. „ Mountain. Talybont (Bryn). Brecon (Pen Milan). „ (New Inn). Cray Station. Crickhowell (Cwmdu). „ (Pentir). „ (Ffordlas Farn). „ (Tal-y-maes). Trecastle (Blaenau-hydfer). Tal-y-Llyn. Trecastle (Llywel Vicarage). Llanfihangel Nant Bran (Cwmcyngog). Lower Chapel (Nant-y-groes). Merthyr-Cynog. Llanfihangel Nant Bran (Nant-y-garw). Upper Chapel (Tymawr). Llanwrtyd Wells (Llandulas). „ (Bwlchau). Builth (Beulah). Abergwesyn (Caewain). „ (Llanerch-yrfa). Pen-graig [Newbridge].
<i>Radnor</i> (19)	Llandegley (Gwern-i-Arglwydd). Knighton (Ystrad House).	Glasbury (Glanhenwye). New Radnor (Glascwm). Builth Rd. (St. John's Vicarage). Llansaintfraid in Elvel „ (Hundred House). Llanbister (Llananno). Llanbadarnfynydd (Crochran).
<i>Montgomery</i> (27)	—	Llangurig (Dernol). „ (Esgair Clochfan) 2 g. „ (Ystrad-olwyn-fawr) n.g. „ (Pant-mawr). Newtown (Gregynog).

<i>Flint</i> (9)	<i>St. Asaph</i> ( <i>Pengwern</i> ).	—
<i>Denbigh</i> (26)	<i>Wrexham</i> ( <i>Cue Llwyd Res.</i> ) <i>Sin.g.</i> <i>Rossett</i> ( <i>Trevalyn Hall</i> ).	<i>Llangedwyn</i> . <i>Gyffylliog</i> ( <i>Fachlwyd Hall</i> ). <i>Ruthin</i> ( <i>Llanbedr Hall</i> ). <i>Tal-y-cafn</i> ( <i>Bodnant Hall</i> ). <i>Llanddulas</i> ( <i>Arnold House</i> ). <i>Colwyn Bay</i> ( <i>Four Crosses</i> ). <i>Colwyn Bay</i> .
<i>Merioneth</i> (10)	<i>Arenig</i> ( <i>Bodrenig</i> ).	<i>Towyn</i> ( <i>Gothic House</i> ). „ ( <i>Peniarth</i> ) <i>2nd g.</i> <i>Dolgelly</i> ( <i>Dolserau Hall</i> ).
<i>Carnarvon</i> (33)	<i>Bettws-y-coed</i> ( <i>Aberllyn</i> ).	<i>Beddgelert</i> ( <i>Moel Hebog</i> ) No. 19. <i>Dolwyddelan</i> ( <i>Tunnel Mouth</i> ) No. 20. <i>Snowdon</i> ( <i>Glaslyn</i> ). No. 13. <i>Bettws-y-Coed</i> ( <i>Tyn-y-bryn</i> ). <i>Tal-y-cafn</i> ( <i>Bodhyfryd</i> ). <i>Conway</i> ( <i>Glan Morfa</i> ). „ ( <i>Bodlondeb</i> ). <i>Deganwy</i> ( <i>Bod Gethin</i> ). „ ( <i>Y Berlfa</i> ).†
<i>Anglesea</i> (5)	<i>Llandwyn Island</i> .	—
<i>Isle of Man</i> (10)	—	<i>Ramsey</i> .
<i>Isles of Scilly</i> (2)	—	—
<i>Jersey</i> (2)	—	—
<i>Guernsey</i> (7)	—	<i>Cobo</i> . <i>St. Sampson</i> ( <i>Richmond</i> ).

## SCOTLAND.

<i>Wigton</i> (8)	—	—
<i>Kirkcudbright</i> (18)	—	<i>Lincluden House</i> [ <i>Dumfries</i> ]. <i>New Galloway</i> ( <i>Craigencallie</i> ). <i>Dalry</i> ( <i>Clenerie</i> ). <i>Carsphairn</i> ( <i>Shiel</i> ).
<i>Dumfries</i> (15)	<i>Langholm</i> ( <i>Ewes School</i> ).	<i>Moffat</i> ( <i>Hope Lodge</i> ). „ ( <i>Ericstane</i> ) <i>M</i>

<i>Roxburgh</i> (10)	—	<i>St. Boswells</i> ( <i>Elliston</i> ).
<i>Selkirk</i> (5)	—	—
<i>Peebles</i> (16)	—	<i>Peebles</i> ( <i>Swinton Bank</i> ). 5 in. g.
<i>Berwick</i> (9)	—	<i>Coldstream</i> ( <i>Lochton</i> ).
<i>Haddington</i> (9)	—	—
<i>Midlothian</i> (26)	<i>Edinburgh</i> ( <i>George Sq.</i> ) 3 in. g.	—
<i>Linlithgow</i> (8)	—	—
<i>Lanark</i> (21)	<i>Airdrie</i> ( <i>Roughrigg Reservoir</i> ).	<i>Biggar</i> ( <i>Cambus Wallace</i> ). <i>Bothwell Castle</i> . <i>Glasgow</i> ( <i>Springburn Park</i> ).
<i>Ayr</i> (23)	<i>Maybole</i> ( <i>Knockdon, Glenhead</i> ).	<i>Kilmarnock</i> .
<i>Renfrew</i> (32)	—	<i>Kilmaccolm</i> ( <i>Waterworks</i> ). ,, ( <i>St. Oswald's</i> ).
<i>Dumbarton</i> (6)	—	<i>Garelochhead</i> ( <i>Aikenshaw</i> ).
<i>Stirling</i> (26)	<i>Strathblane</i> ( <i>Craigbarnet</i> ).	<i>Kilsyth</i> ( <i>Kirkintilloch W.W.</i> ) <i>Strathblane</i> ( <i>Blanefield</i> ). <i>Kippen</i> ( <i>Arngomery</i> ).
<i>Bute</i> (3)	<i>Rothsay</i> ( <i>Barone Cottage</i> ).	—
<i>Argyll Main-land</i> (32)	<i>Dunoon</i> . <i>Inveraray</i> ( <i>Castle Gardens</i> ).	<i>Kintyre</i> ( <i>Stonefield, Tarbert</i> ). <i>Dunoon</i> ( <i>Reservoir</i> ). <i>Loch Fyne</i> ( <i>Furnace</i> ). <i>Lochgoilhead</i> . <i>Morvern</i> ( <i>Kingairloch</i> ).
<i>Argyll Insular</i> (17)	<i>Islay</i> ( <i>McArthurshead</i> ).	—
<i>Clackmannan</i> (4)	—	—
<i>Kinross</i> (3)	<i>Cleish Castle</i> .	—
<i>Fife</i> (14)	<i>Inchkeith</i> . <i>Isle of May</i> . <i>Strathmiglo</i> . <i>Cupar</i> ( <i>Fife &amp; Kinross Asylum</i> ). <i>Balmerino</i> .	<i>St. Andrews</i> ( <i>Waterworks</i> ).

<i>Perth</i> (33)	Crieff (Ochertyre). <i>Perth</i> ( <i>Kinfauns Castle</i> <i>Gardens</i> ).	Doune. ,, (Cauldhame). Rannoch Station.
<i>Forfar</i> (33)	Dundee (Westgreen House). <i>Liff</i> ( <i>Gray Cottage</i> ). Arbroath (Waterworks) Tower. ,, ,, M. Forfar (Littlecauseway).	—
<i>Kincardine</i> (13)	Johnshaven (Brotherton).	Fettercairn (Fasque Gardens). Strachan (Bridge of Dye).
<i>Aberdeen</i> (18)	<i>Haddo House</i> .	Huntley.
<i>Banff</i> (6).	—	—
<i>Elgin or Moray</i> (5)	<i>Wester Elchies</i> [ <i>Craigellachie</i> ].	—
<i>Nairn</i> (6)	—	—
<i>West Inverness</i> (20)	Ben Nevis Observatory. Fort William (Observatory). <i>Skye</i> ( <i>Armadale, Ardvassar</i> ). <i>Barra</i> ( <i>Barrahead</i> ). S. Uist (Askernish).	—
<i>East Inverness</i> (10)	—	—
<i>West Ross and</i> <i>Cromarty</i> (17)	—	<i>Loch Vraon</i> . <i>Loch Drome</i> . <i>Ullapool</i> ( <i>Drumruinie Lodge</i> ).
<i>East Ross and</i> <i>Cromarty</i> (8)	<i>Contin</i> ( <i>Kinnahaird</i> ). Strathpeffer Spa (Eaglestone).	Fortrose (Raddery). Strathpeffer. Evanton (Novar Gardens).
<i>Sutherland</i> (9)	—	—
<i>Caithness</i> (8)	—	<i>Wick</i> ( <i>Nosshead</i> ).
<i>Orkney</i> (10)	<i>Hoy</i> ( <i>Cantickhead</i> ).	—
<i>Shetland</i> (7)	—	<i>Fair Isle N</i> .

## IRELAND.

<i>Cork</i> (10)	Passage West. <i>Doneraile</i> ( <i>Carker House</i> ).	Charleville Park.
<i>Kerry</i> (10)	—	Kenmare (Dromore Castle). ,, (Dunkerron).
<i>Waterford</i> (11)	—	—
<i>Tipperary</i> (7)	Derry Castle [Killaloe].	—
<i>Limerick</i> (4)	—	—
<i>Clare</i> (10)	<i>Inagh</i> ( <i>Mount Callan</i> ).	—
<i>Wexford</i> (10)	—	—
<i>Kilkenny</i> (7)	Callan ( <i>Clonard</i> ).	—
<i>Wicklow</i> (9)	Bray ( <i>San Remo</i> ).	—
<i>Carlow</i> (3)	—	—
<i>Queen's Co.</i> (2)	—	—
<i>King's Co.</i> (6)	—	<i>Victoria Lock</i> [ <i>Meelick</i> ]. Geashill.
<i>Kildare</i> (4)	—	<i>Monasterevan</i> ( <i>Moore Abbey</i> )..
<i>Dublin</i> (17)	Lucan ( <i>The Gardens</i> ).	Foxrock ( <i>Hillside</i> ). Dublin ( <i>Trinity College</i> ). Malahide ( <i>The Green</i> ).
<i>Meath</i> (7)	—	<i>Kells</i> ( <i>Headfort</i> ).
<i>Westmeath</i> (5)	—	Moate ( <i>Coolatore</i> ).
<i>Louth</i> (5)	—	—
<i>Longford</i> (3)	—	Ballymahon ( <i>New Castle</i> ).
<i>Galway</i> (12)	—	<i>Tuam</i> ( <i>Castle Hacket</i> ). ,, ( <i>Gardenfield</i> ) <i>Snowdon</i> .
<i>Roscommon</i> (2)	—	—
<i>Mayo</i> (9)	<i>Achill</i> ( <i>Coraun House</i> ).	—
<i>Sligo</i> (5)	—	Sligo ( <i>Ardmore</i> ).



<i>Leitrim</i> (3)	—	—
<i>Cavan</i> (4)	<i>Cavan Water Works.</i>	—
<i>Fermanagh</i> (2)	—	—
<i>Monaghan</i> (2)	—	—
<i>Armagh</i> (6)	—	—
<i>Down</i> (9)	—	—
<i>Antrim</i> (18)	Belfast (Linen Hall Library).	—
<i>Londonderry</i> (5)	—	<i>Bellarena.</i>
<i>Tyrone</i> (3)	—	—
<i>Donegal</i> (11)	—	—

## OBITUARY.

THE steady growth in the number of rainfall Observers involves, as a sad but necessary consequence, a corresponding increase in the annual list of those, the end of whose work has to be recorded. On the present occasion the number is 59, and it includes many old friends, faithful Observers, and valued supporters of the Rainfall Organization. Large as this number is, we dare not hope that the list is complete, and we should esteem it a particular favour if correspondents, who know of the death of any Observer whose records have ever appeared in *British Rainfall*, and whose name has not been given in the Obituary, would let us know of the fact. We are sure that all active Observers are in sympathy with us in wishing to place upon permanent record a tribute to the memory of their former comrades.

The place of highest honour must be given to those who have kept the longest records, for their services have been the greatest, and their place is the most difficult to fill, unless, indeed, as sometimes happens, a relative or friend is ready to carry on the work. Some of our most useful helpers of to-day were first led to interest themselves in the work because they could not find it in their heart to let drop the observations in which a father or a husband took pleasure and pride. There can be no fitter memorial than the continuation of such a record. The following list includes all those in this year's Obituary whose records extend over thirty years or more :—

### *Records of Thirty Years and upwards.*

NAME.	LAST PLACE OF OBSERVATION.	
Rev. M. A. Smelt .....	Cheltenham .....	46 years.
Mr. H. Ward .....	Penkridge .....	46 "
Rev. R. P. Davies .....	Hatherop .....	40 "
*Rev. G. H. Billington ...	Wimborne .....	39 "
Rev. T. A. Preston .....	Thurcaston.....	39 "
Mr. J. B. Putt .....	Fleckney .....	39 "
Rev. F. W. Stow .....	Aysgarth .....	39 "
*Mr. T. Fenwick .....	Leeds .....	38 "
*Miss E. A. Dymond .....	Exeter... ..	37 "
*Capt. Griffith-Boscawen	Rossett .....	37 "
*Mr. J. Gulson .....	Coventry .....	37 "
*Mr. R. Bushell .....	Neston .....	35 "
*Rev. T. H. Marsh .....	Cawston .....	34 "
*Mr. J. H. Arkwright.....	Hope-under-Dinmore .....	31 "
*Miss M. H. Rickman.....	Lewes .....	31 "

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\* Continuous records in one place.

It is gratifying to see that nine of these records were continuous in one place for the whole period.

We have been able to ascertain the age of only 38 persons in the long list, and the average of these is 73. One exceeded ninety and nine others had completed their eightieth year, a fresh confirmation of the often quoted fact that many of those who have the potentiality of long life have a natural bias towards regular meteorological observing.

*Observers in the Obituary list who attained the age of 80 years or more : —*

Mr. J. Gulson.....	91 years.
Mr. F. Padwick .....	89 "
Sir Lowthian Bell .....	88 "
Mr. S. W. Silver .....	86 "
Rev. M. A. Smelt .....	84 "
Mr. C. W. Curtis .....	81 "
Rev. R. P. Davies .....	81 "
Mr. T. Fenwick .....	81 "
Rev. T. H. Marsh .....	80 "
Rev. J. T. Tarver .....	80 "

The list as a whole contains the names of twelve clergymen, and of eight members of the military profession, one-third of the total number being thus accounted for. In addition, we may note that nine (or nearly one-sixth) were ladies.

We have not been able to ascertain full particulars of the careers of all our old friends and fellow workers, and some of them led quiet and uneventful lives, which do not need many words to describe. Of those regarding whom we have information, we gladly supply a few notes, but we wish to say with unmistakeable distinctness, that so far as regards the particular service which had entitled anyone to a place in this list, equal credit is due, and equal honour should be paid, to every one of them.

MR. JOHN HUNGERFORD ARKWRIGHT, Lord-Lieutenant of the County of Hereford, was the type of an English country gentleman, educated at Eton and Oxford, a keen follower of field sports and Master of Fox Hounds, a Volunteer Officer, a Vice-President of the Royal Agricultural Society, holder of most of the offices in which the landed proprietors of a county can be of service to the public, and keenly interested in the management of his estates. Mr. Arkwright kept up a continuous record of rainfall at Hampton Court, near Leominster, for 31 years, which we hope will be continued.

SIR LOWTHIAN BELL, Bart., F.R.S., whose fame rests on the improvements in blast-furnaces, and in the metallurgy of iron, was devoted to gardening as a recreation, and in his gardens at Rounton Grange, Northallerton, a record of rainfall has been kept since 1874.

MISS EMMA JANE DYMOND, F.R.Met.Soc., was the last representative of a family which has given a number of keenly-interested observers of rainfall. Miss Dymond's own record was complete and unbroken for 37 years, her first complete year's observation having been made in 1868, at Manston Terrace, Exeter. It was only last year that we had to record the death of her brother, whose rainfall record at Aspley Guise was only a few years shorter.

THE REV. G. H. BILLINGTON, Rector of Chalbury, Wimborne, kept up a continuous record in his parish for 39 years from 1865, and ranked high as an observer even in so admirably equipped a county as Dorset.

MR. REGINALD BUSHELL, of Hinderton, Neston, was responsible for the oldest record in the Wirral peninsula, he having carried it on from 1869 to 1903, and we are happy to know that it is still being kept up, as Miss Bushell has taken her father's place.

THE REV. ROBERT PRITCHARD DAVIES was perpetual curate of St. Mary's, Hatfield, from 1849 to 1869, and from 1864 he sent in rainfall observations from Hertfordshire. When he received the appointment of Rector of Hatherop, near Fairford, in Gloucestershire, he took his rain gauge with him, and from 1870 to the date of his death, he kept up a record in that extremely interesting district of the Upper Thames. The long record is, we are happy to say, being continued by a neighbour.

MR. WILLIAM HORTON ELLIS, J.P., of Ottermouth, Budleigh Salterton, was the oldest Fellow of the Royal Meteorological Society, having been elected in 1851 a Member of the British Meteorological Society, which had been founded in the previous year. At that time he resided in Exeter, where he made observations of rainfall in 1855, 1856, and from 1860 to 1878, his record appearing in *English Rainfall*, 1860, the precursor of our annual volumes.

MRS. C. H. GRIFFITH was the widow of the Rev. C. H. Griffith, of Strathfield Turgiss, who had been not only a keen observer, but also an indefatigable investigator, whose experiments were of great value in determining the best form of rain gauge and evaporator for use as standards. On Mr. Griffith's death in 1896, Mrs. Griffith

kept up the observations which had been started in 1862, and by this work of devotion to her husband's memory, a rainfall record of 34 years has become a record of 43 years.

MR. JOHN GULSON, the foremost and probably the oldest inhabitant of Coventry, where his ancestors had resided since the sixteenth century, was a perfect type of the English citizen, a hard-working merchant, an untiring servant of his town in every unpaid office up to that of mayor which he held in 1867-69, and an unostentatious benefactor. He was born of the old Quaker stock that has yielded so many prominent men of science, and although his enthusiastic support of the volunteer movement in 1861 led to his withdrawal from the Society of Friends, the best qualities of his upbringing remained to the end tempered by his wider views. From the obituary notice which fills nine columns of the *Coventry Herald* for December 30th, 1904, we select these lines regarding personal characteristics :—

“ An indefatigable walker, he was out in all weathers : when he was considerably past his eightieth year he would cover twenty miles at a stretch. One of his favourite exercises was quoits ; all through the summer there were quoit parties at Stoke. His monthly article on Local Rainfall, which included personal observations on birds and animals, was read with interest for more than a generation ; the first of the papers appeared in 1870. In January, 1903 Mr. Gulson, on account of increasing infirmities, and being at the time incapacitated by a severe fall, thought of ceasing the contributions, and in the article for that month he took leave of his readers in these words : ‘ Thirty-six years have now gone since I first established my rain gauge and weather instruments. During those years I have kept a record of the daily rainfall in Coventry. Previous to that time I am not aware that any reliable weather statistics had been kept or attempted here. The daily attention to the phenomena of the weather which my record required has been a source of much pleasure to me, but the inevitable time has now arrived when advancing age and failing eyesight compel me to close the book.’ ”

LIEUT.-COLONEL HENRY SOLLERS G. S. KNIGHT, F.R.Met.Soc., maintained a well-equipped meteorological and astronomical observatory at Harestock near Winchester, where his rainfall record extended over 24 years. One of the features of his observatory was the series of earth thermometers, one being as deep as 70 feet. Col. Knight was particularly careful as to the exactitude of his instruments and his records were kept with scrupulous care.

THE REV. THOMAS ARTHUR PRESTON, F.R.Met.Soc., was an assistant-master at Marlborough College for 27 years and started rainfall observations there in 1864, which he carried on until 1885.

Not only this but he was, we believe, the founder of "Wiltshire Rainfall," perhaps the most complete county organization that ever existed, though as too often happens, it did not survive the withdrawal of the founder's hand. In 1885, Mr. Preston became Rector of Thurcaston in Leicestershire, where he continued his personal observations until his death.

THE REV. MAURICE ALLEN SMELT, F.R.Met.Soc., commenced to observe rainfall in 1855 at Patricxbourne near Canterbury, and wherever he went subsequently he started a record, keeping up the last at Cheltenham from 1867 for 37 years until his death. His name appeared in "English Rainfall, 1860."

MR. STEPHEN WILLIAM SILVER, F.R.Met.Soc., well known for his great library of books of travel and for his connection with submarine cable construction (his name survives in Silvertown) was always a keen meteorologist and for many years a generous contributor to the funds of *British Rainfall*. He never grudged time or thought in his friendship, and both Mr. Symons and the present Editor frequently sought his advice and valued the suggestions he was always ready to give.

THE REV. FENWICK WILLIAM STOW, F.R.Met.Soc., has a remarkable record. He was a rainfall observer in 1864 while still an undergraduate. He was curate at Holy Trinity, Tunbridge Wells, from 1867 to 1869 (and started a record there) and at Hawsker near Whitby from 1869 to 1871, where he started three records and carried on a valuable series of experiments on the exposure of rain gauges (described in *British Rainfall*, 1871). He was Curate of Harpenden, Herts., from 1871 to 1873 and started a record there, and finally he became Vicar of Aysgarth in Wensleydale in 1873, where he started no less than six records in that thinly-peopled country-side and kept his own going at the Vicarage for 27 years. It is sad, however, to know that not one of the many records started by this enthusiast is being continued; rainfall observing is rarely contagious in remote districts.

MR. HENRY WARD was an observer for nearly half a century, first at Wolverhampton and afterwards at Rodbaston, Penkridge, where it is a source of satisfaction to know that the record is being continued by Mrs. Ward.

MR. J. WINFIELD deserves mention as an observer for 16 years, whose services in remote parts of Wales are the more interesting because he was one of the recipients of a gauge from the Nunes

Bequest, the solitary benefaction left, after death, by any of the large number of wealthy observers.

LORD WYNFORD, better known in our pages as Col. George Best, before his succession as fifth Baron in 1903, was an observer for 14 years. His brother, the fourth Baron, had also been a friend of the Rainfall Organization for many years, and his son, the sixth Baron, is now keeping up the old associations as the third of the name.

*Observers Deceased to July, 1905.*

NAMES AND STATIONS.	PERIOD OF OBSERVATION.	
	DATE.	Complete Yearly Records
Arkwright, J. H., Hampton Court, Hope-under-Dinmore	C 1873 imp-1904 .....	31
Baines, L. T., Bawtry Hall, Bawtry .....	1882-1903 T .....	22
Barrington, Dr. E. E. {	Enniskerry .....	20
	San Remo, Bray.....	
Bateman, Rev. S., The Rectory, Yarborough .....	C 1900-03 T .....	7
*Bell, Sir Lowthian, F.R.S., Rounton Grange, Northallerton	C 1896 imp-1903 T...	27
Billington, Rev. G. H., Chalbury, Wimborne .....	1877-81 imp, 1882-1904 .....	39
Blunt, Col. A., Dorchester, Oxon.....	1865-1903 T .....	20
Branfill, Maj-Gen. B. R., Burghstead Lodge, Billericay	1883-84 imp, 1885-1903 c.....	16
Bushell, R. {	C 1888-1903 T .....	35
Hinderton, Neston.....	1869-1903 c .....	
Oakhill, Neston .....	1881-1886 imp T ...	5
Chinnery, W. M., Hatchford, Cobham .....	C 1900-1904 .....	12
†Curtis, C. W., Kearsney Abbey .....	1893-1904 .....	40
Davies, Rev. R. P. {	Parkgate, Hertford .....	
	St. Mary's, Hatfield .....	
Hatherop Rectory, Fairford..	C 1864-1865 T .....	37
Dymond, Miss E. A., Manston Terrace, Exeter ...	C 1866-1868T .....	21
Ellis, W. H., High Street, Exeter .....	C 1870-1904 c .....	9
Elwick, Q.-M.-Sergeant, Pirbright Camp .....	1867 imp -1904 ...	10
Evans, A. J. L., C.E., Pumping Station, Luton ...	1855, 1856, 1860-78	24
Evans, Henry {	1896-1904 c .....	
Bay of Small Isles, Jura, N.B. ...	1895-1904 c .....	17
Feoline, Jura, N.B. ....	1877-1900 imp T ...	38
Farrer, O. C., Binnegar Hall, Wareham .....	1902... ..	
Fenwick, T. {	1887-1903 c .....	38
Allerton Hill, Leeds .....	1866 imp -1904 c ...	
Hart Reservoir, Durham .....	1870-1904 c .....	
Hurworth Burn, Durham.....	1870-1904 c .....	

\* Returns latterly obtained through Royal Meteorological Society.

† Earlier years obtained through Meteorological Council.

*Observers Deceased to July, 1905—(continued).*

NAMES AND STATIONS.	PERIOD OF OBSERVATION.	
	DATE.	Complete Yearly Record.
Green, J., Radcliffe-on-Trent, Notts .....	1896-1903 T .....	8
Griffith, Mrs. C. H., Strathfield Turgiss, Hants ...	1896-1904 .....	9
Griffith-Boscawen, Capt., Trevalyn Hall, Rossett...	1867-1903 T .....	37
Gulson, J., { Priory Row, Coventry .....	1867-1903 T .....	37
	1879-80, 1890-98 imp 1899-1902 T.	
Holme, Rev. E. { Tebay, Westmorland.....	1878-1882 T .....	24
	C 1883-1901 T .....	
Holt, Major J. { North Tamerton, Cornwall .....	1882-1888 T .....	21
	1889-1902 .....	
Holt, Mrs., The Grange, Farnborough.....	1903 T .....	1
Hoskins, Miss, Higham, Cockermouth .....	1891-1904 .....	14
Jackson, W. F., Litton, Tideswell .....	1892-1902 T .....	11
Knight, Lt.-Col. H. S. G. S., Harestock, Winchester	C 1879 imp-1903 T...	24
Langton, Miss E. G., Barrow House, Keswick .....	1884-86 imp 1887- 1904 .....	20
Lindley, E., Eastwood Colliery, Notts .....	1886-1904 .....	19
Manly, T., Derry Castle, Killaloe.....	C 1877 imp, 1878 imp 1879-1903T .....	25
Marsh, Rev. T. H., Cawston Rectory, Norfolk.....	C 1871-1904 .....	34
Mold, W. H., Betersden, Ashford .....	1876-1903 T .....	28
Padwick, F., West Thorney, Sussex .....	C 1860-72, 1874-85...	25
Parish, Rev. W. D., Selmeaton Vicarage, Sussex ...	1896-1900 T .....	5
Phillips, W. P. T., { The Grange, Woodbridge.....	1880-1885 imp T ...	16
	C 1885 imp -96 T ...	
Poole, Rev. R. B., Ilton Vicarage, Ilminster.....	1879-81 imp, 1882- 1904 imp T .....	24
Preston, Rev. T. A., { The College, Marlborough ...	1864 imp -1874 ...	39
	1875-1885 T .....	
Putt, J. B., Fleckney, nr. Market Harborough.....	C 1887-1904 T .....	39
	C 1863-79, 1881-86, 1888-1903.....	
Pye, W., Madeley, Staffs .....	1895-1903 T .....	9
Reid, P., The Gardens, Lucan .....	C 1891 imp -1903 ...	12
Rickman, Miss M. H., Southmallings, Lewes.....	C 1868-1898 T .....	31
Rowntree, J. W., Silverdale, Scalby .....	C 1900 imp -1904 ...	4
Scott, Mrs., Brotherton, Johnshaven, N.B. ....	1891-1900, 1902-3T	12
Shuldham, Col., Coolkelure, Dunmanway .....	C 1883 imp-1902 imp T	18
Silver, S. W., Letcomb Regis, Wantage.....	1877-83, 1885-1904	27
Smelt, Rev. M. A., { Patricxbourne, Canterbury ...	1855 imp -56 T.....	46
	Slindon, Arundel .....	
	1856 imp -63 T.....	
	1857 imp-1863 imp T	
	1863 imp -1864 T...	
Stirling, J., Muiravonside House, Stirlingshire.....	1865 imp T .....	5
	1867-1903 T .....	
	1900-1904 .....	



*Observers Deceased to July, 1905—(continued).*

NAMES AND STATIONS.		PERIOD OF OBSERVATION.	
		DATE.	Complete Yearly Record.
Stow, Rev. F. W.	Ripon .....	1864 imp-1869 T...	39
	Garden Villa, Tunbridge Wells	1867-68 T .....	
	Hawsker, Whitby .....	1869 imp-1870 T...	
	North Lighthouse, Whitby...	1870-77 T .....	
	Hackness, Scarborough .....	C 1871 T .....	
	Harpenden, Herts .....	1871 imp, 1872-73 imp T .....	
	Hestholme, Wensleydale...	C 1873 imp-1876 ...	
	Nell Bank, Walden, Aysgarth	C 1875-1886 imp T ..	
	Kidstones, Bishopsdale .....	C 1875-1881 T .....	
Swarbreck, C. M., Sowerby, Thirsk .....	Walden Head, Aysgarth .....	1875 T .....	24
	Aysgarth Vicarage .....	1876-1903 T .....	
Tarver, Rev. J. C., Filgrave Rectory, Olney .....		1880-1904 imp T ...	25
		C 1875-78 imp. 1879- 80, 1882-1901 ...	
Troup, Dr. F., { Auchtermuchty .....	{ Edenside House, Strathmiglo .....	C 1870-1882 T .....	19
		1898-1904 imp T ...	
Vane, The Hon. & Rev. G. H. F., The Rectory, Wem, Salop		C 1900-1904 .....	5
Venables, Mrs. Whyte, Red Hills, Belturbet .....		1896-1902 .....	7
Ward, Henry { Oaklands, Wolverhampton .....	{ Rodbaston, Penkridge .....	1858 imp-71 T ...	46
		C 1872-1904 .....	
Winfield, J. { Llanstephan, Builth .....	{ Clatterburn, Presteign .....	C 1884-1889 imp T...	16
		C 1889 imp-1891 imp T	
		C 1892-1896 T .....	
		1899-1903 T .....	
Wynford, Lord, Charlton House, Donhead St. Mary		C 1884 imp-1903 c ...	19
Yeatman, Miss, Cliefden, Eltham .....		1891-1904 .....	14

NOTE.—C indicates commencement of record; c its continuation; T its termination; imp means that the record for that year was imperfect.

You have heard the beat of the off-shore wind,  
And the thresh of the deep-sea Rain ;  
You have heard the song—how long ! how long ?  
Pull out on the trail again !

*Rudyard Kipling.*

**RAINFALL AND METEOROLOGY**  
**OF**  
**1904.**

## EXPLANATION.

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THE Observers' Notes on the Days and Months and on the Year as a whole are given as far as possible in the words of the Observers themselves, and the signature of the Observer is added to each Note on the Year. It is understood that the Notes refer to extreme or exceptional rather than to normal phenomena. The Notes on the Days and on the Months are occasionally supplemented by short extracts from the newspaper press. The completeness or incompleteness of this picture of the weather of the year depends upon the interest which the Rainfall Observers of each district take in the meteorological incidents of their locality, and on their willingness to communicate the outcome of their observations in a suitable form. The Notes supplement, but do not supersede, those published monthly in *Symons's Meteorological Magazine*.

The various discussions of the Rainfall of the Year as regards heavy falls in short periods and on rainfall days, droughts, and wet spells, and the general distribution of Rainfall over the British Isles for each month and for the year, are prepared by the Editor after considering all sources of information which have been published or are available for publication.

In order to save space by avoiding frequent repetitions, the names of the Counties are omitted in the Monthly and Daily Notes, and those of the Divisions are omitted in the Daily Notes, the numerals only being retained. The following abbreviations are employed:—

Bar.	Barometer.
E.	East.
H	Hail.
Max.	Maximum (temperature).
<i>Met. Mag.</i>	<i>Symons's Meteorological Magazine.</i>
Min.	Minimum (temperature).
N.	North.
L -	Lightning.
R	Rain.
S -	Snow.
S. -	South.
T	Thunder.
Temp. -	Temperature.
TS -	Thunderstorm.
TSS	Thunderstorms.
W.	West.

# ON THE METEOROLOGY OF 1904,

With Notes on some of the Principal Phenomena.

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## NOTES ON THE DAYS OF 1904.

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These Notes should be read in conjunction with those on Heavy Rains in 1904.

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### JANUARY.

1st. — *Spalding* (VII). Severe cold and skating general throughout the district.

2nd. — *London* (I). General thaw set in at 6 a.m. ; after the first shower a glazed frost made the streets almost impassable until a rise of temperature at 9 a.m. put an end to the frost. — *Derby* (VII). A serious ice accident occurred at the Dead Waters, when a young lady and two men were drowned.

3rd. — *Waterford* (XX). T, L and H. — *Ballindoney* (XXI). T and H between 7 and 9 a.m.

4th and 5th. — *Hull* (IX). Dense fog.

7th. — *Milton Malbay* (XX). T, L and H.

8th. — *Hull* (IX). Dense fog.

10th. — *Chelford* (VIII). An inch of S. — *Inveraray* (XV). H, T and L.

11th. — *Ballachulish* (XV). T and L.

12th. — *Heathfield* (II). Terrific S.W. gale.

12th and 13th. — *Barnet, Hadley* (III). S.S.W. gales. L on 13th.

13th and 14th.\* — *General*. A large depression passed over the British Isles, the centre moving from west to east across the north of Scotland, and stormy conditions prevailed over the whole country. — *Southbourne-on-Sea* (II). TSS. — *West Dean* (II). TSS of great severity with H and heavy R.

13th.\* — *London* (I). Temperature exceptionally high for the

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\* See also *Met. Mag.*, February, 1904, p. 8.

season.—*Wallington* (II). TS at night.—*Caterham Valley* (II). TS at night.—*Canterbury* (II). TS in the night.—*Horsham* (II). TS at 1.30 a.m.—*Lewes* (II.) TS with H.—*Heathfield* (II). T, L and H.—*Christchurch* (II). Violent TS at night.—*Emsworth* (II). TS.—*Kensworth* (III). Tremendous gale, with H, T and L.—*Hitchin* (III). TS.—*Highmore* (III). TS and H.—*Winterbourne Steepleton* (V). TS at mid-night.—*Teignmouth* (V). TS at night.—*Tavistock* (V). TSS.—*Polapit Tamar* (V). T, L and torrents of R at 6.15 p.m.—*Rousdon* (V). About 5.15 p.m. there was a sudden squall of R and H with L. L continued all night, with heavy T over the Channel.—*Coombe Martin* (V). H, T, L and .13 in, of R in 8 minutes.—*Tiverton* (V). During a severe TS a gentleman, holding his umbrella over his shoulder, saw a vivid flash of lightning, felt his umbrella twisted round violently and a “hot wave pass from his shoulder down his arm;” he was in no way injured, but the umbrella collapsed with every wire broken.—*Wellington* (V). TS and H.—*Hurptree Court* (V). Heavy H storm and T.—*Cirencester* (VI). Continuous L from 7 to 11 p.m.; in 45 minutes 70 flashes were counted.—*Bromsgrove* (VI). TS.—*Towyn* (XI). H at 2.30 p.m. and TS at 10.40 p.m.—*Miltown Malbay* (XX). T, L and H.—*Ballindoney* (XXI). T, H and brilliant L at night.—*Ballinasloe* (XXII). T and L at 9.30 p.m.

14th.\*—*Witley* (II). TS with heavy R from 1.15 to 2.30 a.m.—*Tonbridge* (II). TS with H and a violent gale.—*Burgess Hill* (II). Severe TS from 1 to 2 a.m.—*Crowborough* (II). TS at 2 a.m., with continuous L.—*Hove* (II). A violent squall at 2 a.m. blew down a stack of five chimneys at the Prince’s Hotel, smashing the roof, severely wounding a lady in one of the bedrooms; the wreckage of the roof made it impossible for any assistance to be rendered until 8 a.m.—*Bournemouth* (II). TS with L, H and R from 0.15 to 0.45 a.m.—*Penzance* (V). T, L and H.—*Bishops Castle* (VI). TS.

15th.—*Chelford* (VIII). S and H throughout the day.—*Annan* (XII). S.—*Moffat* (XII). S fell to the depth of two inches.

16th.—*North Cadbury* (V). TS and H about 3 p.m.—*Belfast* (XXIII). S three inches deep.

19th.—*Chelford* (VIII). Thick fog all day.

20th.—*Dorchester* (V). TSS, with very severe H.—*Broughton-in-Furness*. (VIII). Dense fog all day.

22nd.—*Hull* (IX). Dense fog.

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\* See also *Met. Mag.*, February, 1904, p. 8.

23rd.—*St. Pancras, Camden Square* (I). Intensely dark, with thick fog. Artificial light necessary all morning. Three railway accidents occurred in or near London in consequence of the fog, and traffic in the streets was at a standstill for some time.—*Maidenhead* (II). Dense fog.

26th—27th. *Rousdon* (V.) Continuous R for 24 hours from 9 p.m. on 26th.

27th.—*Miltown Malbay* (XX). T and L.

29th.—*Middlesbrough* (IX). S yielding .60 in.—*Glasgow* (XIV). Severe gale, the velocity rising to 58 miles per hour at 10.20 p.m.

29th and 30th.—*Miltown Malbay* (XX). T, L and H.

30th.—*Rousdon* (V). In half-an-hour from 6 a.m. .40 in. of R fell.

31st.—*Lewes* (II). High floods.—*Crowborough, Steel Cross House* (II). Severe H storm between 6 and 6.20 p.m.—*Farnborough Rectory* (II). 4 in. of S—*Swerford* (III). Very heavy S for about an hour.—*Dunmow* (IV). Very severe H storm at 5.30 p.m., lasting fully 10 minutes.—*Auchterarder* (XVI). S fell to the depth of three inches.

## FEBRUARY.

1st.—*Newry* (XXIII). Very thick fog.

1st and 2nd.—*Rousdon* (V). Fresh S.E. gale in the evening, with heavy R and sleet. In the early morning of the 2nd a great tidal wave caused much damage and alarm along the coast. Between 4 and 6.15 a.m. severe earthquake shocks were felt at Jersey.

2nd.—*St. Pancras, Camden Square* (I). Fog. Quite dark at noon.—*Bramber* (II). A large area of the Adur valley under water.—*Lewes* (II). Extensive floods.—*Windsor* (II). Thames 2 ft. 9 in. above high-water level at Windsor Bridge. H and heavy R.—*Culham College* (III). Heavy H storm and .16 in. of R in 4 minutes.—*Peterborough* (III). Heaviest S fall of the winter.

3rd.—*Oxford* (III). The meadows completely flooded, the Thames and Cherwell forming a vast lake for miles above and below the city.—*Dunmow* (IV). Floods out.—*Broadford* (XX). Dense fog.

3rd—10th.—*Maidenhead* (II). Exceptional flood in Thames Valley. Many streets and roads under water, the flood being severer than that of June, 1903.

4th.—*Broxbourne* (III). Floods in the Lee Valley.

5th.—*Windsor* (II). Thames 4 ft. 6 in. above high-water level.—*Gainsborough* (VII). Floods due to heavy rain and high tide.

6th and 7th.—*St. Andrews* (XVI). R 2·16 in., nearly all falling between 6 p.m. on 6th and 9 a.m. on 7th. After 7 a.m. it fell as wet S.

8th.—*Bury St. Edmunds* (IV). TS.

9th.—*Crowborough* (II). Bar. pressure at 7 p.m. extremely low—viz., 28·598 in. (cor.)—*Haverfordwest* (XI). TS. at night.

10th.—*Belfast* (XXIII). The densest fog for many years.

10th—12th.—*Hampton Poyle* (III). The only serious flood of the year.

11th.—*Witley* (II). Fearful wind and heavy storms. R ·56 in. between 9 a.m. and 1 p.m. The bar. fell below 28 inches.—*Stoke Bishop* (VI). Heavy gale, T and L.—*Braemar* (XVII). Coldest day of winter, min. temp. 10°·8.

12th.\*—*Emsworth* (II). S.W. to W. gale, T, L and H.—*West Dean* (II). Severe S.W. gale and TS.—*Maidenhead* (II). Renewed flood, scarcely less serious than that of the previous week, and but little below the memorable flood of 1894. Owing to journalistic reports, the Mayor of Maidenhead wrote to *The Times*, pointing out that floods “did the health of Maidenhead real good,” and concluded—“It seems only just . . . that the outrageous exaggerations to which I have alluded, and which have caused us so much amused astonishment, should be corrected by a cold water statement of actual fact.”—*Blackpool* (VIII). Slight TS.—*Broughton-in-Furness* (VIII). Violent TS of short duration at midnight, with H.—*Seathwaite Vicarage* (VIII). Heavy T and L at night.—*Eskdale* (X). TS.—*Llandudno* (XI). T and L.—*Clonmel* (XX). T and L.—*Ballinloney* (XXI). From 7.30 to 9 a.m. ·31 in. of R fell, and from 9 a.m. to noon ·70 in. TS at 7 p.m.—*Enniscorthy, Monart* (XXI). Storm of T, L, wind and R.—*Rathmines* (XXI). TS from 8 to 8.40 p.m. unprecedented in February in 22 years.

12th—14th.—*Lynmouth* (V). T, L and H storms.

13th—14th.—*Maidenhead* (II). The second flood of the month in the Thames Valley compared with the most serious previous floods:—

	1894.	June, 1903.	Oct., 1903.	1904.
Caversham ...	4ft. 6in.	3ft. 1in.	2ft. 7in.	3ft. 5in. Feb. 13.
Marlow .....	5ft. 9in.	3ft. 0in.	2ft. 9in.	3ft. 6in. „
Boulter's .....	5ft. 3in.	3ft. 1in.	2ft. 8in.	3ft. 6in. Feb. 14.
Romney .....	7ft. 9in.	4ft. 0in.	4ft. 1in.	5ft. 0in. „
Old Windsor...	7ft. 11in.	5ft. 8in.	5ft. 9in.	6ft. 8in. „

\* See also *Met. Mag.*, March, 1904, p. 28.



13th.—*Haslemere* (II). TS and H squalls at 3 p.m.—*Witley* (II). TS, with vivid L.—*Abinger* (II). TS about 4 p.m., with vivid L.—*Hoo St. Mary* (II). T and L at 7.30 a.m.—*Leysdown* (II). TS at 7.45 a.m.—*Horsham* (II). T and L at 7.25 a.m. and 2.30 p.m.—*Ryde* (II). T, L and H.—*Cirencester* (VI). T and L at 7 p.m.—*Treherbert* (XI). T, L and heavy R.—*Waterford* (XX). T and L.

13th—15th.—*Turistock* (V). TSS.

16th.—*Adel* (IX). Three inches of S.

16th and 17th.—*General*. A deep depression crossing the middle of Ireland and of England from west to east, brought stormy weather and falls of S in most parts of the country.

17th.—*Haslemere* (II). Three inches of S.—*Swerford* (III). The first S of the season.—*Chelford* (VIII). About two inches of S on the ground.—*Lanark* (XIV). Six or seven inches of S in the Upper Ward of Lanarkshire, and the fall general throughout Scotland.

18th.—*Tavistock* (V). TS at 5.15 p.m.

25th.—*Grange-over-Sands* (VIII). Eight and-a-half inches of S.—*Font Reservoir* (X). S three inches deep.

25th and 26th.—*Cartmel* (VIII). Nine inches of S.

26th.—*Chester* (VIII). S fell steadily for ten hours.—*Font Reservoir* (X). S three and a half inches deep.—*Dumfries* (XII). Five inches of S fell in some parts of the county.

28th.—*Ulcombe* (II). S four and-a-half inches deep.

29th.—*St. Pancras, Camden Square* (I). S almost all day. The first conspicuous fall of the season. Min. temp. 27°·9.—*Ballindoney* (XXI). Heavy S, measuring six inches deep at 6 p.m.

### MARCH.

1st.—*Dover* (II). S about six inches deep.—*Liskeard* (V). Two inches of S.—*Horncastle* (VII). Three inches of S.—*Middlesbrough* (IX). Much S. The snow-plough was employed to clear the electric tramway from Stockton.—*Enniscorthy, Monart* (XXI). The only S for three years.

2nd—6th.—*General*. Unsettled weather, with R, sleet or S prevailed over the whole country.

7th—9th.—*Thixendale* (IX). Dense fogs.

9th.—*Stoke Bishop* (VI). Severe TS, with R strongly impregnated with earthy matter and much discoloured.—*Bristol* (VI). Fog in forenoon, followed by severe TS in the evening.—*Chelford* (VIII). Thick black fog in the morning, not lasting long.

12th.—*Draycot* (VII). While crossing the rails during a dense fog the stationmaster was killed by a fast train, the approach of which he could not see.—*Manchester* (VIII). Thick fog in the morning.

17th.—*Rathmines* (XXI). Dense vapour fog, very unusual for the time of year.

18th.—*Hull* (IX). Dense fog.

29th.\*†—*St. Pancras, Camden Square* (I). T, L and heavy showers.—*Sydenham* (I). During a TS, about 3 p.m., a large kite being raised by Mr. S. F. Cody was struck by L and the wire fused.—*Bagshot* (II). T, L, S, R, H and sunshine.—*Wallington* (II). TS at 2.30 p.m., in which a house in Park Road was struck by L.—*Barnet, Hadley* (III). TS at 3 p.m.—*Thixendale* (IX). T, L and H. Great darkness at noon.

29th and 30th.†—*Hoo St. Mary* (II). TSS at 3.15 p.m. on 29th and 0.15 p.m. on 30th.

30th.†—*Bournemouth* (II). T, L and H at 0.30 p.m.—*Christchurch* (II). T, L and H.—*Crewe* (VIII). S lying to a depth of several inches.—*Manchester* (VIII). Heavy fall of S in the morning, followed by R, H and sleet.—*Alexandria* (XV). S, and severe wintry weather.

#### APRIL.

6th.—*Coupar Angus* (XVI). Destructive gale, blowing down railway signal-posts and chimneys.

9th and 10th.—*Helensburgh* (XV). Severe gale.

10th.—*Chelford* (VIII.) Great gale from N.W. It was a most extraordinary sight to see the sandy soil blown off the fields into the air to a great height, and afterwards lying in drifts.

12th.—*Folkestone* (II). TS in the small hours, during which a house at Cheriton was struck by L, but no great damage done.—*Leysdown* (II). Sharp TS at night.

13th.—*Witley* (II). TS and heavy R from 1.15 to 2 a.m.—*Hoo St. Mary* (II). TS at 3 a.m.—*Barnet, Hadley* (III). TS to the S.E. at 3 a.m.—*Dunmow* (IV). Heavy TS of short duration.—*Colchester* (IV). Sharp TS at about 3 a.m.—*Ipswich* (IV). Exceptionally brilliant TS from about 3 a.m. to 4.30 a.m.—*Felixstowe* (IV). TS, with H and heavy R.

14th and 15th.—*Haslemere* (II). Dustfall forming a deposit on leaves and in the rain-gauge.

\* See also *Met. Mag.*, November, 1904, p. 189.

† See also *Met. Mag.*, April, 1904, p. 50.

15th.\*—*London* (I). Dense darkness due to black clouds passing overhead shortly after noon.—*Wallington* (II). Intense darkness at intervals between noon and 3 p.m.

15th—17th.—*Polapit Tumar* (V). Thick morning fogs.

18th.—*Coupar Angus* (XVI). Slight display of Aurora.

22nd.—*Rochdale, Fieldhead* (VIII). In 6 minutes ·11 in. of R fell.

### MAY.

2nd.—*Clenerie* (XII). About two inches of S.

7th.—*Ulcombe Place* (II). Temp. at 0.30 p.m. 44°·5.

8th.—*Huntington Court* (VI). S.—*Monmouth* (XI). Several severe H storms in afternoon, whitening the whole country side.—*Dinas Mawddwy* (XI). Heavy fall of S between 5 and 8.15 a.m.

11th and 12th.—*Waterford* (XX). Thick fog.

16th.—*Clifton* (VI). Heavy T and L from noon to 1 p.m. House in Clifton struck.—*Horfield* (VI). The *Bristol Mercury* reports that masons at work on the top of the Royal George Inn “saw what they describe as a thunderbolt coming towards them across the road from the direction of Southmead. . . . What they saw was like a dazzling ball of fire—larger than a football. It travelled with lightning rapidity, and, said Higgs, ‘it cleared our building, but struck the chimney across there, and what became of it then I can’t say; nobody seems to know.’ The chimney-stack that was struck was between Nos. 8 and 9, Laxey Road. No. 8 is not yet occupied. . . . Two children—a boy and a girl aged 12 and 13—who were alone in No. 9, were struck down. They were discovered and attended to by an estate agent, who was near when the damage was done, and they describe their feelings by saying, ‘it was like being touched all over by electric wires.’ The damage to the house was considerable. The chimney-pots were scattered into little pieces both back and front of the house, and the bricks of the stack crashed through the roofs of both houses, making a gap three yards in extent. The ceiling of both the front bedrooms was broken down, and in the empty house the fire-grate of the front bedroom was entirely broken down and the grate of the room below was displaced. Much of the shutting and plaster facing were damaged along these and the neighbouring houses—quite sufficient to indicate the course of the thunderbolt—and the top end of one of the shutings was found some distance

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\* See also *Met. Mag.*, May, 1904, p. 69.

away with a hole burnt right through it of the size of a shilling. Bricks from the chimney-stack were sent thirty yards in one direction and dropped in Doone Road."—*Stoke Bishop* (VI). Very severe rainless TS.

18th.—*Peterhead* (XVII). T, and two severe H showers, whitening the ground.

20th and 21st.—*Haslemere* (II). From 9 p.m. on 20th to 8 a.m. on 21st 1·20 in. of R fell.

22nd.—*Buckhurst Hill* (IV). Great darkness for the greater part of the day.

23rd and 24th.—*Rousdon* (V). Continuous R from 4 p.m. on 23rd to 4 p.m. on 24th, accompanied by dense fog.

26th.—*Haslemere* (II). Heavy TS from 8 to 10 a.m.—*Ramsgate* (II). The Grange (a house erected by Pugin for his own residence) was struck by L and set on fire.—*Brundall* (IV). Severe T and L in S. and S.E. from 8.30 to 9.30 p.m.—*Coupar Angus* (XVI). Sharp but short TS.—*Watten* (XIX). Heavy TS.

27th.\*—*London* (I). Intense darkness about 10.15 a.m.—*Guildford, Cross Lanes* (II). Between 8 a.m. and 10 a.m. 1·17 in. of R fell in a storm of tropical violence.—*Wallington* (II). Two TSS between 8 and 10 a.m.—*Heathfield* (II). From 8 to 8.30 a.m. a bank of darkness from the S. made it as dark as a winter night. There was no fog, nor was the weather damp.—*Maidenhead* (II). Heavy TSS.—*Staines, Belle Vue* (III). In about two hours ·91 in. of R fell.—*Berkhamstead* (III). In 3 minutes ·08 in. of R fell.—*Farnham Royal* (III). TS, with ·51 in. of R from 9 to 10 a.m., and ·25 in. from 10.30 to 10.45 a.m.—*Highmore* (III). TS and 1·00 in. of R.—*Swerford* (III). Heavy TS, and 2·48 in. of R.—*Blisworth* (III). T, L, and very heavy R from 3.30 to 5 p.m.—*Buckhurst Hill* (IV). Great darkness, but not fog.—*Prestbury* (VI). In 10 hrs. 20 min. 1·14 in. of R fell.—*Bromsgrove, Stoke Reformatory* (VI). In about 10 hours 2·20 in. of R fell.—*Long Compton, Weston Park* (VI). R 3·34 in., falling very quickly. Over 2·00 in. fell between 3 and 7 p.m. This was the greatest fall since October, 1875.—*Long Eaton* (VII). A pole at the new Wesleyan Church was struck by L and three workmen were knocked down, one of them being killed.—*Ardingley* (IX). TS, with ·81 in. of R between 7 and 9 a.m.

30th.—*Plymouth* (V). Severe TS, with torrential R, about 10.30 p.m.—*Ballingarry* (XX). Great darkness at 4 p.m. and 7 p.m.

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\* See also *Met. Mag.*, June, 1904, p. 86.

31st.—*Brighton* (II). Severe TS, with very brilliant L in evening.—*Peterborough* (III). The heaviest TS for many years. Several cattle killed by L.—*Upper Midhope* (IX). Thick fog most of the day.

31st and June 1st.—*Witley* (II). Continuous TSS.

## JUNE.

1st.—*Berkhampstead* (III). In 3 minutes  $\cdot 12$  in. of R fell.

6th.—*Teignmouth* (V). At about 4.15 p.m. two distinct shocks of earthquake, following one another in quick succession, were both felt and heard.

16th.—*Crathes* (XVII).—A S.W. gale did a good deal of damage amongst fruit trees.—*Aberdeen* (XVII). A strong gale destroyed many trees and plants. Two men were blown into the harbour and were rescued with difficulty.

20th.—*Market Overton* (VII). Slight earthquake shocks.

21st.—*Leicester* (VII). Earthquake felt at 5.30 a.m.

22nd—24th.—*Polapit Tamar* (V). Thick fog in early morning.

24th.—*Knaresborough, Farnham* (IX). T, L and  $\cdot 19$  in. of R in 5 minutes at 5.45 p.m.

26th.—*Stansfield* (IV). During a TS in the evening,  $1\cdot 11$  in. of R fell in less than half-an-hour.

27th.—*Upper Midhope* (IX). Frost on grass.—*Rathmines* (XXI). Ground frost, a most unusual occurrence in June.—*Omagh* (XXIII). Slight frost on grass.

28th.\*—*Dundee* (XVI). Frost and heavy rime cut down potatoes in low-lying gardens.

## JULY.

3rd.—*Hoar Cross* (VI). Earthquake shock at 3.23 p.m., lasting 5 seconds.—*Irby-on-Humber* (VII). Earthquake shock at 3.22 p.m.—*Nottingham* (VII). Slight shock of earthquake at 3.20 p.m.—*Chellaston* (VII). Earthquake felt.—*Findern* (VII). Earthquake at 3 p.m.

12th.—*Devonport* (V). A house in Herbert Street was set on fire by L during a severe TS through a "penny-in-the-slot" gas meter being fused and the gas ignited.—*Knaresborough, Farnham* (IX). TS with  $\cdot 75$  in. of R between 0.30 and 1 a.m.—*Haverfordwest* (XI). Distant TS with grand display of L. At 10.30 p.m. two coils of wire were fused in the Haverfordwest Relay Office.

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\* See also *Met. Mag.*, August, 1904, p. 134.

17th. —*St. Pancras, Camden Square* (I). Intensely hot. Max. temp. 88°·9. Many deaths in London were reported as due to the heat.

19th. —*Southbourne-on-Sea* (II). Heavy TS.—*Aldershot* (II). The intense heat caused the rails on the London and South-Western Railway between Aldershot and the North Camp to expand so much that the line buckled one foot and traffic had to be stopped.—*Plymouth* (V). Heavy TS.—*Polapit Tamar* (V). Severe TS from 8 p.m., lasting several hours.—*Rousdon* (V). Heavy TS with brilliant L. At 9 p.m. ·31 in. of R fell in half-an-hour.—*Liskeard, Trevillis* (V). In a TS ·68 in. of R fell in 2 hours.—*Crewkerne* (V). Heavy TS in evening.—*North Cadbury* (V). Remarkable TS from 9 p.m. to midnight, with very frequent and brilliant L, but no loud T and only slight R. The L was of every kind and in all directions, and was almost continuous for an hour. Observers for miles round reported, "L all round but never overhead." The storm was preceded by strong S.E. wind for 36 hours.—*Holyhead* (XI.) Heavy TS, during which a man was struck by L and rendered unconscious.—*Jersey* (XI). Beau Coin Castle struck by L and set on fire.—*Ballindoney* (XXI). TSS all round, lasting all day, but not bad here.—*Horn Head* (XXIII). In 10 minutes ·12 in. of R fell.

20th.—*Stoke Bishop* (VI). Severe TS.

21st.—*Lynmouth* (V). Between 4.30 and 5.30 p.m. ·26 in. of R fell.

22nd.—*Falkirk* (XV). T and L from 10.30 a.m. to 4.15 p.m.

22nd—24th.—*Dublin* (XXI). Dense fogs along the coast and at sea.

23rd.—*Rousdon* (V). In less than an hour ·75 in. of R fell.—*Horncastle* (VII). Heavy TS from 5.35 to 6.30 p.m.—*Cropwell Grove* (VII). In less than 15 minutes ·37 in. of R fell.—*Cartmel* (VIII). Very heavy TS.—*Broughton-in-Furness* (VIII). Severe TS.—*Meltham, Harewood Lodge* (IX). TSS all the afternoon, with heavy R, ·28 in. falling in 19 minutes.—*Eusby Hall* (IX). R 1·37 in., of which 1·32 in. fell in 1 hour 20 minutes.

23rd—24th.—*Rathmines* (XXI). Dense fog at night, an unusual thing in July.

24th.\*—*Rushton Manor* (III). Heavy TS and 1.50 in. of R.—*Cartmel, Carke* (VIII). In 20 minutes ·76 in. of R fell. The road drains could not carry off the water quickly enough and a few cellars and cottages in the village were flooded.—*Meltham, Harewood Lodge* (IX). Prolonged and severe TSS from 7 to 11.30 p.m.

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\* See also *Met. Mag.*, August, 1904, p. 129.

From 8.41 to 8.51 p.m. .53 in. of R fell.—*Slaithwaite, Inglewood* (IX). Between 8.10 and 11.15 p.m. 3.69 in. of R fell, of which 2.36 in. fell from 8.10 to 9.10 p.m. In the 24 hours the total fall was 3.97 in.—*Huddersfield* (IX). A heavy local TS took place in the town and environs of Huddersfield and was responsible for a considerable amount of damage both by flooding and by L. In all the lower lying parts much flooding of houses resulted, and at one mill alone the damage was estimated at £2000. Railway and tramway traffic was in many cases interfered with. The canal, after overflowing during the night, burst its banks near Aspley Place, and caused a serious increase in the flooding. Several fires were reported as the result of L and great inconvenience was caused by fusion of tramway and telephone wires. The heavy fall of R did not extend so far as Marsden Moor, and the somewhat straitened water supply of the town was but little benefited. *Huddersfield, Golcar* (IX). The only TS of the year and the worst ever remembered in the district. Between 7 p.m. and midnight 4.85 in. of R fell.—*Huddersfield, Cemetery* (IX). R 3.80 in., a record for the district. From 7 to 10 p.m. 3.40 in. fell. The storm was very local.—*Goldsborough Hall* (IX). Heavy TS.—*Keswick* (X). Severe TS.—*Lindeth Howe* (X). In three-quarters of an hour 1.07 in. of R fell.—*Windermere, Storrs Park* (X). Heavy R and T, .99 in. falling in 54 minutes from 3.31 to 4.25 p.m. The drive was cut up and a general mess made.

24th and 25th.—*Seathwaite Vicarage* (VIII). TSS.—*Millom* (X). T and L began at 6 p.m. on 24th and continued with little intermission till 3 a.m. on 25th, 1.66 in. of R falling in the 9 hours.

25th.\*—*London* (I). During a TS the tunnel of the Metropolitan Railway between Queen's Road and Praed Street was flooded at 7.20 p.m., and the fire of the engine drawing a passenger train was extinguished. Two engines were sent in, but had their fires put out also, and the water rose to the seats of the carriages. In an hour the flood subsided, and two more engines rescued the train. A youth, aged seventeen, was struck by L and killed at Blackfriars.—*Fulham, Edith Road* (I). Heavy TS at about 7 p.m.—*Hampstead, Burrard Road* (I). Brisk TS commenced soon after 5 p.m., and at 8 p.m. 1.70 in. was measured, of which 1.50 in. must have been deposited during the storm. A further .54 in. fell before midnight, making a total of 2.24 in.—*St. Pancras, Camden Square*. (I). Gentle showers during the forenoon yielded .20 in.; a very severe TS from 6.45 to 7.30 p.m. brought down .99 in., of which .61 in. fell in 20 minutes and .40 in.

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\* See also *Met. Mag.*, August, 1904, p. 131.

in 10 minutes. From 9 to 11 p.m. .50 in. fell in a second TS of less intensity, and a slight shower after midnight brought the total to 1.71 in., the heaviest fall for the year.—*Hatcham* (II). TS.—*Sidcup* (II). Two TSS in the evening. R 1.27 in.—*Cowes* (II). Whilst on a yacht, half-way between the Needles and Cowes Roads, heavier R was experienced than ever remembered outside the tropics. It was impossible to see more than 50 yards ahead and it was necessary to slow down and blow the fog whistle. A tub on deck, which only received direct R, had about half-an-inch of water in it. The greater part of the fall occurred in about 10 minutes. At Cowes only light showers fell.—*Watford* (III). TS in afternoon, with 2.03 in. of R, nearly all of which fell from about 3 to 4 p.m.—*Barnet, Hadley* (III). Sharp TS from 6.30 to 8 p.m. and much L.—*St. Albans* (III). TS in the afternoon, with 1.70 in. of R.—*Hitchin* (III). R 2.71 in., or 12.4 per cent. of the year's total. This was the heaviest fall since July 9th, 1884, when 2.76 in. fell.—*Hitchin, High Down* (III). TS and 2.52 in. of R, almost like a waterspout. The flood was extraordinary and tore up the ground considerably.—*Addington Manor* (III). Heavy TS, when a large oak was struck by L.—*Banbury* (III). TS.—*Blisworth* (III). Heavy T, L and R all evening and night, the fall being 1.81 in., the largest in 20 years.—*Pitsford* (III). T, L and heavy R.—*Colchester, Lexden* (IV). A violent TS passed directly over this garden. From 5.55 to 6.6 $\frac{3}{4}$  p.m. .37 in. of R fell; from 6.6 $\frac{3}{4}$  to 6.13, .57 in., and from 6.13 to 6.20, .38 in., making in all 1.32 in. in 25 minutes.—*Hevingham* (IV). In 2 hours over 2 inches of R fell.—*North Cadbury* (V). TS, commencing at 11.30 a.m.; very heavy R from noon to 0.45 p.m. and .90 in. by 3.15 p.m. Total 1.22 in.—*Clifton* (VI). TS from 1 to 2 p.m., and R from 8.30 to 10 p.m.—*Kington, Gravel Hill* (VI). TS commenced at 4.3 p.m. and by 4.30 p.m. .83 in. had fallen, the greater portion in about 20 minutes. At 3 a.m. on 26th 1.26 in. had fallen.—*Bishops Castle* (VI.) Severe TS.—*Church Stretton* (VI). TS and 2.25 in. of R.—*Woolstaston* (VI). Very heavy TS, lasting from 2.45 to 3.45 p.m., the R in the hour being 1.26 in. A tall Wellingtonia, only 15 yards from the house, was struck by L.—*Worcester* (VI). A ploughman ploughing with three horses was struck by L and all were killed. A boy walking alongside the horses a few yards distant was not touched.—*Worcester, Boughton Park* (VI). Drenching TSS, with 2.50 of R, of which .54 in. fell between 2.30 and 5 p.m. and the remainder during the night. A house was struck by L a quarter of a mile from Worcester.



*Barnt Green* (VI). R 3·00 in., of which ·81 in. fell in 25 minutes and 2·50 in. in 2 hours.—*Leamington* (VI). R 3·44 in., the greatest fall in 24 hours since January 1st, 1869.—*Horncastle* (VII). TS at night.—*Brigg* (VII). Heavy TS within a very restricted area. From 1 a.m. to 5 a.m. 2·27 in. of R fell.—*Llanfrechfa Grange* (XI). Heavy T and L from 1.20 to 3 p.m.—*Welshpool* (XI). Between 3.15 and 3.30 p.m. ·50 in. of R fell with T.—*Barmouth* (XI). During a TS, Mr. James Valentine, a well-known international football player, of Pendleton, Manchester, was struck by L and killed.—*Miltown Malbay* (XX). In 8 hours 2·85 in. of R fell during the night.—*Newport, Burrishoole House* (XXII). In 25 minutes ·35 in. of R fell.

25th and 26th.\*—*Amersham* (III). TSS, with 1·23 in. and 1·00 in. of R respectively.—*Wendover* (III). Heavy TSS.—*Geldeston* (IV). Very heavy R, lasting from 9 p.m. on 25th to 6 a.m. on 26th, when 1·70 in. was measured.

26th.\*—*Datchworth* (III). R 1·20 in., practically the whole of which fell between 3 and 4 p.m.—*Brundall* (IV). Severe TS in the afternoon.—*North Cadbury* (V). An incipient waterspout was seen apparently over the Polden Hills, near Charlton Mackrell. It was hanging down from a cloud, and after about 10 minutes, at 2.40 p.m. was gradually drawn up into the main body of the cloud.—*Kylemore Castle* (XXII). Between 8 a.m. and 11 a.m. 3·20 in. of R fell, causing very heavy floods and several landslips in this neighbourhood.

27th.—*Staplehurst* (II). Heavy TS and 1·40 in. of R.—*Cooling, Broomy Farm* (II). Very severe H storm, and 2·66 in. of R in 45 minutes. Leaves were stripped off and apples so bruised as to be nearly useless. The extent of the storm was only about 500 yards by 300 yards and it fortunately did not affect any corn fields.—*St. Peters*. (II). Local storm, with ·81 in. of R in less than 2 hours and by far the larger portion in half-an-hour.—*Meldreth* (III). Between 3.30 and 5.30 p.m. ·90 in. of R fell.—*Keswick Old Hall* (IV). In one hour and three-quarters 2·55 in. of R fell.—*Brundall* (IV). Violent TS from 11.45 a.m. to 1.30 p.m.—*Dumfries* (XII). A waterspout on Auldgirth Hill cut deep holes on the hillside and washed down hundreds of tons of stones and rubbish.

28th.—*Great Leighs* (IV). A well-defined waterspout was observed due E. at 0.30 p.m.—*Fingringhoe* (IV). Heavy cloud-burst, when over 1·50 in. of R fell in a little more than an hour. No R fell in

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\* See also *Met. Mag.*, August, 1904, p. 131.

Colchester, 4 miles away.—*Little Saxham* (IV). Heavy R about 1 p.m., .25 in. falling in about 15 minutes.

30th.—*Berkhampstead* (III). In 9 minutes .25 in. of R fell.—*Amersham* (III). TS and 1.50 in. of R.—*Meldreth* (III). Between 2.15 and 2.45 p.m. .50 in. of R fell.—*Hillington* (IV). Between 3.15 and 3.50 p.m. 1.56 in. of R fell. Roads under water.—*Ballindoney* (XXI). Terrific storms of R every few hours, yielding in all 1.29 in., and causing floods.

31st.—*Liskeard, Trevillis* (V). At 9.30 a.m. .16 in. of R fell in 10 minutes.—*Rochdale, Fieldhead* (VIII). In 7½ minutes .12 in. of R fell.—*Dundee* (XVI). Severe TS. A large oak was struck by L.—*Forfar, Lilyfield* (XVI). In a quarter of an hour .15 in. of R fell.

### AUGUST.

3rd.—*Treherbert* (XI). T, L and heavy R.—*Tuam* (XXII). R 1.92 in., causing high floods.—*Belleek* (XXIII). R 2.27 in., of which 1.37 in. fell from 2 to 6 p.m.

3rd and 4th.—*Bishops Castle* (VI). Violent TSS.

4th.\*—*St. Pancras, Camden Square* (I). Between 1 and 2 p.m. the shade temp. reached 91°·0, the highest of the year; and the relative humidity fell to 39 per cent. at 1 p.m. Mean temp. of day 74°·0.—*Christchurch* (II). TS, severe from 11 a.m. to 3 p.m., with .68 in. of R.—*Portsmouth* (II). A meteorite fell into the harbour, close to the flagship *Victory*.—*Swerford* (III). The temp. fell from 80° at noon to 68° at 1 p.m.—*Bath* (V). TS, during which the S.E. pinnacle of the tower of the Abbey was struck by L.—*Cirencester* (VI). Severe TSS from midnight to 1 a.m. and from noon to 1 p.m.—*Burghill Court* (VI). Two TSS. From 6.30 to 7.10 a.m. .24 in. of R fell, and from 7.25 to 7.40 p.m. .30 in. fell.—*Kenilworth* (VI). A soldier sheltering under a tree was struck by L and killed.—*Liverpool* (VIII). Torrential R, causing a serious fire by flooding an oil-works and raising the floating oil to the level of the gas jets.—*Upper Midhope* (IX). Smart TS at noon.—*Goldsborough Hall* (IX). Severe TS.—*Llanfrechfa Grange* (XI). Heavy TSS.—*Brecon* (XI). Severe TS.—*Lough Eske* (XXIII). In the 24 hours ending at noon 2.43 in. of R fell, of which .95 in. fell between 1.30 and 5 p.m.

5th.—*Dundee* (XVI). Severe TS in the early morning. —*St. Andrews* (XVI). TS, during which the tower of the College Church was struck by L and damaged.

\* See also *Met. Mag.*, August, 1904, p. 128.

8th.—*Towyn* (XI). Thick fog.—*Old Deer* (XVII). Severe TS. Cattle killed by L.

9th.—*Rochdale, Fieldhead* (VIII). In 15 minutes .27 in. of R fell.

12th.—*Grimsby* (VII). Heavy TS.

14th.—*Findern* (VII). TSS all day.

14th and 15th.—*Seathwaite* (X). Between 9 p.m. on 14th and 9 a.m. on 15th 2.00 in. of R fell.

15th.—*General*. A severe westerly gale over the whole country, causing much damage to shipping.

17th.—*Bromfield Vicarage* (VI). In 1 hour 15 mins. .55 in. of R fell.—*Mayfield House [Ashbourne]* (VI). Almost continuous R from 6 a.m. to 5 p.m.; total 1.70 in. From 9 a.m. to 2.15 p.m. 1.12 in. fell, and from 3.15 to 4.30 p.m. .43 in. in a TS.—*Belper* (VII). In the twenty-four hours 1.93 in. of rain fell, an amount only twice exceeded in twenty-seven years' observations.—*Rochdale, Fieldhead* (VIII). In 7½ minutes .16 in. of R fell.—*Gilling* (IX). R fell steadily for 20 hours.

18th.—*Perth* (XVI). Severe TS.

21st.—*Brundall* (IV). Severe TS from 8.45 to 10 p.m.—*Bourton, Chaffey Moor* (V). In somewhat less than 20 minutes from 1.30 p.m. 1.02 in. of R fell, the heaviest R remembered outside the tropics.—*Stroud, Upfield* (VI). From 2 to 4 p.m. .65 in. of R fell.

21st and 22nd.—*Burgh Castle* (IV). Very heavy R at intervals and loud T, shaking the house greatly. The storms were high overhead.—*Hemsworth Hall* (IX). From 4.30 p.m. on 21st to 2.30 p.m. on 22nd 2.03 in. of R fell; from 9.30 a.m. on 22nd to 2.30 p.m. 1.33 in., and from 2.30 p.m. to 5 p.m. .62 in.

22nd.\*—*St. Pancras, Camden Square* (I). Slight TSS at 11.45 a.m. and 2.20 p.m. H—*Leysdown* (II). TS, and 1.05 in. of R.—*Pitsford* (III). Heavy TS.—*Chelmsford* (IV). Heavy storm of H, doing much damage—*Thornton Curtis* (VII). Almost continuous R for 16 hours.

23rd.\*—*Ilminster* (V). A TS commenced at 5.30 p.m., and at 6.50 p.m. 1.10 in. of R was measured. At 8.50 p.m. an additional 1.40 in. was registered, making 2.50 in. in 3 hours 20 minutes.—*Crickhowell, Gwernvale* (XI). In 14 minutes .44 in. of R fell.

25th.—*Abinger Hall* (II). Meadows white with frost.

28th.—*Blandford* (V). Thick fog.—*Christchurch* (II). Heavy sea-fog.

30th.†—*Newport* (XI). A heavy shower of R occurred in the

\* See also *Met. Mag.*, September, 1904, pp. 153, 154.

† See also *Met. Mag.*, October, 1904, p. 174.

morning accompanied by a single flash of L, which struck and killed a sailor who was gathering mushrooms in a field near the docks.—*Falkirk* (XV). Dense fog.—*Kilkenny* (XXI). Dense dark clouds gathered at 4 p.m., followed by heavy R at 5.45 p.m. and TS. Vivid L far into the night.

31st.—*Berkhampstead* (III). In 5 minutes .13 in. of R fell.

### SEPTEMBER.

6th.—*Comrie* (XV). Heavy R, causing a flood in the Earn which carried away the service bridge.—*Aberfeldy* (XV). Serious floods, the river not having been so high for twenty years.

7th.—*Horncastle* (VII). Very heavy T and L.—*Grimsby* (VII). Severe TSS from 1 to 5 a.m.

7th and 8th.—*Waterford, Whitfield Court* (XX). From 9 p.m. on 7th to 6 a.m. on 8th 1.11 in. of R fell, accompanied by strong wind.

11th.—*Kenmare, Derreen* (XX). In 12 hours 2.50 in. of R fell.

12th.—*General*. Severe gales all round the coast, doing much damage to fishing boats and small craft.—*Rathmines* (XXI). R 1.32 in., all falling in less than 8 hours.

13th.—*Falkirk* (XV). Dense fog.

14th.—*Warminster, Rye Hill* (V). Between 9 a.m. and noon 1.00 in. of R fell.—*Beaminster, Fleet Street* (V). In 28 minutes 1.05 in. of R fell.—*Chedington* (V). R 1.15 in., of which the greater part fell between 7.30 and 8.15 a.m.—*Lochgailhead* (XV). R 1.44 in. in less than 8 hours.

16th.—*Rathmines* (XXI). The min. temp. read in the morning was 58°·6.—*Horn Head* (XXIII). In two and a half hours 1.54 in. of R fell.

18th.—*Tighnabruaich* (XV). Slight earthquake shock, preceded by a loud report at 4.10 a.m. No damage was done.—*Inveraray* (XV). Earthquake felt at about 4 a.m.

26th.—*Crowborough, Steel Cross House* (II). In 45 minutes .31 in. of R fell.—*Briton Ferry* (XI). In 20 minutes .30 in. of R fell.

27th.—*London* (I). The first fog of the season was experienced in the morning.

28th and 29th.—*Falkirk* (XV). Dense fog.

30th.—*Lochgailhead* (XV). In 8 hours 1.44 in. of R fell.

### OCTOBER.

2nd.—*Guernsey, St. Martin's* (XI). R 2.42 in., the heaviest fall in 39 years. It was distributed as follows:—From 8 a.m. to 6 p.m.,

·97 in. ; from 6 p.m. to 10 p.m., 1·06 in. ; from 10 p.m. to midnight, ·25 in. ; from midnight to 6 a.m., ·11 in. ; from 6 a.m. to 8 a.m., ·03 in.

6th.—*General*. Severe gales, doing damage to shipping and to coast-protection works.

6th and 7th.—*Guernsey, St. Martin's* (XI). From 6 p.m. on 6th to 2 a.m. on 7th 1·11 in. of R fell.

11th.—*St. Pancras, Camden Square* (I). Dense black fog. Artificial light necessary nearly all day.

15th.—*Helston* (V). Between 3 and 6 p.m. 1·02 in. of R fell, fully ·80 in. of it in 30 minutes.

16th.—*Briton Ferry* (XI). In 12 hours 1·35 in. of R fell.—*Towyn* (XI). R 1·27 in., falling principally during the night. This caused heavy floods at a place 18 miles to the N.N.E., completely washing away the railway.

18th and 19th.—*Dover* (II). Exceedingly dense fog, greatly hampering cross-Channel traffic.

19th and 20th.—*Farnham Royal* (III). Thick white mist all day.

24th to 30th.—*Farnham* (II). Fog until noon.

27th.—*General*. Fog prevailed over the greater part of England.

## NOVEMBER.

1st.—*Pencarrow* (V). Two and a half inches of S.

5th.—*Keswick, Eskin Place* (X). Severe S storm.

6th.—*Newport, Burrishoole House* (XXII). In 8 hours 1·12 in. of R fell.

8th.—*Rochdale, Fieldhead* (VIII). In fifteen hours 1·50 in. of R fell.—*Seathwaite* (X). In eighteen hours 3·98 in. of R fell.—*Clenerie* (XII). R 3·96 in., causing a very heavy flood.—*Colmonell* (XIV). R 1·68 in., causing on the 9th the largest flood for at least 15 years.—*Tighnabruaich* (XV). R 2·30 in., falling between 2 p.m. on 8th and 9 a.m. on 9th.

9th.—*Dover* (II). Very severe gale in the Channel.

13th.—*Worcester* (VI). Thick fog.

13th and 14th.—*Maidenhead* (II). Dense fog.

13th—15th.—*Goldsborough Hall* (IX). Dense fog.

13th—17th.—*Stoke Bishop* (VI). Thick fog.

14th.—*Brundall* (IV). Dense fog in the morning.—*St. Annes* (VIII). Thick fog.

14th and 15th.—*St. Pancras, Camden Square* (I). Dense morning fogs. On 15th objects were invisible at a distance of 6 yards at 11.45 a.m.—*Barnet, Hadley* (III). Dense fogs.

15th.—*Ross* (VI). Dense fog.

16th.—*Chelford* (VIII). Thick fog in the evening.

16th and 17th.—*Worcester* (VI). Thick fog.

17th and 18th.—*Gloucester* (VI). Thick fog.—*Ross* (VI). Dense wetting fog.

17th—19th.—*Abinger* (II). Dense fog.

18th.—*Leysdown* (II). Dense fog all day.—*Crowborough* (II). Thick fog.—*Abingdon* (III). Very dense fog all day.

19th.—*Burgh Castle* (IV). Aurora seen.

19th—24th.—*Copdock* (IV). S never more than half to one inch deep.

20th.—*Doncaster* (IX). Heavy S.—*Furnace* (XV). Three inches of S, the heaviest fall so early in the season for many years.—*Inveraray* (XV). Four inches of S fell in the night.—*Ballachulish* (XV). Four inches of S.

20th and 21st.—*Grange-over-Sands* (VIII). Five inches of S.—*Seathwaite* (X). S lying from a foot to eighteen inches deep.—*Keswick* (X). S storm. Depth 9 inches on the morning of the 22nd.—*Dalbeattie, Kirkennan* (XII). Thirteen inches of S fell.—*Belleek* (XXIII). S, yielding 1·01 in.

20th—22nd.—*Dalry* (XII). Nine inches of S.

20th—23rd.—*Borrowdale, Grange* (X). S.—*Forfar* (XVI). About six inches of S.

21st.—*Stroud* (VI). Violent S storm between 4 and 4.30 p.m.—*Chelford* (VIII). An inch of S fell in the night and two inches in the afternoon.—*Cartmel* (VIII). Three inches of S.—*Meltham* (IX). S five inches deep, yielding ·48 in. The average depth for the district was six or seven inches.—*Adel* (IX). Seven and a half inches of S.—*Beltingham* (X). S storm of great severity. Average depth 14 inches.—*Seathwaite* (X). Heavy S, from a foot to a foot and a half deep.—*Rhiwbryfdir* (XI). About three inches of S.—*Dalbeattie, Little Richorn* (XII). S, yielding 1·01 in.—*Clenerie* (XII). Heavy fall of S, drifting on 22nd.—*Langholm* (XII). S fell heavily all day, amounting to 13 inches, the greatest fall for 20 years. Roads and railways were blocked, and many sheep were lost in the hills owing to drifting.—*Colmonell* (XIV). Three inches of S, the heaviest fall in 28 years' records.—*Perth* (XVI). Two inches of S.—*Arbroath* (XVI).

In about two and a quarter hours nine inches of S fell, yielding ·37 in.—*Cork* (XX). An inch of S.—*Broadford* (XX). S two and a half inches deep.

21st and 22nd.—*Broughton-in-Furness* (VIII). Two inches of S.—*Shipley* (IX). S from 11 p.m. on 21st to about 8.30 a.m. on 22nd, the mean depth being nine and a half inches.—*Knaresborough* (IX). Five inches of S.—*Eigg* (XVIII). Three and a half inches of S.

21st—23rd.—*Wakefield* (IX). S five and three-quarters inches deep. The storm was the most severe recorded in November since records commenced in 1889.—*Llanerchymedd* (XI). S about two inches deep, but a heavy fall on the Carnarvonshire mountains.—*Hawick* (XII). Heavy S.—*Tuam* (XXII). S five inches deep.—*Lough Eske Castle* (XXIII). S fell to the depth of eighteen inches, yielding 1·96 in.

21st—26th.—*Wilmslow* (VIII). The most remarkable cold snap on record in November. On 21st four inches of S fell with mean temp. 33°·3, and on 23rd two inches more, while the mean temp. dropped to 22°·0. On 24th it fell to 19°·4, and on 26th to 17°·9. The min. in the screen was on 24th 7°·7, and on 27th 9°·9, and on grass 3°·8 and 5°·8 respectively. From 26th to December 1st the mean temp. rose 29°·8.

22nd.—*Epsom* (II). Sun pillar seen at 7.45 a.m.—*Crowborough* (II). Blizzard, with a good deal of sleet but very little S.—*Swerford* (III). Two inches of S.—*Polperro* (V). S five or six inches deep, the heaviest for many years.—*Bishops Castle* (VI). S three inches deep.—*Ilkley* (IX). S 9 inches deep, of which 2 inches fell on 21st, and 7 inches before 9 a.m. on 22nd.—*Penrith* (X). S, yielding ·80 in. A passenger train was caught in a snowdrift on the Keswick line and stuck fast for five hours.—*Towyn* (XI). Two inches of S on the ground.—*Cargen* [*Dumfries*] (XII). Eleven inches of S.—*Aberdeen* (XVII). Heavy fall of S.—*Monymusk* (XVII). Severe S storm.

22nd and 23rd.—*Newcastle* (X). Several local railways, especially the Riccarton branch of the North British line, were closed to traffic by S drifts.

23rd.—*St. Pancras, Camden Square* (I). Rather more than an inch of S fell between 10 and 11.30 p.m.—*Haileybury* (III). About one inch of S.—*Hitchin* (III). Unusually heavy S for so early a date, yielding ·14 in.—*Slough* (III). One and a quarter inch of S.—*Winslow* (III). Two and a half inches of S at night.—*Ashburton* (V). S two inches deep.—*Liskeard* (V). Seven inches of S.—*Launceston* (V).

§ five inches deep.—*Harptree Court* (V). One inch of §.—*Ross* (VI). Two inches of §.—*Cropwell Grove* (VII). Remarkably early heavy §.—*Worksop* (VII). § three to four inches deep.—*Blair-Atholl* (XVI). § seven inches deep. Seldom has such a heavy fall been recorded in November.—*Darrynane Abbey* (XX). Two inches of § on low ground.

23rd and 24th.—*Pencarrow* (V). Five and a half inches of § fell on 23rd and half an inch on 24th.

24th.—*Wallington* (II). § an inch and three quarters deep.—*Dover* (II). During the § storm two yew trees, said to be over 200 years old, were blown down in Buckland Churchyard.—*Winslow* (III). Min. temp. in screen  $6^{\circ}0$ ; min. on grass  $2^{\circ}0$ . These were the lowest in 34 years.—*Boston* (VII). Min. temp. in screen  $12^{\circ}0$ , the lowest recorded during 40 years.—*Worksop* (VII). Min. temp. on snow  $-1^{\circ}9$ .—*Crathes* (XVII). § six inches deep.

25th.—*Polapit Tamar* (V). Min. temp. in screen  $6^{\circ}9$ , one of the lowest readings ever recorded here.—*Stoke Bishop* (VI). Dense fog.—*Perth* (XVI). Two inches of §.

26th.—*Winslow* (III). Dense fog. Min. temp. in screen  $12^{\circ}0$ , and on grass  $8^{\circ}0$ .—*Abingdon* (III). Thick fog all day.

27th.—*Liskeard* (V). Seven inches of §.—*North Cadbury* (V). Dense fog.

28th.—*Ross* (VI). River Wye frozen over although a rapid stream.—*Chelford* (VIII.) Dense fog.

29th.—*North Cadbury* (V). Dense fog.

## DECEMBER.

2nd.—*Dufftown* (XVII). About nine inches of § on the ground.

3rd.—*Winslow* (III). Thick fog.

4th.—*Quinish* (XV). Sudden and most furious gale from S.W. at night.

5th.—*Rochford* (VI). T and L at 1 p.m. and again during the night.

5th and 6th.—*Rousdon* (V). L was frequent at night on 5th, and from 2 to 3 a.m. on 6th a heavy TS with vivid L passed over the Channel.

6th.—*Crowborough* (II). About 5 a.m. a violent H storm occurred. The stones were flat and oval in shape and nearly as large as grains of maize.—*Chedington* (V). Between 3 and 4 a.m. very heavy storms of T and L, with remarkably large H stones.—*Teignmouth* (V). TS from 2.15 to 3 a.m.—*Tavistock* (V). Heavy TSS from 1.50 to 4.10 a.m.



6th and 7th.—*Lynturk* (XVII). About three and a quarter inches of S.

7th.—*St. Pancras, Camden Square* (I). Very dark at times during the morning.—*Erith* (II). Very thick fog.

8th.—*Northleach* (VI). Two inches of S during the night.—*Penrith* (X). S, yielding 50 in.—*Watten* (XIX). S three or four inches deep.

9th.—*Swerford* (III). One and a half inches of S.—*Bishops Castle* (VI). Three and a half inches of S.—*Grimsby* (VII). Thick fog.—*Seathwaite* (X). S three inches deep.—*Aberdeen* (XVII). Heavy fall of S at night.—*Lynturk* (XVII). About three inches of S fell.

9th—17th.—*Huddersfield* (IX). Nine days of black fog, with white frost nearly every morning.

10th.—*Winslow* (III). Dense fog.

10th and 11th.—*Erith* (II). Very thick fog.

15th.—*Rathmines* (XXI). Extraordinary rise of temp. to 56°·6 at midnight.

16th.—*Lynmouth* (V). Lunar rainbow observed, remaining visible for nearly an hour.—*Colmonell* (XIV). Min. temp. 53°, the highest in December in 29 years.

16th and 17th.—*Cockermouth* (X). Local R caused the biggest flood since records commenced.

18th.—*North Cadbury* (V). Extraordinary visibility from 8.50 to 9 a.m. The Quantock and Exmoor Hills, some of which are 40 to 50 miles distant, were seen with marvellous distinctness, and a clump of trees on Cothaleston Hill, some 30 miles away, was also distinguishable for 5 minutes.—*Worcester* (VI). Thick fog.

18th—25th.—*Oxford* (III). After a fine morning on 18th, continuous fog prevailed, varying in density, and depositing so heavy a rime that it fell from the trees and lay like S to a depth of three quarters of an inch or more. Rime dropped in showers for two or three hours on 25th.

18th—26th.—*Bedford* (III). Fog and very heavy rime frosts, breaking trees and telegraph wires.

18th—27th.—*Bagshot* (III). Very thick fog.—*Broughton-in-Furness* (VIII). Sharp frost succeeding drizzly weather caused heavy hoar frost, which was piled thickly on the ground like S.

18th—28th.—*Maidenhead* (II). Thick fog.

19th.—*Farnham* (II). Heavy fog all day.—*Epsom* (II). Thick fog all day.—*Winslow* (III). Dense fog.—*Ross* (VI). Dense fog.—*Wem* (VI). Thick fog all day.—*St. Annes* (VIII). Thick fog.—*Goldsborough*

*Hall* (IX). Dense fog.--*Rathmines* (XXI). Dense wet fog from 6.30 p.m.

19th—23rd.—*St. Pancras, Camden Square* (I). Dense fogs persisted from the morning of the 19th till 11 a.m. on 23rd. Railway, street and river traffic in London greatly disorganized.

19th—24th.—*Barnet, Hadley* (III). Exceedingly dense fog.

19th—25th.—*Erith* (II). Very thick fog.

19th—26th.—*Sywell Hall* (III). Persistent thick fog.--*Wrestlingworth* (III). Continuous fog and low temp. caused very thick hoar frost, which broke many branches from trees.

19th—27th.—*Pitsford* (III). Very cold, with almost continuous fog, some days being very dark and dense.—*Hull* (IX). Dense fog daily.

19th—28th.—*Oakley* (II). Continuous fog day and night.—*Slough* (III). Ten days of fog constituted the now historic Black Christmas of 1904.—*Skellingthorpe Hall* (VII). Continuous fog.—*Wakefield* (IX). Remarkable fog.

20th—25th.—*Meltham* (IX). Very foggy, especially on 20th, 21st and 23rd.

21st.—*London* (I). The *Daily Telegraph* reported that the Chancellor of the Exchequer was unable to persuade any cabman to attempt the journey from Downing Street to Euston Station on account of the fog, and was obliged to make his way on foot.--*Farnham* (II). Heavy fog.—*Epsom* (II). Thick fog all day.—*East Garston* (II). Dense fog.—*Chelmsford* (IV). Very dense fog.—*Seathwaite* (X). Thick fog.

21st and 22nd.—*St. Peters* (II). Whilst London was wrapped in dense fog, the sun shone brilliantly here.—*Farnborough* (II).—Quite bright and fine here, but about a hundred feet lower there was dense fog.—*Mayfield House [Ashbourne]* (VI). Thick fog.—*Goldsborough Hall* (IX). Very foggy.

21st—23rd.—*Winslow* (III). Dense fog.—*Oxford* (III). Thick fog.—*Chelford* (VIII). Thick fog all day.

21st—24th.—*Shalbourne* (V). Continued fog.

21st—27th.—*Little Saxham* (IV). Fog, very thick at times.

22nd.—*Gravesend* (II). Forty large vessels lay fog-bound in the river opposite this point, and it was estimated that at least 400 vessels were at anchor between Gravesend and the Nore.—*Blandford* (V). Thick fog.—*Crewkerne* (V). Very thick fog.—*Stoke Bishop* (VI).

Thick fog.—*St. Annes* (VIII). Thick fog all day.—*Towyn* (XI). Heavy dense fog.

22nd and 23rd.—*Chester* (VIII). Dense fog.

22nd—31st.—*Holford* (V). Heavy fog.

23rd.—*Leysdown* (II). Dense fog.

24th.—*Belfast* (XXIII). Very dense fog all day.

24th—26th.—*Grimsby* (VII). Extraordinary fog.

25th.—*Liverpool* (VIII). The Cunard liner *Saxonia* and the White Star liner *Oceanic*, which were fog-bound off the port for three days, landed their passengers at last.

26th.—*Haslemere* (II). Thick fog.

27th.—*Lochgailhead* (XV). Thick fog and dead calm.

28th.—*St. Annes* (VIII). Thick fog.

29th.—*Furnace* (XV). Very high gale, the strongest gust registering 23 lbs. per square foot. — *Quinish* (XV). Sudden furious S.W. gale. — *Buncrana* (XXIII). Severe gale at night from S.W., veering towards morning to W.

30th.—*Fulham, Edith Road* (I). Violent S.W. gale in the early part of the day.—*St. Pancras, Camden Square* (I). Westerly gale in early morning, doing some damage.—*Epsom* (II). Gale veering from S.W. to N.W., the max. force being attained between 8 and 9 a.m. from W.N.W. At 9 a.m. a change in relative humidity took place from 86 per cent. to 59 per cent. in 10 minutes. Little damage was done by the gale.—*Hoo St. Mary* (II). The highest tide yet known in the Thames and Medway occurred at 6.30 p.m., being several inches higher than the disastrous flood of November 29th, 1897. The peculiar feature was that it was neap tide. Much damage was done on all low ground, and a great many sheep were drowned.

## OBSERVERS' NOTES ON THE MONTHS.

## JANUARY.\*

## ENGLAND AND WALES.

I. LONDON.—*Fulham, Edith Road.* The wettest month of the year, but R only .61 in. above the average.—*St. Pancras, Camden Square.* Very little relief was experienced from the gloomy and ungenial conditions of December, 1903, and dark, damp weather continued almost throughout, with temp. nearly always above the average. Measurable R fell on 26 days, and the total duration was 79.5 hours, whilst the duration of sunshine reached only 20.5 hours. Mean temp.  $39^{\circ}5$ , or  $1^{\circ}4$  above the average.

II. SOUTH EASTERN COUNTIES. — *Haslemere, Jesses.* Very wet, especially from 26th to 31st, when 3.68 in. of R fell. Mean temp.  $37^{\circ}7$ .—*Wallington.* R double the average of 20 years. Mean temp.  $38^{\circ}8$ , or  $1^{\circ}0$  above the average. Duration of sunshine 39.3 hours, being 2.9 hours below the average.—*Eastry, Great Walton.* Raw and damp, with very little sunshine. Garden and field work at a standstill.—*Stedham.* Dull, sunless and damp. Duration of sunshine 33.3 hours on 12 days.—*Lewes, Saxonbury.* Cold from 18th to 25th, and for the rest mild, with fog, mist and R. Frost on 3 days.—*Crowborough, Beechcroft.* Unsettled, with much R, fog and gloom, and high temp. The latter half, which commenced with clear, bright weather and frost, ended with squally winds and much R.—*Crowborough, Steel Cross House.* Changeable, with constant mist and R, so that the land was saturated at the close.—*Christchurch, Winkton Lodge.* A mild month and the wettest January for 10 years. Frost on 3 days, but of short duration. Very calm in the middle with cloudy days. Many beautiful spring-like days, the R frequently falling only at night.—*Wantage, Ardington.* Mild and dull, with R or mist nearly every day till 21st. Frost and brighter weather till 25th, and heavy R daily from 26th to 31st, on which day S fell.

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\* See also *Met. Mag.*, February, 1904, p. 18.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R  $\cdot 72$  in. above the average of 29 years.—*Farnham Royal*. A rather sunless month, with R and temp. about the average. Prevailing winds N.W. and S.W.—*Culham Vicarage*. Wet and unsettled, with variable temp. Little R fell until the last week.—*Oxford, Banbury Road*. Great variety of weather—cold and mild, wet and fine, much wind and little fog. The country roads were fearfully muddy and heavy.

IV. EASTERN COUNTIES. — *Buckhurst Hill, Ardmore*. Rapid changes of temp. There were some sunny days and one or two rather bad fogs.—*Colchester, Lexden*. A few sunny days, but generally cold except for two mild periods about 13th, and from 26th to the close.—*Copdock*. Condition generally anti-cyclonic, but a large number of rainy days and a small excess of R. Except for six glorious days the month was dull and sunless, with no extremes of temp. Mean temp.  $37^{\circ}\cdot 6$ . Duration of sunshine 56·6 hours.

V. SOUTH WESTERN COUNTIES.—*Alderbury*. R nearly  $2\frac{1}{2}$  times as great as the average of 10 years.—*Bishops Cannings*. R  $1\cdot 34$  in., and rainy days 5, above the average.—*Tavistock, Whitchurch*. Damp, cloudy and very wet, with about average temp. The mean daily temp. ranged from  $31^{\circ}\cdot 7$  on 1st to  $48^{\circ}\cdot 4$  on 27th.—*Crewkerne, Merefield House*. Very wet, especially in the first, second and last weeks, with heavy gales.—*Harptree Court*. R  $\cdot 81$  in. above the average of 21 years.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop*. Like January, 1902, a month of great change with high bar. and excess of R.—*Cirencester, Further Barton*. R  $1\cdot 12$  in. above the average of 59 years. Weather variable, foggy and damp, with frequent R interspersed with frosts and a few lovely days.—*Bishops Castle, Castle Street*. Dull, wet and cheerless, with temp. above the average, and neither frost nor S.—*Tenbury, Rochford*. Dull, rainy and unsettled, with R  $\cdot 26$  in. above the average.—*Coventry, Priory Row*. Wet and sunless, but with only light, small R, and no heavy storms.

VII. NORTH MIDLAND COUNTIES.—*Worksop, Hodsock Priory*. Mild and dull, with little frost, low pressure, and normal R. Sunshine deficient. A few flakes of S.

VIII. NORTH WESTERN COUNTIES.—*Chester, Parkgate Road*. The seventh of a remarkable series of consecutive warm Januaries.—*Chelford, Astle Hall*. A wet month with R or S on 21 days. Some very mild weather in the middle, but frost on 13 days.—*Blackpool*. Showery and generally unsettled except for a few days at the beginning and end. The mean temp. was  $39^{\circ}\cdot 4$ , or  $1^{\circ}\cdot 2$  above the average ; and

the R  $\cdot 83$  in. above the average. Duration of sunshine 38·0 hours, or 1·5 hours above the average.—*Broughton-in-Furness*. R  $\cdot 74$  in. above the average of 10 years. Mild and wet, with little frost and a few wild storms of wind. More fog than usual.

IX. YORKSHIRE.—*Harrogate, Harlow Hill*. Mean temp.  $1^{\circ}3$  above the average, and R  $\cdot 10$  in. above the average. Duration of sunshine 46·4 hours; 15 sunless days.

XI. WALES.—*Towyn, Gothic House*. Mean temp.  $41^{\circ}8$ . Duration of sunshine 49·7 hours.

### SCOTLAND.

XII. SOUTHERN COUNTIES.—*Langholm, Drove Road*. R  $\cdot 47$  in. above the average of 28 years.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh, Levenhall*. Brighter and less humid than for some time previously, owing to the high winds. From 6th to 19th the wind blew chiefly from S. and S.W., rising to a gale on 10th and 13th; from 20th it blew from S. and S.E., rising to a gale on 27th and 29th.

XV. WEST MIDLAND COUNTIES.—*Tighnabruaich*. There were two cyclonic periods with copious R, culminating on 13th and 21st.

XVI. EAST MIDLAND COUNTIES.—*Dundee, Balruddery*. Dull and sunless, and at times very mild. Duration of sunshine 43·8 hours.

XIX. NORTHERN COUNTIES.—*Bettyhill*. During the first and last weeks it was bright and open with slight frost and S. The R was light.—*Watten*. Fresh and open, but cold with unsteady wind.

### IRELAND.

XX. MUNSTER.—*Darrynane Abbey*. R 25 per cent. above the average of 20 years. The early part was mild and the last few days cold.—*Nenagh, Castle Lough*. The first half was wet and windy, the latter damp and mild.

XXI. LEINSTER.—*Rathmines, Leinster Road*. The R, most of which fell in the first fortnight, was  $\cdot 28$  in. above the average of 10 years. It was the seventh mild January in succession, the mean temp. being  $40^{\circ}2$ . There was no severe frost, little fog, few gales and very little S. A good deal of bright sunshine in the last week.

XXIII. ULSTER.—*Lough Island*. R  $1\cdot 15$  in. above the average of 40 years.

## FEBRUARY\*

## ENGLAND AND WALES.

I. LONDON.—*Fulham, Edith Road.* A wet month of average temp. The earlier half very stormy. R  $\cdot 87$  in. above the average.—*St. Pancras, Camden Square.* Ungenial and lacking in sunshine, with frequent R and uniform temp. Slight frost during the last week with light S showers. Duration of sunshine 41·5 hours, and of R 57·1 hours. Mean temp.  $39^{\circ}\cdot 4$ , or  $0^{\circ}\cdot 4$  below the average.

II. SOUTH EASTERN COUNTIES.—*Haslemere, Jesses.* R every day till 21st. Variable winds. Average temp.—*Abinger Hull.* The earlier part was very wet, but latterly it was mild and open.—*Wallington.* The first three weeks were extremely wet, the R being more than twice the average. Mean temp.  $39^{\circ}\cdot 4$ , or  $1^{\circ}\cdot 0$  above the average. Duration of sunshine 75·7 hours, or 13·6 hours above the average.—*Tilmanstone, Danefield.* Wet and mild till 26th, with a good deal of sunshine. The last few days were much colder, with three inches of S.—*Lewes, Saxonbury.* Mild and showery, with fog and mist. Frost and S during the last week.—*Crowborough, Beechcroft.* Unsettled and wet until 15th, when the weather improved gradually, and the month finished fine and dry, with frost and slight S showers.—*Crowborough, Steel Cross House.* Dull, wet and cold, with but little sunshine.—*Bournemouth, Kempsey.* Wet and rather cold. R fell on every day from January 24th to February 17th.—*Christchurch, Winkton Lodge.* Wet with floods out all the month. S.W. wind mostly. Stormy from 7th to 11th. Occasional frosty nights but no continuance of cold. Temp. equable, and many days of bright sunshine.—*West Dean.* Very stormy, with R above the average, and average temp., though cold at the close. Wind chiefly S.W. and N.W. S on 10 days.—*Wantage, Ardington.* Excessively damp till 18th, the ground, even on high levels, being so saturated with water that springs rose in all directions, breaking through the macadam on the roads and causing dangerous pitfalls. After the 13th the type of weather changed and cold E. winds and frost prevailed, varied by a westerly gale on 20th and 21st.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill.* R 1·18 in. above the average of 29 years, but the principal feature was the large number of rainy days.—*St. Albans, County Museum.* A wet month, but very little R fell after the 14th. R fell every day from January 25th to February 14th, amounting to 4·86 in.—*Slough, Upton.* Serious local

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\* See also *Met. Mag.*, March, 1904, p. 38.

floods from 3rd to 20th. In the middle of the month the land was so sodden, even on slopes and uplands, that it ceased to absorb the water lying on its surface.—*Farnham Royal*. Not much sunshine. Temp. rather below, and R rather above the average. Bar. very low and unsteady. Prevailing winds S.E. and S.W.—*Blisworth, Crieff House*. Very heavy R in the first half, causing the largest floods for some years.—*Culham Vicarage*. Wet and rainy till 21st, and during the last week cold with slight S.

IV. EASTERN COUNTIES.—*Copdock*. Very wet till the last week, only two days absolutely without R. No extremes of temp., and small daily range. Mean temp.  $38^{\circ}4$ . Duration of sunshine 78·8 hours.—*Burgh Castle*. Excessive R and an unusual number of wet days. The temp. was generally low, and the weather of the last week was the severest during the winter.—*Blakeney*. R 1·65 in. above the average of 10 years.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R ·89 in., and rainy days 9, above the average.—*Tavistock, Whitchurch*. Cold and very wet, the R being about double the average. In 28 consecutive rainy days ending on 21st, 11·67 in. fell. The mean daily temp. varied from  $46^{\circ}9$  on 21st to  $29^{\circ}9$  on 29th.—*Chudleigh, Ideford*. The wettest February in the seventeen years of the record.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop*. Very wet, with great extremes of temp. and pressure, and much wind. Bar. range 1·660 in.—*Cirencester, Further Barton*. Extremely wet, the R being 3 inches above the average of 59 years. The R from 7th to 10th, amounting to 2·36 in., caused heavy floods in the Thames. The temp. was rather low and uniform till the last few days, which were wintry.—*Hoar Cross*. Dull from 1st to 6th. S and R from 7th to 10th. From 15th to 24th sunny and bright, and from 25th to the end dull and cold with S.—*Upton-on-Severn, The Eades*. The heavy R following that of 1903, caused all low-lying places to be water-logged.—*Tenbury, Rochford*. Very wet and stormy. R 2·05 in. above the average.

VII. NORTH MIDLAND COUNTIES.—*Spilsby, Ashby Road*. R 1·22 in. above the average of 10 years.—*Grimsby, Abbey Road*. Very changeable. Generally dull, wet and mild, with occasional frosts. Strong winds.—*Workshop, Hodsock Priory*. Wet, very dull, and rather cold, with unusually low pressure, but no severe frost. S on the ground on the 16th for the first time for two years.

VIII. NORTH WESTERN COUNTIES.—*Blundellsands*. R 4·25 in. The wettest February since a record was started in 1876.—*Chatburn*,



*Middlewood*. R 1·07 in. above the average of 15 years.—*Blackpool*. The conditions were generally bad. There were a few bright days; the weather was on the whole exceptionally dull and cold, and R fell on 22 days. Mean temp.  $37^{\circ}\cdot4$ , or  $2^{\circ}\cdot0$  below the average, and R 1·50 in. above the average. Bright sunshine was very deficient, the total being 37·8 hours, or 24·7 hours below the average.

IX. YORKSHIRE.—*Goldsborough Hall*. From the 22nd to the end this dull and wet month was particularly cold and gloomy, with S.E. wind and frequent S. Max. shade temp. for the week  $37^{\circ}$ .

X. NORTHERN COUNTIES.—*Bamburgh*. Cold and unsettled, with wind mostly S. and S.E. Little fog.

### SCOTLAND.

XII. SOUTHERN COUNTIES.—*Lilliesleaf*. R·40 in. above the average.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh*. Wet and cold. Except on 12th and 13th when a gale blew from S.S.W., the winds were moderate, chiefly from S.E.

XV. WEST MIDLAND COUNTIES.—*Ballachulish, Ardsheal*. R 1·74 in. above the average.

XVIII. NORTH WESTERN COUNTIES.—*Lochmaddy*. Generally stormy and wet except a day or two at the beginning and end.—*Drumnadrochit*. R·76 in. below, and rainy days equal to, the average of 18 years.

### IRELAND.

XX. MUNSTER.—*Castle Lough*. Damp and wet, with variable temp.—*Broadford*. The wettest February on record.

XXI. LEINSTER.—*Kilkenny, Sion Villa*. Wild, cold and unsettled throughout. S on 15th and 16th, and on 29th it fell incessantly in small flakes all day. H on 11th and 14th. Fogs, 4th and 11th. Gales on 12th, 13th and 14th. L on 13th. TS on 12th. Fine from 21st to 26th. Mean temp.  $38^{\circ}\cdot5$ .—*Rathmines, Leinster Road*. The wettest February since the record commenced in 1882. The mean temp.,  $38^{\circ}\cdot7$ , was  $7^{\circ}\cdot0$  lower than that in 1903. No extremes of temp., but on 29th the max. for the day,  $35^{\circ}\cdot4$ , was remarkably low. Vegetation hardly made any progress.

XXIII. ULSTER.—*Lough Island*. R 2·22 in. above the average of 40 years.

## MARCH.\*

## ENGLAND AND WALES.

I LONDON.—*Fulham, Edith Road*. Rather cold, with average R. Singularly calm atmosphere, unlike the previous March, when every day was windy.—*St. Pancras, Camden Square*. The first week was practically sunless, with frequent but light R. From 8th there was a considerable amount of sunshine, and very little R until the last few days, when slight TSS occurred with some H. Duration of sunshine 62·3 hours, and of R 41·7 hours. Mean temp. 40°·8, or 1°·3 below the average.

II. SOUTH EASTERN COUNTIES.—*Haslemere, Jesses*. Very changeable. No R from 8th to 19th, and fairly cold. Mean temp. 39°·6.—*Wallington*. R ·36 in. below the average of 15 years. Mean temp. 40°·4, or 1°·4 below the average. Duration of sunshine 92·3 hours, or 22·7 hours below the average.—*Canterbury*. Dull and overcast early in the month, without a trace of sunshine from 2nd to 8th. Less wind and R than the average.—*Lewes, Saxonbury*. Calm as a whole, with frost, fog and mist.—*Christchurch, Winkton Lodge*. Small R. Brilliant throughout the middle of the month, with equable temp. Spring flowers were abundant and in fine condition. Occasional white frosts.—*East Garston*. Rough and unsettled in the first and last weeks, and cold generally, but fine drying weather in the middle.—*Wantage, Ardington*. After the first week it was cold, bright and dry, with E. and N.E. wind. Slight S on 1st, 3rd, 4th and 30th, and frequent sharp frosts. Vegetation was unusually backward.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R ·59 in. above the average of 29 years.—*Farnham Royal*. Fairly dry, with temp. slightly below the average. Rather heavy S on 1st and 3rd. Prevailing wind N.E. and S.E.—*Culham Vicarage*. Changeable but dry on the whole, though small quantities of R and S fell on many days.

IV. EASTERN COUNTIES.—*Dunmow, Bigod's Hall*. S and sleet, with dull days in the first week. Bright, with morning haze from 9th to 17th. The remainder was alternately dull and bright, with no high winds. Duration of sunshine 93·7 hours.—*Copdock*. A typical March. Cold, the mean temp., 40°·3, being 5°·2 lower than in March, 1903. Duration of sunshine 111 hours. Most spring flowers were more than a month later than in 1903.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R ·24 in. below,

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\* See also *Met. Mag.*, April, 1904, p. 58.

and rainy days 1 above, the average.—*Tavistock, Whitchurch*. Rather cold and dry. The daily mean temp. varied from  $31^{\circ}\cdot 0$  on 1st to  $48^{\circ}\cdot 2$  on 9th. The prevalent wind was E.—*Polapit Tamar*. Cold, dry and altogether seasonable.—*Crewkerne, Merefield House*. Mostly fine and dry, with S.E. to N.E. winds. From 8th to 27th inclusive, only  $\cdot 07$  in. of R fell. Mean temp.  $42^{\circ}\cdot 0$ .—*Harptree Court*. R  $\cdot 91$  in. below the average of 21 years.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop*. Cold, with small R and an unusual number of frosts.—*Cirencester, Further Barton*. A miserably cold and gloomy week was followed by the 8th and 9th, the only two genial days of the month. After a TS on 9th the rest of the month was dry, cold and sunny, with sharp frosts, and most favourable for farming operations. R  $\cdot 62$  in. below the average of 59 years.—*Hoar Cross*. Windy, with driving R and S, but a fair amount of sunshine.—*Worcester, Boughton Park*. Dry, with cold nights and cold wind, but a fair amount of sunshine.—*Tenbury, Rochford*. Dull and sunless, with R  $\cdot 82$  in. below the average.

VII. NORTH MIDLAND COUNTIES.—*Spilsby, Ashby Road*. R  $\cdot 24$  in. below the average of 10 years.—*Worksop, Hodsock Priory*. Dull and rather cold, with normal R, but showers kept the ground moist, so that the usual March dust was absent.

VIII. NORTH WESTERN COUNTIES.—*Chelford, Astle Hall*. Cold till the 16th, then some mild days; but it was cold from the 24th to the end. Frost on 15 days.—*Blackpool*. Fairly bright and fine. Mean temp.  $39^{\circ}\cdot 2$ , or  $2^{\circ}\cdot 0$  below the average. R  $\cdot 12$  in. above the average. Duration of sunshine  $95\cdot 0$  hours, or  $11\cdot 7$  below the average.—*Hampson-in-Ellel*. Cold and bleak, with E. and N.E. winds.—*Broughton-in-Furness*. R about half an-inch above, and rainy days equal to, the average. More frosts than usual, but none of great intensity. Mean temp.  $38^{\circ}\cdot 9$ , the lowest for 10 years. E. winds on 17 days.

IX. YORKSHIRE.—*Goldsborough Hall*. The first week was cold and dull, and with the exception of two or three fine days, it continued so till the middle of the month, when it became warmer, but remained unsettled with showers nearly every day.—*Arncliffe Vicarage*. A wet and wild month, with S in the first part.—*Hull, Pearson Park*. Extremely variable and frequently cold. Sleet and H in the early part, with low temp. The wind was light and there was very little sunshine.—*Middlesbrough, Ormesby*. Dry, but with frequent small R. Cold at the beginning, warm in the middle and cool at the end.

X. NORTHERN COUNTIES.—*Eskdale*. Fairly dry and cold, with E.

winds and several hard frosts.—*Seathwaite*. Very cold, with hard frosts, keen winds and several falls of S.

XI. WALES.—*Towyn*. Pleasant summer weather at the beginning, but cold and windy towards the end. Duration of sunshine 107·5 hours.

## SCOTLAND.

XII. SOUTHERN COUNTIES.—*Galloway, Clenerie*. S lay on the ground when the month began and there was hard frost. A few fine days occurred after the 20th, but from 27th to the end it was wet and stormy.—*Langholm, Drove Road*. R 1·73 in. below the average of 28 years.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh*. There was little R and a fair amount of sunshine. During the first week the wind blew chiefly from the E. ; from 13th to 23rd, from S. and S.W.

XV. WEST MIDLAND COUNTIES.—*Tighnabruaich*. A cold month with average R.—*Inveraray, Newtown*. The greater part was fine and dry, and there was some frost.—*Mull, Quinish*. Very fine except from 27th to 31st, when it was cold, wet and stormy.

XVI. EAST MIDLAND COUNTIES.—*Dollar*. Cold and dull almost throughout.—*St. Andrews*. More sunshine and less cold wind than usual. Night frosts, however, kept vegetation from advancing too rapidly.—*Stronvar*. Fine and dry till 28th, and after that stormy.—*Dundee, Balruddery*. Many sharp frosty mornings with bright sunshine, but a want of drying winds. All seed sowing made slow progress. Duration of sunshine 117·5 hours.

XVII. NORTH EASTERN COUNTIES.—*Crathes, Pinewood*. S on the first seven days, lying on the ground till 12th. No R fell from 9th to 19th, inclusive, the longest spell without R for nearly 4 years. Duration of sunshine 112·3 hours.—*Aberdeen, Cranford*. Cold and wet, with little sunshine, but the wind for the most part was southerly.—*Lynturk Manse*. Open weather after the first week, but the S was slow to disappear till about the middle.

XVIII. NORTH WESTERN COUNTIES.—*Lochmaddy*. Dry as a whole, practically no R falling in the first fortnight.

XIX. NORTHERN COUNTIES.—*Dunrobin Castle*. Dry and cold on the whole, but suitable for outdoor operations and seed-sowing.—*Bettyhill*. Exceptionally dry. Frequent drying winds with slight S and frost.—*Watten*. Dry, windy and cold, but a good seasonable month.

## IRELAND.

XX. MUNSTER.—*Darrynane Abbey*. A fairly fine month, with R only 1 per cent. above the average.—*Castle Lough*. The first half was cold and comparatively dry. There were a few fine days after the 22nd, but the last five days were very severe, with H, S and R showers, and cold winds.

XXI. LEINSTER.—*Kilkenny, Sion Villa*. Seasonable, with much bitterly cold weather, but many lovely days intervening. S on 1st, 6th, 29th and 30th, and H on 29th. Fogs on 12th and 18th. Mean temp. 45°.—*Rathmines, Leinster Road*. Changeable weather, remarkable for the absence of strong winds till the last week, when it was cold and squally. S and sleet on several days. Mean temp. 40°·3.

XXIII. ULSTER.—*Lough Island*. R ·48 in. above the average of 40 years.—*Banbridge, Milltown*. R ·09 in. below the average of 40 years.—*Belfast, Springfield*. A better March could not have been wished for, and the good weather was of the greatest benefit to the land.—*Rathmullan*. Beautiful weather except during the last few days, which were stormy and uncertain.—*Buncrana*. The latter part was wet and stormy, with S, sleet and R.

## APRIL.\*

## ENGLAND AND WALES.

I. LONDON.—*Fulham, Edith Road*. Fine and sunny, also warm, especially at night. R under the average. Mean temp. 2°·5 above the average.—*St. Pancras, Camden Square*. Beautiful weather, mild and sunny, with cool breezes and almost entire absence of harsh E. wind. The R was slight and the greater part fell during the night. No frost was registered in the screen; the mean min. temp. was 43°·4, or 3°·7 above the average, and the highest in April during 47 years. Duration of sunshine 141·3 hours, and of R only 18·9 hours. Mean temp. 50°·3, or 2°·2 above the average.

II. SOUTH EASTERN COUNTIES.—*Haslemere, Jesses*. Fair and mild; wind chiefly S.W. to N.W. Mean temp. 48°·3.—*Farnham, Short Heath Lodge*. Fine on the whole with many lovely days. Cold nights, but no frost at 4 feet above ground.—*Caterham Valley*. Until the last week the nights were always cold, with minima usually below 40°, and grass frost on many mornings. Vegetation was backward in

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\* See also *Met. Mag.*, May, 1904, p. 78.

consequence, but there was good promise for fruit.—*Wallington*. Mean temp.  $49^{\circ}4$ , being  $2^{\circ}1$  above the average. Duration of sunshine 172·3 hours, or 12·4 hours above the average.—*Canterbury*. Dry, bright and sunny. Duration of sunshine 167·1 hours.—*Crowborough, Uckfield Lodge*. Mild and entirely free from frost. R below the average. Mean temp.  $47^{\circ}6$ . Prevailing winds W. and S.—*Christchurch, Winkton Lodge*. Bright and sunny, with equable temp. and small R. Many splendid spring days, daffodils and all flowering shrubs being abundant and in fine condition. Cold nights, but vegetation was in good order and fruit blossom did not suffer.—*West Dean*. A pleasant month. Showery, with strong winds in the first half; fine and bright in the second. Temp. was above, and R below, the average.—*Maidenhead, Isis Cottage*. Squally with gales till 10th; bright sunshine from 11th to 20th, then overcast and gloomy to the end.—*Wantage, Ardington*. On the whole dry and bright, with much high wind from S.W. The temp. was rather low, but there were only three frosts. Two swallows appeared on 13th. Vegetation was backward, but spring crops were doing well.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R ·62 in. below the average of 29 years.—*Harrow Weald*. R ·45 in. below the average of 15 years.—*Kensworth*. Genial R, doing a vast amount of good to vegetation.—*Farnham Royal*. Temp. rather above, and R below, the average, with a great deal of sunshine. The winds were very strong; prevailing directions N.W. and S.W. There was a splendid show of bloom on the fruit trees.—*Addington Manor*. Rather dry with a good deal of rough, cold wind. No frost in the shade, but frost on grass on 10 nights. Vegetation backward.—*Culham Vicarage*. The first half was showery and unsettled, the second dry, except on 22nd.—*Swerford*. Dry and warm, with no sunless day and no fog. R 1·01 in. below the average of 10 years.

IV. EASTERN COUNTIES.—*Colchester, Lexden*. Mild weather, with much S.W. and W. wind, and several bright days. Vegetation much advanced.—*Dunmow, Bigods Hall*. On the whole mild, with many bright and clear days.—*Copdock*. Dry, with a large amount of sunshine, the total being 192·5 hours. Very mild, mean temp.  $49^{\circ}5$ . Wind mostly westerly.—*Burgh Castle*. A very unusual absence of R, and variable temp. The season was generally late, but not unpromising.—*Blakeney*. Heavy winds and frosty nights. R ·81 in. below the average of 10 years.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R ·26 in.,

and rainy days 2, below the average.—*Plymouth*. Fine and warm but somewhat dull. R and sunshine below the average. Duration of sunshine 155·2 hours.—*Tavistock, Whitchurch*. Showery with about average temp. and R. The daily mean temp. varied from 41°·8 on 2nd to 53°·6 on 19th.—*Okehampton*. A dry and cold month, making a backward spring.—*Crewkerne, Merefield House*. The first three weeks were warm and genial. The latter part was colder. Mean temp. 49°·3.

VI. WEST MIDLAND COUNTIES.—*Cirencester, Further Barton*. Rough and windy, but dry, with much sunshine and only two slight frosts. Grand for farmers. R ·57 in. below the average.—*Chipping Campden*. R ·75 in. below the average; the driest April since 1900.—*Bishops Castle, Castle Street*. Cold and dry, with strong cold winds. Vegetation backward.—*Hoar Cross*. Windy till 10th, bright on 11th, then dull to 14th. Sunny from 15th to 19th, and the remainder dull and cold.—*Mayfield House [Ashbourne]*. Generally showery, with heavy R on 14th and 15th. Wind between W.N.W. and W.S.W. almost throughout, and very strong from 1st to 9th.—*Worcester, Boughton Park*. Fine and dry, with some very useful R between 12th and 15th. The cold nights and dryness retarded vegetation, which was two or three weeks later than in 1903. Much promise of fruit, should it escape frost.—*Tenbury, Rochford*. R much below the average.

VII. NORTH MIDLAND COUNTIES.—*Spilsby, Ashby Road*. R ·53 in. below the average of 10 years.—*Worksop, Hodsock Priory*. The warmest April for at least 28 years, the nights being especially warm and in great contrast to April, 1903. The max. temp. was, however, only 65°·0. A great deal of wind, but not much R.

VIII. NORTH WESTERN COUNTIES.—*Chelford, Astle Hall*. Cold to the 10th, then warm till the 19th. Although there were cold winds there was no frost.—*Chatburn, Middlewood*. R 1·88 in. above the average of 14 years.—*Blackpool*. Brighter and warmer than usual, the duration of sunshine being 172·8 hours, or 24·3 hours above the average. Showers of short duration occurred on several days, but between 15th and 20th it was particularly bright and dry. R ·48 in. above the average. Mean temp. 46°·5, or 0°·5 above the average.—*Broughton-in-Furness*. The first 10 days were cold and stormy, followed by beautiful weather. From 21st to the end was stormy and cold. Mean temp. 49°·6. or 2°·0 above the average.—*Seathwaite Vicarage*. Except the middle week, which was warm and springlike, it was a month of chilly R, though mostly light in amount.

IX. YORKSHIRE. — *Goldsbrough Hall*. The first 10 days were

stormy and cold, with strong W. and S.W. winds. Dull and showery from 10th to 15th, then fine and warm to 22nd, and unsettled and colder to the end.—*Middlesbrough, Ormesby*. Seasonable with average R, and cool N.W. winds drying the land.

X. NORTHERN COUNTIES.—*Bamburgh*. A beautiful “growing” month. Slight showers and westerly breezes, no frost and much sunshine.—*Keswick, Shu-le-crow*. Continuous gale for the first 10 days. It was the wettest April on record, the R being 2·40 in. above the average of 28 years. No frost was recorded in the screen, this also being unprecedented.

XI. WALES.—*Towyn*. Mean temp.  $49^{\circ}5$  ; mean daily range  $13^{\circ}1$ . Duration of sunshine 168·3 hours.

## SCOTLAND.

XII. SOUTHERN COUNTIES.—*Galloway, Clenerie*. With the exception of a few days in the third week, it was stormy, wet and cold throughout, more like November than April, keeping farm work very backward.—*Langholm, Drove Road*. Cold and ungenial throughout, with R 3·00 in. above the average of 28 years.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh*. The R mostly fell in heavy showers. From 1st to 10th the wind was high, rising to a gale on 4th. High wind again from 24th, chiefly from W. and S.W.

XV. WEST MIDLAND COUNTIES.—*Furnace*. Remarkable for the prevalence of westerly winds and the number of rainy days, only three days being without R.

XVI. EAST MIDLAND COUNTIES.—*Stronvar*. The most backward April in living memory.—*Coupar Angus*. Average R, but an excessive number of rainy days. After the middle of the month there were bright days, with high night temp. at the close. The weather was generally stormy, extremely so during the first week.—*Dundee, Balruddery*. Heavy winds in the early part, with S and H showers. Duration of sunshine 147·3 hours.

XVII. NORTH EASTERN COUNTIES.—*Crathes, Pinewood*. An ideal month for farming, and cereals have seldom been put into a better seed-bed. Duration of sunshine 164·7 hours on 29 days.

XVIII. NORTH WESTERN COUNTIES.—*North Ballachulish*. Wet with continual strong winds from S.E. to N.W. Little sunshine and few bright or warm days.—*Glenaladale*. The wettest, stormiest, coldest and altogether most inclement April ever remembered. The R was by



a long way the most excessive in April in 37 years' record. —*Eigg*. Cold and unseasonable throughout, with heavy R.

XIX. NORTHERN COUNTIES.—*Altnaharra*. Mild on the whole, with exceptional R. Wind mostly from W.S.W. and S., and never very high.—*Watten*. A series of storms of wind and R, with short fine intervals. Wet and cold for seed time.

## IRELAND.

XX. MUNSTER.—*Castle Lough*. Cold showers, gales and strong winds in the early part. On the whole cold, and vegetation correspondingly backward.

XXI. LEINSTER.—*Kilkenny*, *Sion Villa*. Frequent storms and gales to 22nd, with many lovely days between, thereafter fine. H on 3rd, 9th, 10th and 22nd. Mean temp. 51°. —*Castledermot*. Fine and sunny, with cold winds.—*Rathmines*, *Leinster Road*. An average month, with no noteworthy features except the prevalence of high winds. The usual winds of spring were entirely absent. Temp. very uniform and no frost.

XXII. CONNAUGHT.—*Kylemore House*. Wet, cold and stormy.—*Markree Observatory*. Fine generally except for a few gales. Sleet and H showers at the beginning. A good record of sunshine.

XXIII. ULSTER.—*Lough Island*. R .90 in. below the average of 40 years.—*Banbridge*, *Milltown*. R .10 in. below the average of 40 years. — *Belfast*, *Springfield*. R nearly .75 in. above the average. Growth very backward considering the dryness of the preceding month.—*Buncrana*. Cold, wet and stormy.

## MAY.\*

### ENGLAND AND WALES.

I. LONDON.—*St. Pancras*, *Camden Square*. The absence of E. wind, and a sufficiency of sunshine and warm R, following a particularly mild April, combined to produce one of the most beautiful spring months for many years. The amount of cloud averaged 7.3, the highest on record, but there were, nevertheless, many magnificent days, especially in the first and third weeks. The duration of sunshine was 128.4 hours, and of R 58.2 hours. Mean temp. 54°·6, or 0°·6 above the average.

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\* See also *Met. Mag.*, June, 1904, p. 98.

II. SOUTH EASTERN COUNTIES.—*Haslemere, Jesses*. Showery except from 11th to 20th. Wind generally S.W. Mean temp.  $53^{\circ}6$ .—*Caterham Valley*. Temp. low until 12th, afterwards warmer, with T from 26th to 31st. Vegetation was backward at first.—*Wallington*. R  $\cdot 60$  in., and rainy days 6, above the average. Mean temp.  $53^{\circ}8$ , slightly above the average. Duration of sunshine 157·8 hours, or 42·8 hours below the average.—*Tilmanstone, Danefield*. Fine and warm, with much sunshine and some hot days.—*Lewes, Saxonbury*. A wet May, showery and cool, with much fog and mist.—*Crowborough, Beechcroft*. Unsettled generally, with much fog, gloom, mist and R. Mean temp.  $52^{\circ}5$ .—*Bournemouth, Kempsey*. Cold days and rather rainy.—*Christchurch, Winkton Lodge*. Bright, with only 5 cloudy days. R at intervals throughout, making it a splendid month for growth of grass and all vegetation. Remarkable for the absence of frost, so that the blossom of the fruit trees was allowed to come to perfection, and gave a glorious promise.—*West Dean*. Fine generally till 20th, when unsettled weather, with very heavy R, set in. Ground frost on 13 nights.—*East Garston*. Generally seasonable, with nice R when wanted, but not much sunshine.—*Wantage, Ardington*. Until the 20th it was mainly bright and fresh, with much sun but no heat. On 20th much R fell and the thundery type continued to prevail. From 25th the weather remained close, damp and warm.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R  $\cdot 28$  in. above the average of 29 years.—*Kensworth*. Springs continued to decrease, but the R after 9 fine days was of great benefit to corn and grass.—*Culham Vicarage*. The first three weeks were dry, but there was a good deal of R in the last 10 days. Fairly warm.—*Swerford*. R  $2\cdot34$  in. above the average of 10 years. Four sunless days.—*Pitsford*. Fine but windy. R  $\cdot 17$  in. above the average. Mean temp.  $52^{\circ}4$ .

IV. EASTERN COUNTIES.—*Buckhurst Hill, Ardmore*. Some perfect summer days, and some curiously heavy and overcast with unusual darkness. Wonderful blossom on trees.—*Colchester, Lexden*. Generally dull and mild, with very little E. wind.—*Dunmow, Bigods Hall*. Many dull days, with intervals of bright sunshine. The middle of the month was warm and bright. Wind chiefly S. and W.—*Copdock*. Wet, with temp. fairly up to the average; mean  $53^{\circ}4$ . Not much wind and only 160 hours of sunshine, 68·5 hours of which occurred from 14th to 20th.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R  $1\cdot36$  in., and rainy days 5, above the average.—*Tavistock, Whitchurch*. Wet,

foggy and cloudy, with about average temp., and the greatest R since observations began in 1893. The mean temp. ranged from  $41^{\circ}3$  on 8th, to  $59^{\circ}6$  on 16th, the latter being the only day on which the max. reached  $70^{\circ}$ . S.W. winds prevailed.

VI. WEST MIDLAND COUNTIES.—*Cirencester, Further Barton*. Unsettled throughout, with an unusually bitter cold spell from 5th to 10th. Much cold wind, and towards the end, heavy, damp and oppressive weather. R  $\cdot 84$  in. above the average.—*Bishops Castle, Castle Street*. Cold at first, then fine, but cold and dull at the end.—*Hoar Cross*. Wet at the beginning and dull till 10th; sunny and warm from 11th to 16th, and from 17th to the end dull with R.—*Upton-on-Severn, The Eades*. A most beautiful month from beginning to end, and the luxuriant spring growth and blossom of flowering trees and shrubs, made the month quite remarkable.—*Worcester, Boughton Park*. Dry, with cold nights till 20th, then milder, with good R. A good deal of sunshine, and all vegetable growth flourishing, the blossom on trees and shrubs being quite magnificent.—*Tenbury, Rochford*. Fairly seasonable, with a few very cold days. R  $1\cdot 04$  in. above the average.

VII. NORTH MIDLAND COUNTIES.—*Spilsby, Ashby Road*. R  $\cdot 15$  in. below the average of 10 years.—*Grimsby, Abbey Road*. Generally fine and warm, most of the R falling at night. Much bright sunshine.—*Worksop, Hodsock Priory*. Mild, especially at night. Dull, but dry till near the end.

VIII. NORTH WESTERN COUNTIES.—*Chelford, Astle Hall*. Rather wet, but unusually warm.—*Chatburn, Middlewood*. R  $\cdot 74$  in. above the average of 14 years.—*Blackpool*. A little cooler than usual and generally fine, but some cloudy and hazy days towards the end. R  $\cdot 09$  in. below the average. Mean temp.  $50^{\circ}5$ , or  $0^{\circ}3$  below the average. Duration of sunshine  $162\cdot 9$  hours, being  $35\cdot 7$  hours below the average.—*Broughton-in-Furness*. Very genial on the whole, with fewer dry, cold winds than usual. The mean max. temp. was lower, and the mean min. higher, than the average. Not much sunshine, and R almost exactly the average.—*Seathwaite Vicarage*. Cold with an almost continuous succession of small falls of R.

IX. YORKSHIRE.—*Goldsborough Hall*. Showery, dull and stormy from 1st to 11th, then a spell of fine weather till 22nd, after which dull and showery.—*Middlesbrough, Ormesby*. Seasonable. R above the average; wet at the beginning and dry at the end, and rain still wanted.

X. NORTHERN COUNTIES.—*Bamburgh*. Unsettled weather, with showers of R and H, and cold winds and fog.

XI. WALES.—*Towyn*. Mean temp.  $51^{\circ}4$ , and mean daily range  $13^{\circ}7$ . Duration of sunshine 179·1 hours.

#### SCOTLAND.

XII. SOUTHERN COUNTIES.—*Cargen*. An ideal month. Blossom and vegetation were never more promising. No frost was registered either in April or May, a quite exceptional experience.—*Clenerie*. The month started very wild and stormy, with heavy R and S, but towards the end the weather was all that could be desired and warm and “growing.”

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh*. Unsettled and unseasonable throughout, with only 9 really fine days. Till 23rd there was a good deal of high wind varying from N.E. to N.W.

XVI. EAST MIDLAND COUNTIES.—*St. Andrews*. A nearly normal May, with cold winds and sea fogs and a good proportion of sunshine. More R than usual.

XVII. NORTH EASTERN COUNTIES.—*Crathes, Pinewood*. R slightly above the average, the first half being wet. Duration of sunshine 159·9 hours. Good blossom on all fruit trees.

XVIII. NORTH WESTERN COUNTIES.—*North Ballachulish*. Very wet and cold, with continual heavy showers of H, sleet and cold R till the last week, when the weather became summerlike.—*Drumna drochit*. R 1·00 in., and rainy days 4, above the average of 18 years.

XIX. NORTHERN COUNTIES.—*Bettyhill*. The weather was exceptionally dry, and moderate winds were frequent and dried up a slight shower almost as soon as it touched the ground.

#### IRELAND.

XX. MUNSTER.—*Castle Lough*. The first half was wet, windy and cool, the latter warmer and on the whole dry.—*Miltown Malbay*. Blustery, cold and wet till the 22nd ; thence to the end cold, dry and sunny.

XXI. LEINSTER.—*Ballybrack*. The finest weather for three years.—*Rathmines, Leinster Road*. A dry month, since all the R, except ·68 in., fell on 1st and 31st. Probably the finest May since 1896. The only cold weather was from 6th to 8th, when there was S on the Dublin mountains. The evenings during the last fortnight were remarkably fine. Vegetation was very luxuriant.

XXIII. ULSTER.—*Lough Island*. R  $\cdot 23$  in. below the average of 40 years.

## JUNE.\*

### ENGLAND AND WALES.

I. LONDON.—*Fullham, Edith Road*. Very dry and rather cool. R  $\cdot 88$  in. below the average.—*St. Pancras, Camden Square*. Somewhat cloudy and lacking in sunshine, but dry and generally fine. It was the driest June for 9 years. The temp. kept at an uncomfortably low point at times, especially during the first week, and on only 3 days did the max. exceed  $75^{\circ}$ . The duration of sunshine was 158·7 hours, and of R 16·7 hours. Mean temp.  $58^{\circ}\cdot 9$ , or  $1^{\circ}\cdot 5$  below the average. No TSS.

II. SOUTH EASTERN COUNTIES.—*Farnham, Short Heath Lodge*. R small and evenly distributed and no drought. Cool weather.—*Wallington*. Mean temp.  $57^{\circ}\cdot 6$ , or  $2^{\circ}\cdot 2$  below the average. Duration of sunshine 218·4 hours, being 12·4 hours above the average. Fruit crops, except apples and strawberries, were poor.—*Tilmanstone, Dane-field*. Fine, dry and warm, with no great heat. Only one TS.—*Leysdown*. A fine month. E. and N.E. wind from 3rd to 12th and from 27th to 30th.—*Lewes, Saxonbury*. Dry and calm, with some fog. Bright sunny days during the last week.—*Crowborough, Steel Cross House*. The month opened cold and dull, with wind about the middle. Afterwards finer, and R at intervals from 24th to 26th. Fine and warm at the close.—*Christchurch, Winkton Lodge*. Beautifully bright and the perfection of weather for the season. Equable temp. and brilliant sunshine. An excellent grass crop, and pleasant weather for getting it in. Gales in the middle of the month.—*Emsworth*. R 1·13 in. below the average of 10 years.—*West Dean*. Very fine, but cool, with a great deal of wind. Generally favourable for hay and fruit, though the nights were cold.—*Maidenhead, Isis Cottage*. Dry, with bright sunshine; showery from 13th to 15th, and 24th to 26th.—*Wantage, Ardington*. Very fine, bright and sunny, but not hot.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R 1·54 in. below the average of 29 years.—*Farnham Royal*. A fair amount of sunshine and a great deal of wind, the prevailing directions being N.W. and S.W. Temp. slightly, and R considerably, below the average. Rather cold nights during the latter part.—*Oxford, Banbury Road*.

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\* See also *Met. Mag.*, July, 1904, p. 118.

Fine, dry and cold, with much wind.—*Blisworth, Crieff House*. Very dry, the R being only .41 in., the smallest total during 22 years. Cool N.E. winds for the first 10 days. Hot on the last three days. Good hay weather.

IV. EASTERN COUNTIES.—*Dunmow, Bigods Hall*. Warm and bright throughout, with equable temp., and light wind, except on 1st and 16th. Heavy dews on most nights with low temp.—*Copdock*. The weather was largely anti-cyclonic, with 219 hours of sunshine. Not much high wind, and no really hot weather, but cool nights throughout. Mean temp.  $57^{\circ}3$ .—*Bury St. Edmunds, Westley*. Dry, and R much wanted. Low temp. at night throughout.—*Burgh Castle*. The contrast with June, 1903, was very remarkable and probably almost unequalled. R was much wanted, and less than half-an-inch fell. Fruit suffered greatly and trees were dying.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R 1.01 in., and rainy days 4, below the average. Good hay crops, but springs and wells were getting low.—*Winterbourne Steepleton*. A cool dry month, the R being .78 in. below the average of 11 years.—*Tavistock, Whitchurch*. Dry, fine and rather cold, with R about half the average, and the fewest rainy days in June since observations began in 1893, or in any month since May, 1896. The daily mean temp. ranged from  $50^{\circ}8$  on 1st, to  $61^{\circ}9$  on 29th, and the max. rose to  $70^{\circ}$  on one day only. Prevailing winds N.W. and S.W. Flowers were very abundant on plants, shrubs and trees.—*Crewkerne, Merefield House*. R below the average and weather generally fine, but not excessively hot. Exceptional weather for the haymaking.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop*. Rather cold and cloudy, with small R.—*Cirencester, Further Barton*. Dry, chilly and windy till 27th, after which four lovely days helped on fruit and hay-making.—*Chipping Campden*. Generally sunny, with R an inch and a half below the average.—*Bishops Castle, Castle Street*. Windy and cold till 10th, then fine to the end, but cold, particularly at night.—*Mayfield House [Ashbourne]*. Very dry throughout, but dull and cloudy. Cold nights from 25th to 29th.—*Worcester, Boughton Park*. Exceptionally dry, with temp. below the average. Splendid hay harvest.—*Tenbury, Rochford*. Very dry, but cold. R 1.17 in. below the average.

VII. NORTH MIDLAND COUNTIES.—*Spilsby, Ashby Road*. R .94 in. below the average of 10 years.—*Grimbsby, Abbey Road*. Dry and cool, with moderate breezes.—*Worksop, Hodsock Priory*. Cool, but very

dry, with a good deal of N.E. wind. R less than in any of the past 29 years except 1887.

VIII. NORTH WESTERN COUNTIES.—*Chelford, Astle Hall*. The beginning and end were hot, with only a little R towards the middle.—*Blackpool*. Bright, with abundant sunshine, especially from 15th to the end. The duration of sunshine was 236·4 hours, or 44·1 hours in excess of the average. R ·94 in. below the average. Mean temp. 55°·6, or 1°·4 below the average.—*Chatburn, Middlewood*. R 1·28 in. below the average of 14 years.—*Broughton-in-Furness*. Very fine on the whole, being the driest June since 1887. Temp. equable, with no extremes.

IX. YORKSHIRE.—*Goldsborough Hall*. Dull and cold, with light R. On three days only did the shade max. reach 70°.—*Middlesbrough, Ormesby*. Fine and seasonable, with small R.

### SCOTLAND.

XII. SOUTHERN COUNTIES.—*Clenerie*. Very dry and all that could be desired except for a few days in the middle.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh*. A good many dull and cloudy days and others with brilliant sunshine. From 7th to 12th there was cold wind from N. and N.E., and from 15th to 21st a steady spell of high wind from S. and S.W.

XV. WEST MIDLAND COUNTIES.—*Ballachulish, Ardsheal*. R 1·13 in. above the average.

XVI. EAST MIDLAND COUNTIES.—*St. Andrews*. A disagreeable month, with wind either cold from N.E. or violent from S.W. R was much needed for gardens and turnip fields.

XVIII. NORTH WESTERN COUNTIES.—*Eigg, Kildonan*. The first part warm, the middle wet, stormy and cold, and the latter part fine and dry.—*Bendamph*. The first part was warm, the second cold and wet.

XIX. NORTHERN COUNTIES.—*Altnaharra*. Very warm throughout except on a few days, and little wind.

### IRELAND.

XX. MUNSTER.—*Castle Lough*. On the whole favourable, with R below the average and temp. generally low.

XXI.—LEINSTER.—*Castledermot*. Generally fine and warm, with rather cool nights.—*Ballybrack*. Fine and dry; warm for the first 10 days, but cool for the remainder.—*Rathmines, Leinster Road*. A

pleasant contrast to the miserable Junes of 1902 and 1903. Although it was the driest June since 1889, and much brilliant sunshine was enjoyed, the temp. was low, only exceeding  $70^{\circ}$  on 3 days, whilst the min. exceeded  $50^{\circ}$  on 7 only. The first week was practically cloudless and E. winds prevailed till 11th. Afterwards variable breezes. The third week was cool and overcast.

XXIII. ULSTER.—*Lough Island*. R 1·78 in. above the average of 40 years.—*Lisburn*. Fine and dry for the first and last weeks; unsettled and showery during the middle.

### JULY.\*

#### ENGLAND AND WALES.

I. LONDON.—*Fulham, Edith Road*. Warm, fine and dry, nearly half the total R falling in the great TS of the 25th. Mean temp.  $2^{\circ}\cdot7$  above the average.—*St. Pancras, Camden Square*. A fine, warm and sunny month, which would have been deficient in R but for a fall of 1·71 in. on 25th, in the course of which, during a severe TS, ·61 in. of R fell in 20 minutes. The duration of sunshine was 234·8 hours, and of R 20·8 hours. Mean temp.  $66^{\circ}\cdot5$ , or  $3^{\circ}\cdot2$  above the average. Max. above  $80^{\circ}$  on 11 days.

II. SOUTH EASTERN COUNTIES.—*Haslemere, Jesses*. Very fine and warm from 8th to 22nd; variable and rainy to the end. Absolute drought from 4th to 18th. Mean temp.  $64^{\circ}\cdot8$ .—*Wallington*. Very warm and sunny, with R 1·11 in. below the average. Mean temp.  $65^{\circ}\cdot1$ , or  $2^{\circ}\cdot6$  above the average. Duration of sunshine 278·7 hours, being 68·6 hours above the average, and the largest in July since observations commenced in 1886, except July, 1900.—*Ulcombe Place*. Beautiful weather and a magnificent hay-crop.—*Tilmanstone, Danefield*. A most beautiful month, fine, hot and dry. Very few TSS.—*Lewes, Saxonbury*. Dry and hot, with bright sunshine and little cloud. Very hot from 9th to 19th, with S.E. wind. Absolute drought from 4th to 18th inclusive.—*Crowborough, Beechcroft*. Very fine and dry. Mean temp.  $65^{\circ}\cdot3$ .—*Ryde, Beldornie Tower*. A beautiful summer month. Absolute drought from 4th to 18th, and partial drought from June 16th to July 24th, ·38 in. of R on 39 days.—*Bournemouth, Kempsey*. Many fine sunny days, but only four really hot. Warm from the 7th to the 25th. Min. temp. between  $60^{\circ}$  and  $61^{\circ}$  on six nights. Absolute drought from 4th to 18th, after which 2 inches of

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\* See also *Met. Mag.*, August, 1904, p. 138.



R fell.—*Christchurch, Winkton Lodge*. Another beautiful bright month, though stormy in the middle. The apple and strawberry crops were most abundant, and the latter was left to rot on the ground in some parts, as not worth the expense of gathering. Absolute drought for 15 days from 4th to 18th.—*West Dean*. Beautiful and seasonable, very dry till 24th, when a showery period set in. Temp. above, and R below, the average.—*East Garston*. Three weeks of splendid weather followed by heavy and most acceptable R.—*Maidenhead, Isis Cottage*. Hot, with brilliant sunshine from 5th to 24th. Heavy TSS and R from 25th to 31st.—*Wantage, Ardington*. Fine, warm and dry till 25th, then heavy R and some T. Absolute drought from 3rd to 18th.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R .36 in. below the average of 29 years.—*St. Albans, County Museum*. From 25th to 30th 3.02 in. of R fell, and from 4th to 24th only .03 in.—*Kensworth*. Great heat and scarcity of water. Heavy TS and R on 25th, doing no damage, but of great benefit to crops.—*Slough, Upton*. Duration of sunshine 259.8 hours, hence the absence of R until the 26th was much felt. Temp. above 80° on eight days.—*Farnham Royal*. An old-fashioned summer month, with a great deal of sunshine and very warm nights. Temp. above, and R slightly above, the average, the latter owing to a fall of 1.53 in. in 17 hours, on 25th. Strong winds, principally from S.W.—*Oxford, Banbury Road*. Very pleasant weather, being hot, but never overpowering.

IV. EASTERN COUNTIES.—*Copdock*. A most brilliant month, yielding 283 hours of sunshine, and mean temp. 65°.4. Cool nights prevented a feeling of oppression, except in the last week when there was much T and L and welcome R. Temp. exceeded 80° on 10 days.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R .79 in. above, and rainy days equal to, the average.—*Ashburton, Druid House*. R 1.93 in. above the average of 38 years.—*Teignmouth, Coombe Bank*. The first three weeks were fine and warm, and the last 10 days wet, but there were no high winds or gales.—*Tavistock, Whitchurch*. Rather damp and very wet, with about average temp. and little sun heat. R double the average, and greater than in any month from March to September, inclusive, in 11 years. In 7 days, from 22nd to 28th, 5.74 in. fell. The daily mean temp. varied from 53°.6 on 4th, to 68°.5 on 10th; the range on 9th, 35°.8, was the greatest ever observed. S.W. winds were most frequent. A good hay harvest was saved by the 21st in most places.—*Rousdon [Lyme Regis]*. The wettest July in

a record of twenty years.—*Crewkerne, Merefield House*. Fine for the first three weeks, then a succession of TSS followed by a week of foggy, wet weather.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop*. Exceptionally dry and warm until the last week, when there was very heavy R.—*Cirencester, Further Barton*. A magnificent summer month, with bountiful and much-needed R in the last 10 days.—*Bishops Castle, Castle Street*. Warm and dry, the drought being broken only by severe TSS on 12th and 25th.—*Wem*. Almost perfect summer weather after the first few days, and R much needed before the 25th. Hay was well got in and the corn harvest was begun.—*Mayfield House [Ashbourne]*. Very dry till 22nd, followed by heavy TSS on 23rd, 25th, and 27th. The first week was cold and the middle of the month warm. A fair amount of sunshine.—*Worcester, Boughton Park*. Very hot and dry till 21st, when the weather broke, and gentle R culminated in a very heavy TS on 25th.

VII. NORTH MIDLAND COUNTIES.—*Spilsby, Ashby Road*. R 1·00 in. above the average of 10 years.—*Grimsby, Abbey Road*. Generally dry and warm, with tropical heat at times.—*Workop, Hodsock Priory*. The first three weeks were warm, fine and dry, and the last 10 days cooler, with a good deal of R and T.

VIII. NORTH WESTERN COUNTIES.—*Chatburn, Middlewood*. R 1·21 in. below the average of 14 years.—*Blackpool*. Exceptionally bright, warm and fine. Sunshine was registered on every day except one, the total being 228·4 hours, or 45·7 hours above the average. The mean temp. was 61°·1, or 1°·2 above the average, the max. reaching 80°·0 on 11th, a reading surpassed only six times since 1885. R 1·65 in. below the average.—*Broughton-in-Furness*. Very fine, a large proportion of the R falling at night. Never oppressively hot, the heat being tempered by cool winds. R ·75 in. below the average of 10 years.

IX. YORKSHIRE.—*Goldsborough Hall*. The first few days were dull and unsettled; from 6th to 22nd was fine and warm, with little R. Heavy TS on 24th, and afterwards dull and showery.—*Middlesbrough, Ormesby*. Hot and fine, with average R.

X. NORTHERN COUNTIES.—*Bamburgh*. A splendid month, with much sunshine and cooling showers at night. Little fog.

XI. WALES.—*Aberystwyth, Gogerddan*. Fearfully hot, but with a fair amount of R, though S. and S.W. winds and hot sun soon dried it up.—*Towyn*. Heavy showers, many of which were local and many

occurred in the night. Mean temp.  $62^{\circ}5$ . Duration of sunshine 211·6 hours.

### SCOTLAND.

XII. SOUTHERN COUNTIES.—*Langholm, Drove Road*. R 1·04 in. above the average of 28 years.

XIII. SOUTH EASTERN COUNTIES.—*Lochton*. Heavy R at the beginning and end. Occasional slight showers with dull weather.—*Musselburgh*. A good deal of bright sunshine during the first three weeks; then a grey, sunless week, with cold E. winds. The weather improved somewhat in the last few days.

XV. WEST MIDLAND COUNTIES.—*Furnace*. Warm on the whole, with no excessive heat, and sufficient R to keep vegetation green without being unfavourable for hay-making.—*Lochgailhead*. Some oppressively hot days with bright sunshine, and some dark dull days with S.E. wind.—*Ballachulish, Ardsheal*. R ·28 in. above the average.

XVI. EAST MIDLAND COUNTIES.—*Dollar*. The first week was wet and cold, the remainder fairly dry and warm.—*Montrose, Sunnyside*. Warm and dry, the heat being tempered by cool easterly winds from 11th to 29th.

XVII. NORTH EASTERN COUNTIES.—*Aberdeen, Cranford*. Dry and warm, with a fair amount of sunshine.

XIX. NORTHERN COUNTIES.—*Altnaharra*. Exceptionally dry and warm, especially in the latter half.

### IRELAND.

XX. MUNSTER.—*Cork, Wellesley Terrace*. Remarkable for low temp. and excessive R.—*Castle Lough*. Warm, with R above the average. In the latter half the weather was very close.

XXI. LEINSTER.—*Kilkenny, Sion Villa*. Lovely weather, but mostly oppressive, except during the week ending 26th, which was very wet. Mean temp.  $65^{\circ}5$ .—*Ballybrack*. Exceptionally dry and warm, with the lowest R in July since 1887.—*Rathmines, Leinster Road*. Dry and fine; brilliant weather from 7th to 13th, in the third week and at the close. Gloomy and unpleasant from 21st to 27th. The temp. was slightly below the average, and, though  $70^{\circ}$  was exceeded on 11 days, the max.,  $74^{\circ}9$ , was the lowest in July since 1892.

XXII. CONNAUGHT.—*Murrisk Abbey*. Wet, inclement and generally prejudicial to hay-making.

XXIII. ULSTER.—*Lough Island*. R exactly the average of 40 years.

## AUGUST.\*

## ENGLAND AND WALES.

I. LONDON.—*Fulham, Edith Road.* A month of average temp. and decidedly dry, more than half the total R falling on the last day.—*St. Pancras, Camden Square.* Changeable and never settled for more than a few days together. Hot during the first and last weeks. The R was of little consequence till the last day, and little T or L occurred. Duration of sunshine 199·6 hours, and of R 31·5 hours, of which 15·5 hours occurred on 31st. Mean temp. 62°·6, or 0°·5 above the average.

II. SOUTH EASTERN COUNTIES.—*Wallington.* Mean temp. 61°·6, or 0°·3 below the average. Duration of sunshine 242·6 hours, the highest recorded in August, except in 1887 and 1899.—*Tilmanstone, Danefield.* Beautifully fine and hot, with very little R, wind or T.—*Lewes, Saxonbury.* Warm, dry and calm, with slight TSS on 4th and 23rd. Harvest gathered in good condition, but rain wanted for root-crops.—*Crowborough, Steel Cross House.* Fine and warm at the commencement, but the temp. gradually fell until 26th, when a rise took place and the month ended with R. The summer was singularly free from TSS.—*Christchurch, Winkton Lodge.* A beautiful bright month, with even temp. No very heavy fall of R such as usually occurs in August. The R, as usual, fell mostly at night.—*West Dean.* A beautiful month, with R slightly below the average, and low night temp. It was generally favourable for the harvest.—*Wantage, Ardington.* In the first 10 days the temp. was generally high; the weather then turned cool and rainy. On the 26th the temp. rose again and heat continued till 30th. Very heavy dews throughout, and night temp. frequently unusually low.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill.* R ·79 in. below the average.—*Farnham Royal.* Temp. rather high and R slightly below the average, with no very heavy falls. There were 27 sunny days, but a few rather cold nights.

IV. EASTERN COUNTIES.—*Copdock.* Another fine dry month, yielding 234 hours of sunshine. Very hot on 3rd and 4th, otherwise no really high temp., though the mean was 61°·7.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings.* R ·49 in., and rainy days 3, below the average.—*Winterbourne Steepleton.* R ·76 in. above the average of 11 years. Mean temp. slightly below the average.—*Tavistock, Whitchurch.* Rather cold and showery, with about average

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\* See also *Met. Mag.*, September, 1904, p. 158.

R. The daily mean temp. varied from  $66^{\circ}\cdot4$  on 4th to  $52^{\circ}\cdot5$  on 25th, and the max. reached or exceeded  $70^{\circ}$  on 6 days. N.W. winds were prevalent.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop*. Dry and warm, with a cold period about the middle.—*Cirencester, Further Barton*. Fine weather alternating with wet, and heavy TSS. Chilly except for a few hot days at the commencement, but no day was without some sunshine.—*Bishops Castle, Castle Street*. Fine on the whole. Violent TSS at first; then strong winds. Damp and cold about 20th, then fine and warm to the end.—*Upton-on-Severn, The Eades*. Continued dry weather; lawns and meadows brown and parched.—*Worcester, Boughton Park*. Fair on the whole. Cold for a few days between 20th and 26th. No heavy R, but frequent showers rather interfered with the harvest. The last five days were warm and sunny.—*Tenbury, Rochford*. Fairly seasonable, but there were some very cold nights from 19th to 24th. R  $1\cdot44$  in. below the average.

VII. NORTH MIDLAND COUNTIES.—*Spilsby, Ashby Road*. R  $\cdot90$  in. above the average of 10 years.—*Grimsby, Abbey Road*. A typical August. Generally warm, with bright sunshine. Thundery from 11th to 16th, with much L in the evenings.—*Worksop, Hodsock Priory*. Fine, except for heavy R from the 17th to 23rd. The first week was very warm, with a TS on the 4th, after this cooler and cloudy, but with little rain till the 17th, when the heaviest fall of the year occurred followed by another heavy R on the 22nd. The rest of the month was fine, and the last few days warm.

VIII. NORTH WESTERN COUNTIES.—*Chester, Parkgate Road*. Warm and dry till 12th, afterwards cold and wet.—*Chatburn, Middlewood*. R  $1\cdot21$  in. above the average of 14 years.—*Blackpool*. The first 12 days were generally bright and fine; from 13th to 22nd were somewhat showery and unsettled, and from 24th to the end were again fine, though sunshine was then deficient. Total duration of sunshine  $191\cdot8$  hours, or  $36\cdot8$  hours above the average. Mean temp.  $59^{\circ}\cdot0$ , or  $0^{\circ}\cdot6$  below the average. R  $\cdot57$  in. below the average.—*Broughton-in-Furness*. Hot at the beginning and end. Showery, with brilliant days interspersed. R  $1\cdot43$  in. less than the average of 10 years, and mean temp. about  $1^{\circ}$  below the average.

IX. YORKSHIRE.—*Goldsborough Hall*. Unsettled, with R for the greater part of the first three weeks. Fine and warm from 23rd to the end.—*Middlesbrough, Ormesby*. Fine, warm and seasonable.

## SCOTLAND.

XII. SOUTHERN COUNTIES.—*Cargen*. Owing to the absence of sunshine, tree-fruit was very slow in ripening, but pasture was abundant, and the turnip crop above the average. Potato disease prevalent.

XIII. SOUTH EASTERN COUNTIES.—*Lochton*. Some heavy R, and weather very unsettled until the last week.—*Musselburgh*. Wet, with an unusual number of heavy falls and showery days.

XV. WEST MIDLAND COUNTIES.—*Ballachulish, Ardsheal*. R 1·29 in. above the average.

XVI. EAST MIDLAND COUNTIES.—*St. Andrews*. Cold and showery as a whole, with some warm days at the beginning and end. Very little corn was cut.—*Dundee, Balruddery*. Generally dull and damp, and bad harvest weather. Duration of sunshine 135·5 hours.

XVII. NORTH EASTERN COUNTIES.—*Aberdeen, Cranford*. Dull and cloudy, with few clear days. Wind light and often from the N.

XIX. NORTHERN COUNTIES.—*Melvich*. Not much bright sunshine, but warm generally. No excessive fall of R, but sufficient to be very refreshing to the dried-up ground after the heat and drought of June and July.—*Altnaharra*. Fine and warm, with little wind.

## IRELAND.

XXI. LEINSTER.—*Ballybrack*. Great heat until 6th, when there was a trying storm, very injurious to vegetation. Little sunshine in the second week, broken and cooler in the third, and very cold and broken in the fourth.—*Rathmines, Leinster Road*. The first and last weeks were warm, but the remainder was quite autumnal in its coolness. T and L were again almost entirely absent. Although R fell on 17 days it usually fell at night, and the month formed a pleasant contrast to the miserably bad Augusts of 1902 and 1903. The temp. exceeded 70° on 7 days.

XXIII. ULSTER.—*Lough Island*. R 2·38 in. above the average of 40 years.—*Banbridge, Milltown*. R 2·57 in. above the average of 40 years.—*Belfast, Springfield*. R ·66 in. above the average for the district. The constant R retarded farm work considerably.—*Antrim, Ardnaveigh*. R 6·38 in., the greatest fall yet registered in a month, the nearest approach being 6·17 in. in November, 1900. The total fall from January 1st to August 31st was 24·65 in., being ·50 in. more than that in the corresponding period of any previous year.—*Ballymena*. The wettest August in 28 years.

## SEPTEMBER,\*

## ENGLAND AND WALES.

I. LONDON.—*Fulham, Edith Road*. Cool, fine weather, the temp. being  $1^{\circ}\cdot7$  below the average, and R  $\cdot68$  in. below the average.—*St. Pancras, Camden Square*. Fine and dry on the whole. There were a few gloomy and unpleasant days at intervals, especially in the first half, but many were fine, and the weather during the week ending on 22nd was particularly brilliant. Duration of sunshine 133·3 hours and of R 34·5 hours. Six sunless days. Mean temp.  $56^{\circ}\cdot2$ , or  $1^{\circ}\cdot5$  below the average.

II. SOUTH EASTERN COUNTIES.—*Abinger Hall*. A lovely September, with cold nights. All garden plants were much improved, and there was an abundant apple crop.—*Caterham Valley*. A very lovely month on the whole. Tree foliage began to colour after the 25th in places. Rather low night temp.—*Wallington*. Mean temp.  $55^{\circ}\cdot0$ , or  $2^{\circ}\cdot8$  below the average of 15 years. Duration of sunshine 180·1 hours, being 19·9 hours above the average.—*Tilmanstone, Danefield*. Fine and warm with a great deal of sunshine and little wind.—*Leysdown*. A fine month, the most noticeable feature being a spell of strong E. wind from 15th to 24th.—*Lewes, Saxonbury*. Fine, dry and calm, with sunny days and some early morning fogs.—*Crowborough*. Somewhat unsettled for the first half. Very fine generally in the latter. Mean temp.  $54^{\circ}\cdot0$ .—*Christchurch, Winkton Lodge*. A brilliant month. Tremendous showers from 11th to 14th, that on 14th registering 1·33 in. Strong E. winds, with brilliant skies, from 15th to 21st.—*West Dean*. A very fine and beautiful month, with low night temp., the min. falling below  $36^{\circ}\cdot0$  on 5 consecutive nights. Absolute drought from 15th to 29th. Prevalence of N.E. wind.—*Maidenhead, Isis Cottage*. From 1st to 14th overcast and showery. Brilliant sunshine from 15th to 21st, and overcast, with showers and thick fogs, from 22nd to 30th.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R  $\cdot91$  in. below the average of 29 years.—*Harrow Weald*. A very pleasant month. Rather cool, with N., N.E., or E. winds after the 8th.—*Farnham Royal*. Fine, with one or two cold nights. Temp. about normal, and R below the average, with no heavy falls. Prevailing winds S.W.—*Oxford, Banbury Road*. Much sunshine. Almost continuous easterly winds in the latter half. The mean temp. was higher than usual, but there were no hot days.

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\* See also *Met. Mag.*, October, 1904, p. 178.

IV. EASTERN COUNTIES.—*Colchester, Lexden*. Dry and cool, with many bright days. E. wind in the third and fourth weeks.—*Copdock*. Very fine, with anti-cyclonic conditions practically the whole month, and several absolutely still days with brilliant sunshine. Extremely equable temp.; only once did it rise above  $68^{\circ}\cdot 0$  and on only 2 days did it fail to reach  $60^{\circ}\cdot 0$ . Mean temp.  $55^{\circ}\cdot 5$ . Duration of sunshine 183·7 hours.—*Blakeney*. Fine sunny weather almost throughout, with winds chiefly easterly.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R. ·23 in., and rainy days 2, below the average.—*Tavistock, Whitchurch*. Cold and rather dry, with high bar. and small range of temp. The daily mean temp. varied from  $60^{\circ}\cdot 2$  on 17th to  $50^{\circ}\cdot 7$  on 26th. S.W. winds were most prevalent. A good harvest was finished by the 24th.—*Lynmouth, Rock House*. Warm, with a great deal of sunshine but no extremes of heat or cold. The R fell mostly during the night.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop*. The most genial month of the year, with very steady bar. and small R.—*Cirencester, Further Barton*. Till the 14th there was a continuation of the unsettled weather of August. Magnificent dry weather from that date till the 30th. Only four days without sunshine. R equal to the average.—*Ross, The Graig*. Wet from 7th to 14th and on 31st; otherwise, a beautiful and sunny September. Mean temp.  $55^{\circ}\cdot 5$ . No frost.—*Huntington Court*. Easterly winds prevailed, particularly in the middle. No T.—*Bishops Castle, Castle Street*. Fine on the whole, but cool owing to easterly winds.—*Upton-on-Severn, The Eades*. Fine weather continued throughout. Many beautiful days.—*Worcester, Boughton Park*. One of the finest Septembers for years; brilliant sunshine on 21 days.—*Tenbury, Rochford*. Fine and bright. Heavy fogs in the early mornings during the latter part. R ·29 in. above the average.—*Mayfield House [Ashbourne]*. Fine on the whole, particularly from 12th to 21st, with bright sun during the day but cold nights. Foggy nights during the last week.

VII. NORTH MIDLAND COUNTIES.—*Spilsby, Ashby Road*. R ·56 in. above the average of 10 years.—*Worksop, Hodsock Priory*. Fine and pleasant, with cold nights; 14 frosts on the grass, which is more than in any of the previous 25 Septembers.

VIII. NORTH WESTERN COUNTIES.—*Chatburn, Middlewood*. R. 1·92 in. below the average of 14 years.—*Blackpool*. With the exception of one or two unsettled days in the early and latter part, the month was extremely bright and fine, especially from 8th to 26th.



There were only 3 sunless days, and the duration of sunshine was 166·3 hours, or 44·5 hours above the average. The R, owing to the heavy fall on 6th, was ·07 in. above the average. Mean temp.  $55^{\circ}\cdot2$ , or  $0^{\circ}\cdot3$  below the average.—*Broughton-in-Furness*. A most beautiful month, with a great amount of sunshine, though somewhat hazy. Light winds chiefly from E. Mean temp.  $0^{\circ}\cdot8$  below the average.

IX. YORKSHIRE.—*Goldsborough Hall*. Fine and dry. Up to the 25th only ·75 in. of R fell.—*East Layton*. All rain-water tanks were empty, a state of things not known here for 70 years.

X. NORTHERN COUNTIES.—*Keswick, Shu-le-Crow*. R 3·37 in. below the average, and the lowest in 28 years, except 1894 and 1895.

XI. WALES.—*Llanfrechfa Grange*. R and rainy days about the average. No frosts and many fine hot days. Leaves were tinting fast at the end.—*Brecon, Penoyre*. Remarkable failure of springs, quite a number having failed entirely. The water supply of this house was at its last gasp. This was all the more remarkable considering that 62·13 in. of R fell during 1903, and 12·65 in. during the first two months of 1904.—*Towyn*. The evenings were cold, particularly towards the close, but the days were warm and showed large amounts of sunshine. Mean temp.  $56^{\circ}\cdot3$ ; mean daily range  $13^{\circ}\cdot6$ .

## SCOTLAND.

XII. SOUTHERN COUNTIES.—*Clenerie*. Rather wet and stormy to the 9th; from that date to the 26th there was a spell of the finest weather of the summer, which was very welcome for harvest work.—*Langholm, Drove Road*. R 1·42 in. below the average of 28 years.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh*. With the exception of a few days at the beginning and towards the end, the month was bright and sunny. The wind was changeable and frequently high, blowing a gale from S. on the 4th. Heavy ground frosts, followed by morning haze, occurred during the dry spell from 10th to 24th. Mean temp.  $52^{\circ}\cdot0$ .

XV. WEST MIDLAND COUNTIES.—*Furnace*. The weather was good generally, and the harvest was finished and secured in fine condition.—*Inveraray, Newtown*. After the first 10 days it was very fine and warm.

XVI. EAST MIDLAND COUNTIES.—*St. Andrews*. Fine on the whole, with 11 consecutive dry days. Harvest was good and well got in.—*Dundee, Balruddery*. Absence of drying winds made bad harvest

weather, a great quantity of the grain "heating" in stacks. Duration of sunshine 121·8 hours.

XVII. NORTH EASTERN COUNTIES.—*Crathes, Pinewood*. On the whole good for harvesting, and most of the farmers in the neighbourhood secured their crops in good condition, but owing to the low R in June and July they were light, though the grain was very good. Duration of sunshine 110·9 hours.—*Aberdeen, Cranford*. Cloudy and warm, with light winds. Fine crops in this district.

XVIII. NORTH WESTERN COUNTIES.—*Drumnadrochit*. R ·32 in., and rainy days 2, below the average of 18 years. The whole month was most favourable for harvest.

XIX. NORTHERN COUNTIES.—*Altnaharra*. On the whole fair and very favourable for harvest. Heavy R fell, but did not last long. Cold weather set in towards the end.—*Bettyhill*. Exceptionally fine harvest weather. What R there was generally fell during the night, and caused little or no interruption to out-door work.

## IRELAND.

XX. MUNSTER.—*Castle Lough*. The first half was wet and the latter fine.

XXI. LEINSTER.—*Kilkenny, Sion Villa*. An average fine month, with many lovely days, though the first week was inclement. T on 6th. Very thick foggy period from 26th to 29th. Mean temp. 56°.—*Castledermot*. Fine throughout, and from 14th to the end splendid, giving the farmers every chance.—*Ballybrack*. Mild and pleasant, with showers until the 12th, when 1·03 in. of R fell, followed by mild and damp weather until the 17th. A week of glorious weather from 17th to 24th, and the last few days cold and showery. R ·32 in. above the average of 20 years.—*Rathmines, Leinster Road*. A changeable month, but there were many brilliant days, particularly in the middle. The most remarkable features were the heavy R of the 12th, and the entire absence of autumnal gales. Foliage still retained the greenness of July at the close.

XXIII. ULSTER.—*Lough Island*. R ·74 in. above the average of 40 years.—*Banbridge, Milltown*. R ·41 in. above the average of 40 years.—*Belfast, Springfield*. A normal September, and most beneficial for farming. Fine spell from 17th to 28th.

## OCTOBER.\*

## ENGLAND AND WALES.

I. LONDON.—*Fulham, Edith Road*. Warm and equable, with but little R. Temp.  $1^{\circ}5$  above the average. R 1.02 in. below the average.—*St. Pancras, Camden Square*. The weather was generally of an anti-cyclonic type and fairly free from R, although mostly lacking in sunshine. The first 11 days were dull with some fog, especially the 11th, when it was very dark at times. From 12th to 15th it was bright and cool, but heavy and foggy again from 16th to the last week, which was somewhat finer and cooler. Duration of sunshine 56.2 hours, and of R 54.2 hours. Mean temp.  $51^{\circ}0$ , or  $1^{\circ}2$  above the average.

II. SOUTH EASTERN COUNTIES.—*Haslemere, Jesses*. Very wet till 8th; fine from 11th to 16th; 17th showery and windy; from 18th to 20th fine and mild, and from 25th to 29th very fine. Damp mist on 30th and 31st.—*Abinger Hall*. Mild and workable, and crops of all kinds grew much, but R was much needed.—*Epsom, Ashley Road*. On the whole fine, several days having continuous sun throughout.—*Wallington*. R 1.01 in. below, and rainy days 2 above, the average of 15 years. Mean temp.  $50^{\circ}3$ , or  $0^{\circ}8$  above the average. Duration of sunshine 97.4 hours, or 3 hours below the average.—*Tilmanstone, Danefield*. A beautiful, warm, fine month, with little wind and much sun. Except on 8 days the min. temp. was over  $40^{\circ}$ , and except on one day the max. exceeded  $54^{\circ}$ .—*Lewes, Saxonbury*. Dry, mild, bright and calm, with some fog and mist and a few white frosts.—*Crowborough, Steel Cross House*. A pleasant month with some very fine days. After the middle there was a good deal of mist, which persisted in the absence of wind. Autumn tints have rarely been more beautiful.—*Christchurch, Winkton Lodge*. Changeable and uncertain, with variable temp., but no frost. Cool nights. Wind mostly W. but not generally strong. Five brilliant days and much calm weather.—*West Dean*. Generally fine but very foggy, with R much below the average and deficient temp. Remarkable absence of strong winds.—*Maidenhead, Isis Cottage*. The first part was showery and squally, but after 17th the weather grew misty with thick fog at night.—*Wantage, Ardington*. Dry and bright, with frequent morning fogs followed by cloudless days. Remarkably windless.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R 1.47 in. below the average of 29 years.—*Slough, Upton*. R only half, and sunshine

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\* See also *Met. Mag.*, November, 1904, p. 198.

but three-quarters, of the normal amount. Very little wind. The surface of the ground was very dry. Foliage was heavier than for several years and autumn tints remarkably fine.—*Farnham Royal*. Fairly fine, with rather low temp. at the end. R below the average, with no heavy falls. Temp. normal. Prevailing winds N.W. and N.E.—*Oxford, Banbury Road*. Beautiful weather on the whole in spite of some fog, and rather cold. The autumn tints were unusually fine, and as the leaves fell the thickness of the foliage became very noticeable. Dahlias were still blooming freely in spite of the sharp frosts in the middle of the month.—*Swerford*. A fine month, with R 2·37 in. below the average of 10 years. Fog on 8 days. Four sunless days.

IV. EASTERN COUNTIES.—*Colchester, Lexden*. Fine and dry. Some cold nights in the second week, with E. wind. Very mild in the third week.—*Copdock*. A brilliant month with 127·7 hours of sunshine. Anticyclonic conditions throughout except from 5th to 8th. Mean temp. 51°·0 No frost to touch flowers.—*Burgh Castle Rectory*. Unusually little R, and warm nights. Frost in low lands, but here flowers were all untouched.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R 2·33 in., and rainy days 3, below the average.—*Tavistock, Whitchurch*. Rather cold and dry, with R about half the average. The mean temp. varied from 45°·1 on 2nd, to 57°·1 on 4th. Prevalent wind S.E.—*Polapit Tamar*. The driest October for 35 years, except in 1897, the R being 2·70 in. below the average.—*Crewkerne, Merefield House*. Mild and dry, with a good deal of fog. Almost total absence of wind, except from 6th to 8th. Mean temp. 52°·3.—*Harptree Court*. R 2·50 in. below the average of 21 years.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop*. Very genial, with small R, several fogs, and extremely high bar.—*Cirencester, Further Barton*. A grand, dry, quiet month, with a good deal of fog, but several summerlike days. The R was the lowest in October in 60 years.—*Wem*. Very dry and fine, with much sunshine and little frost. At the end the ground was dry and hard; some leaves still remained on the trees.—*Mayfield House [Ashbourne]*. Fine and dry, several days having bright sunshine throughout. Cold nights from 12th to 14th, and from 21st to 24th. Some fog towards the end.—*Upton-on-Severn, The Eades*. Very dry. Considerable fog in the latter part. Remarkably good fruit crop.—*Worcester, Boughton Park*. Singularly dry, but raw and foggy, except for a few fine warm days about the 18th.

—*Rochford*. Remarkably fine, bright and dry, with a few early morning fogs and very little frost. R 2·04 in. below the average.

VII. NORTH MIDLAND COUNTIES.—*Spilsby, Ashby Road*. R 2·36 in. below the average of 10 years.—*Grimsby, Abbey Road*. Remarkably dry, with exceptionally bright sunshine, and very few dull, cloudy days.—*Worksop, Hodsock Priory*. Fine and very dry, with a good deal of frost at night, but with warm days. R just half that recorded in 1888, the driest October in the previous 29 years.

VIII. NORTH WESTERN COUNTIES.—*Chester, Parkgate Road*. Extremely dry, quiet and dull. R two inches short of the average, and rainy days only half the average.—*Chatburn, Middlewood*. R 2·63 in. below the average of 14 years.—*Broughton-in-Furness*. Fine with little more than half the average R and much less than the usual number of strong winds. Mean temp. slightly below the average. No frost in the screen.

IX. YORKSHIRE.—*Wakefield, Walton Hall*. The smallest R during 29 years, the next smallest having been ·61 in. in 1890.—*Goldsborough Hall*. Very fine and dry. Heavy gale from S.W. on 5th. Keen frosts about the middle. Foggy mornings during the last week.—*Malton*. One of the driest Octobers for many years, the R being only ·53 in., more than half of which fell on two days.—*East Layton*. This October will long be remembered as the finest on record, being bright and summerlike almost throughout. All agricultural work was well forward, but R was much needed.—*Middlesbrough, Ormesby*. Fine autumnal weather and very small R.

X. NORTHERN COUNTIES.—*West Hartlepool, Bradgate*. Unusually fine, bright and quiet, with S.W., N.W. and W. winds prevailing, the mean daily movement being 112 miles.—*Seathwaite*. Some very fine weather. Great R on 16th, 4·03 in. falling in less than 24 hours.

#### SCOTLAND.

XII. SOUTHERN COUNTIES.—*Clenerie*. Mild throughout, with few stormy days.—*Langholm, Drove Road*. R 2·41 in. below the average of 28 years and 9·28 in. below that of October, 1903. Except on 13th and 14th, it was very mild.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh*. Dry and sunny, with frequent haze in the mornings and late afternoons. During the first week the wind was high, blowing a gale from S. on 5th. From 16th to 18th it was high from W. and blew moderately from S.E. on 21st and 22nd. Mean temp. 46°·0.

XVI. EAST MIDLAND COUNTIES.—*St. Andrews*. Very fine, with an unusual number of still, sunny days, and a smaller R than in any month since the record commenced in October, 1900.—*Coupar Angus*. An ideal month throughout, the R being 1·71 in. below the average and the temp. more than 2°·0 above the average.—*Blair Atholl*. Delightful weather, unusually mild with sunshine.—*Dundee, Ballyruddery*. Generally mild and on the whole dry. Duration of sunshine 96·2 hours.

XVII. NORTH EASTERN COUNTIES.—*Crathes, Pinewood*. Exceptionally dry and bright. Duration of sunshine 127·8 hours, being 28·9 hours more than the average. Streams were very low and many wells dried up.

XIX. NORTHERN COUNTIES.—*Bettyhill*. Although R fell frequently it was seldom heavy and did not last long.

## IRELAND.

XX. MUNSTER.—*Waterford, Brook Lodge*. R 2·21 in. below the average ; the driest October since 1890. A good deal of fog.—*Castle Lough*. A most favourable month. Except for 16th, 22nd and 27th, the R would be slight indeed. With the exception of a gale on 5th, it was calm and sometimes brilliant.

XXI. LEINSTER.—*Kilkenny, Sion Villa*. Generally damp, though many days were lovely. Cold towards the end. Early morning fogs from 8th to 13th. Mean temp. 50°·0.—*Ballybrack*. R 3·12 in. below the average of 27 years and the driest month on record in that period. Exceptionally fine in every respect.—*Rathmines, Leinster Road*. The remarkable feature was the drought, the nearest approach to the small R being ·58 in. in October, 1887, and thought to be the driest October in Dublin since the 18th century. Curiously there were three rather deep depressions, two of which were accompanied by gales, but only one by any R worth mentioning. The temp. was normal. Bright sunshine and clear skies alternated with gloom and fog, the month closing with most depressing weather.

XXIII. ULSTER.—*Lough Island*. R 4·62 in. below the average of 40 years and the smallest since the gauge was established in 1862.—*Lisburn*. Generally dull, with wind chiefly from W. Mean temp. 50°.—*Belfast, Springfield*. Generally mild, and the driest October in 29 years' record.—*Ballymena*. The driest October since 1880.

## NOVEMBER.\*

## ENGLAND AND WALES.

I. LONDON.—*Fulham, Edith Road*. Cold and very dry, nearly all the R falling between 6th and 10th. Mean temp.  $2^{\circ}4$  below the average, chiefly owing to a very cold spell from 22nd to 29th.—*St. Pancras, Camden Square*. Fair and sunny from 2nd to 4th, followed by a week of rough and wet weather, during which almost the whole of the month's R fell. From 13th to 18th dense morning fogs prevailed, with high bar. and remarkably little air movement. Wintry conditions set in on 21st and continued till 28th, with S on 22nd and 23rd. Duration of sunshine 35.0 hours and of R 39.1 hours. Mean temp.  $42^{\circ}0$ , or  $1^{\circ}0$  below the average.

II. SOUTH EASTERN COUNTIES.—*Haslemere, Jesses*. Fine and dry on the whole, with average temp. Wet from 6th to 10th. Very mild from 9th to 13th. Frost from 22nd to 27th.—*Caterham Valley*. Wet fogs prevalent. Frost and S unusually early.—*Wallington*. Mean temp.  $42^{\circ}1$ , being  $2^{\circ}4$  below the average. Duration of sunshine 65.3 hours, or 14.3 hours above the average, it being the sunniest November except two in the record. R 1.42 in. below the average.—*Tilmanstone, Danefield*. At first fine and mild, followed by a week of hard frost after the 21st. Some thick fogs and very little wind.—*Lewes, Saxonbury*. Calm as a whole, with high wind on 8th. White frost and fog in third week and very cold and frosty during the last week. L on 21st and S shower on 22nd.—*Crowborough, Uckfield Lodge*. A delightful November. The first 15 days were on the whole bright and warm. Then 4 misty days were followed by 8 days of severe frost. Sunny nearly every day. Mean temp.  $42^{\circ}0$ .—*Crowborough, Steel Cross House*. An unusual amount of sunshine. Mild until after the middle, then sharp frosts from 21st to 29th. Deficient R and very little S.—*Ryde, Beldornie Tower*. Fine and dry except from 6th to 10th inclusive. Cold and wintry from 22nd to 27th, but no S.—*Bournemouth, Kempsey*. Dry, with many fine days. Mild till the 20th, then very cold. Wind chiefly between N. and W.—*Christchurch, Winkton Lodge*. Mild and pleasant with very moderate R.—*West Dean*. Remarkably fine, with temp. and R much below the average. Fog on 21 days. Except on 2 days there was an almost entire absence of wind.—*East Garston*. Seasonable R and mild weather with the exception of a week of severe frost.—*Maidenhead, Isis Cottage*.

\* See also *Met. Mag.*, December, 1904, pp. 201, 203, 218.

Overcast and misty at the beginning. Strong gale on 9th. S on 22nd and 23rd, with gale. Sharp frosts from 23rd to 30th.—*Wantage, Ardington*. Remarkable for the great amount of sunshine and mild weather till 21st, when severe frost set in.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R .87 in. below the average of 29 years.—*Harrow Weald*. R .46 in. below the average of 15 years.—*Farnham Royal*. R below the average, with no heavy falls. The temp. was very low from 20th to 30th, and fairly heavy S fell on 22nd and 23rd. Prevailing wind N.W. and N.E.—*Winslow, Addington Manor*. Mild and fine until 23rd, when intense frost set in, with the lowest temp. during 34 years' record.—*Culham Vicarage*. Mild and dry on the whole till 22nd. Very cold from 22nd to 28th, and mild and dry to the end.—*Oxford, Banbury Road*. The coldest November on record. Frost on 14 days; mean temp.  $38^{\circ}\cdot9$ . The next coldest was in 1896, with frost on 14 days and mean temp.  $39^{\circ}\cdot1$ .—*Swerford*. The coldest November on record. Mean temp. for the first 15 days  $44^{\circ}\cdot9$ , and for the last 15 days  $33^{\circ}\cdot7$ . S on 4 days, about 4 inches deep. Two sunless days. Fog on two days.—*Blisworth, Crieff House*. Fine till 20th and the best seeding time for some years. S on 21st and on 23rd, and sharp wintry weather till 28th, trees and fields being covered with S for a week.—*Pitsford*. R 1.09 in. below the average. S on 22nd and 23rd, followed by frost until nearly the end. Mean temp.  $40^{\circ}\cdot1$ .

IV. EASTERN COUNTIES.—*Copdock*. A curious month, with great extremes of temp., being warm to start with and exceptionally cold towards the close. Conditions were anticyclonic throughout, except from 7th to 9th and on 22nd and 23rd, but the cold spell occurred with low bar. Very little R, but a good deal of fog. Mean temp.  $41^{\circ}\cdot8$ . Duration of sunshine 84.8 hours.—*Brundall*. Mild till 17th. A period of sharp winter weather ensued. Mean temp.  $1^{\circ}\cdot6$  below the average.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R 1.30 in., and rainy days 4, below the average.—*Winterbourne Steepleton*. R less than half the average of 12 years. Mean temp.  $2^{\circ}\cdot0$  below the average, owing to low minima. *Tavistock, Whitchurch*. Rather cold, dry and fine, with high bar. and small range. The daily mean temp. varied from  $52^{\circ}\cdot2$  on 11th to  $28^{\circ}\cdot4$  on 24th. S on 21st, 22nd, 23rd and 25th, the greatest depth being three-and-a-half inches on 23rd.—*Sidmouth*. Fine, mild and open, with much sunshine. White frosts from 24th to 29th, and a sprinkling of S on 22nd and 23rd.—*Looe, Morval*. As much as six inches of S fell in absolutely still weather during the last week.—



*Crewkerne, Merefield House.* Dry, with a good deal of fog and mist. Temp. below the average.—*North Cadbury.* The first twenty days were warm, the last ten very cold. Mean temp. the lowest in 8 years. R below the average.—*Harptree Court.* R 1·36 in. below the average of 21 years.

VI. WEST MIDLAND COUNTIES.—*Cirencester, Further Barton,* Very quiet, with much fog and many bright sunny days. Unsettled periods from 6th to 10th and from 21st to 23rd, the latter ushering in severe wintry weather. R ·75 in. below the average of 59 years.—*Mayfield House [Ashbourne].* Very mild at the beginning, with heavy R from 5th to 10th, followed by fog. Cold spell from 20th to 28th, with heavy S on 21st and 23rd. The last two days were mild.—*Upton-on-Severn, The Eades.* Dull and sunless, with frost from 24th to 27th.—*Tenbury, Rochford.* Mild and bright, but sharp frost during the last week, with sleet on 21st and S on 23rd. R ·55 in. below the average.—*Bromsgrove, Stoke Reformatory.* The coldest November since records began in 1878.

VII. NORTH MIDLAND COUNTIES.—*Market Overton.* Mild and open till 21st, when there was S, the min. temp. subsequently being below 20° on 6 days.—*Boston.* R 1·34 in. below the average.—*Spilsby, Ashby Road.* R 1·02 in. below the average of 10 years.—*Grimsbey, Abbey Road.* November exactly! Mild and bright for the first few days, then strong gales, followed by fog, S and frost, and dull damp weather.—*Worksop, Hodsock Priory.* Dry, with a sharp spell of frost at the end, with S on the ground for a week.

VIII. NORTH WESTERN COUNTIES.—*Chester, Parkgate Road.* Until 20th dull, dry and warm. Afterwards cold, the mean temp. of the last 10 days being 34°·5.—*Chatburn, Middlewood.* R 1·20 in. below the average of 14 years.—*Blackpool.* Mild from 1st to 20th. Wintry weather with S on 21st; thereafter for the most part fine and frosty. The temp. for the first three weeks was above the average, but in the fourth week 7° below. R ·55 in. below the average. Duration of sunshine 51·6 hours, or 8·6 above the average. Mean temp. 43°·0, or 0°·6 below the average.—*Hampson-in-Ellel.* High temp. till 18th, then a S storm and 10 days of extreme cold.—*Broughton-in-Furness.* Mild till 19th. Sudden drop in temp. on 20th, with S and H on two days, the frost continuing for 9 days and ceasing suddenly. More than half the R of the month fell on 7th and 8th.

IX. YORKSHIRE.—*Goldsborough Hall.* Dry until 7th, when ·78 in. of R fell, a greater amount than in the whole month of October.

Dense fog from 13th to 15th; then a few fine days. Heavy S on 21st and frosty to 29th.—*Hull, Pearson Park*. Unsettled till 10th. S on the ground from 22nd to 29th.—*East Layton*. Fine till 20th, when there was a heavy fall of S, which lasted until nearly the end.

X. NORTHERN COUNTIES.—*Bamburgh*. Spasmodic weather; mild except from 7th to 10th and from 21st to 24th. The ground was never white with S for more than a few hours together.

XI. WALES, &c.—*Haverfordwest, High Street*. Fine, with moderate R. Fresh gale from 7th to 9th, and during the remainder of the month fresh breezes. Cold and frosty from 21st to 26th, the Precelly range being capped by S. Duration of sunshine 55·8 hours.—*Douglas, Woodville*. Much R from 5th to 11th. Very high temp. till 20th, when it suddenly became extremely cold and raw, with heavy S on 21st and 22nd. The cold period, averaging 7° to 10° below the normal temp., lasted till 27th. Gales on 3 days, but unusually quiet on the whole.

## SCOTLAND.

XIII. SOUTH EASTERN COUNTIES.—*Lochton*. Splendid weather for the most part until 21st, when a S storm commenced.—*Musselburgh*. Mild on the whole till 19th with a fair amount of sunshine, but seven dull and damp days. S on the night of the 19th, and afterwards frost every night except three.

XV. WEST MIDLAND COUNTIES.—*Inveraray, Newtown*.—Extraordinarily mild for the season until 20th, when a sudden change brought a week of wintry weather.—*Ballachulish, Ardsheal*. R 1·47 in. below the average.

XVI. EAST MIDLAND COUNTIES.—*St. Andrews*. Unusually mild and pleasant till 19th, with still sunny days and gardens full of flowers, but the 21st was colder than any day during the winter of 1903-4. R much below the average and water supply becoming deficient.—*Dundee, Balruddery*. Very slight R. Duration of sunshine 69·2 hours. Remarkably early winter.

XVII. NORTH EASTERN COUNTIES.—*Crathes, Pinewood*. A dry month and springs still very low, water in many places being extremely scarce. A S storm of considerable intensity commenced on 20th, the S lying till the end of the month. Duration of sunshine 84·4 hours.—*Aberdeen, Cranford*. Fine, with the sky frequently clear and light warm winds until 20th, when S came on.—*Lynturk Manse*. S occurred

early, and abnormally low temp. was experienced on 25th and 26th, after remarkably mild and open weather.

XIX. NORTHERN COUNTIES.—*Bettyhill*. On the whole wet, stormy and changeable, with a few mild, dry days. One slight fall of S, sleet on two or three occasions, and sharp frost on four days.—*Castletown*. Rough, with N.W. wind prevailing, for the first six days. Normal November weather from 7th to 18th, with moderate R. From 18th to 23rd very cold and windy from W., with S and keen frost. Then changeable, windy and damp to the end, with occasional bright sunshine, but no drying power in the atmosphere.

### IRELAND.

XX. MUNSTER.—*Castle Lough*. Fairly fine and mild, with the exception of a cold snap from 19th to 23rd. R much under the average. Gales on 8th and 9th. Thrushes were singing every day in the middle of the month till the cold snap came.—*Miltown Malbay*. Generally damp, with an intensely cold snap and H, S and frost. T and L between 19th and 24th.

XXI. LEINSTER.—*Kilkenny*, *Sion Villa*. Unusually fine and exceptionally mild until 21st, when S fell in a regular storm, the ground remaining white to the 25th. Intense cold prevailed. R set in on the afternoon of 25th, and was succeeded by fine, bright frosty weather to the end. Mean temp. 42°.—*Castledermot*. Unusually fine and mild, with the exception of 6th and 7th, and 21st to 24th, when there was some S and intense frost.—*Ballybrack*. Exceptionally fine and mild till 19th; then cold with some S until the end. R 1·59 in. below the average of 20 years.—*Rathmines*, *Leinster Road*. An absolute drought for 15 days ended on 4th, and some R fell daily from 5th to 10th. The dry, mild and quiet weather of October was then resumed, but a sudden change to wintry conditions occurred on the night of the 20th. Very little S fell in Dublin. R and rainy days much below the average. Very little fog.

XXIII. ULSTER.—*Lough Island*. R 3·83 in. below the average of 40 years.—*Banbridge*, *Milltown*. R ·76 in. below the average of 40 years.

### DECEMBER.\*

#### ENGLAND AND WALES.

I. LONDON.—*Fulham*, *Edith Road*. Rather warm, with average R. Mean temp. 1°·6 above the average. Much fog from 19th to 27th,

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\* See also *Met. Mag.*, January, 1905, p. 242.

which reduced the temp. greatly. Singularly calm till the 30th.—*St. Pancras, Camden Square*. Mild, gloomy and depressing, with great absence of sunshine and much damp, foggy weather. From the morning of the 19th till about 11 a.m. on 23rd London was continuously enveloped in more or less dense fog. Duration of sunshine only 15·3 hours, and of R 39·6 hours. Mean temp.  $41^{\circ}0$ , or  $1^{\circ}8$  above the average.

II. SOUTH EASTERN COUNTIES.—*Abinger Hall*. Changeable and wet, with some cold weather. Fogs were numerous and unusually dense, lasting several days at a time.—*Caterham Valley*. A feature was the prevalence of exceedingly wet fogs, though on several occasions of notable fog in London this place was free.—*Epsom, Ashley Road*. There were three well marked warm periods: from 1st to 5th, from 15th to 18th, and from 28th to 30th. Almost continuous fog prevailed from 19th to 27th, being especially dense on 19th and 21st.—*Wallington*. Extremely foggy between 19th and 27th. Mean temp.  $40^{\circ}8$ , being  $1^{\circ}8$  above the average. Duration of sunshine 34·9 hours, or 4·0 hours less than the average.—*Ulcombe Place*. Much sunshine, but a little fog from 18th to 31st.—*Lewes, Saxonbury*. Very calm, with much fog and white frost. Mild with R till 16th, and dry and colder afterwards.—*Crowborough, Beechcroft*. The first half was unsettled and wet, followed by fog, mist and gloom for some days, after which finer conditions prevailed, with calms and slight variable airs. Gale on the night of the 29th.—*Bournemouth, Kempsey*. The first fortnight was very wet, with 3·84 in. of R, exceeding the average for the month. Cold, thick wet fog all day on the 22nd, followed by five consecutive sunless though fine days.—*Christchurch, Winkton Lodge*. Weather changeable and mild for the season. Four brilliant days, but cloudy at the close and calm, with an unusual amount of fog.—*Lambourn, East Garston*. Generally mild, with a great deal of fog and frequent slight falls of R.—*Wantage, Ardington*. Much fog from 19th to 24th, after which there was mist but no fog. The weather brightened on 27th. Very high N.W. wind on 30th.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R ·30 in. below the average of 29 years.—*Harrow Weald*. R ·27 in. below the average of 15 years.—*Farnham Royal*. Unsettled and mixed weather. Temp. rather low, and R slightly below the average, with no heavy falls. During Christmas week there were thick white mists.—*Winslow, Addington Manor*. Severe frost from 19th to 27th. Frequent dense fogs and heavy rime, which fell from the trees and covered the ground

to a depth of two inches.—*Culham Vicarage*. The first half was wet, the second very dry and foggy till nearly the end, the last few days being mild and windy.—*Pitsford*. R  $\cdot 47$  in. below the average. Mean temp.  $36^{\circ}0$ .—*Sawston Hall*. Dense fog lasting 10 days, and unprecedented in the eastern counties.

IV. EASTERN COUNTIES.—*Copdock*. Very still, with more or less normal temp. till the cold spell at the end, accompanied by damp fog on 3 or 4 days, which was very bad in lower districts. In spite of this, the duration of sunshine was 67·5 hours. Mean temp.  $38^{\circ}3$ .—*Burgh Castle Rectory*. Remarkable for fog and darkness. The rime frosts were very beautiful, but not more so than some of a few years ago. Four rather large trees were blown down in the gale of 30th and 31st.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R  $\cdot 79$  in. below, and rainy days equal to, the average.—*Tavistock, Whitchurch*. Damp, foggy, cloudy, and rather warm and wet. R fell on each of the first 18 days, making with the last 4 days of November, 6·40 in. The mean temp. varied from  $51^{\circ}0$  on 17th to  $28^{\circ}9$  on 23rd. Fog on 11 days.—*Crewkerne, Merefield House*. From 4th to 13th 3·13 in. of R fell; then fine and calm, but foggy till Christmas. Heavy gale with R during the night of 29th.

VI. WEST MIDLAND COUNTIES.—*Cirencester, Further Barton*. Extremely quiet, with scarcely any strong winds, but much fog and gloom. R fell daily till 16th in sufficient quantities to raise the springs, but scarcely any fell after, and the total was  $\cdot 75$  in. below the average of 59 years.—*Wem*. Very gloomy, with much more fog than usual. The amount of R was small, but the weather damp, cold and trying.—*Mayfield House [Ashbourne]*. Showery at the beginning, with heavy S on 9th and 10th. Cold from 18th to 27th, and very foggy from 21st to 28th.—*Upton-on-Severn, The Eades*. A dry month, with many quite warm days.—*Tenbury, Rochford*. A fine month, but very thick fog during the week ending on 25th. R 1·50 in. below the average.

VII. NORTH MIDLAND COUNTIES.—*Spilsby, Ashby Road*. R  $\cdot 24$  in. below the average of 10 years.—*Grimsby, Abbey Road*. Characterised by extraordinary fogs.—*Worksop, Hodsock Priory*. Dry but changeable, with a good many frosts but no severe or lasting cold. Fogs lasted for more than a week about Christmas.

VIII. NORTH WESTERN COUNTIES.—*Chester, Christleton Hall*. Showery and cold, with dense, cold and continuous fogs before Christmas.—*Chelford, Astle Hall*. Cold to the 11th; then very mild to the

18th. Afterwards frost to the end. Thick fog with high bar. from the 19th to 24th. Frost on 13 days.—*Wilmslow, Parksye*. Great fluctuations of temp. The daily mean temp. fell  $16^{\circ}5$  from 4th to 7th, rose  $19^{\circ}$  from 11th to 15th, fell  $28^{\circ}3$  from 17th to 21st, and finally rose  $25^{\circ}5$  from 23rd to 28th.—*Chatburn, Middlewood*. R  $1\cdot24$  in. below the average of 14 years.—*Broughton-in-Furness*. Showery, dull and rather mild till 17th; then frost came on, lasting till 27th, followed by violent storms of wind changing from S.E. to N.W. Rather thick on some days, but scarcely so much as to be called foggy.

IX. YORKSHIRE.—*Goldsborough Hall*. Mostly dull and unsettled, with light R. S on 7th; very foggy from 19th to 25th, during which time the max. shade temp. was as high as  $30^{\circ}$  on 24th only.—*Hull, Pearson Park*. Exceptionally dull, with cold periods. Severe frost on 8th, 9th, 22nd and 23rd. Fog or mist on 18 days, often dense. Duration of sunshine  $11\cdot3$  hours.—*Middlesbrough, Ormesby*. Very changeable, with extremes of temp. and average R.

XI. WALES.—*Aberystwyth, Gogerddan*. Wet and mild, with sharp frost on a few nights. Fogs towards the end.—*Towyn*. On the whole cold and sunless. Mean temp.  $42^{\circ}9$ , mean daily range  $9^{\circ}6$ . Duration of sunshine  $36\cdot2$  hours.

## SCOTLAND.

XIII. SOUTH EASTERN COUNTIES.—*Lochton*. Good weather on the whole, with touches of hard frost and one slight fall of S.—*Musselburgh*. During the first five days there was strong wind from S. and S.W., rising to a gale on the night of the 4th. A good deal of S.W. wind again from 10th to 18th, followed by a dull, foggy spell till 29th, on which night there was a gale from S.S.W., veering on the next night to N.W. Mean temp.  $36^{\circ}2$ .

XVI. EAST MIDLAND COUNTIES.—*St. Andrews*. On the whole pleasant, with a large proportion of still, sunny days, but sudden changes of temp. Very little S or fog.

XVII. NORTH EASTERN COUNTIES.—*Crathes, Pinewood*. Exceedingly dry and many wells still low. S lay on the ground from 1st to 4th and from 7th to 12th. Dense fogs daily from 23rd to 28th. Duration of sunshine  $39\cdot9$  hours.

XIX. NORTHERN COUNTIES.—*Bettyhill*. On the whole mild, with frequent gales. One slight fall of S, and frost lasting a few days. R about the average.

## IRELAND.

XX. MUNSTER.—*Castle Lough*. Mild and damp on the whole. The first half was rather wet, but the total R much below the average.

XXI. LEINSTER.—*Kilkenny, Sion Villa*. Dull and dark throughout, though there were several bright days during the first fortnight. The week ending 25th was especially dark and damp, but no R fell. Mean temp. 34°.—*Kilkenny, Lavistown House*. The weather and temp. were very variable. Frost on 10th, followed by S and heavy R within 24 hours. A few nights later the temp. did not fall below 52°. The end was very mild, with comparatively little R.—*Castledermot*. Exceptionally fine and mild, especially from 10th, some days being like summer.—*Rathmines, Leinster Road*. Commenced with bright but changeable weather, with short frosts. From 15th to 17th abnormally high temp. prevailed, but after 18th weather of the worst description continued to the end, with mist, fog, dense gloom and heavy stagnant atmosphere. Although the mean temp. has often been exceeded, wintry conditions were entirely absent and no S fell.—*Ballybrack*. The first week was bright and cold, the second wet and cold, and the latter half damp, dark and foggy. R .68 in. under the average of 20 years.

XXII. CONNAUGHT.—*Woodlawn*. Very mild throughout. The first half was wet, the second drier, but dull and misty.

XXIII. ULSTER.—*Lough Island*. R 2.20 in. below the average of 40 years.—*Banbridge, Milltown*. R .95 in. below the average of 40 years.

## OBSERVERS' NOTES ON THE YEAR 1904.

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[When an average is referred to in these notes without the number of years being specified the figure must not be treated as if it were comparable with the average at any other station.]

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### ENGLAND AND WALES.

#### DIVISION I.—LONDON.

PADDINGTON, WESTBOURNE GROVE.—Dry, with an average number of wet days. Only three daily falls exceeded  $\cdot 50$  in.—*A. P. Baker.*

FULHAM, EDITH ROAD, WEST KENSINGTON.—A dry, fine and pleasant year, with no extremes of temp. Little heavy R and no droughts, absolute or partial. A singular absence of gales, except for one week in February, till December 30th. Temp.  $0^{\circ}3$  above the average, and R  $2\cdot 55$  in. below the average—thus keeping up the tradition of the dry “fours.” No month had R above  $2\cdot 25$  in., a thing which has never previously occurred in 21 years.—*G. von U. Searle.*

HAMPSTEAD, BURRARD ROAD.—The commencement was remarkably wet, but the approach and course of spring synchronised with better weather. The summer was generally pleasant, with no abnormal features save the heavy TS of July 25th. The autumn was remarkably foggy and calm.—*W. Godden.*

ST. PANCRAS, CAMDEN SQUARE.—The R was somewhat above the average of 45 years in January and February and very slightly so in March, but thereafter, with the exception of a trifling excess of  $\cdot 06$  in. in July, it was consistently deficient in every month, the greatest deficiency being  $1\cdot 35$  in. in June, and the total was  $4\cdot 34$  in. below the average amount. The number of rainy days exactly equalled the average, deficiencies occurring in the summer and autumn months and excesses in the winter. The total duration of R was 491·8 hours, or 82·9 hours above the average. January had the greatest monthly



duration, 79·5 hours, and June the least, 16·7 hours. The greatest daily duration was 15·5 hours on August 31st. Great lack of sunshine, and gloomy, damp weather prevailed during the portions of the two winters partially included in the calendar year, but the absence of E. winds and frosts from March to May made the spring the most genial for many years. The summer was on the whole fine, with few TSS, the only one of importance being that of July 25th, when 1·71 in. of R fell, the fall standing fifth amongst the heavy falls recorded at Camden Square since 1858. The temp. was below the average slightly in February and rather more so in March, June, September and November, the deficiency in the last-named month being entirely due to a week of wintry weather from 21st to 28th, during which severe frost occurred and some S fell. July and April were the only months with temp. considerably above the average, but the absolute max. occurred on August 4th, when the temp. reached 91°. Total duration of sunshine 1253·9 hours; 108 sunless days.—*Hugh Robert Mill.*

GREENWICH, EASTCOMBE VILLAS, BLACKHEATH.—R 2·32 in. below the average of 21 years. Mean temp. 50°·2, or 0°·5 above the average.—*H. K. G. Rogers.*

## DIVISION II.—SOUTH EASTERN COUNTIES.

### SURREY.

HASLEMERE, LOWER STREET.—R 1·17 in. below the average of 32 years.—*J. W. Penfold.*

HASLEMERE, JESSES.—R two and-a-half inches above the average, that of January, February, May and December being above, April, August and October equal to, and the remaining months below, the average. Mean temp. 48°·7.—*A. F. Parbury.*

HASLEMERE, HAZELHURST.—During the first five months R was heavy and frequent, 18·59 in. falling on 90 days, with 535·5 hours of sunshine, up to June 1st inclusive. During the next four months R was deficient and sunshine abundant, but there was no drought or undue dryness. From June 2nd to September 29th 6·35 in. fell on 42 days, with 905·5 hours of sunshine. From September 30th to December 31st 8·69 in. fell on 48 days, with 228·1 hours of sunshine. Total duration of sunshine 1669·1 hours. Splendid hay crop.—*T. P. Newman.*

HASLEMERE, GRAYSWOOD HILL.—Spring was rather backward,

but May proved almost free from N. and N.E. winds, and fruit and flowers were most abundant.—*B. E. C. Chambers.*

WITLEY, FERNSIDE.—A year of much sunshine, with a fair amount of R. January and February were wet ; from January 26th to 31st three inches of R fell. Perfect weather prevailed for 20 days in May, and a long and lovely summer followed, with only 32 rainy days from June 1st to September 1st. October was fine and mild. December, after 14 consecutive rainy days, was terribly foggy and dull.—*Juliana Foster.*

GUILDFORD, CRAIGIE, MERROW.—R 2·26 in. below the average.—*Ellen S. Lomer.*

HORSLEY, WOODCOTE LODGE.—A favourable year. The R of January and February was double the average, and that of June one-third of the average.—*T. James.*

WOKING.—Remarkable for the number of rainy days, which exceeded the average of 11 years by 41, whilst the R was 1·50 in. less than the average of the same period.—*F. Wilson.*

CHERTSEY, OTTERSHAW.—A fine year on the whole, with plenty of sunshine during the summer. The R was nearly two inches below the average of the district, but drought was only felt seriously in August. There was a curious uniformity of R from July to November.—*R. H. Otter.*

BAGSHOT, HALL GROVE.—In the middle of February the land was water-logged. Excellent weather for hay harvest. In July vegetables began to want R, and aftermath was scarce. In November water for cattle was short.—*W. Burgess.*

LYDEN CROFT [EDENBRIDGE].—R ·87 in. above the average of 11 years.—*C. Planck.*

DORKING, FIR TOR.—About the driest summer for 30 years, and for 10 months from February quite the driest recorded.—*F. Taylor.*

REIGATE, NORTHCOTE.—From June 2nd to August 30th inclusive only 1·21 in. of R fell. During December the damp fog yielded ·01 in. on 10 occasions.—*F. C. Pawle.*

WARLINGHAM, EGREMONT.—The first three months were wet and unpromising, but after that a most encouraging year for the gardener. Nothing failed, and the growth was surprising. The intermittent stream called the Bourne, which broke out early in 1904, lasted for many weeks. No ordinary R filters into the Caterham valley, but occasionally after copious falls it breaks out as the result of over-saturation of the under-lying chalk.—*H. Rogers.*

WALLINGTON, COTSWOLD.—The wettest January on record, and February only twice exceeded. Rainy days 25 above the average. Mean temp.  $49^{\circ}\cdot4$ , being  $0^{\circ}\cdot6$  above the average. Duration of sunshine 1654·8 hours, or 109·8 hours above the average.—*F. Campbell Bayard*.

CROYDON, PARK HILL RISE.—Generally dry. R below the average in every month except January, February, May and December.—*H. F. Parsons*.

### KENT.

TENTERDEN, SUMMERHILL.—Very fine summer and autumn, and fewer gales than usual.—*Mary Wilkin*.

GOUDHURST VICARAGE.—Dull and dark at the beginning, with a TS on January 13th and some S at the end of February. Heat wave in April; then colder, but a warm May. Cool at midsummer, but hot and pleasant in July and August. September was chilly and October fair. After a St. Martin's summer in November, fog was followed by a cold snap. The first half of December was wet and mild.—*J. S. Clarke*.

TUNBRIDGE WELLS, IVY CHIMNEYS.—There were great complaints of shortage of water in wells in the neighbourhood, and many people had to cart water to their premises.—*Norman W. Grieve*.

TONBRIDGE, PRIMROSE HILL.—R slightly below the average. The first two months were very wet and much more characteristic of 1903, but spring and summer were remarkably fine. On the whole a fruitful year. Remarkable absence of S, and, except during the last week of November, there was very little frost.—*G. J. Kimmins*.

SEVENOAKS, RIVER HILL.—More sunshine than for many years past, but nothing suffered from drought.—*J. M. Rogers*.

SEVENOAKS, PLAXTOL.—From a farmer's point of view, the season's weather was as nearly as possible ideal, but in spite of the exceptional R of 1903, springs were still weaker than seven years ago.—*H. Stonham*.

HYTHE, HILLHURST FARM.—R 4·84 in. below the average of 20 years.—*G. F. Deedes*.

OSPRINGE, LORENDEN.—Springs, which recommenced running in 1903 after a cessation of about seven years, were again very feeble after June, 1904. This was caused by a total deficiency of 16·20 in. in the last 18 years as compared with the average of the previous 20 years.—*W. C. Stunt*.

TILMANSTONE, DANEFIELD.—A most beautiful year, with abundance of sunshine, and a fine, dry and hot summer. Good harvest weather ; neither drought nor excess of R.—*Adela M. M. Rice*.

RECULVER.—R below the average. The heaviest fall was only .66 in. and there was only one other above .50 in. The large number of wet days during the winter caused great waste of nitrates from the soil and made it sodden, and since there was no frost to mellow it, it worked badly and was not in a condition to retain moisture during the somewhat droughty summer, so that many crops suffered badly.—*Allington Collard*.

MARGATE, WESTLANDS.—R nearly 5 inches below the average, the fall being deficient in April and from June to December. Mean temp. 1°·0 above the average, and duration of sunshine well in advance.—*J. Stokes*.

### SUSSEX.

WEST THORNEY.—After March the ground was dry for agricultural purposes, and the R never seemed to wet the soil, which remained friable to the last day. Springs were low and some wells almost dry.—*H. Padwick*.

TORTINGTON.—The only noteworthy feature was the large number of days on which .01 or .02 in. was measured from heavy dew or slight mist without any real rain. The position of the station in the midst of a clump of trees half-way between the sea and the South Downs may account for this.—*J. A. Travers*.

CHICHESTER, WESTGATE MEADOW.—For the first five months the R was 4·89 in. above the average of 65 years, and for the last seven months 5·13 in. below, making the fall for the year only .24 in. below the average.—*G. Ashley Tyacke*.

FUNTINGTON.—An artesian well which had flowed without ceasing since December 15th, 1902, ceased overflowing its bore pipe on November 10th.—*J. Anderton Greenwood*.

CHICHESTER, FOREST SIDE VICARAGE.—R 2·43 in. above the average of 16 years.—*Mary B. Parson*.

MIDHURST, BORDEN WOOD.—On 4 days 1·00 in. of R or more fell, on 17 days .50 in. or more, and on 50 days .25 in. or more. Absolute drought from July 4th to 18th.—*E. Lamb*.

HORSHAM, WIMBLEHURST.—R 1·24 in. below the average of 10 years.—*F. Edith Allcard*.

FALMER.—R 3·57 in. below the average of 40 years. The fall was above the average in January, May and December, and below in all the other months.—*R. R. Verrall.*

LEWES, BEDFORD LODGE.—R 2·35 in. below the average of 35 years.—*Jane M. Kemp.*

LEWES, SAXONBURY.—R 1·68 in. below the average of 13 years.—*A. Hillman.*

HASTINGS, GUESTLING RECTORY.—January and February were very wet, the R being at least double the average. The spring and summer months, except May, had less than the average fall, and from June 1st to August 29th only 3·26 in. fell. Hay and corn were secured without hindrance. The number of warm days in the summer and autumn was much above the average. Very cold from November 21st to 29th, but little S.—*E. M. Bloomfield.*

CLAYTON RECTORY.—R 1·38 in. above the average of 14 years. January, February and May were wet, and June, July and November dry.—*T. H. R. Shand.*

CROWBOROUGH, UCKFIELD LODGE.—A great improvement in the weather compared with the previous year was the striking feature of 1904. The total R was 31·63 in. compared with 45·68 in. in 1903, and 3·58 in. below the average of 32 years. The three months, January, February and March, gave an excess of over 2 inches compared with the same three months in 1903, but afterwards the R was considerably less; and a magnificent spring and summer were followed by an equally delightful autumn. Indeed, one must travel back many years to find so favourable a year for sunshine and comparative freedom from storms. There were no heavy falls of R, the heaviest being ·97 in. on January 30th. Very little S, light showers falling on 10 days only; the heaviest fall was an inch-and-a-half on March 2nd. Frost occurred on 22 days in the first 3 months, and there was a sharp spell from November 21st to 28th. There were also 5 nights of frost in December, culminating in severe cold on the last night of the year. Gales and TSS were below the average in number and violence. The most violent gale was on December 30th and 31st.—*J. J. S. Driberg.*

TICEHURST, WHILIGH.—January and February were very wet, 5·58 in. of R falling from January 25th to February 14th. There was a good deal of R in May, but the rest of the spring and summer was dry. A wonderful hay crop was secured, but grass was very

short afterwards. The first half of December was wet.—*G. J. Court-hope.*

CROWBOROUGH, STEEL CROSS HOUSE.—The wet weather of 1903 continued into the middle of February. Drier conditions then prevailed till May, when more R than usual fell. June, July and the early part of August were fine and hot, but without warm evenings and with no severe TSS. The temp. fell after mid-August, and in September and October there were occasionally seasonable high winds, but it was on the whole mild and pleasant. December was wet, with hard frosts followed by sunny days, but without fog.—*J. C. Stenning.*

CROWBOROUGH, RENBY GRANGE.—Some wintry weather in the last week of February, and the dry cold winds of March, left vegetation very backward. There was a good deal of sun in April and May and no late frost, hence an almost record crop of apples followed. The early part of June was dull and gloomy, but led to a glorious summer. October brought some dull, foggy weather, and November frost from 21st to 29th.—*Emily Aston.*

## HAMPSHIRE.

TOTLAND BAY, ASTON HOUSE.—R  $\cdot 72$  in. below the average. June and November were the driest months.—*J. Dover.*

RYDE, BELDORNIE TOWER.—Rainy spell from January 25th to February 17th inclusive, with  $4\cdot44$  in. of R. Absolute drought from July 4th to 18th. Partial drought from June 16th to July 24th;  $\cdot 38$  in. of R falling on 39 days. Wintry from November 21st to 28th, but no S.—*P. Craven Hall.*

CHRISTCHURCH, SOUTHBOURNE-ON-SEA.—R over the average. January, February and December were wet, and June and November were the driest months. No S to speak of, very little T, and no severe gales.—*C. S. Pringle.*

CHRISTCHURCH, WINKTON LODGE.—A year without a history. No extremes of any kind. R rather above the average and evenly distributed. The temp. was also equable, and the absence of spring frosts resulted in a record fruit crop.—*Jane Lassell.*

EMSWORTH, REDLANDS.—R  $\cdot 49$  in. less than the average of 20 years. Absolute drought from July 4th to 18th inclusive.—*F. Jacomb Hood.*

FORDINGBRIDGE, OAKLANDS.—A beautiful summer, with sufficient R to give good crops of fruit and vegetables.—*Agnes Westlake*.

EAST LISS, NEWLANDS.—R .18 in. below the average, the small deficiency being due to exceedingly heavy falls in January and February.—*E. B. Falwasser*.

SWARRATON RECTORY.—At the beginning of January the water in a well in the chalk, 300 feet above sea level, stood at 23 ft. 8 in. below the surface. The highest point was reached about February 23rd, after which the water fell steadily during the summer to 25 feet, which continued during the last three weeks of November. It then rose till the end of the year.—*W. L. W. Eyre*.

ALTON, SHALDEN MANOR.—An ideal year, with sufficient R nicely distributed. A perfect summer and autumn and no damaging storms.—*J. G. Wood*.

HARTLEY WINTNEY.—R 15·07 in. less than in 1903, and 1·56 in. below the average of 17 years. A dry year, with much sunshine and a glorious old-fashioned summer lingering well unto the end of November. There was no day on which an inch or more of R fell and not a TS on any day.—*W. G. Machin*.

### BERKSHIRE.

BRACKNELL, WARFIELD.—About an average year for moisture, but spells of drouthy weather alternated with spells of rather heavy R. Very hot about the beginning of July.—*B. C. Littlewood*.

WINDSOR, ROYAL GARDENS.—R 1·55 in. below the average.—*T. Edwards*.

YATTENDON COURT.—A genial and fruitful year, with pleasant weather conditions free from extremes of cold, heat, R or drought.—*R. Maker*.

MAIDENHEAD, THE FIRS, CASTLE HILL.—The early part was cold and dull, but during the summer there was much fine weather and sunshine. November was cold, with a heavy fall of S on 21st, which lay on the ground for some days. In December there was unusually dense fog, which was almost continuous from 19th to 27th.—*J. W. Duncan*.

MAIDENHEAD, ISIS COTTAGE.—Floods in the Thames from February 12th to 21st, the highest since November, 1894.—*O. King*.

WANTAGE, ARDINGTON.—January and February were very wet; the spring and summer were fine and very bright, with much sun,

but an unusually heavy fall on July 26th made the total R exceed the average. Very little T and much calm weather.—*Gertrude Elliot*.

ABINGDON, PARK ROAD.—An uneventful year. R about three and-a-half inches below the average, but a rather large number of rainy days.—*A. Pettipher*.

### DIVISION III.—SOUTH MIDLAND COUNTIES.

#### MIDDLESEX.

HARROW WEALD, HILL HOUSE.—R 2·85 in. below the average of 15 years.—*A. Crossman*.

BARNET, HADLEY.—A splendid year on the whole. The R would have been much below the average but for the excess in the first quarter. The summer and autumn were extremely fine. Very cold in the latter part of November and dense fogs in Christmas week.—*H. E. Freir*.

#### HERTFORDSHIRE.

EASTBURY [NORTHWOOD].—On the whole a good year, with pleasant weather and no extremes of R or drought. There were four periods of 8 days without R, but none longer. The persistently bad weather of 1903 was prolonged until the third week of February. July was the finest month. The only distinct periods of bad weather after February occurred about Whitsuntide and in the early part of December.—*H. Langford Lewis*.

RICKMANSWORTH, CROXLEY GREEN.—Exceptionally fine and pleasant, with few rainy days, the R falling rapidly in fairly large amounts.—*S. Ingleby Oddie*.

WATFORD, WEETWOOD.—R about 2 inches below the average, but it fell on considerably more than the usual number of days. The heavy R characteristic of 1903 continued until about the middle of February, after which the only wet period of a fortnight's duration was in the first half of December. July was the wettest month, but this was due to a fall of 2·03 in. on 25th, following 7 or 8 weeks of particularly fine weather. April and June were the driest months.—*J. Hopkinson*.

GILSTON PARK.—A favourable year, with excellent crops of all kinds. The only serious dry spell was in July. Rather low night temp.—*E. Leach*.

BUNTINGFORD, HAMELS PARK.—The winter was mild and wet,



spring moderate, summer dry and hot, and autumn mild and open.  
—*E. Wallis*.

### BUCKINGHAMSHIRE.

FARNHAM ROYAL, BROOMLANDS.—Good weather on the whole. R below the average and practically no heavy falls. The spring was very fine and the country looked splendid. Fine summer also, with spells of hot weather.—*F. C. Moscrop-Young*.

HEDSOR.—Mild generally and wet until the latter part of February, the copious R producing severe floods in the middle of that month. Mild and seasonable throughout spring, with no severe frosts. After heavy R at the end of May, dry and summer-like weather prevailed till the close of July, when torrential R fell accompanied by T. The autumn was pleasant and seasonable, with average R and quiet weather, producing dense fogs in November and December. Very wintry from November 20th to 26th. Absolute drought from July 4th to 18th inclusive and partial drought from June 16th to July 24th. R 3.99 in. above the average of 10 years.—*Boston*.

WINSLOW, ADDINGTON MANOR.—R below the average. Crops were good and those for the winter and spring never looked better, but the intense and sudden frost in November ruined the prospect, and quantities of produce were entirely killed, since vegetation was not prepared for the sudden change of temp.—*J. Mathison*.

### OXFORDSHIRE.

CAVERSHAM, EASTFIELD.—The flooding R of 1903 continued past mid-February. After that, only May was remarkably wet, and the six months from June to November were all below their average in R, though none was very dry.—*C. M. Powell*.

HENLEY-ON-THAMES, ASSENTON.—January and February were mild and wet, and March chilly. The first quarter was sunless, the second gloomy, with high temp.; the summer quarter was hot, with bright sunshine; and the last rainy and gloomy, with sharp frosts in the third week of November and dense fogs in December.—*J. Ratty*.

ABINGDON, CULHAM VICARAGE.—The first two months were very wet, causing floods in the Thames. Spring was dry until the end of May, and summer fairly warm and dry until the end of July. Fine dry autumn. The R till the end of August was rather above the average, but the total for the year was three and-a-half inches below.—*F. C. Clutterbuck*.

OXFORD, BANBURY ROAD.—A beautiful year on the whole. There were 97 days with frost, or more than for several years, November and December being especially cold. Big flood at the beginning of February. Absolute drought for 15 days in July. Unusually persistent fog in December.—*Eleanor M. Tawney*.

SWERFORD.—R  $\cdot 59$  in. below the average of 9 years, and rainy days 45 above the average.—*W. Hall*.

ADDERBURY.—The total R was only  $\cdot 17$  in. below the average of 20 years, but for the 10 months from March to December  $4\cdot 40$  in. below the average of that period. In consequence, there was an abnormal scarcity of water in wells and springs.—*G. H. Norris*.

BANBURY, BODICOTE.—R  $1\cdot 39$  in. below the average of 11 years.—*J. F. Sturkey*.

#### NORTHAMPTONSHIRE.

BLISWORTH, CRIEFF HOUSE.—R  $\cdot 68$  in., and rainy days 19, above the average of 1890—1899.—*A. Westley*.

MEARS ASHBY.—R about an inch below the average of 8 years. October, usually the wettest month, was drier than any other except June.—*J. B. Fawcett*.

WELLINGBOROUGH, CROYLAND ABBEY.—R  $3\cdot 22$  in. below the average of 40 years.—*E. Sharman*.

SCALDWELL.—R  $2\cdot 30$  in. below the average of 13 years. After the end of August only  $5\cdot 28$  in. fell, and brooks were at their lowest summer level at the beginning of 1905. The summer R came about 14 days too late for the corn crops, which were light and yielded badly. Good hay crops, but a poor grazing year.—*R. Soames*.

BURTON LATIMER RECTORY.—Great deficiency of R in the last four months, and wells giving out.—*W. B. Jacques*.

OUNCLE, HEMINGTON VICARAGE.—A very dry season, entailing great scarcity of water.—*F. C. Newbery*.

#### CAMBRIDGESHIRE.

THORNEY, WRYDE HOUSE.—R  $4\cdot 14$  in. below the average of 30 years and the least in the last 15 except 1901, when only  $17\cdot 26$  in. fell. Rainy days 4 below the average of 10 years.—*S. Eggar*.

#### DIVISION IV.—EASTERN COUNTIES.

##### ESSEX.

FOULNESS, THE LODGE.—R  $1\cdot 90$  in. below the average of 10 years.—*B. C. Hall*.

DANBURY RECTORY.—The number of rainy days was 177, the highest recorded since observations commenced in 1896, and 1 more than in 1903, although the R in that year exceeded 1904 by 13·02 in.—*J. Bridges Plumptre*.

CHELMSFORD, HIGH STREET.—R 2·99 in. below the average of 10 years.—*F. Chancellor*.

CHELMSFORD, SPERGULA.—As dry a year as 1898. Less than half the R of 1903.—*J. C. Thresh*.

WITHAM, TERLING VICARAGE.—R 3·17 in. below the average of 11 years.—*H. C. Boutflower*.

GREAT LEIGHS, HOLE FARM.—April, June and the first three weeks of August were unusually dry, but 2·50 in. of R fell between August 22nd and 31st.—*J. A. J. Barclay*.

COLCHESTER, HILL HOUSE, LEXDEN.—February and March were cold and rather wet, and April and May mild with little E. wind. Very dry from May 11th to November 5th, save for occasional good showers and one very wet week from July 25th to 30th. November and December were cold, with R near the average.—*S. F. Hurnard*.

BRAINTREE, BOCKING, FENNES.—A year of uniform dryness, only February, March and perhaps May being above the average; yet there were no droughts.—*H. S. Tabor*.

LANGHAM RECTORY.—The driest year except 1901 for 17 years.—*T. S. Raffles*.

SAFFRON WALDEN.—R 3·70 in. below the average of 26 years. The mean of 1902, 1903 and 1904 was exactly the average.—*S. Leverett*.

## SUFFOLK.

IPSWICH, ROOKWOOD, COPDOCK.—The total R was distinctly short, more particularly towards the end of the year. Duration of sunshine 1799 hours. Little wind.—*F. L. Bland*.

CAVENDISH.—A very dry year, the R being ·08 in. less than in 1901. The summer was fine, with a large amount of sun.—*S. J. Garrett*.

CLARE, HAWKEDON RECTORY.—The first quarter was wet and the remainder dry, with a not very hot summer. Exceedingly cold snap with S in November. From a farming point of view, the corn crop was the lightest for many years on heavy land, which had hardly recovered from the excessive wet of 1903.—*B. P. Oakes*.

BURY ST. EDMUNDS, WESTLEY.—The R was about 4 inches less than the average, but May, July and August being wet saved agriculture in the Eastern Counties. Ponds were very low at the end, and R was much wanted to bring the springs up to their normal level.—*R. Burrell*.

DARSHAM, SIBTON.—The R was fairly plentiful and well distributed during the first five months. The six months following were very dry and June remarkably so. The summer was hot and brilliant, but want of water was much felt. The early winter was remarkable for extreme variations of temp.—*T. M. Ward*.

IXWORTH, WALSHAM-LE-WILLOWS.—An inclement March and vegetation very late. Cold in the early part of June, but a spell of hot weather in July dried up the corn, so that the harvest was not so abundant as had been hoped.—*M. C. Martineau*.

HALESWORTH, RUMBURGH.—The land quickly recovered from the soaking of 1903, and at the end field drains had not commenced to run and many water-holes were still dry.—*W. Linton Wilson*.

## NORFOLK.

EAST DEREHAM.—A mild winter, fine spring, very fine summer and fine autumn. No TSS during the summer. An unusual amount of fog in the latter part of the year. No gales until December 30th.—*G. H. Cooper*.

BLAKENEY.—R 2·33 in., and rainy days 26, below the average of 10 years.—*C. I. Temple-Lynes*.

## DIVISION V.—SOUTH WESTERN COUNTIES.

### WILTSHIRE.

ALDERBURY.—R ·31 in., and rainy days 1, above the average of 15 years. January, February and December were the months with more than the average.—*R. S. Hutchings*.

SALISBURY, BROWN STREET.—No excess of wet or dry weather and R always present when wanted. A warm but not dry summer, with no extreme heat. Remarkably calm autumn with no great gales. Crops of all kinds were good except wheat, which was below the average probably in consequence of the wet seed-time in the autumn of 1903.—*T. H. Baker*.

WARMINSTER, RYE HILL.—January and February were wet, with cold nights, and very trying for sheep and cattle kept in the fields.

Spring was fine in general, but in March there were grass frosts on 26 nights. June and July were fine, R coming very opportunely as required. August and the first half of September were tantalizing to harvesters, not more than two days together being without R from July 19th to September 14th. December was wet and foggy.—*Stiles E. Jefferys.*

SALISBURY PLAIN, SHREWTON.—A wet January and February were balanced by a dry autumn, and the other seasons being normal the total R was close to the average. There was no drought of any consequence, and the only notable feature was the smallest max. fall (.84 in. on October 6th) recorded in any year here. A very favourable year for farmers and gardeners, though blight was troublesome.—*F. J. Wardale.*

WARMINSTER, ROCK VILLA.—The agricultural year 1904 may be looked upon as almost an ideal one, alternate R and sunshine coming just when required. The first two months had more than the average R. As spring developed there was an abundance of R, but plenty of fine weather and sunshine for getting in the spring corn. Fine weather and sunshine made the hay harvest the best for years. R followed sufficient to give the root crop a good start and to mature the corn crops for the harvest, but in August fine weather set in, affording splendid opportunity for the harvest. It was one of the finest seasons for planting the autumn sown corn and preparing the land for the coming season, and when the November snow storm played havoc with other parts of the country we escaped it all and experienced beautiful weather up to the last day of the year.—*J. Wallis Titt.*

BRADFORD, THE CHANTRY.—Fine and sunny on the whole, though not particularly warm. R was frequent at night, but there were few really wet days. The heavy falls in July were from TSS. November and December were foggy. Although the year was dry, the country remained green, and hay, turnips, fruit and corn were all fairly good, but springs were low during all the latter part of the year.—*J. Beddoe.*

BISHOPS CANNINGS.—R 2.27 in. below, and rainy days equal to, the average of 10 years. Wells and springs were low at the end of the year.—*C. W. Hony.*

YATESBURY.—January, February and July yielded much above the average R, October only one-third of the average, and June

about half. The deficiency from July 31st to December 31st was 4·30 in.—*E. D. Guillebaud*.

### DORSETSHIRE.

UPWEY, PORTLAND WATERWORKS.—The first two months were very wet and the autumn dry; so that underground water was exceptionally high and in December exceedingly low. There was practically no S.—*R. Stevenson Henshaw*.

WINTERBOURNE STEEPLETON.—R 3·57 in. in excess of the average of 11 years. There was no long period of drought, 12 days from March 8th to 19th being the longest time without R.—*H. Stillwell*.

BERE REGIS, BLOXWORTH RECTORY.—The R was considerably over the average, and the year was characterized by absence of sunshine and almost uniformly cold nights, during the summer months, causing a lack of development in fruit crops.—*O. Pickard-Cambridge*.

BEAMINSTER VICARAGE.—R about ·90 in. below the average of 31 years.—*A. A. Leonard*.

CHETNOLE.—Rather dry with the exception of January, and very mild throughout, the only cold weather being in the latter part of October and the last fortnight of November, when there were sharp frosts.—*E. F. Chadwick*.

### DEVONSHIRE.

IVYBRIDGE, LANGHAM HILL.—R nearly 7 inches above the average of 10 years and only 3·60 in. less than that of 1903. It was, however, a much pleasanter year, with more sunshine and fewer rainy days. A good deal of the R fell at night. January and February were exceedingly wet and there was a fair amount of R in July, but the autumn was very dry and November one of the most beautiful ever remembered.—*M. A. Glanville*.

SOUTH BRENT, GREAT AISH.—January and February were abnormally wet, but otherwise the year was all that could be wished.—*Catherine M. Kingwell*.

YELVERTON.—Very wet in January, February and the latter part of July, when 7 inches of R fell in 10 days.—*H. J. S. Liddell*.

KINGSKERSWELL, SOUTH HILL.—R 2·77 in. above the average of 9 years.—*E. A. Foster*.

TAVISTOCK, STAFSFORD, WHITCHURCH.—A damp, foggy and wet year, with about average temp. The longest wet periods were

28 days from January 25th to February 21st, with 11·67 in. of R, and 22 days from November 27th to December 18th, with 6·40 in. The longest dry period was 12 days from October 24th to November 4th. In the first two months of the year 17·51 in. of R fell, and in the last 10 days of July 6·42 in. The max. shade temp. rose to or above 70° on 15 days and to or above 80° on 2 days. Frost in air occurred on 27 occasions and on grass on 122; the latest in spring on May 22nd and the earliest in autumn on October 8th. S on 36 days, the maximum depth being three and-a-half inches on November 23rd.—*Edwin E. Glyde.*

CHUDLEIGH, IDEFORD.—R 3·10 in., and rainy days 6, above the average of 17 years. The greatest number of consecutive rainy days was 16, from February 4th to 19th, and of rainless days 13, from October 24th to November 5th. An inch or more fell on four days.—*G. J. Ford.*

POLAPIT TAMAR [LAUNCESTON].—R 4·38 in. above the average. January and February were exceptionally wet.—*R. C. Coode.*

ROUSDON [LYME REGIS].—R 3·58 in. above the average of 20 years. June was the driest month with ·99 in., and July the wettest with 5·84 in. There were 173 rainy days, which is near the average. The longest dry period was 19 days in March, during which only ·03 in. was recorded. In December R fell on 16 consecutive days.—*C. Grover.*

EXETER, HEAVITREE.—A beautiful year on the whole, with a great deal of sunshine. The autumn was very fine, with day after day of sunshine and great freedom from wind.—*Cecil Baker.*

CREDITON, STOCKLEIGH POMEROY.—R ·97 in. above the average of 10 years. At the end of August ·95 in. more had fallen than in the same period of 1903, February and July having respectively 3·18 in. and 3·14 in. more than the average.—*T. H. Philpott.*

TIVERTON, ST. PETER STREET.—The heavy R of 1903 lasted until February, 1904, but summer and autumn were warm and bright, in great contrast to those of 1902 and 1903. The garden was full of flowers till the frost of November 21st.—*M. E. Gill.*

BIDEFORD RECTORY.—February and July were unusually wet and October unusually dry. Absence of very heavy or continuous R and no fall of so much as an inch in 24 hours.—*T. Newton Leeke.*

INSTOW.—The wettest period was from January 23rd to February 19th, when R fell on 26 consecutive days, the daily average being

·21 in. Summer and autumn were fine and October especially beautiful. A frosty week occurred at the end of November.—*Mary J. Lock.*

BARNSTAPLE, BROADGATE.—On the whole dry. Except in February and June the R was fairly evenly distributed, and on only one occasion was over an inch recorded in 24 hours.—*E. Hibbert.*

### CORNWALL.

PENZANCE, PENLEE.—R three inches above the average of 10 years.—*J. Brunwell.*

REDRUTH, TREVINCE.—R 4·07 in. above the average of 11 years. Only one fall exceeded an inch.—*E. B. Beauchamp.*

REDRUTH, TREWIRGIE.—R ·11 in. below the average of 25 years. Very few heavy falls.—*A. P. Jenkin.*

### SOMERSET.

CREWKERNE, MEREFIELD HOUSE.—Very fine and dry during the spring and autumn; the latter was also remarkable for its mildness and for the prevalence of fogs.—*J. Tompsett.*

WELLINGTON, THE AVENUE.—A variable year, opening with excessive wet in January and February. Spring and summer were, however, fine seasons; autumn was very dry and so was December. The total R was about 1·50 in. below the average, but the number of rainy days was large.—*F. J. Burnett.*

WINSFORD.—R 1·24 in. below the average of 14 years.—*W. P. Anderson.*

BRIDGWATER, NURSERIES.—January and February were wet, July also had a rather heavy fall, but not many rainy days. Remarkably quiet autumn with no gales.—*H. Corder.*

FROME, ORCHARDLEIGH.—A warm summer and mild autumn, making a favourable growing year for plants, trees, and crops.—*W. A. Duckworth.*

CHEWTON MENDIP, THE PRIORY.—R 2·95 in. below the average of 17 years, and 19·17 in. below that of 1903.—*Waldegrave.*

STON EASTON.—R 4·77 in. below the average of 36 years.—*H. E. Hippisley.*

EAST HARPTREE, HARPTREE COURT.—R about three inches below the average of 22 years. During the last six months the deficiency was considerable, every month having less than the average.—*W. W. Kettlewell.*



HIGH LITTLETON VICARAGE.—R 4·88 in. below the average of 10 years.—*A. M. Foster.*

#### DIVISION VI.—WEST MIDLAND COUNTIES.

##### GLOUCESTERSHIRE.

CLIFTON, PEMBROKE ROAD.—R three and a half inches below the average, but rainy days 10 in excess. The usual distribution was reversed, the autumn being remarkably fine and dry, and the aggregate R of the last four months only 7·35 in., or little more than half the average. January and February were very wet, but the only other months showing any excess were May and July. Sunshine was rather deficient in the summer and there was no prolonged spell of fine weather.—*R. F. Sturge.*

FISHPONDS, THE GROVE.—On the whole fine and dry, although commencing with two months of excessive R. The most remarkable feature was the fair and dry weather of the autumn. R was continuously deficient throughout the last four months. Although the fall for July was much above the average, there was an absolute drought from 3rd to 18th. The year was singularly free from heavy falls of R.—*H. H. Harding.*

BRISTOL, ASHLEY DOWN.—A very favourable year. The early part was wet and the last four months very dry. The temp. was equable, and lacking in extremes during the months most vital for vegetation.—*Percy W. May.*

AMBERLEY, GLEN VIEW.—Exceptionally wet at the beginning and wintry in March. Afterwards very seasonable, with great heat in July, still warm weather in October and heavy fogs in November.—*C. C. Pratt.*

GLOUCESTER, HEMPSTED.—R 85 per cent. of the average of 47 years. October had the smallest R recorded in that period.—*F. A. Jones.*

FAIRFORD, KEMPSFORD.—Very dry. After the first two months there was no R sufficient to make the drains on the land run. Beautiful summer and autumn.—*A. T. Iles.*

CIRENCESTER, FURTHER BARTON.—January and February were very wet, but subsequently the weather was fairly normal and pleasant, eminently favourable for agriculture. Fine warm summer and remarkably dry, calm autumn. The absence of gales in the

latter half of the year was quite unusual. Although the R was only an inch below the average of 59 years, wells and springs were remarkably dry as late as the middle of December.—*J. E. A. Brown.*

### HEREFORDSHIRE.

ROSS, THE GRAIG.—Remarkable for the great contrast presented to 1903. The wet weather of the previous year continued to February 17th, the total fall for 365 days ending on that day amounting to 41·71 in., or 12·20 in. above the average of 30 years, and nearly the maximum recorded. From February 18th to the close, a period of 318 days, the total R only amounted to 16·18 in., or nearly the smallest on record for the period. This arose more from continued drought, every month being below average from March, than from the dryness of any one month, October, however, was the driest on record. The number of rainy days was quite up to the average.—*H. Southall.*

MUCH DEWCHURCH, BRYNGWYN.—A dry year after the 1st of March, with fine warm summer and autumn. Little T, and absence of heavy falls of R.—*James Rankin.*

LEDBURY, ORCHARDLEIGH.—The first two months were very wet, so that at the end of March the ground was reeking, but there was a long summer, with bright sunny weather.—*M. A. Wood.*

CREDENHILL.—Remarkable for two dry spells, one in June and part of July, the other in October, November and December. At the end of the year the subsoil was very dry.—*R. M. Whiting.*

### SHROPSHIRE.

LUDLOW, ASHFORD HOUSE.—R 4·75 in. below the average and in great contrast to that of 1903. October was the driest month, and the last 5 months produced only 8·11 in. of R. Only four days had a fall of over ·50 in.—*W. D. Hall.*

BISHOPS CASTLE, CASTLE STREET.—On the whole dry, the R being about 4 inches below the average. The feature of the year was the frequent long partial droughts followed by torrential R, the greater part of which ran off owing to the hardness of the ground. R came in too large quantities at one time and not enough at others. The S of December 5th restored the equilibrium of the springs.—*E. Griffiths.*

MUCH WENLOCK, WILLEY PARK.—R considerably below the

average of 20 years. Very fine summer and autumn and fruit crops better than the average.—*J. Penson.*

NEWPORT, EDMOND.—R 3·67 in. below, and rainy days 5 above, the average of 10 years. January, February, May and August had more than the average, the other months less.—*J. Bodenham.*

WEM, THE RECTORY.—A dry year, with a fine summer and autumn. Sharp touch of winter from November 20th to 27th. A great deal of fog in December.—*Gilbert H. F. Vane.*

### WORCESTERSHIRE.

TENBURY, ROCHFORD.—Great scarcity of water during the latter part of the year, many deep wells being quite dry.—*J. Tomson.*

### WARWICKSHIRE.

LONG COMPTON, WESTON PARK.—Little R fell after May and the ground was very dry below the surface.—*H. A. Warriner.*

ATHERSTONE-ON-STOUR.—The great deficiency of R during the last four months caused considerable anxiety among farmers in Warwickshire, and springs needed replenishing.—*F. Smith.*

STRATFORD-ON-AVON, AVONFIELD.—A dry year, but nevertheless a green grazing season. The R seemed to come most opportunely, especially that of July.—*G. W. Everard.*

## DIVISION VII.—NORTH MIDLAND COUNTIES.

### LEICESTERSHIRE.

HORNINGHOLD HOUSE.—Fine summer and autumn and want of R all over the Midlands. Ground quite dry at the end of the year.—*B. Inchley.*

BELVOIR CASTLE.—R 4·91 in. below the average. Mean temp. 47°·6, or 0°·8 below the average. Duration of sunshine 1513·8 hours, or 11·9 hours above the average; 62 sunless days. Prevailing wind S.W.—*W. H. Divers.*

### RUTLAND.

TOLETHORPE HALL [STAMFORD].—A good season till May 31st. Then dry weather lasting until July 25th ruined the harvest. The drought was the worst ever known, and at the end of the year springs were dry and water had to be carted for cattle.—*C. O. Eaton*

## LINCOLNSHIRE.

GRANTHAM, LITTLE PONTON RECTORY.—A year of lovely weather, but too dry for crops, and springs very low. Very few TSS.—*P. R. Worsley.*

BOSTON.—R 2·34 in. below the average of 50 years, making the sixteenth year during the last 21 with R below the average.—*W. H. Wheeler.*

NAVENBY RECTORY.—R about 3 inches below the average. The drought in June and October was remarkable and springs became very low, threatening serious shortage of water in the summer of 1905 unless relieved by considerable R in the spring.—*G. T. Harvey.*

SPILSBY, EAST KEAL MANOR.—The R was curiously distributed, 41·7 per cent. falling during July, August and September, and only 17·3 per cent. in October, November and December.—*A. M. Wilson.*

SPILSBY, ASHBY ROAD.—R 2·16 in. below the average of 10 years. Spring was very dry and the hay and corn crops were light, as R came too late to be of benefit. Fine harvesting weather generally.—*J. Jarvis Ruiney.*

LINCOLN, ST. CATHERINES.—R 3·33 in. below the average of 20 years, although the first five months had ·89 in. more than the average. At the end of the year the springs and storage reservoirs were lower than in the summer. The spring R was steady with no particularly heavy showers, thus giving time for percolation.—*J. H. Teague.*

LINCOLN, THE CLOSE.—Much inconvenience was caused by the short supply of water, and this, together with using water from the river, contaminated in many places above the city, brought on a very bad epidemic of typhoid fever in Lincoln. Some persons attributed the short supply in the country to over-drainage, but no doubt the drought made the subsoil dry, and it would not hold water till it was again saturated.—*C. J. Bromhead.*

WILLINGHAM-BY-STOW.—The driest year for a considerable time. From July 23rd to August 23rd 5·25 in. of R fell, but this was entirely absorbed by the surface soil, which at the end of the year consisted of dust six inches deep, while wells were dry that had never been known to fail before.—*R. C. Bacon.*

LOUTH, WESTGATE.—There were only two wet months, and the total R was 2·42 in. below the average of 33 years.—*F. Fawcsett.*

BURTON-ON-STATHER VICARAGE.—Almost continuous R from

January 26th to March 7th. The R for October was only .82 in., by far the least in 40 years.—*F. A. Jarvis.*

### NOTTINGHAMSHIRE.

BINGHAM, WHATTON MANOR.—R 4.10 in. below, and rainy days equal to, the average of 14 years.—*M. H. Hall.*

SOUTHWELL, WESTHORPE HALL.—R 2.58 in. below the average of 11 years. June was very dry and potatoes and other roots stopped growing, but as the R in July was excessive, the roots started again and formed tubers, with curious results.—*P. J. Warsand.*

WORKSOP, HODSOCK PRIORY.—Dull and open weather marked the first quarter of the year, with much wet in February. The rest of the year was dry, except for a few wet days in August. The summer was fairly sunny, with some fine warm weather in July; and the autumn was marked by a very sharp spell of frost with rather deep S at the end of November. Of the previous 28 years only two had lower R. There was a most unusual profusion of blossom and fruit of all kinds. Corn crops were fair and were harvested early in good condition, hay above the average and well got, roots poor.—*H. Mellish.*

### DERBYSHIRE.

WIRKSWORTH.—R 5.81 in. less than the average of 13 years.—*T. Gibbs.*

HARDWICK HALL.—A dry, sunny summer, followed by a dry autumn, with exceptionally early and severe frost.—*E. Wilson.*

## DIVISION VIII.—NORTH WESTERN COUNTIES.

### CESHIRE.

MACCLESFIELD, THE PARK.—With the exception of February and August, the R of each month was below the average. The fall of the first half year was 3.54 in. below, and of the whole year 10.93 in. below, the average of 50 years.—*J. Dale.*

CHELFORD, ASTLE HALL.—R 5.96 in. below the average of 20 years, and except 1887 and 1893, the smallest since the record commenced in 1875.—*G. Dixon.*

### LANCASHIRE.

AIGBURTH, KELTON.—R 3.94 in. below the average of 29 years. On no day did the fall reach an inch.—*Joshua Sing.*

**SOUTHPORT, HESKETH PARK.**—A very dry year, but on the whole sunless, with much fog and haze. Mean temp. exactly equal to the average; no strikingly hot or cold month. Total sunshine 92·6 hours below the average, owing to large deficiencies in February, March and May. The sunniest months (relatively to the average) were September, October and December. Bright sunshine occurred on 288 days. The wind movement for the year was practically normal, the only features of interest being the calmness of March and the storminess of April. Total R no fewer than 7·41 in. below the average of 30 years, every month except January and February showing a deficiency, particularly July. Subsoil water was at an exceptionally high level during the earlier half of the year, and at an equally unusually low level during the last quarter. Mean amount of ozone less than in any previous year since the station was established in 1871. S on 11 days, the total depth for the year being 5·8 inches. Frost in screen on 50 days, and upon the grass on 122 days. Fog on 31 days.—*J. Barendell.*

**CLITHEROE, DOWNHAM HALL.**—R some six inches below the average of 45 years.—*R. Assheton.*

**CHATBURN, MIDDLEWOOD.**—R 3·02 in. below the average of 16 years.—*W. King Wilkinson.*

**ST. MICHAEL'S-ON-WYRE VICARAGE.**—R 4 in. below the average. As a whole the weather was exceptionally good. The summary of one farmer was, "If I had made it myself, I couldn't have made it better."—*Phipps J. Hornby.*

**HAMPSON-IN-ELLEL.**—R 2·15 in. below the average. The excessive R of 1903 continued till May. The fall for the second half of the year was equal to that of the first.—*W. G. Welch.*

**ARKHOLME, STORRS HALL.**—A dry year, with R about 5 inches below the average. A beautiful summer and autumn, with R so small that in many places the water supply failed. From the middle of November there was a considerable amount of frost and a tendency to fog.—*F. Fenwick Pearson.*

**ULVERSTON, URSWICK SCHOOL HOUSE.**—The smallest R since observations commenced in 1881, except in 1887, when only 29·48 in. fell.—*J. Dobson.*

**CARTMEL, AYNSOME.**—No R fell from June 2nd to 11th, from September 13th to 24th, and from December 18th to 27th, inclusive. The latter half of December was very misty with sharp frosts.—*J. S. Remington.*

BROUGHTON-IN-FURNESS.—The fourth driest year since 1872, the R being 8·29 in. less than the average of 10 years, but the rainy days only 1 less. The dryness was due to the second half, as in the first six months the R was about the average. TSS were few and not violent. Remarkable absence of strong winds during the autumn.—*C. P. Chambers.*

#### DIVISION IX.—YORKSHIRE.

##### WEST RIDING.

SHEFFIELD, TYLECOTE, RANMOOR.—Although there were no long periods without R, the year was one of great dryness, which in the late autumn began to cause serious inconvenience and alarm. The R was the smallest since the record began in 1873, except 1887, when 25·70 in. fell, and was 10 inches below the average of 20 years.—*James Dixon.*

LANGSETT MOOR, UPPER MIDHOPE.—The dry periods were from June 1st to August 9th, with 2·95 in. of R, and from August 23rd to November 5th, with 2·77 in. The wet periods were from January 6th to 15th, with 3·12 in., from January 26th to February 16th, with 6·04 in., from August 11th to 22nd, with 4·25 in., and from October 6th to 10th, with 3·41 in.—*Josiah Grayson.*

MELTHAM, HAREWOOD LODGE.—R about 6 per cent. below the average, but with a most unusual distribution. Up to May 17th 50 per cent. of the year's amount had fallen, the earliest date for at least 40 years. The dryness of the last four months, and also of October, was unprecedented in the same period. June, too, had a very small fall. The temp. was just the average, with a cold February and March and a fine warm July. TSS were rather numerous but of slight intensity, except that of July 24th. There was rather a deficiency of sunshine, but even in this respect a marked improvement over 1902 and 1903.—*C. L. Brook.*

SLAITHWAITE, INGLEWOOD.—The R was about normal till August, but the autumn was unusually dry. Mean temp. for the year 46°·6.—*J. Woodhead.*

HUDDERSFIELD, DALTON.—R 3·03 in. below the average of 39 years.—*J. W. Robson.*

HALIFAX, HALL INGS, S. OWRAM.—R 5·62 in. less than the average of 14 years and unevenly distributed, 4·40 in. and 4·47 in. falling in February and August, and ·63 in. and ·71 in. in September and October.—*G. E. Aspinall.*

HEBDEN BRIDGE, FALLING ROYD.—Very light R, the total being 7·04 in. below, and rainy days 9 below, the average of 16 years. The first two months were wet, but the R of the remaining 10 months was the lowest in that period since the record began. The mean temp. was 45°·6, or 1°·0 below the average. Generally the early months were cold and sunless, the weather improving during the summer. The autumn was sunny and warm.—*A. R. Crossley.*

BRADFORD, HORTON.—After February it was generally dry, with considerable sunshine during the summer and autumn.—*A. E. Chilton.*

OTLEY, FARNLEY HALL.—The year commenced like 1903, very wet, but the summer was fine, so much so that a scarcity of water was feared in many places. Dense fogs were frequent towards the end of the year.—*J. Snell.*

ILKLEY, EATON ROAD.—A very fine year, the summer and autumn especially so, with much sunshine.—*A. Wilson.*

SLAIDBURN, WHITEHOLME.—R 9·89 in. below the average of 31 years.—*W. King Wilkinson.*

SEDBERGH, BRIG FLATTS.—R about 4 inches below the average.—*J. Handley.*

#### EAST RIDING.

MARKET WEIGHTON, DALTON HALL.—Low R and fine weather, with more than the average amount of sunshine. Springs were very low at the end.—*J. Allsop.*

WETWANG.—The lowest R on the Wolds for at least 23 years. The previous lowest was 19·19 in in 1887.—*E. M. Cole.*

THIXENDALE.—A mild winter and fine summer and autumn, harvest being early and good. Much fog in the early and latter months. Gales and strong winds frequent. Springs were very low after the summer, since the R was as much as seven inches below the average of 10 years.—*W. H. Fox.*

#### NORTH RIDING.

EASINGWOLD, MARTON VICARAGE.—Small R in the last four months and only 10 rainy days in October and November together.—*F. S. Newman.*

MALTON.—A dry year, June being particularly so, and stopping the growth of young corn, which made the yield less than last year. The harvest time was fine, however, and it was well secured.—*M. B. Slater.*



LEYBURN, BOLTON HALL.—Altogether a splendid season. Although the R was 6·75 in. below the average of 28 years, little inconvenience was caused by drought as refreshing R fell at short intervals.—*F. Scrivener.*

INGLEBY MANOR.—R 2·39 in. below the average of 20 years. February, May, August and December were wet, and April, June, September and October dry. A fine summer and autumn. Crops were indifferent, except roots.—*De L'Isle.*

EAST LAYTON HALL.—The weather showed a great improvement over that of the three previous years. July was a grand, dry, hot month and hay was well got in. August was somewhat bleak and cold, but September, October and even November were dry and warm, and the harvest was secured in fine condition.—*Elizabeth O. Proud.*

MIDDLESBROUGH, ORMESBY.—R under the average, but well distributed and favourable to agriculture. Rainy days above the average, but no extreme R, the greatest fall being ·84 in. on May 27th. S and sleet fell on 25 days. Fine summer hay and harvest time. No great extremes of temp.—*W. Stewart Tailyour.*

## DIVISION X.—NORTHERN COUNTIES.

### DURHAM.

DARLINGTON, HURWORTH GRANGE.—More uniform distribution of R than usual. Only one fall of over an inch and never more than 7 days without R. Much fell at night and the days were unusually fine.—*Elizabeth B. Backhouse.*

EASTGATE, ALL SAINTS' VICARAGE.—R 5·96 in. below the average of 10 years, a great contrast to that of 1903.—*J. G. B. Knight.*

SUNDERLAND, WEST HENDON HOUSE.—The R was 5·63 in. below the arithmetical average, and 5·57 inches below the geometrical mean for the 30 years 1860–89. A smaller amount in the year has occurred only three times in the record since 1860 inclusive, namely: 1873, 20·09 in. ; 1884, 19·12 in. ; and 1893, 19·58 in. August was the wettest month with 2·92 in., and October the driest with ·60 in. An equally dry October had been recorded but once previously. On two days only did the fall reach an inch. Some R, S or H fell on 240 days, reaching ·005 in. on 173. S fell on 26 days, and reached its maximum depth of 3 inches on November 23rd to 26th. Partial drought existed from October 7th to November 6th inclusive; 31 days

with .25 in. of R, of which .01 in. only fell on the 15 days October 22nd to November 5th. The duration of R was below the average, the deficiencies being most marked in April, September, October and December ; while the duration was excessive in February, and from May 5th to 8th. There were striking excesses of W. and S.W. winds, and deficiencies from the north-easterly half of the circle (N. to S.E.), especially the N. winds. The most noticeable deviation from the average was the excess of W. winds in April. The N. wind was the wettest in proportion to the time it blew, and the W. as usual the driest, but it was much drier than usual, only 0.91 in. being measured during the 1909 hours recorded. The number of days on which the alternation of sea and land breezes took place was, owing to the fine weather, much above the average, the excesses being most remarkable in August and September. The wind force was above the average, with a marked excess in April. The summer and autumn were remarkable for the unusual prevalence of fine weather ; the slight excess of R in August was due entirely to heavy falls on two days. Fog was much above the average for the year, with a very marked excess in December. During that month there were two days, the 23rd and 26th, each of which was remarkable for the continuousness of the fog, the maximum distance visible at any time on either day being  $\frac{3}{4}$  mile, and the minimum 100 or 120 yards. —*T. W. Backhouse.*

#### NORTHUMBERLAND.

NEWCASTLE, TOWN MOOR.—R 4.49 in., and rainy days 4, below the average of 37 years.—*Andrew Wright.*

STAMFORDHAM VICARAGE.—The autumn was unusually fine and dry, and there was nearly a water famine in October owing to want of R.—*G. Evans-Gwynne.*

SCOTS GAP, WALLINGTON.—The year will be remembered chiefly for its dry and warm autumn. The scarcity of water did not affect this part of Northumberland so materially as it did the E. coast.—*G. Trevelyan.*

SCOTS GAP, ROTHLEY CRAG.—R 9.76 in. below the average of 9 years and 16.65 in. less than that of 1903, being the lowest fall since observations commenced.—*J. Darglish.*

PAWSTON [COLDSTREAM].—Very dry, and the first year in the record without one fall of an inch in 24 hours. In the first half the

R exceeded that of the same period in 1903, and, contrary to all precedent, the latter half was drier than the former.—*B. P. Selby.*

### CUMBERLAND.

MILLOM, LLEYFIELD.—R 9·82 in. below, and rainy days 17 above, the average of 14 years, the R being the smallest in that period. The deficiency all occurred during the last five months, October especially having much less than the average.—*Cedric Vaughan.*

SEASCALE, WHINTHWAITE.—R 4·45 in. below the average of 15 years and the lowest except that of 1901 and 1902.—*R. Hellon.*

CARLISLE, STANWIX.—R 5·32 in. below the average of 10 years and the lowest in that time except 1902.—*Benjamin Scott.*

CARLISLE, NEWBY GRANGE.—The lowest R yet recorded. Crops, however, especially turnips, were good. There was no autumn flood till the end of November, and it was very warm till 21st of that month, when frost and S set in and continued with varying intensity to the end of the year.—*T. H. Hodgson.*

### WESTMORLAND.

KENDAL, NATLAND VICARAGE.—A very gratifying year for farmers. The summer was dry, but R fell just at the right times for the very heavy hay crop. The spring was free from frost, but there were some severe frosts after the autumn.—*W. Kewley.*

BOWNESS, LINDETH HOWE.—The first three months were mild and wet, April very wet and cold, and May and June cold and dry. The third quarter was fine, bright and warm. Exceptionally cold from November 20th to 27th. December was cold with much fog.—*R. H. J. Hill.*

## DIVISION XI.—MONMOUTH, WALES AND THE ISLANDS.

### MONMOUTH.

LLANFRECHFA GRANGE.—Deficiency of R in the last 10 months, and many reservoirs empty. The summer was warm, but fruit did not ripen well, and there was much blight in May.—*F. J. Mitchell.*

### GLAMORGAN.

COWBRIDGE, FONMON CASTLE.—R just about the average of 20 years and evenly distributed over the year. Much of the R fell in the night. There was only one fall over an inch in 24 hours.—*O. H. Jones.*

PORT TALBOT, MARGAM.—A good farmers' year, chiefly notable for the even distribution of the R. No drought and no immoderate R.—*Godfrey Lipscomb*.

SWANSEA, GLANMOR CRESCENT.—An ideal year. R came just as wanted and farmers were actually contented. No heavy gales or TSS.—*T. Travers Wood*.

MORRISTON, GLANRAVON.—R .32 in. below the average of 12 years.—*Ll. J. Naysmith*.

### CARMARTHEN.

LLANELLY, NEW ROAD.—The first two months were mild and the spring cold. Summer was fine, genial and fruitful. The last quarter was mild with a cold snap in November, and December was very foggy.—*J. F. Young*.

LLANWRDA, DOLAUCOTHY.—R about normal, but with some heavy daily falls. A very favourable year for hay and general crops.—*J. Hills-Johnes*.

### PEMBROKE.

ST. DAVIDS.—On the whole fine and most favourable for farming operations, so that all crops were abundant and well saved. During January, February, November and December the R was heavy, making up more than half the year's total. The summer was exceptionally fine.—*D. P. Williams*.

### BRECON.

CRICKHOWELL, GWERNVALE.—January and February were wet, but afterwards every month showed a deficiency except August. There was no marked period of drought. Although the rainy days were 35 above the average, there was an unusual amount of sunshine and a warm summer.—*E. Pirie Gordon*.

LLANFRYNACH, TYMAWR.—R 3·06 in. below the average of 9 years.—*R. D. Garnons Williams*.

BRECON, PENOYRE.—Considering that 62·13 in. of R fell in 1903, there was a remarkable shrinking of springs in September and October, 1904, amounting almost to a failure of the water-supply. The last six months were remarkable for absence of sunshine. Only two days in November and not one in December could be called "very fine," there being thick fog during the week in which there was no R.—*R. D. Cleasby*.

**MONTGOMERY.**

WELSHPOOL, POOL QUAY VICARAGE.—R 6·84 in., and rainy days 28, below the average of 10 years. Mean temp.  $47^{\circ}\cdot7$ , or  $0^{\circ}\cdot3$  below the average.—*R. J. Roberts.*

**FLINT.**

ST. ASAPH, NANTLYS.—The third driest year in a record extending over 39 years.—*P. P. Pennant.*

**DENBIGH.**

LLANGOLLEN, PLAS-YN-VIVOD.—R 9 inches below the average; the driest year since the record began in 1886.—*J. C. Best.*

COLWYN BAY.—Remarkable for the exceedingly dry and fine weather. The rainy periods were evenly distributed, and the greatest R was recorded in July and August, those months also having the largest amounts of sunshine.—*W. Jones.*

**CARNARVON.**

LLANDUDNO, DEGANWY.—The longest period without R was from May 8th to 17th, inclusive; the longest rainy spell from January 8th to February 14th, with 6·23 in. of R, at the rate of ·16 in. per day. The longest *non-nett* period—that is, a period in which the actual R was less than the total loss by evaporation, etc.—was from April 16th to August 16th, with 7·71 in. of R, at the rate of ·06 in. per day.—*J. R. Gethin Jones.*

**ISLE OF MAN.**

DOUGLAS, WOODVILLE.—Decidedly fine! R about 4 inches below the average, and only in 1878, 1887, 1889, 1893 and 1895 were smaller quantities recorded since 1873. The R, too, was evenly spread over the whole year, February alone showing any excess. An open winter, devoid of frost or S; but from the wet February onwards temp. was persistently low and sunshine deficient. Spring was thus extremely late, though the wealth of fruit and other blossom was almost marvellous, but the longest day, in a dry ungenial June, found woodland trees and many flowering shrubs some five weeks behind. Summer, if finer and quieter than usual, was deficient in sunshine and lacked any real warmth. But the autumn was quite unusually beautiful, and garden flowers were in unwonted profusion till November 21st.—*H. Story.*

**GUERNSEY.**

ST. MARTINS, LES BLANCHES.—Compared with the average of 10 years, the accumulated R of the year was continuously in excess

after the first week of January. The nearest approach to the normal was at the close of September, when the excess was 1·72 in., but the extraordinary R of the first week in October swelled the total again, and the year ended with an excess of 2·29 in.—*Basil T. Rowsell*.

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## SCOTLAND.

### DIVISION XII.—SOUTHERN COUNTIES.

#### WIGTON.

GARLIESTOWN, GALLOWAY HOUSE.—Generally favourable for crops. The R was sufficient without being excessive at any time.—*James Day*.

#### DUMFRIES.

LOCHMABEN, ESTHWAITE.—February, September, October, November and December had less than the average R, the deficiency from the average of 12 years amounting to 5·87 in. in the last four months.—*W. J. Halliday*.

#### ROXBURGH.

HAWICK, BRANXHOLME.—The driest year since 1887, and water supplies very low at the end. It was a good year for upland sheep farmers, there being a plentiful growth of grass and clover.—*J. G. Winning*.

LILLIESLEAF, RIDDELL.—R close to the average during the first 8 months, but September and October were deficient, causing a cry for water, as many wells became dry. Average conditions reappeared in December.—*J. Sprot*.

MELROSE, ASYLUM.—R 3·47 in., and rainy days 4, below the average of 22 years.—*A. C. Pattman*.

### DIVISION XIII.—SOUTH EASTERN COUNTIES.

#### MIDLOTHIAN.

MUSSELBURGH, LEVENHALL.—The most notable features were the heavy R of August and the dryness of October and November. In August almost a fifth of the total for the year fell and in October and November together less than one-fifteenth.—*Margaret F. A. Husband*.

**LINLITHGOW.**

LINLITHGOW, NETHER PARKLEY.—R 1·58 in. above the average of 56 years. The autumn was fine, but in the early summer there was an unusual amount of cold N. and N.E. wind.—*Elizabeth B. Henderson.*

BO'NESS, GRANGE.—A good dry year, with an excellent harvest well got in. The summer was not warm, and the growth of plantations was not so good as in 1903.—*H. M. Cadell.*

**DIVISION XIV.—SOUTH WESTERN COUNTIES.****LANARK.**

HAMILTON, LAIGHSTONE HALL.—R 3·39 in. below the average of 15 years. A record year for good harvest weather.—*T. M. B. Paterson.*

**AYR.**

MAYBOLE, KNOCKDON FARM.—A good season. R fell more often than it was needed, and more bright sunshine would have been welcome, but all crops were well got in.—*G. Muir.*

DUNLOP, DUNLOP HOUSE.—An average R, well distributed over the year. A good hay season and fairly good and early harvest.—*J. F. Dalrymple Hay.*

**DIVISION XV.—WEST MIDLAND COUNTIES.****DUMBARTON.**

ARROCHAR, THE MANSE.—A good year, with R well distributed and a great deal of sunshine. Remarkable for calm weather after April.—*D. Macfarlane.*

**STIRLING.**

STIRLING, POLMAISE GARDENS.—R rather under the average and very evenly distributed. The fall of the first six months was exactly equal to that of the last six.—*W. Ritchie.*

BUCHLYVIE, THE MANSE.—R 2·13 in. above the average of 15 years, but 21·67 in. below that of 1903. Rainy days 33 above the average. Changeable and unsettled, with absence of sunshine during the greater part. The spring and early summer months, especially April, which had 4·14 in. more than the average, were wet and ungenial, so much so that sowing was delayed and much corn "wormed," but the harvest months were brighter and warmer than for several years.—*J. A. Macdonald.*

**ARGYLL.**

KINTYRE, LARGIE CASTLE.—Very severe and cold gales in April, but from May onwards the weather was exceptionally mild and good, especially in October and November.—*J. R. Moreton Macdonald.*

**DIVISION XVI.—EAST MIDLAND COUNTIES.****FIFE.**

ST. ANDREWS.—A good year on the whole, with no excess of either heat or cold. Although high winds were rather frequent, there was no serious damage from gales. June was unusually dry and August unusually wet, but there was a good average harvest and the crops were well got in. Dry weather after September considerably affected the water supply.—*I. J. R. Macadam.*

**PERTH.**

OCHERTYRE [STIRLING].—R 1·38 in. below the average of 21 years. The most remarkable feature was the small fall of October and November, which showed deficiencies of 2·23 in. and 2·48 in. respectively.—*C. M. Dundas.*

DOUNE, GARTINCABER.—Chiefly remarkable for the low R and fine weather of October and November. The number of rainy days was high and the summer was cold, showery and unsettled. The weather was, however, very favourable to almost all crops, and the harvest was above the average.—*G. Burn Murdoch.*

CALLANDER, LENY HOUSE.—A singularly fine autumn except for a severe cold snap with deep S at the end of November.—*J. Hamilton Buchanan.*

BRIDGE OF EARN, BALLENDRICK.—The dryness of the last quarter was remarkable, November having only ·50 in. of R. This corresponded with a very cold period.—*Ralph Richardson.*

LOCHEARNHEAD, ARDVORLICH.—R about the average. Remarkably small fall in October and November, that for November being the smallest in 17 years' record.—*J. Stewart.*

COUPAR ANGUS.—R 1·20 in. below the average, but the number of rainy days was above the average. Seven months showed a deficiency, the autumn being responsible for the greatest shortage. The summer months were devoid of any spells of warm weather, and TSS were few and of short duration.—*J. Robertson.*



BLAIRGOWRIE, BALLINTUIM HOUSE.—The most remarkable features were the small R of October, November and December, and the fact that there was only one daily fall exceeding .78 in.—*M. A. Macdonald.*

#### FORFAR.

INVERARITY MANSE.—Singular absence of TSS, and frequent and continued anticyclonic conditions.—*P. Stevenson.*

BRECHIN, STRACATHRO GARDENS.—The R was the lowest since records began, February and August being the only wet months. June, July, October and November each had less than an inch of R. The last two months of the year were remarkable for sudden changes of temp., reaching as much as 49° in 24 hours.—*Andrew Dunlop.*

#### DIVISION XVII.—NORTH EASTERN COUNTIES.

##### KINCARDINE.

FETTERCAIRN, THE BURN.—An unusually dry season. The paucity of R in June and July might have proved disastrous to crops had not the ground been saturated by the heavy R of 1903 and the fair quantity which fell from January to May.—*C. McInroy.*

FASQUE, THE GARDENS.—R 5.66 in. below the average of 13 years.—*J. R. Gladstone.*

CRATHES, CROSS ROADS, DURRIS.—The year was fine, but the want of R in June had a bad effect on hay and grain crops.—*A. Macdonald.*

##### ABERDEEN.

ALFORD, LYNTURK MANSE.—The most notable feature was the dryness, both in R and rainy days. There were many complaints of want of water, owing to failure of springs.—*J. B. Duncan.*

ELLON, MAINS OF WATERTON.—The smallest R in any year yet recorded. July was especially dry, being the driest since 1869. The deficiency was most remarkable from the middle of May to November 20th.—*T. F. Jamieson.*

##### BANFF.

CRAIGELLACHIE, CRAGGANSPEY.—This was said to be the driest year since 1868, and there was scarcity of water in many places. Springs dried up which had hardly been known to do so before.

Grain crops were very short, but turnips and potatoes came up to the average.—*J. Shearer.*

CULLEN HOUSE.—Remarkably dry, with a much larger amount of sunshine than has been noted for many years. This had the effect of drying up the ground, and vegetation was almost at a standstill in July for want of moisture.—*J. Fraser Smith.*

### MORAY.

CARRON, BRIDGEND COTTAGE.—The water supplies in this district became exceptionally low in the summer, and many had not recovered by the end of the year.—*Dennis Watters.*

CARRON, ARCHIESTOWN.—R 75 per cent. of the average. Dry weather from May 10th to August 3rd, in which time only 2·84 in. of R fell on 28 days.—*J. Milne.*

## DIVISION XVIII.—NORTH WESTERN COUNTIES.

### INVERNESS.

LOCH NESS, DRUMNADROCHIT.—R 4·80 in. below, and rainy days 6 above, the average of 18 years.—*Angus Grant.*

## DIVISION XIX.—NORTHERN COUNTIES.

### SUTHERLAND.

ALTNAHARRA.—Exceptionally dry, bright and warm. The close of the year was remarkable for the sudden change from mildness to extreme cold.—*G. Mackay.*

### CAITHNESS.

CASTLETOWN, THE CLETT.—May, June and July were rather dry, the result being a shortage of straw, but corn was good. Although R fell on as many days as in 1903, the fall was not nearly so heavy. The R fell mostly during the night.—*J. Calder.*

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## IRELAND.

## DIVISION XX.—MUNSTER.

## CORK.

BANDON, ARDNACARRIG.—Continuous mists and damp fogs, and only a few days of heavy R.—*G. A. Armstrong.*

CORK, WELLESLEY TERRACE.—R 1·28 in. below the average, and mean temp. 2°·6 below the average. Frost on 39 days.—*W. Miller.*

MALLOW, SUMMER HILL.—R 2·36 in. below the average. The fall for the last six months amounted to only 17·63 in., the lowest recorded for 15 years. In November and December the R was 50 per cent. below the average.—*J. F. Williamson.*

## KERRY.

DARRYNANE ABBEY.—A very wet year, the R being 18·8 per cent. above the average of 25 years, and exceeded only in 1873 and 1877.—*D. O'Connell.*

## WATERFORD.

LISMORE, BALLYGALLY.—Remarkable for small R, without any continuance of dry summer weather, the R being distributed evenly over the whole year. There were no extreme temperatures, and rarely anything approaching a gale which lasted more than six hours.—*R. Foley.*

## TIPPERARY.

NENAGH, CASTLE LOUGH.—At the end of August it promised to prove a more than usually wet year, but with a large deficiency in November and December, the total for the year was about the average. With the exception of a cold snap for a few days in November, the last four months were very favourable.—*A. Parker.*

NENAGH, HIGHLANDS.—The first two months were mostly showery and wet; March was drier but cold. From April to June there was a fair amount of R, but with cold harsh winds vegetation did not make good progress. Summer was rather cloudy and crops did not mature well. In July and August the R was rather heavy, but corn was reaped in fair time and secured in good order. The later months were mild and favourable except for a terrible blizzard in November and some strong winds in December.—*J. Mounsey.*

**LIMERICK.**

LIMERICK, ROXBOROUGH.—R  $\cdot 78$  in. above the average of 16 years. As a whole a fairly good year. The first three months were cold and damp, the summer good, and the autumn very fine, with early winter. Crops, except potatoes, were good.—*A. W. Shaw.*

**CLARE.**

NEWMARKET-ON-FERGUS, CARRIGORAN.—R 3 inches above the average. The weather was very bad in February; gales on 12th and 19th, TSS on 11th and 12th, and a great deal of cold easterly wind. Temp. ruled low through the summer, with an unusual absence of bright sunshine. The latter half of September was very fine.—*A. Barker.*

ENNISTYMON HOUSE.—Average R. There was an excessive fall in the first two months, a comparatively dry spring, very wet summer and dry autumn.—*H. V. Macnamara.*

**DIVISION XXI.—LEINSTER.****WEXFORD.**

TEMPLEUDIGAN, BALLINDONEY.—The first three months were very wet and cold,  $13\cdot83$  in. of R falling on 68 days. April and May were cold, from June to August warm, and September much cooler. The last quarter was the driest ever registered, and not cold with the exception of one week in November. The total R for the year was  $4\cdot23$  in. below the average of 10 years and  $16\cdot30$  in. less than that of 1903.—*Janssen Budgen.*

ENNISCORTHY, MONART RECTORY.—R about the average, with a notable deficiency in October and November. A dry period lasted from September 18th to the end of the year, with the exception of December 8th to 18th, when  $2\cdot40$  in. of R fell.—*W. F. A. Ellison.*

ENNISCORTHY, MONKSGRANGE.—R  $3\cdot84$  in. below the average of 12 years.—*Goddard H. Orpen.*

**KILKENNY.**

KILKENNY, SION VILLA.—January and February were very wet. From March to the end of July there was a long spell of fine weather and the summer was lovely. Harvest turned out well and abundant, though the potato crop was poor. The first half of September was wet, followed by a fine period to November 21st,

when heavy S fell with a very sudden change to severely cold weather for a week. Afterwards cold, damp and exceedingly dark to the end of the year.—*J. O'Connell.*

### KILDARE.

STRAFFAN HOUSE.—Spring was cold and late, but summer good and autumn magnificent. In many respects the season was curious; many seeds would not ripen which matured well in the dull damp year of 1903.—*F. Bedford.*

### DUBLIN.

BALLYBRACK, STREAMVILLE.—R 7·41 in. below the average of 20 years, during which only two years had less R.—*F. B. Falkiner.*

FOXROCK, HILLSIDE.—A dry year, especially after the beginning of March. The summer had a fair share of warm sunny days. Calm weather from October to December.—*G. M. W. Hill.*

KINGSTOWN, PEOPLE'S PARK.—R remarkably low, being 8·82 in. below the average of 14 years. October, usually the wettest month of the year, had only ·19 in. and was the driest month yet recorded.—*J. Byrne Power.*

RATHMINES, LEINSTER ROAD.—The driest year since 1893. The most remarkable feature was the unprecedented drought of October. The summer was long and fine, and in pleasant contrast to 1902 and 1903. There were no extremes of temp., no TSS, no S, and no gales of any severity. It was curious that February was the wettest month and October the driest.—*E. H. Cannon.*

### DIVISION XXII.—CONNAUGHT.

#### GALWAY.

RECESS HOTEL.—Extremely wet, especially during the summer, but the weather of October and November was delightful.—*A. A. Smith.*

TUAM, GARDENFIELD.—R 7·12 in. above the average of 20 years, and the greatest in 25 years except 1886 and 1903. Every month from January to September, except June, had more than the average R, and the excessive fall of July and August considerably injured crops, particularly potatoes.—*H. Kirwan.*

## DIVISION XXIII.—ULSTER.

## CAVAN.

BALLYCONNELL HOUSE.—R  $\cdot 72$  in. below the average of 12 years. The only unusual feature was the early burst of winter with S on November 20th, which continued for three days and was followed by mild weather.—*S. B. Roe*.

## ARMAGH.

LURGAN, BELLE VUE.—R  $2\cdot 24$  in. less than the average of 10 years, but rainy days 4 above the average. The special feature was the splendid harvest weather, only  $1\cdot 60$  in. of R falling from September 8th to October 31st. The R for October was the lowest in the record extending back to 1880.—*S. A. Bell*.

## DOWN.

BANBRIDGE, MILLTOWN.—R  $1\cdot 90$  in. below the average of 40 years.—*John Smyth*.

## ANTRIM.

BALLYNURE, BALLYBOLEY.—Light R and fairly high temp. during the early part of the year. Light R in the latter half, except in August, but afterwards splendid for potato and oat crops, which were heavy, good and well saved.—*T. H. Craig*.

## DONEGAL.

KILLYBEGS.—R  $13\cdot 42$  in. below the average of 17 years.—*A. Brooke*.

LOUGH SWILLY, CARRABLAGH.—R  $14\cdot 25$  in. below the average of 10 years, and the lowest since records began in 1888. Drought in July, the springs being in a large measure dry. The R for the first six months was  $13\cdot 87$  in., whereas that of the first six months of 1902, the previous driest year, was  $15\cdot 91$  in.—*H. Chichester Hart*.

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## HEAVY RAINS IN SHORT PERIODS.

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THIS section is unusually short, but of exceptional interest, for of the records of heavy falls in periods of twelve hours or less which have been sent in, only 58 are sufficiently remarkable to claim notice, yet two of these are of an intensity rarely equalled. While we deplore the neglect of the study of short heavy rains, we do not believe that the neglect was greater in 1904 than in any of the previous eleven years, and we therefore feel sure that fewer remarkable falls took place than usual. In 1894 the limit of duration of the heavy falls to be noticed was raised to 12 hours, and since then the number of instances of heavy falls in short periods has been :—

1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	Average.
86	93	63	88	61	113	72	83	61	101	58	80

We lay no stress on the numerical accuracy of this comparison, but at least it brings out the fact that 1904 will not be famous for numerous heavy falls. By limiting the comparison to falls of less than two hours' duration we get a better basis of comparison.

### *Entries of less than Two Hours' Duration.*

	No. of entries.	Average rate per hour.
Average 1892—1903 .....	57	1·83 in.
1904 .....	40	2·02 in.
Difference ... ..	—17	+ ·19 in.

It thus appears that while the number of cases reported was 30 per cent. less than the average of twelve years, the intensity of the heavy falls was 10 per cent. greater, and indeed two of the falls appear to have been among the heaviest in our records.

Except for one heavy fall in February and one in October, all the instances with which we have to deal occurred in the summer months—3 in May, 4 in June, 9 in August, 2 in September—while no less than 38 instances (nearly 66 per cent. of the whole) were in July. These heavy July falls were of course associated with the remarkable group of thunderstorms which made that month memor-

able and especially with those within a day or two of the 25th, to which a considerable amount of attention is paid in the next section, when dealing with heavy falls on rainfall days. Fifteen of the falls were of exceptional intensity and these are distinguished in the Table by a X, while on the diagram they occupy the place of "extremes rarely exceeded" above the bar which separates them from the general run of remarkably heavy falls. From these again nine have been selected as the most unusual of all the heavy falls in short periods, and these are set out as follows :—

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
July 25..	IV.	Colchester, Lexden .....	·57	... 6½	5·47
" 30..	"	Hillington .....	1·56	... 35	2·67
" 27..	II.	Cooling, Broomy Farm .....	2·66	... 45	3·55
" 27..	IV.	Keswick Old Hall .....	2·55	1 45	1·46
" 24..	IX.	Slaithwaite, Inglewood .....	3·69	2 55	1·27
" 24..	"	Huddersfield Cemetery .....	3·40	3 0	1·13
" 26..	XXII.	Clifden, Kylemore Castle ...	3·20	3 0	1·07
Aug. 30..	XXI.	Timolin Vicarage .....	3·65	3 30	1·04
July 24..	IX.	Huddersfield, Golcar .....	4·85	5 0	·97

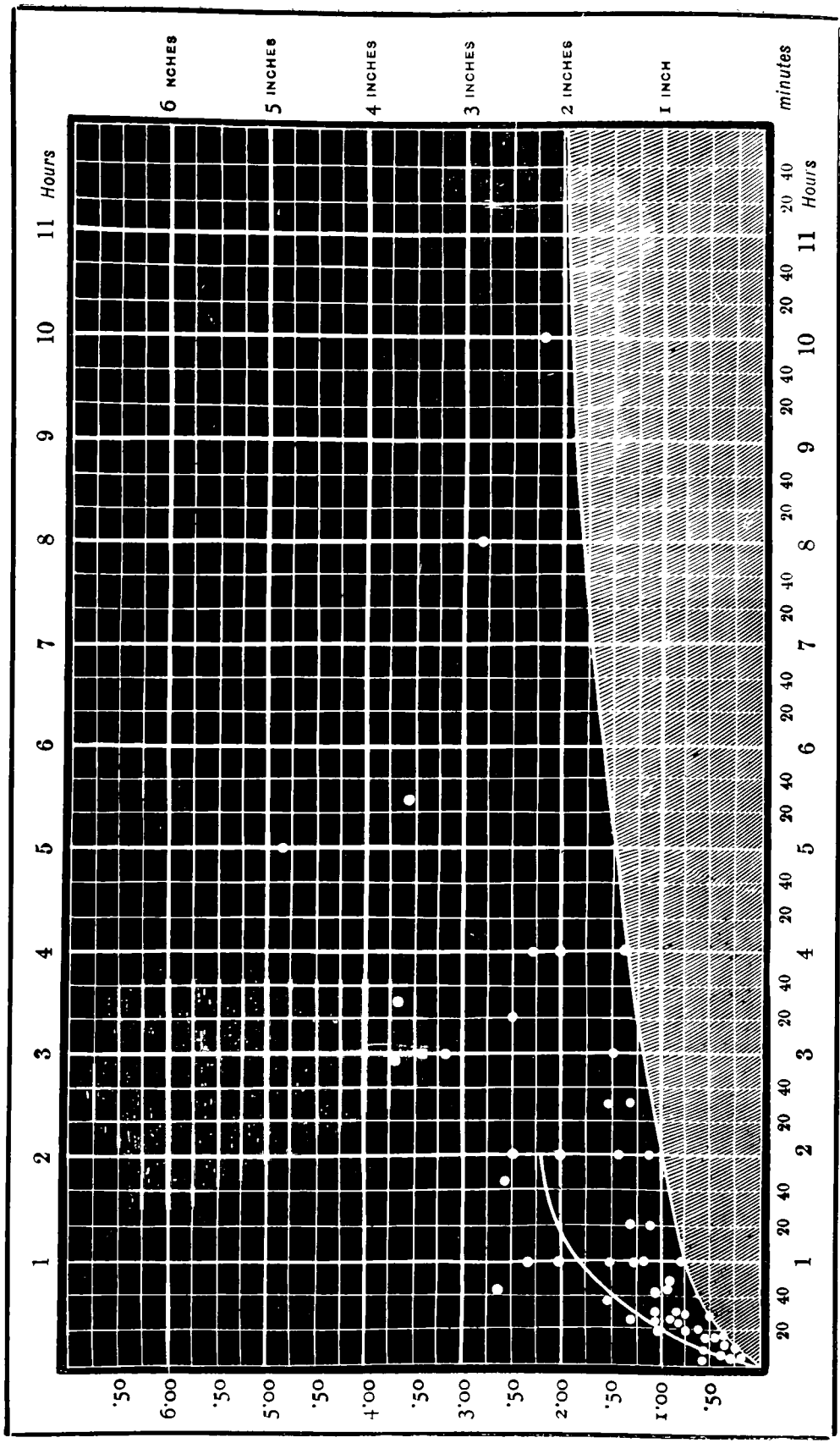
The most remarkable falls are those of ·57 in. in 6½ minutes at Lexden, and of 4·85 in. in 5 hours at Golcar. Looking back through *British Rainfall*, we find the following instances of falls which may be compared for intensity with that at Lexden in 1904 :—

Place.	Amount.	Duration.	Rate per hour.	Date.
	in.	min.	in.	
Lexden .....	·57	6½	5·47	July 25th, 1904
Maidstone .....	·61	7	5·23	Sept. 21st, 1892
Chelford .....	·63	7	5·40	Aug. 21st, 1888
Shirenewton Hall .....	·62	5	7·44	June 14th, 1893

These are all the cases recorded since 1868 in which ·57 in. or more fell in 7 minutes or less. There are, however, three cases of ·50 in. or more in 5 minutes, giving a rate of 6·00 in. per hour or more for that period, and there is a report, which Mr. Symons published with considerable reserve, of as much as 1·25 in. falling in 5 minutes at Preston, on August 10th, 1893, the rate being 15·00 in. per hour. It thus appears that for so long a time as 6½ minutes the rate of fall at Lexden, cited above, is, with one exception, unprecedented in the record.



# HEAVY FALLS IN SHORT PERIODS.



The shaded portion represents falls too numerous to require insertion ; the short white curve, extremes rarely exceeded.



The fall of 4·85 in. in 5 hours at Golcar, near Huddersfield, on July 24th, is also almost unprecedented in our records, being probably only surpassed by the remarkable fall at Angerton Hall, Northumberland, in 1898, when 6·70 in. was recorded as the result of 3 hours' downpour. The only other instances that can be found to compare with the Golcar fall are 4·50 in. in 3 hours at Tiverton, on May 25th, 1890, and 4·80 in. in 2 hours at Mellington Hall, on June 26th, 1895. Both of these give higher intensities, but much shorter durations and slightly smaller amounts.

A year with two such noteworthy records of intense rain is not without distinction in these days when long records make it difficult to find new instances which surpass the old.

*Heavy Rains in Short Periods in 1904.*

Date.	Div.	Station.	Amount.	Duration.		Rate per hour.
			in.	hr.	min.	in.
June 26 ...	III.	Ponder's End, Bylock Hall ...	·12	...	3	2·40
" 1 ...	"	Berkhampstead .....	·12	...	3	2·40
Feb. 2 ...	"	Culham College .....	·16	...	4	2·40
June 24 ...	IX.	Knaresborough, Farnham.....	·19	...	5	2·28
July 25 ...	I.	St. Pancras, Camden Square..	·30	...	6	3·00
" " ...	IV.	Colchester, Lexden .....	·57	...	6½	5·47xx
" " ...	"	Colchester, Lexden .....	·38	...	7	3·26
Aug. 17 ...	VIII.	Rochdale, Fieldhead .....	·16	...	7½	1·28
July 30 ...	III.	Berkhampstead .....	·25	...	9	1·67
" 24 ...	IX.	Meltham, Harewood Lodge...	·53	...	10	3·18
" 25 ...	IV.	Colchester, Lexden .....	·37	...	11½	1·89
Aug. 23 ...	XI.	Crickhowell, Gwernvale .....	·44	...	14	1·89
July 25 ...	"	Welshpool .....	·50	...	15	2·00
" 23 ...	VII.	Cropwell Bishop .....	·37	...	15	1·48
Aug. 21 ...	V.	Bourton, Chaffeymoor .....	1·02	...	20	3·06 x
July 24 ...	VIII.	Cartmel, Carke .....	·76	...	20	2·28
" 25 ...	I.	St. Pancras, Camden Square..	·61	...	20	1·83
" " ...	IV.	Colchester, Lexden .....	1·32	...	25	3·17 x
" " ...	VI.	Bromsgrove, Barnt Green.....	·81	...	25	1·94
" " ...	"	Kington, Gravel Hill.....	·83	...	27	1·84
Sept. 14 ...	V.	Beaminster, Fleet Street .....	1·05	...	28	2·25
June 26 ...	IV.	Clare, Stansfield.....	1·11	...	30	2·22
Oct. 15 ...	V.	Helston, Tenderah.....	·80	...	30	1·60
July 12 ...	IX.	Knaresborough, Farnham.....	·75	...	30	1·50
" 30 ...	III.	Meldreth ... ..	·50	...	30	1·00
" " ...	IV.	Hillington .....	1·56	...	35	2·67 x
" 27 ...	II.	Cooling, Broomy Farm.....	2·66	...	45	3·55 x
" 24 ...	X.	Bowness, Lindeth Howe .....	1·07	...	45	1·43
" 25 ...	I.	St. Pancras, Camden Square..	·99	...	45	1·32
" 24 ...	X.	Windermere, Storrs Park.....	·99	...	54	1·10
" " ...	IX.	Slaithwaite, Inglewood.....	2·36	1	0	2·36 x
" 25 ...	III.	Watford .....	2·03?	1	0	2·03?x

*Heavy Rains in Short Periods in 1904—continued.*

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
July 28 ...	IV.	Fingringhoe, Ballast Quay Farm	1·50	1 0?	1·50?
„ 25 ...	VI.	Church Stretton, Woolstaston	1·26	1 0	1·26
„ 26 ...	III.	Welwyn, Datchworth Rectory	1·20?	1 0	1·20?
„ 23 ...	V.	Rousdon [Lyme Regis]... .	·75	1 0	·75
„ 24 ...	IX.	Slaithwaite, Inglewood.....	1·33	1 20	1·00
„ 23 ...	„	Great Ayton, Easby Hall.....	1·32	1 20	·99
Aug. 23 ...	V.	Ilminster .....	1·10	1 20	·83
July 27 ...	IV.	Keswick Old Hall .....	2·55	1 45	1·46 x
„ 25 ...	VI.	Bromsgrove, Barnt Green.....	2·50	2 0	1·25 x
„ „	IV.	Hevingham .....	2·00	2 0	1·00
Aug. 23 ...	V.	Ilminster .....	1·40	2 0	·70
May 27 ...	II.	Guildford, Cross Lanes.....	1·17	2 0	·58
Sept. 16 ...	XXIII.	Horn Head .....	1·54	2 30	·62
Aug. 22 ...	IV.	Witham, Terling Vicarage ...	1·33	2 30	·53
July 24 ...	IX.	Slaithwaite, Inglewood.....	3·69	2 55	1·27 x
„ „	„	Huddersfield, Cemetery .....	3·40	3 0	1·13 x
„ 26 ...	XXII.	Clifden, Kylemore Castle ....	3·20	3 0	1·07 x
„ 25 ...	I.	Hampstead, Burrard Road ...	1·50?	3 0	·50?
Aug. 23 ...	V.	Ilminster .....	2·50	3 20	·75 x
„ 30 ...	XXI.	Timolin Vicarage .....	3·65	3 30	1·04 x
July 25 ...	VII.	Brigg.....	2·27	4 0	·57
May 27 ...	VI.	Long Compton, Weston Park.	2·00	4 0	·50
Aug. 3 ...	XXIII.	Belleek .....	1·37	4 0	·34
July 24 ...	IX.	Huddersfield, Golcar.....	4·85	5 0	·97 xx
„ 25 ...	XX.	Miltown Malbay.....	2·85	8 0	·36
May 27 ...	VI.	Bromsgrove, Stoke Reformatry	2·20	10 0?	·22?

## HEAVY FALLS ON RAINFALL DAYS IN 1904.

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THE year did not produce any very remarkable instances of widespread heavy falls; but there is a great deal of interest in all wet days and we are endeavouring to arrive at the best way of describing and comparing them. At present it seems the simplest plan to continue the discussion of the wettest day in the year (the day that yields the Maximum Fall, conveniently denoted as *M*) exactly as in the past. But together with this we endeavour to concentrate attention on days with widespread rain, in the hope of finding some clue to the distribution and intensity of individual rains. The only way to do this is by the use of rainfall maps, and we must devote a few lines to explaining how these maps are prepared and what they show.

For 1904 we received records of the maximum falls from a larger number of stations than ever before, and after rejecting all those that could be shown to be erroneous readings or the result of the accumulation of the rain of several days, we had 3093 instances with which no fault could be found. These were all written out in order of date, and the ratio which each *M* bore to the total rainfall for the year was added in the form of a percentage. Following precedent, the *M* which amounted either to not less than 2·50 in., or not less than 7·5 per cent. of the annual total, are published in the following Chronicle; but all the *M*, whether published or not, have been studied. The days on which the *M* are most widely distributed were selected for fuller discussion. For each of these days all the *M* were entered in black ink on a large scale map, and then the map was filled up, by reference to the daily returns on Form A, with the rainfall at other stations represented in coloured ink. Lines were next drawn to include the areas in which the rain was everywhere

more than 4·00, 3·00, 2·00, 1·00, ·50 and ·25 in. respectively, and the areas with 1·00 or more were measured by means of the planimeter, so that the extent of each heavy fall could be known. It was only want of time which prevented us from going farther, and calculating the total rainfall for the British Isles on each day; but when it is remembered that this would have delayed publication by a week, the reason why we stopped short of completeness is explained. Should a reader suggest that the work might have been commenced a week earlier, we must reply that if the 3093 observers whose work was considered in this section had *all* sent in their returns before the end of March or even of April, we would gladly have done so, but we cannot begin to build until the bricks are on the ground.

The maps as published are reduced from the originals and slightly simplified, while the track of atmospheric depressions is added from the Monthly Summary of the *Weekly Weather Report* in order to direct attention to the relation of heavy rainfall to the cyclone unit. These maps, though small of scale, are not diagrams. They are accurate statistical documents and the position of each line may be trusted as correct.

## Part I.—Chronicle.

### January 12th.

**M** occurred at about a dozen stations in the west of England and South Wales, and at one of these the fall was sufficiently large to be quoted.

XI. Cardiff W.W. (Beacon's Reservoir) ..... 2·68 in. or 3·7 per cent.

### January 26th.

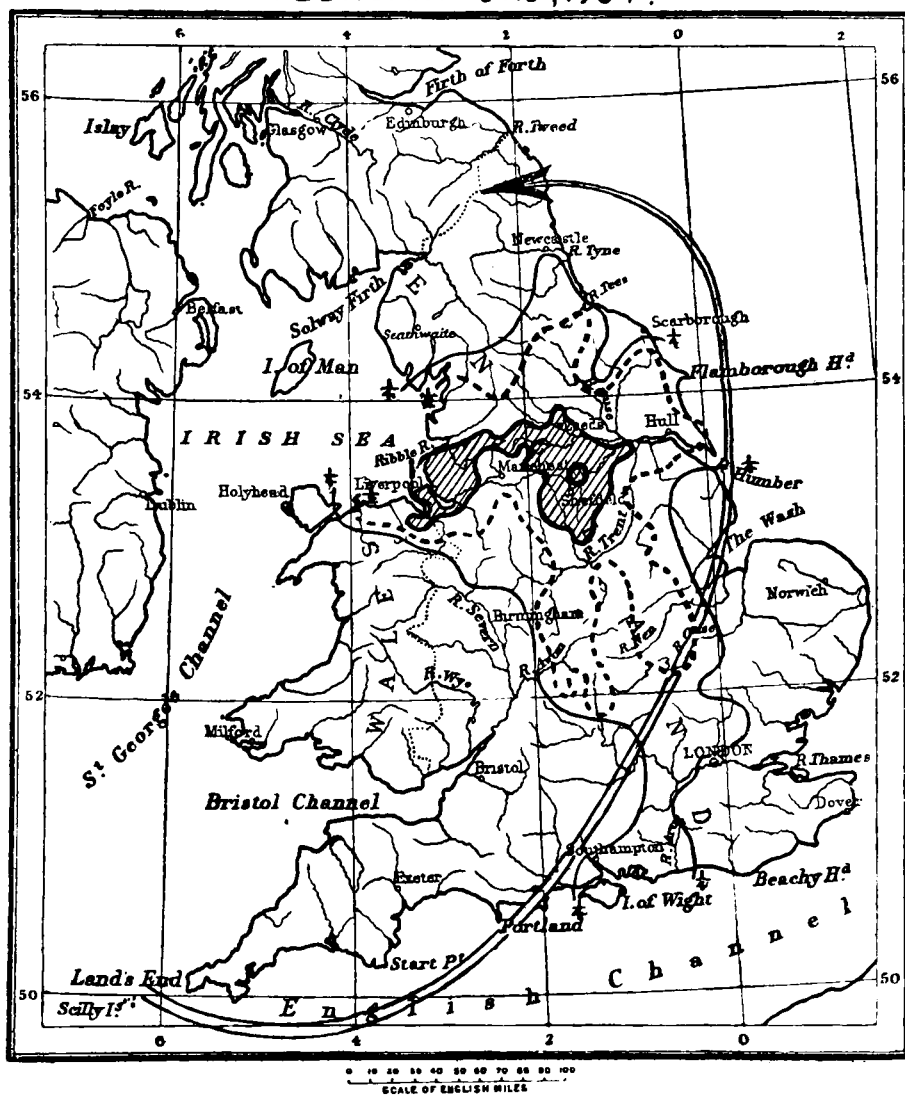
About thirty stations in the west of England and South Wales recorded **M** of moderate amount, two only being of special interest.

V. Princetown ..... 2·58 in. or 2·9 per cent.  
XI. Mountain Ash (Darranlas Reservoir) ..... 2·54 „ 4·3 „

### February 3rd.

This was the first really widespread rain of the year, and though the amounts were not great, rarely exceeding 1·50 in. at the sixty or more stations which registered their **M** in the west of Cheshire and Lancashire and the West Riding of Yorkshire, the percentages in the drier parts of the districts were high enough to supply a considerable number of entries. The accompanying map shows the

FEBRUARY 3RD, 1904.



distribution of rainfall in the parts affected by the cyclonic disturbance, the track of which is added. It will be noticed that as usual in rains of this type the wet area lay to the left of the track of the centre, scarcely any part to the right of it having had more than one quarter of an inch of rain. The areas with the heaviest falls were as follows:—

	Area, sq. miles.	Average Rain, inches.	Volume of Rain, sq. miles x inches.
Over 2 inches. . . . .	33	2·1	69
1—2 „ . . . . .	2470	1·3	3211
Total . . . . .	2503		3280

In other words, the average rainfall was 1·3 inches in the 24 hours over an area of 2500 square miles of country.

IX.	Rotherham (Thrybergh) .. . . . . .	1·71 in. or	8·1 per cent.
„	Sheffield (Chapelton) .. . . . . .	1·98 „	8·3 „
„	Wentworth Woodhouse .. . . . . .	2·04 „	8·2 „
„	Swinton (Council Offices) .. . . . . .	1·77 „	7·9 „
„	Mexborough.....	1·71 „	8·4 „
„	Hoyland (King Street) ... ..	2·02 „	8·4 „
„	Wath-upon-Deerne (Chapel Street) .....	1·84 „	8·3 „
„	Wakefield (Walton Hall) .. . . . . .	1·60 „	8·2 „

#### February 6th.

A heavy local rain in the east of Scotland brought their M to four stations, at three of which the percentage was high enough to be worthy of record.

XVI.	Carnbee (Ovenstone W.W.) .. . . . . .	2·06 in. or	7·7 per cent.
„	St. Andrews.....	2·16 „	8·3 „
„	„ (Waterworks) .. . . . . .	2·14 „	9·0 „

#### March 28th.

March yielded singularly few M, the only noteworthy cases occurring during a local rain in the Lake District affecting some half-dozen stations, two of which are noticed, and one of them with 3·90 in. could boast of one of the wettest days in the year.

X.	Buttermere (Hassness) .. . . . . .	3·90 in. or	3·6 per cent.
„	Patterdale Hall .. . . . . .	2·75 „	3·4 „

#### May 27th.

This was a day of severe thunderstorms in the south of England, accompanying a depression which passed close along the whole south coast from the Lizard to the North Foreland and thence northward. There was also much rain in Yorkshire. Altogether about 130 stations received their M on this day and the distribution is interesting enough to be illustrated by a Map to which the track of the depression is added. The areas of heavy fall lay entirely to the left of the track, although, as is usual with thunderstorm rains, the country was affected in patches. There was more difficulty than usual in drawing the line of one-inch in the southernmost part, because the thunderstorm was at its height between 8 and 10 a.m., and many observers were unfortunately unable to read their gauges at 9 o'clock. Farther north the storm occurred entirely in one rainfall day.



The wet area formed a curved belt through the centre of England broken in the middle, and the areas with heaviest falls were :—

	Area, sq. miles.	Average Rain, inches.	Volume of Rain, sq. miles x inches.
Over 2 inches .....	115	1·5	288
1—2     ,,     .....	3940	(1·4)	5570
Total .....	4055		5858

MAY 27TH, 1904.

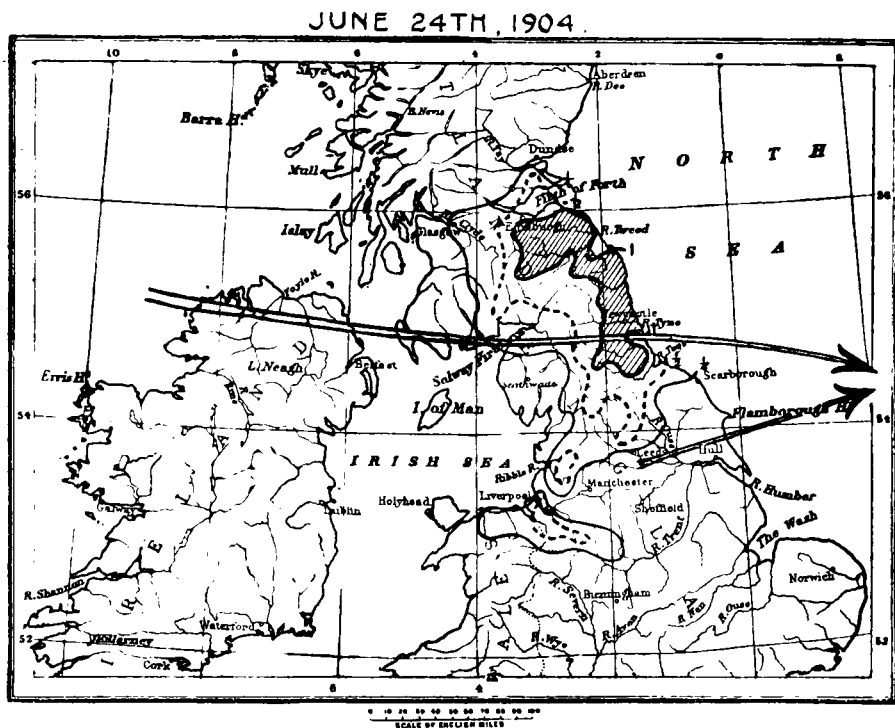


This means that on more than 4000 square miles the average rainfall for the 24 hours (in reality for a few hours only) was 1·44 in.

III.	Chipping Norton (Sarsden) .....	1·81 in. or	7·5 per cent.
,,	,,     ,,     (Heythrop) .....	2·23     ,,	9·1     ,,
,,	Swerford .....	2·48     ,,	9·3     ,,
VI.	Stow-on-the-Wold (Oddington) .....	2·31     ,,	9·4     ,,
,,	Moreton-in-Marsh (Longborough) .....	2·38     ,,	8·0     ,,
,,	Bromsgrove (Stoke Reformatory) .....	2·20     ,,	10·3     ,,
,,	Stourbridge (Pedmore) .....	2·59     ,,	9·9     ,,
,,	,,     (Longlands) .....	1·82     ,,	7·8     ,,
,,	Long Compton (Weston Park) .....	3·34     ,,	13·3     ,,
IX.	Thirsk (Sowerby) .....	1·90     ,,	8·9     ,,
,,	,,     (The Hall) .....	1·87     ,,	8·2     ,,

**June 24th.**

Although there is only one entry sufficiently remarkable to reach the adopted limit, M were reported on this day from about forty stations in the north-east of England and the south-east of Scotland.



The Map shows the tracks of the depressions which gave rise to this condition, and it will be observed that the heaviest rain fell over a broad strip of the east coast from the Tees to the Forth, and, as usually happens, by far the greater part of this wet area lay to the left of the tracks. The rainfall exceeded an inch over 3354 square miles, on which the average fall was 1·25 in., but it nowhere reached 2 inches.

X. Bamburgh..... 1·52 in. or 7·6 per cent.

**June 28th.**

An extremely local rain in the far west of Ireland brought the M to a couple of neighbouring stations, one of which has to be mentioned.

XX. Darrynane Abbey ..... 2·79 in. or 4·6 per cent.

**July 23rd—27th.**

During these five days about 800 stations recorded their M brought about by a series of remarkable thunderstorms, and, as is usually the case with storms at this season of the year, much difficulty has been experienced in allocating the heavy falls to the rainfall day on which they actually occurred. As reported by the observers, they were distributed as follows: 20 on the 23rd, 37 on the 24th, 548 on the 25th, 132 on the 26th, and 56 on the 27th. We feel sure that if observers could only realize the days of anxious work spent by us annually in merely detecting and rectifying breaches of Rule IX., they would take the momentary trouble of conforming to it, and so set us free to occupy our time with work that would either increase the interest of these pages or place them earlier in the hands of our readers. We have, however, succeeded in disentangling the records and now present the result.

On account of the interest attaching to the days 24th, 25th, 26th, and 27th, we have prepared maps showing in detail the distribution of the heavy rain on each.

**July 23rd.**

Severe TSS were experienced in Lincolnshire, southern Yorkshire, and northern Lancashire, especially in the south of the Lake District, where the only fall heavy enough to claim notice occurred.

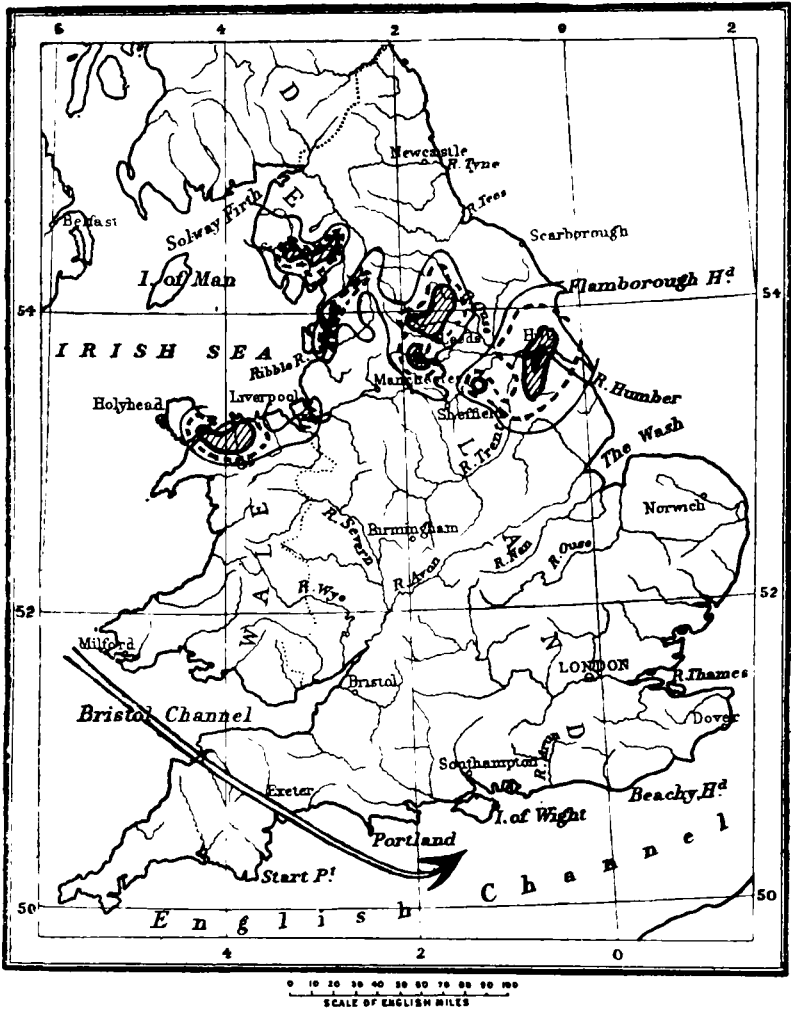
VIII. Ulverston (Poaka Beck) ..... 2·66 in. or 5·3 per cent.

**July 24th.**

This day was rainless over the greater part of the country, but severe TSS occurred at a number of places in Yorkshire and surrounding counties. The Map shows eight such wet spots where the fall exceeded an inch; and it is curious that, even when the line of one quarter of an inch is inserted, the number of areas with heavy rain is only reduced to four, and these are separated one from the other by strips of country on which there was practically no rain, in most instances absolutely none at all. In two of the wet areas the fall exceeded two inches. One of these lay in North Lincolnshire and the East Riding, but although we have drawn the belt with over two inches of rain as continuous from Brigg to Hull, it is probable that additional observations would have broken it into two wet patches.

The second and by far the more interesting had its centre at Golcar, near Huddersfield, where nearly five inches of rain fell in as

JULY 24TH, 1904.



many hours. The most intense rain was confined to a very small area, probably not exceeding 5 miles in length and 1½ miles in breadth for falls over four inches, and not more than 9 miles by 6 for falls above two inches. Five miles to the west of the boundary of the two inch falls there was no rain at all. The capricious distribution of rainfall in a period of great electrical disturbance is admirably shown by the Map.

The total area affected was insignificant :—

	Area. sq. miles.	Average Rain, in.	Volume of Rain, sq. miles x in.
Over 4 inches .....	7	4·5	32
3—4    „       .....	12	3·6	43
2—3    „       .....	60	2·3	137
1—2    „       .....	1300	(1·33)	1733
Total .....	1379		1945

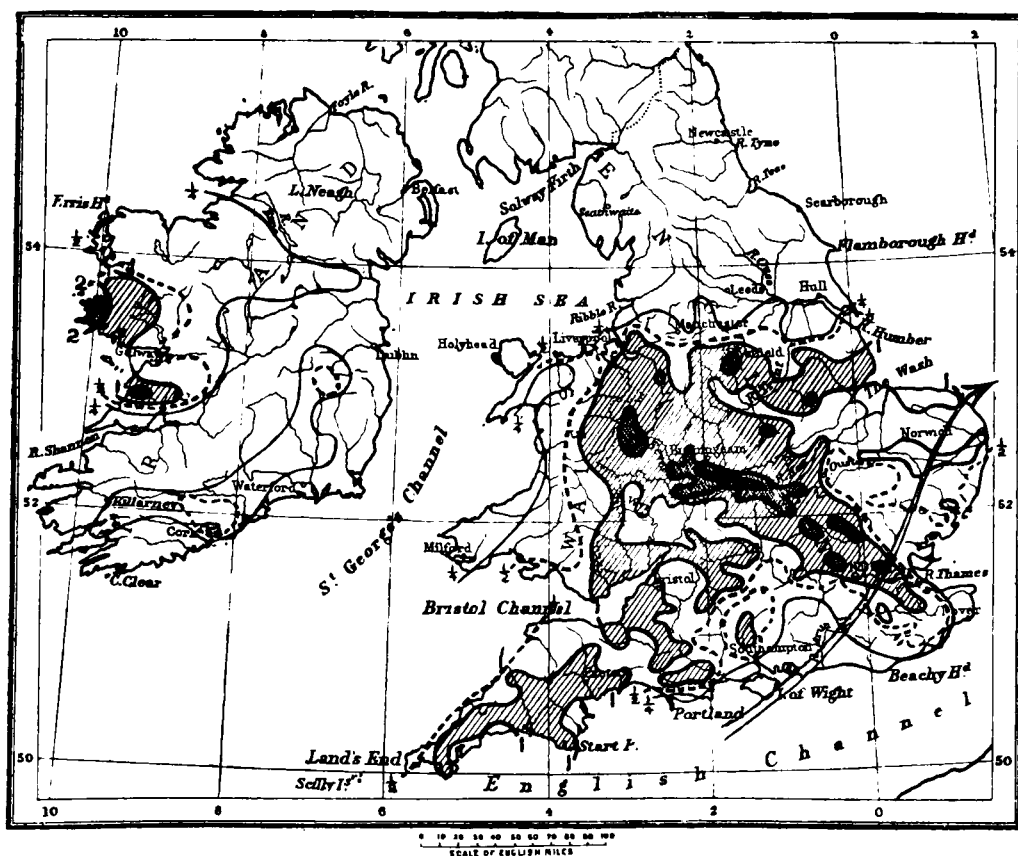
This means that over a total area of rather less than 1400 square miles the average fall of rain in the few hours the storms lasted was 1·41 in.

VII.	Brigg.....	2·27 in. or	9·6 per cent.
IX.	Slaithwaite (Blackmoorfoot) .....	2·53 „	5·7 „
	„ (Inglewood) .....	3·97 „	9·5 „
	Huddersfield (Bank Field, Golcar) ...	4·85 „	12·4 „
	„ (Cemetery) .....	3·80 „	10·9 „
	„ (Dalton) .....	2·62 „	8·6 „
	Elland .....	2·54 „	10·1 „
	Harewood (Arthington) .....	2·96 „	8·6 „
	Harrogate (Wonderful House).....	2·86 „	10·1 „
	Knaresborough (Farnham) .....	1·94 „	7·9 „
	Hull (Springhead) .....	2·31 „	10·2 „

### July 25th.

More M occurred on this day than on any other in the year, and they were also more widely distributed, covering the whole of England and Wales south of Manchester, while a few were reported from the extreme west of Ireland. We have drawn a com-

### JULY 25TH, 1904.



plete rainfall map of the British Isles for this day, showing how the rain of the series of thunderstorms which prevailed in most parts of England at least was distributed, and the measurement of those areas shows that it was the day of most widespread rain and of largest volume of precipitation in the year. It will be observed that falls of an inch or more in England stopped abruptly just south of Manchester, while scarcely a drop of rain fell north of Bradford, no part of Scotland having so much as one-tenth of an inch. The heavy rainfall did not cease quite so abruptly in the south, but there was a nearly rainless patch in the Isle of Wight and Sussex. The irregular outline of the portions with falls exceeding an inch is characteristic of thunderstorm rains. A string of long narrow showers which deposited more than two inches of rain will be seen running north-westward from the neighbourhood of London to Shrewsbury, and in the largest of these several stations, arranged in a straight line passing through Warwick in a direction from E. by S. to W. by N., reported falls exceeding 3 inches. The region affected lay entirely to the south of that which received heavy falls on the previous day.

	Area, sq. miles.	Average Rain, in.	Volume of Rain, sq. miles x in.
Over 3 inches .....	64	3·1	198
2—3     ,,     .....	1,503	2·5	3,719
1—2     ,,     .....	18,024	1·5	26,149
Total .....	19,591		30,066

This means that on nearly 20,000 square miles of country, over which more than 1 inch of rain fell, the average rainfall was 1·53 in. for the few hours of the storm. In Ireland, 1448 square miles in the extreme west of Mayo, Galway and Clare had over an inch of rain, the volume on that area being 2462 square mile inches.

I.	St. Marylebone (Northwick Ter.) .....	1·56 in. or	7·5 per cent.
„	Westminster (Spring Gardens) .....(3)	1·83 „	9·2 „
„	„ (Strand) .....	1·55 „	7·6 „
„	St. Pancras (Camden Square) .....	1·71 „	8·3 „
II.	Higham (Oakleigh).....	1·45 „	7·9 „
III.	Child's Hill (Helenslea).....	2·15 „	9·6 „
„	Rammey Marsh [Waltham Abbey] .....	1·65 „	8·5 „
„	Elstree (Aldenharn House) .....	1·76 „	8·0 „
„	Watford (London Orphan Asylum) .....	2·09 „	8·4 „
„	„ (Weetwood) .....	2·03 „	8·0 „
„	Hoddesden (Feilde's Weir) .....	1·64 „	7·6 „
„	Kensworth [Dunstable].....	2·12 „	7·8 „
„	Bennington House .....	2·32 „	10·6 „
„	„ (Eileen Cottage).....	2·06 „	8·8 „
„	Hitchin (Preston) .....	1·69 „	7·7 „
„	„ (Wratten) .....	2·62 „	12·1 „

III.	Hitchen (The Maples) .....	2.48 in. or 11.9 per cent.	
"	" (The Chilterns) .....	2.71 "	12.4 "
"	" (High Down) .....	2.52 "	11.7 "
"	Weston Park .....	1.92 "	8.5 "
"	Swanbourne House.....	1.87 "	7.6 "
"	Buckingham (Adstock Fields) .....	1.75 "	8.0 "
"	Wolverton (St. George's Vicarage).. ..	1.74 "	8.1 "
"	" (The School House) .....	1.85 "	8.4 "
"	Towcester (Bradden Rectory) .....	1.98 "	8.2 "
"	" (Stoke Bruern Park) .....	2.09 "	8.7 "
"	" (Easton Neston) .....	2.22 "	9.0 "
"	Blisworth (Crieff House) .....	1.81 "	7.6 "
"	Lichborough Hall .....	2.57 "	9.6 "
"	Daventry (Fawsley) .....	3.08 "	13.2 "
"	Little Houghton .....	1.65 "	7.7 "
"	Northampton (Berry Wood) .....	2.13 "	10.2 "
"	" (Balmoral Road) .....	1.78 "	7.8 "
"	" (Dallington Avenue).....	2.03 "	10.2 "
"	" (Great Billing Rectory) ..	2.05 "	9.6 "
"	" (Kingsthorpe).....	1.98 "	7.6 "
"	Great Brington .....	1.60 "	8.3 "
"	Daventry (Tunnel End).....	2.48 "	11.1 "
"	" (Welton).....	2.65 "	11.7 "
"	Pitsford (Sedgebrook) .....	1.82 "	8.2 "
"	Burton Latimer Rectory .....	1.68 "	8.3 "
"	Kettering (Sewage Works) .....	1.90 "	9.6 "
"	" (Headlands) .....	1.59 "	7.8 "
"	" (W.W., Cransley) .....	1.65 "	8.6 "
"	Shillington .....	1.90 "	9.3 "
"	Holwell Bury [Hitchin].....	1.43 "	7.7 "
"	Amptill (Higham Bury) .....	1.89 "	8.7 "
"	" (Silsoe).....	1.91 "	8.9 "
"	Upper Stondon .....	1.60 "	8.9 "
"	Bedford (De Parys Avenue).....	1.68 "	9.0 "
IV.	Orsett .....	2.11 "	11.0 "
"	Romford (North Ockendon) .....	2.05 "	11.0 "
"	Upminster Hall .....	1.60 "	9.0 "
"	Harold Wood .....	1.58 "	7.5 "
"	Havering Grange .....	1.69 "	7.5 "
"	" -atte-Bower ..	1.53 "	7.8 "
"	Loughton (High Beech).....	1.60 "	7.9 "
"	Waltham Abbey.....	1.84 "	9.0 "
"	Geldeston [Beccles] .....	1.70 "	8.2 "
V.	Yeovil (Gas Works) .....	2.24 "	7.6 "
VI.	Bishops Castle (Totterton) .....	2.28 "	7.9 "
"	Church Stretton .....	2.35 "	8.2 "
"	" " (Preen Manor) .....	2.48 "	10.5 "
"	" " (Woolstaston) .....	2.48 "	9.3 "
"	Pontesbury (Somerville) .....	2.86 "	12.9 "
"	Shrewsbury (The Abbey House) .....	1.75 "	8.2 "
"	" (Highfield).....	1.75 "	8.3 "
"	" (Roden) .....	1.72 "	7.6 "
"	Ellesmere (The Grange).....	1.91 "	7.5 "
"	Netherton (Lodge Farm Reservoir) .....	2.50 "	11.9 "
"	Kingswinford .....	2.36 "	10.1 "
"	Wolverhampton (Town Hall) .....	1.67 "	7.8 "
"	" " (West Park) .....	1.65 "	7.7 "

VI.	Lichfield (Maple Hayes) .....	1·49 in. or	7·5 per cent.
„	Worcester (Boughton Park).....	2·50 „	10·8 „
„	„ (Diglis Lock) .....	2·17 „	10·3 „
„	„ (Belmont Road) .....	1·80 „	8·5 „
„	„ (Water Works) .....	1·59 „	8·0 „
„	„ (Bevere Lock) .....	1·60 „	7·6 „
„	Martley.....	1·81 „	8·2 „
„	Droitwich (Holt Lock) .....	1·72 „	7·8 „
„	Bromsgrove (Tardebigge Reservoir) .....	2·05 „	8·7 „
„	„ (Barnt Green) .....	3·00 „	10·4 „
„	„ ( „ „ Upwood) .....	2·91 „	14·1 „
„	Stourport (Lincombe Lock) .....	2·30 „	10·3 „
„	„ (Areley Hall) .....	2·15 „	9·3 „
„	Bromsgrove (Lower Bittal Reservoir) ...	2·50 „	9·6 „
„	Bewdley (Winterdyne) .....	2·06 „	9·9 „
„	„ (Beaucastle) .....	1·96 „	9·5 „
„	Kidderminster (Prospect Hill).....	1·80 „	8·8 „
„	Moseley (Prospect Road) .....	2·19 „	8·9 „
„	Shipston (Honington Vicarage) .....	1·84 „	8·6 „
„	Stratford-on-Avon (Avonfield).....	1·97 „	9·4 „
„	„ „ (Shottery Hall).....	1·62 „	7·8 „
„	Alcester (Ragley Hall) .....	2·45 „	11·4 „
„	Warwick (Barford Rectory).....	2·08 „	9·9 „
„	Leamington (Radford House) .....	2·08 „	10·3 „
„	„ (Binswood Avenue) .....	3·48 „	15·8 „
„	Warwick (Hatton Vicarage) .....	2·13 „	9·8 „
„	Leamington (Cubbington) .....	2·06 „	9·8 „
„	Rugby (Bilton Grange).....	1·81 „	9·2 „
„	Birmingham (The Crescent) .....	1·58 „	8·0 „
VII.	Thurcaston (Cropston) .....	2·20 „	8·5 „
„	Syston .....	1·83 „	8·0 „
„	Grantham (Little Ponton Rectory).....	1·87 „	8·0 „
„	„ (Saltersford).....	1·66 „	8·1 „
„	„ (The Guildhall) .....	1·80 „	9·1 „
„	„ (High Street) .....	1·84 „	9·3 „
„	Horbling (The Hall) .....	2·03 „	9·3 „
„	Leake (Lade Bank Engines) .....	1·53 „	7·7 „
„	Skegness .....	1·76 „	8·4 „
„	Spilsby (East Keal Manor) .....	1·84 „	8·2 „
„	Darley Dale (Whitworth Institute) .....	2·44 „	8·1 „
„	Chatsworth Gardens .....	2·45 „	8·8 „
VIII.	Nantwich (Dorfold Hall) .....	2·38 „	9·4 „
XI.	Bassalleg (Bryn Hedydd) .....	2·79 „	6·7 „
„	Llandaff (Howell's School) .....	2·56 „	6·2 „
XX.	Miltown Malbay.....	2·85 „	5·5 „
XXII.	Clifden (Kylemore Castle) .....	3·20 „	3·7 „

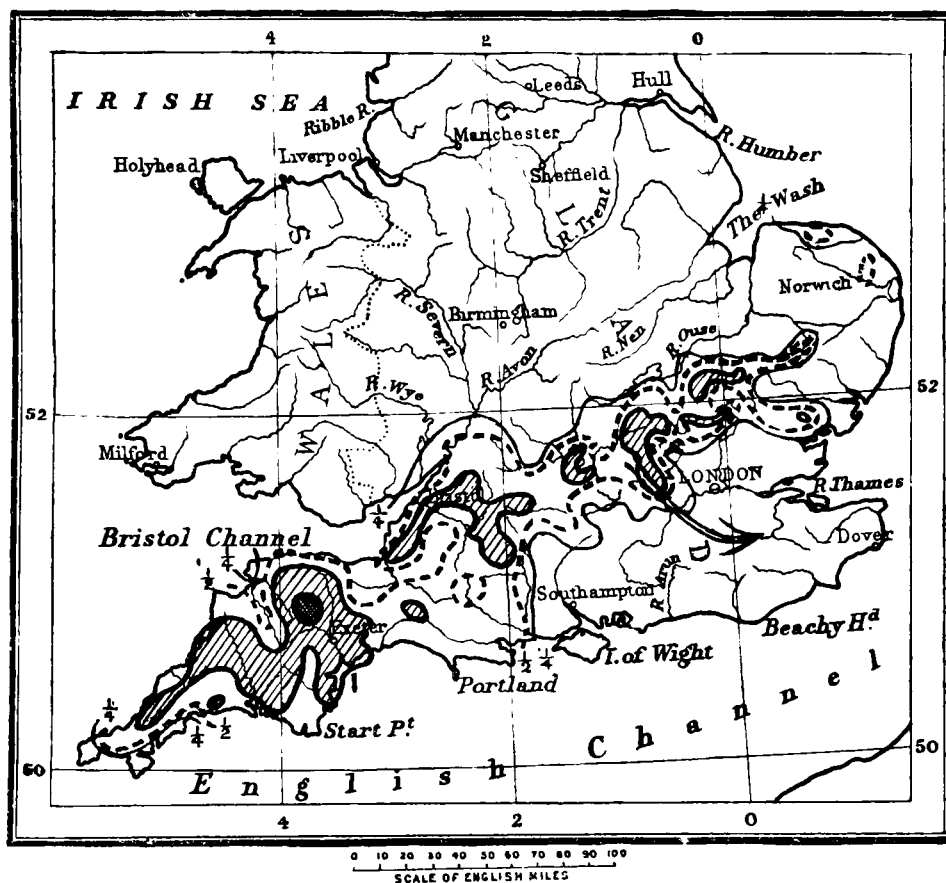
### July 26th.

Thunderstorms on this day brought noticeable M to a few stations which had missed the worst of the storms of the two days preceding. The arrangement of the extremely irregular wet patches was very remarkable and is well brought out by the Map. The rainfall exceeded an inch in six areas strung on a straight line drawn from Land's End to Yarmouth, the areas growing smaller and more broken



from south-west to north-east, and showing an increasing tendency to split into a parallel chain. The whole length of the wet chain was 290 miles, the greatest breadth in Devonshire was 50 miles, while from Bridgwater to Bury St. Edmunds, two absolutely straight

## JULY 26TH, 1904.



parallel lines, 35 miles apart, included the whole of it. The patches of one inch or more were separated by intervals of from 10 to 20 miles, but there was always more than half-an-inch of rain between them. No rain to speak of fell beyond 30 miles from the centre of the wet chain, either on its north-western or its south-eastern side, Measurements show :—

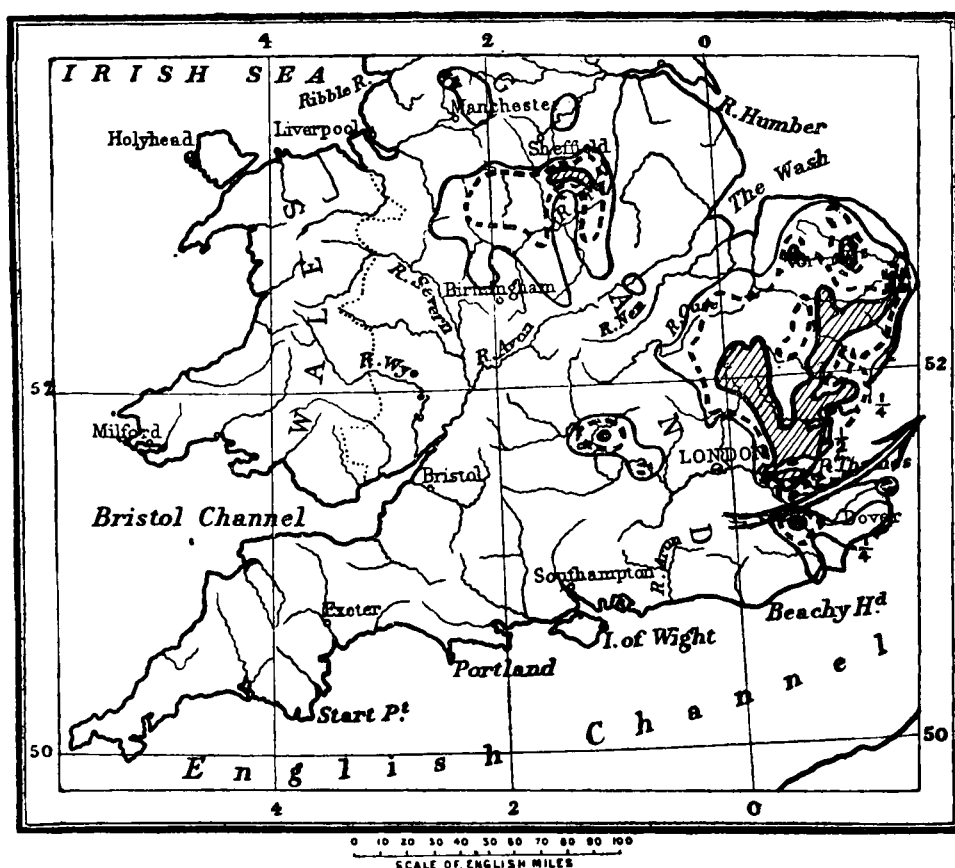
	Area, sq. miles.	Average Rain, in.	Volume of Rain, sq. miles x in.
Over 2 inches .....	90	2·1	189
1—2     ,,     .....	3714	(1·4)	5271
Total .....	3804		5460

III.	Stanton St. John .....	1·94 in. or	7·8 per cent.
„	„ „ (Woodperry) .....	2·06 „	8·2 „
„	Harston .....	1·91 „	9·2 „
„	Wimpole Hall .....	1·85 „	9·4 „
IV.	Colchester (Hill House, Lexden) .....	1·47 „	8·2 „
„	„ (Home Farm, Lexden) ..	1·46 „	8·2 „

### July 27th.

A sharp thunderstorm in the eastern counties, which lasted barely two hours, brought large falls to a number of stations, in some cases in the form of terrific hail. The Map shows that this may be looked

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upon as the continuation of the storm of the preceding day. The total area affected with rain exceeding one inch was 1817 square miles and the total volume 2516 square mile inches.

II.	Cooling (Broomy Farm) .....	2·66 in. or	11·2 per cent.
III.	Meldreth (Chiswick Farm) .....	1·43 „	7·9 „
IV.	Southend (Water Works) .....	1·60 „	8·5 „
„	Ingatstone (Fryerning) .....	1·60 „	8·7 „

IV.	Fingringhoe (Ballast Quay Farm) .....	1·74 in. or	9·4 per cent.
„	Saffron Walden (Debden Rectory) .....	1·76 „	8·0 „
„	„ „ .....	1·71 „	8·2 „
„	Bacton .....	1·60 „	8·1 „
„	Halesworth (Rumburgh) .....	1·66 „	7·7 „
„	Fritton [Yarmouth] .....	2·62 „	11·5 „
„	Keswick Old Hall .....	2·55 „	10·8 „
„	Norwich (Heigham) .....	1·69 „	7·5 „

### July 30th.

The last of the severe thunderstorm rains of this extremely disturbed week brought M to about thirty stations, chiefly in the counties of Cambridge and Norfolk, but the fierce energy of the earlier manifestations had abated and it is only their high percentage, not their absolute amount, which entitles the following to appear :—

III.	Cambridge (W.W., Cherryhinton) .....	1·60 in. or	8·4 per cent.
„	„ (Heatherdene) .....	1·59 „	9·3 „
„	„ (Quy Hall) .....	1·45 „	8·0 „
„	Stretham Engine... ..	1·46 „	8·8 „
„	„ (Elford Farm) .....	1·18 „	7·6 „
IV.	Denver .....	1·75 „	8·4 „
„	Grimston (Manor House) .....	1·96 „	8·3 „
„	Hillington School .....	2·16 „	8·4 „

### August 13th.

A few stations in the west of Scotland experienced heavy falls, and one of them was—

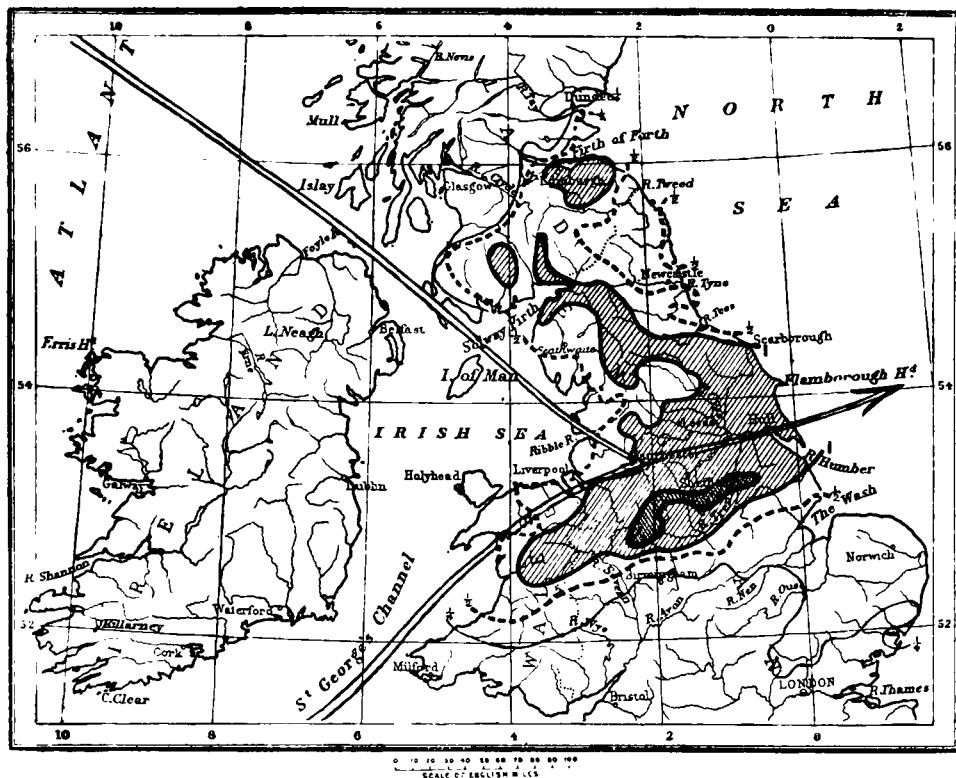
XII.	New Galloway (Craigenallie).....	3·02 in. or	4·0 per cent.
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### August 17th.

One of the wet days of the year, about 220 stations, chiefly in the Midlands and Yorkshire, having their M. The rainfall exceeded one inch over a triangular area with the apex about Plynlimon and the base extending along the east coast from Sutton-on-Sea, in Lincolnshire, to near Whitby; and a less regular belt of high rainfall ran northward into Scotland. The wettest part, with falls exceeding two inches, stretched from Staffordshire through Derbyshire and Nottinghamshire to the borders of Lincolnshire. Ireland and the whole of Scotland north of the Firths of Forth and Clyde were practically rainless. The track of two shallow depressions which crossed our islands on this day are shown as represented on the Meteorological Office maps. On this occasion, and it is only the second in our experience, the greater amount of rainfall seems to have been deposited on the right-hand side of the track. Judging by the distribution of rain alone, we should have expected to find the track of the depression coming from the south to have been

some 40 miles south of the position in which it is shown ; but the apparent exception in this case illustrates the importance of studying a large number of cases before formulating a general rule.

AUGUST 17TH, 1904.



The areas as measured were—

	Area, sq. miles.	Average Rain, in.	Volume of Rain, sq. miles x in.
Over 2 inches .....	794	2·3	1826
1—2   ,,   .....	12638	(1·4)	17463
	<u>13,432</u>		<u>19,289</u>

Thus over the 13,400 square miles with more than an inch of rain the average fall was 1·44 in.

VI.	Newport (Agricultural College) .....	1·90 in. or	8·4 per cent.
„	Eccleshall (Walton Hall) .....	2·20 „	8·6 „
„	Market Drayton (Old Springs).....	2·42 „	9·7 „
„	Longton (The Meir) .....	2·25 „	9·1 „
„	Stoke (Hartshill).....	2·12 „	7·8 „
„	Knypersley [Congleton].....	2·40 „	8·0 „
VII.	Lincoln (Boultham) .....	1·67 „	7·6 „
„	„ (Doddington Rectory) .....	1·65 „	8·4 „
„	„ (Skellingthorpe Hall).....	1·74 „	8·6 „
„	„ (D'Isney Place) .....	1·58 „	7·8 „

VII.	Scampton House.....	1·95 in. or	9·9 per cent.
„	Aisthorpe Hall .....	1·77 „	7·8 „
„	Annesley (Selston W.W.).....	1·87 „	9·1 „
„	Sutton-in-Ashfield W.W.....	2·02 „	9·0 „
„	Mansfield (W.W., Rainworth) .....	1·86 „	8·1 „
„	„ .....	2·31 „	9·1 „
„	South Scarle .....	1·32 „	7·7 „
„	Ollerton (Boughton W.W.) .....	2·46 „	10·0 „
„	„ (Thoresby Gardens) .....	2·14 „	8·8 „
„	Worksop (Welbeck Gardens) .....	1·80 „	7·5 „
„	„ (Osberton Gardens) .....	1·60 „	7·7 „
„	Belper (Quarry Bank) .....	1·93 „	7·9 „
„	„ (Highfield) .....	1·90 „	7·9 „
„	Codnor (Cross Hill) .....	1·89 „	8·1 „
„	Whatstandwell (Pumping Station).....	1·95 „	7·7 „
„	Stretton (Lindway Reservoir) .....	2·35 „	11·4 „
„	Chesterfield (Gas Works) .....	1·83 „	7·8 „
„	„ (Tapton Grove).....	1·82 „	7·6 „
IX.	Doncaster (Firsby Reservoir) .....	1·72 „	7·6 „
„	Pattrington (Spurn Head) .....	1·30 „	7·6 „
„	Wetwang .....	1·41 „	7·6 „

## August 22nd.

About 100 stations scattered over all parts of England had their **M** in a series of thunderstorms, which commenced on the previous day, and continued into the next, associated with a depression which passed eastward across the south of Ireland and of England. None of the falls were heavy enough to claim attention in themselves; but as it was a dry year a good many appear with substantial percentages.

III.	Wellingborough (Swanspool) .....	1·80 in. or	7·9 per cent.
„	„ (Croyland Abbey).....	1·75 „	8·2 „
„	Ravensthorpe (Coton Mill) .....	1·85 „	8·0 „
„	Naseby Reservoir .....	1·75 „	7·6 „
„	Rockingham Castle.....	1·80 „	7·8 „
IV.	Danbury Rectory .....	2·10 „	10·7 „
„	Chelmsford (Springfield Place) .....	1·74 „	8·7 „
„	Witham (Terling Vicarage) .....	2·00 „	10·0 „
„	Great Leighs (Hole Farm) .....	1·73 „	8·8 „
„	„ (Lyons Hall) .....	1·86 „	9·2 „
VII.	Kibworth Beauchamp .....	2·42 „	11·8 „
„	Newton Harcourt .....	2·09 „	11·3 „
„	Blaby.....	2·12 „	10·2 „
„	Glen Parva (S. Wigston Sewage Farm)...	1·71 „	8·5 „
„	Leicester (Town Hall Square) .....	2·17 „	11·4 „
„	Humberstone Asylum .....	2·30 „	10·1 „
„	Thornton Reservoir .....	2·11 „	8·6 „
„	Thurcaston Rectory .....	2·08 „	9·5 „
„	Swithland (The Brand).....	1·85 „	7·7 „
„	Thornton Curtis .....	1·80 „	7·8 „
IX.	Hemsworth Hall.....	2·13 „	9·3 „
X.	Fence Houses (Chilton Moor) .....	1·62 „	7·8 „
„	Sunderland (Cleadow Pumping Station)...	1·86 „	8·8 „

**August 30th.**

About twenty stations, chiefly in Ireland, recorded their **M**. Only one claims notice ; it, however, is a substantial amount.

XXI. Timolin Vicarage ..... 3·65 in. or 10·9 per cent.

**August 31st.**

A moderately heavy rain, rarely exceeding a total fall of an inch and a half, brought their modest **M** to about 150 stations, mainly in the south-east of England, and a tenth of these have just crept into prominence because the year was dry.

III.	Stamford (Collyweston Road) .....	1·64 in. or	8·1 per cent.
„	Burwell.....	1·33 „	7·8 „
„	Soham ..	1·35 „	7·6 „
„	Wisbech (Monica Road) .....	1·32 „	7·5 „
IV.	Haverhill (Great Thurlow) .....	1·44 „	7·6 „
„	Little Saxham.....	1·46 „	7·5 „
„	Bury St. Edmunds (Fornham St. Martin)	1·46 „	8·1 „
„	„ „ „ (Hengrave) .....	1·70 „	9·3 „
„	Elveden Hall .....	1·58 „	7·9 „
„	Santon [Brandon] .....	1·72 „	7·8 „
„	Stoke Ferry (Wereham) .....	1·94 „	8·0 „
„	Stalham (East Ruston Grange) .....	1·62 „	8·2 „
„	Holt .....	1·67 „	7·6 „
„	Cromer (Northrepps Hall) .....	1·85 „	8·0 „
VII.	Boston (Grand Sluice) .....	1·41 „	7·5 „

**September 4th.**

A few stations in the west Highlands had their **M**, of which one has to be cited.

XV. Kingairloch ..... 2·95 in. or 2·5 per cent.

**September 5th.**

Half-a-dozen **M** were reported from Perthshire, one only being noteworthy.

XVI. Lochearnhead (Ardvorlich) ..... 2·57 in. or 3·9 per cent.

**September 11th.**

An isolated fall in the south-west of Ireland.

XX. Kenmare (Derreen)..... 2·50 in. or 3·2 per cent.

**October 2nd.**

Some twenty stations in the Channel Islands and the extreme south of England had their **M**. The rain was memorable in Guernsey, where, at St. Martin's, it had never been equalled before in a record extending over 39 years ; but there are only three instances to quote.

XI.	St. Helier (St. Louis Observatory).....	2·63 in. or	7·8 per cent.
„	St. Peter Port (Fort Road) .....	2·72 „	7·2 „
„	Cobo ..	2·59 „	7·7 „

## October 16th.

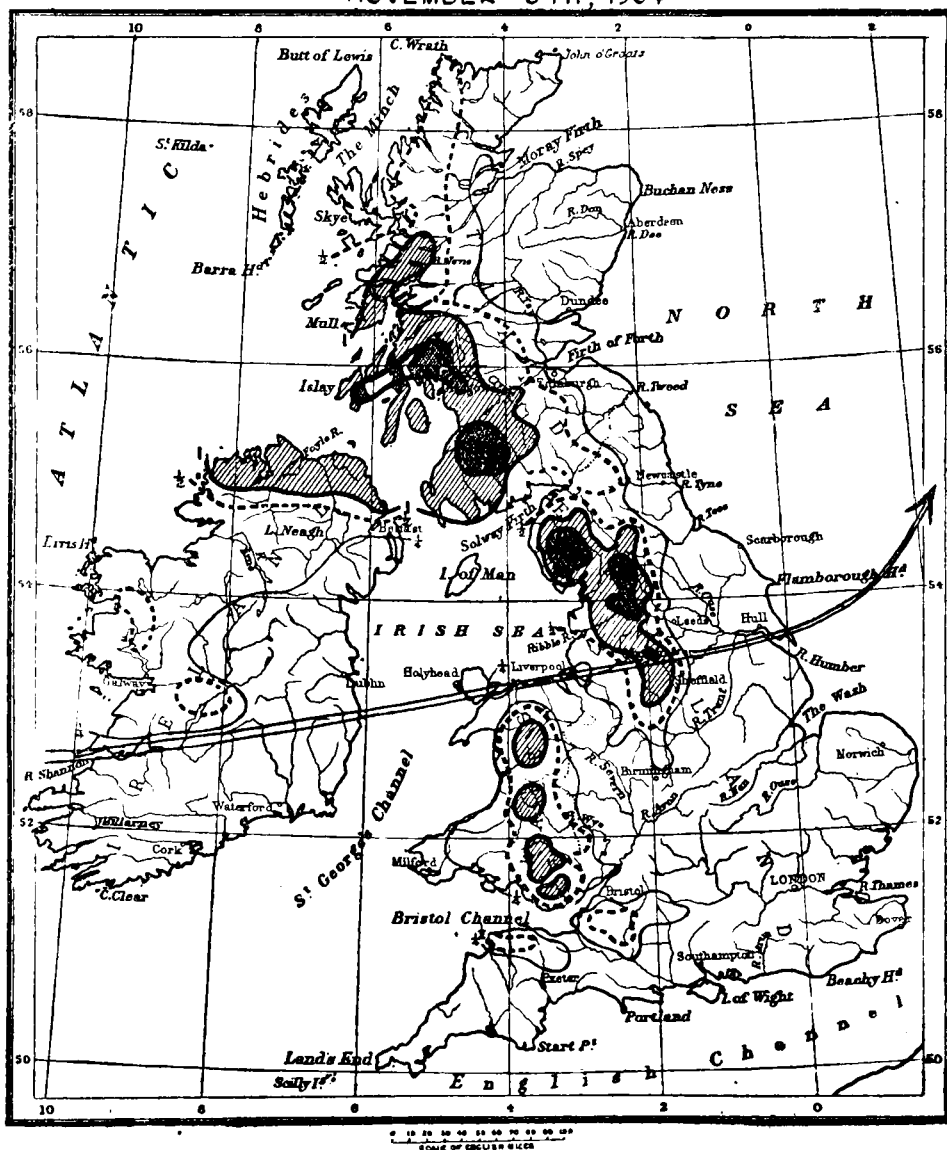
The M was recorded at about 120 stations, chiefly in the west of England, Wales and Ireland. Except for the fall at Seathwaite there was nothing remarkable as to amount, and only three stations call for notice.

X.	Borrowdale (Seathwaite) .....	4.03 in. or	3.1 per cent.
XI.	Llantrisant (Talygarn) .....	2.91 „	4.8 „
„	Llwynypia (Glyncornel) .....	2.58 „	3.0 „

## November 8th.

A typical winter cyclonic rain brought M to about 160 stations in the north of England, west of Scotland and north of Ireland,

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all lying to the left of the track of the centre of the depression which crossed England from the Mersey to the Humber. Wales also showed some high falls. The distribution of rainfall was sufficiently interesting to justify the preparation of a map. The heaviest falls of the year occurred in the Lake District, where two stations measured the very large amounts of 5·58 in. and 5·62 in. respectively in the twenty-four hours. These are the largest daily amounts which we have to record for 1904.

Though not so wide-spread as the thunderstorm rains of July 25th, the rain on this occasion was rather heavier, and it ranks as the second heavy fall of the year.

The areas as measured are as follows :—

	Area, sq. miles.	Average Rain, in.	Volume of Rain, sq. miles x in.
Over 4 inches .....	36	4·5	162
3—4 „ .....	297	(3·5)	1,033
2—3 „ .....	1,296	(2·5)	3,199
1—2 „ .....	1,2357	(1·5)	18,310
Total .....	13,986		22,704

Thus over about 14,000 square miles where the rainfall in the twenty-four hours exceeded one inch, the day's rain averaged 1·62 in., the greatest intensity observed in the nine cases that were mapped and fully studied.

VIII.	Skelwith Fold [Ambleside] .....	4·00 in. or	4·9 per cent.
IX.	Slaidburn (Brennand) .....	2·64 „	4·1 „
„	„ (Whitendale).....	3·32 „	5·3 „
„	Arncliffe Vicarage .....	3·10 „	5·5 „
„	Wharfedale (Oughtershaw Hall).....	3·00 „	4·6 „
X.	Ambleside (Skelwith Bridge) .....	5·62 „	6·0 „
„	„ (Gale House) .....	3·07 „	4·3 „
„	Elterwater Hall .....	5·58 „	6·3 „
„	Rydal (The Stepping Stones) .....	2·88 „	3·6 „
„	Loughrigg (Silverthwaite).....	3·24 „	4·7 „
X.	Dungeon Ghyll .....	3·95 „	3·8 „
„	Grasmere (High Close) .....	3·40 „	4·1 „
„	„ (The Wray) .....	3·40 „	3·8 „
XII.	Dalry (The Old Garroch) .....	2·84 „	4·7 „
„	„ (Clenerie) .....	3·96 „	5·2 „
„	Carsphairn (Shiel) .....	3·26 „	4·7 „
„	Dunoon (Redhurst).....	2·72 „	3·3 „
„	„ (Reservoir) .....	2·70 „	3·3 „

#### November 21st.

Another typical winter rain brought the M to about a dozen stations in the north-east of England. Only one fall exceeded 2·00 in., and that has to be placed on record only because of the high percentage.

X.	Morpeth .....	2·15 in. or	8·4 per cent.
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**December 16th.**

Half-a-dozen stations in the Lake District had their *M*, one of which was comparatively a large fall.

X. Borrowdale (Grange) ... 3·25 in. or 3·9 per cent.

**December 30th.**

Like the 29th, the penultimate day of the year was wet in the west of Scotland, and one station happened to have a fall slightly exceeding the appointed limits.

XVIII. Glenquoich ..... 2·80 in. or 2·3 per cent.

**Part II.—Abstract.**

Following precedent, we give in Table I. the sixteen highest maximum daily falls of the year, one-half of them resulting from the heavy cyclonic rain of November 8th in the Lake District, Yorkshire and Galloway. Three of the others are due to the local downpour near Huddersfield on July 24th. Seathwaite, it will be observed, takes the third place, and with the suppression of the Ben Nevis Observatory, there is no representation of the West Highlands.

Table II. (which for typographical reasons follows Table III.) compares the sixteen highest falls in 1904 with those of earlier years, and it will be observed that both the mean of the highest sixteen and the absolute highest are slightly above the average. For the fourth time in forty years the highest fall for the year was observed at a station in the Lake District which was not Seathwaite.

Table III. presents the sixteen highest percentages, throwing into prominence the heaviest falls in dry districts in the same way as Table I. distinguishes the heaviest falls in wet districts. Here the July thunderstorms have it all their own way, May 27th, August 17th and 22nd being the only other days represented. Three stations are common to Tables I. and II., of which the most remarkable is Leamington, with 15·8 per cent. and 3·48 in. This station actually recorded between one-sixth and one-seventh of the total annual rainfall (say two months' supply) in a single day. We have inquired carefully into the circumstances and can find no reason for doubting the accuracy of the record.

Table IV. compares the highest percentages with those of earlier years, from which it seems that 1904, though a dry year, was con-

siderably above the average in the matter of heavy falls in dry districts.

In Table V. we have an instructive historical vista. It traces the progress of our work from the time, forty years ago, when only 481 records were available for the study of *M*, down to 1904, when 3093, or 157 more than ever before, were utilized. One result of this rapid increase of records, most of which come from the drier parts of the country, is that the means are becoming less and less representative of the true average condition of the British Isles. Still they suffice to indicate, even if they do not accurately measure, the fluctuations which occur from year to year. It thus appears that the mean of all the *M* for 1904 was very close to the average, slightly above it in percentage, decidedly below it in amount, which means that the year was exceptionally dry. The dryness of the year is indicated (though at the risk of tedium we repeat not measured) by the average of the fall at all stations, coming out roughly 4 inches or 12 per cent. below the average of all stations for 40 years. Another section deals more fully with this matter.

Table VI. shows the frequency of heavy falls, though two points must be kept in view in interpreting it. One is that it deals only with *M* exceeding 2 or 3 inches respectively, *i.e.*, with only one fall in the year at each station; the other is that, although here the comparison only dates from 1882, the increase of the number of stations has been so rapid as to deprive the columns headed "Number" of much of their value. Taking everything into account, the year 1904 was exceptionally deficient in heavy falls. The total number of *M* above 2·00 in. was 41 less than the average, and the percentage of the whole number was only 8·0, a figure which would be the lowest in the list but for 1902 with 5·8, and the phenomenally dry year 1887 with only 2·7. From the percentage column, the value of which for comparison is unimpaired, we see that 1904 had only two-thirds of the number of *M* exceeding 2·00 in., which might be expected, while it had just half the average number of *M* exceeding 3·00 in.

This indicates that the year was remarkably deficient in high falls, as well as low in average fall.

TABLE I.—*Maximum Falls in 1904.*

Date.	Div.	Station.	Depth.	Per Cent.	Total.
Nov. 8 ...	X.	Ambleside, Skelwith Bridge	5·62 in.	6·0	94·25 in.
" " ...	"	Elterwater Hall .....	5·58 "	6·3	88·77 "
July 24 ...	IX.	Huddersfield, Bank Field, Golcar	4·85 "	12·4	39·30 "
Oct. 16 ...	X.	Borrowdale, Seathwaite ...	4·03 "	3·1	128·81 "
Nov. 8 ...	VIII.	Skelwith Fold [Ambleside].	4·00 "	4·9	81·43 "
July 24 ...	IX.	Slaithwaite, Inglewood .....	3·97 "	9·5	41·94 "
Nov. 8 ...	XII.	Dalry, Clenerie .....	3·96 "	5·2	75·80 "
" " ...	X.	Dungeon Ghyll .....	3·95 "	3·8	103·94 "
Mar. 28 ...	"	Buttermere, Hassness .....	3·90 "	3·6	107·94 "
July 24 ...	IX.	Huddersfield Cemetery.....	3·80 "	10·9	34·80 "
Aug. 30 ...	XXI.	Timolin Vicarage .....	3·65 "	10·9	33·59 "
July 25 ...	VI.	Leamington, Binswood Avenue	3·48 "	15·8	21·97 "
Nov. 8 ...	X.	Grasmere, High Close .....	3·40 "	4·1	83·05 "
" " ...	"	" The Wray .....	3·40 "	3·8	88·83 "
May 27 ...	VI.	Long Compton, Weston Park	3·34 "	13·3	25·20 "
Nov. 8 ...	IX.	Slaidburn, Whitendale .....	3·32 "	5·3	62·31 "

TABLE III.—*Maximum Percentages in 1904.*

Date.	Div.	Station.	Per cent.	Fall.	Total.
July 25 ...	VI.	Leamington, Binswood Avenue	15·8	3·48 in.	21·97 in.
" " ...	"	Barnt Green, Upwood .....	14·1	2·91 "	20·68 "
May 27 ...	"	Long Compton, Weston Park	13·3	3·34 "	25·20 "
July 25 ...	III.	Daventry, Fawsley.....	13·2	3·08 "	23·36 "
" " ...	VI.	Pontesbury, Somerville.....	12·9	2·86 "	22·23 "
" 24 ...	IX.	Huddersfield, Bank Field, Golcar	12·4	4·85 "	39·30 "
" 25 ...	III.	Hitchin, The Chilterns .....	12·4	2·71 "	21·86 "
" " ...	"	" Wratten .....	12·1	2·62 "	21·65 "
" " ...	VI.	Netherton, Lodge Farm Res.	11·9	2·50 "	21·03 "
" " ...	III.	Hitchin, The Maples .....	11·9	2·48 "	20·89 "
Aug. 22 ...	VII.	Kibworth, Beauchamp .....	11·8	2·42 "	20·59 "
July 25 ...	III.	Daventry, Welton .....	11·7	2·65 "	22·71 "
" " ...	"	Hitchin, High Down .....	11·7	2·52 "	21·60 "
" 27 ...	IV.	Fritton [Yarmouth] .....	11·5	2·62 "	22·70 "
" 25 ...	VI.	Alcester, Ragley Hall .....	11·4	2·45 "	21·46 "
Aug. 17 ...	VII.	Stretton, Lindway Reservoir	11·4	2·35 "	20·66 "

TABLE II.—*Comparison of Maximum Falls with those in previous years.*

MEAN OF 16 HIGHEST.				ABSOLUTE HIGHEST.			
Years.	Depth.	Per Cent.	Mean total fall at these stations.	Depth.	Per Cent.	Station.	Division.
	in.		in.	in.			
1865 ...	3·67	6·4	61·8	6·41	5·5	Seathwaite.....	X.
1866 ...	3·40	m 4·4	86·2	6·38	3·6	.....	..
1867 ...	3·17	9·0	m 42·5	4·78	17·7	Hartlip .....	II.
1868 ...	3·32	6·1	65·9	5·60	4·8	Camusinas.....	XV.
1869 ...	3·68	5·0	77·7	6·70	4·5	Seathwaite.....	X.
1870 ...	3·20	7·5	43·8	6·00	17·1	Tongue .....	XIX.
1871 ...	3·08	5·7	61·6	4·24	9·6	Melbury.....	V.
1872 ...	4·10	6·6	73·1	5·82	3·2	Seathwaite.....	X.
1873 ...	2·97	6·2	60·7	4·20	m 2·9	.....	..
1874 ...	3·96	4·6	86·5	5·32	4·4	Bryn Gwynant .....	XI.
1875 ...	4·52	7·8	63·9	5·33	9·7	Newport W. W. ...	..
1876 ...	3·37	5·9	57·6	4·50	5·5	Foffany .....	XXIII.
1877 ...	3·77	4·6	93·4	4·98	5·3	Skye, Portree.....	XVIII.
1878 ...	3·57	7·4	57·2	4·24	8·6	Springfield .....	XI.
1879 ...	3·66	9·5	50·4	m 4·05	4·1	Little Langdale.....	X.
1880 ...	3·50	7·7	51·1	4·75	3·9	Seathwaite.....	..
1881 ...	3·65	4·9	83·1	5·42	4·7	Sligachan .....	XVIII.
1882 ...	3·28	4·5	84·3	4·51	3·0	Seathwaite .....	X.
1883 ...	3·69	6·1	72·4	5·27	9·0	Glen-na-Smoel .....	XXI.
1884 ...	3·45	4·7	80·7	6·78	5·0	Seathwaite .....	X.
1885 ...	3·45	5·8	68·2	4·62	3·2	.....	..
1886 ...	3·77	7·7	58·7	4·20	9·9	Little Bredy .....	V.
1887 ...	m 2·83	6·1	56·8	4·93	13·0	Galway Queen's Coll.	XXII.
1888 ...	4·20	5·9	77·0	5·20	5·4	Wythburn Vic.....	X.
1889 ...	3·89	M 9·9	49·2	4·45	16·5	N. Ockendon.....	IV.
1890 ...	5·01	6·9	95·1	7·29	3·7	Ben Nevis Obs.....	XVIII.
1891 ...	4·38	4·7	M 108·4	6·14	4·2	Seathwaite.....	X.
1892 ...	4·47	7·9	70·1	5·80	4·5	.....	..
1893 ...	3·84	5·8	89·6	4·96	3·5	.....	..
1894 ...	3·95	5·7	83·0	7·74	5·1	Ben Nevis Obs.....	XVIII.
1895 ...	3·80	7·2	62·2	4·83	16·1	Mellington Hall ...	XI.
1896 ...	3·31	5·9	67·5	4·59	3·7	Seathwaite .....	X.
1897 ...	M 5·24	5·3	95·1	M 8·03	5·6	.....	..
1898 ...	4·61	5·3	100·8	6·70	M 18·1	Angerton Hall.....	..
1899 ...	3·92	5·0	86·6	5·21	5·6	Borrowdale, Grange	..
1900 ...	4·29	8·0	64·1	5·40	11·9	Ilkley, Cherry Bank	IX.
1901 ...	4·21	M 9·9	53·5	5·66	5·7	Dungeon Ghyll ...	X.
1902 ...	3·79	7·9	59·4	5·92	3·8	Ben Nevis Obs. ..	XVIII.
1903 ...	4·13	7·2	84·7	4·78	2·2	.....	..
Mean ...	3·80	6·5	71·4	5·43	7·0	.....	..
1904 ...	4·02	7·4	69·5	5·62	6·0	Skelwith Bridge ...	X.
Diff. ...	+ ·22	+ ·9	— 1·9	+ ·19	— 1·0	.....	..

TABLE IV.—*Comparison of Max. Percentages with those in previous years.*

MEAN OF 16 HIGHEST.				ABSOLUTE HIGHEST.			
Years.	Per Cent.	Depth.	Mean total fall at these Stations.	Per Cent.	Depth.	Station.	Division.
		in.	in.		in.		
1865 ..	9·9	2·62	28·4	13·0	4·40	Fleckney.....	VII.
1866 ...	8·1	2·31	29·3	10·0	2·48	Burton .....	VI.
1867 ...	11·0	2·85	25·3	17·7	4·78	Hartlip .....	II.
1868 ...	8·6	2·55	30·1	11·0	4·00	Tongue .....	XIX.
1869 ...	7·9	2·17	27·9	10·0	3·40	Tillydesk .....	XVII.
1870 ...	10·0	2·34	22·9	17·1	6·00	Tongue ...	XIX.
1871 ...	9·0	2·43	26·8	11·5	3·62	Warter .....	IX.
1872 ...	8·1	3·43	M 42·5	10·0	3·70	Hillington Hall.....	IV.
1873 ...	9·7	2·39	24·7	11·8	2·77	Oscott .....	VI.
1874 ...	9·2	2·16	23·7	11·9	2·50	Welwyn .....	III.
1875 ...	10·2	M 3·76	37·5	13·2	3·95	Letheringsett.....	IV.
1876 ...	m 7·4	2·49	33·7	m 8·5	3·70	Cragside .....	X.
1877 ...	8·2	2·73	33·1	9·3	3·09	Wellington.....	VI.
1878 ...	10·2	3·05	30·0	11·8	3·90	Haverstock Hill.....	I.
1879 ...	10·9	3·31	30·5	12·3	3·80	Cambridge M. V. ....	III.
1880 ...	9·5	3·06	32·3	11·7	3·34	Marmont Priory L. ...	„
1881 ...	8·1	2·42	30·3	10·6	3·20	Aboyne Castle.....	XVII.
1882 ...	7·7	2·54	33·4	9·1	2·80	Bothalhaugh .....	X.
1883 ...	9·7	3·00	31·1	12·3	4·31	Skegness.....	VII.
1884 ...	11·7	2·33	m 20·0	13·8	2·66	Diss (Thelveton) .....	IV.
1885 ...	8·9	2·71	30·7	9·6	2·62	Beccles, Ellough .....	„
1886 ...	10·1	3·32	32·7	11·5	4·10	Methley Park.....	IX.
1887 ...	9·5	m 2·11	21·9	13·0	4·93	Galway, Queen's Coll...	XXII.
1888 ...	10·9	3·05	28·3	11·8	3·24	Rothamstead .....	III.
1889 ...	12·7	3·51	27·8	16·5	4·45	N. Ockendon.....	IV.
1890 ...	M 14·4	3·60	25·1	17·2	3·68	Slough, Langley.....	III.
1891 ...	9·7	2·67	27·6	14·4	4·00	Sunnyside Asylum ...	XVI.
1892 ...	12·3	3·37	27·4	15·0	4·27	Tyntesfield .....	V.
1893 ...	12·0	2·81	23·4	16·2	4·48	Cranmer Hall.....	IV.
1894 ...	9·0	2·54	28·3	11·1	3·56	Sidcup.....	II.
1895 ...	10·0	2·87	28·8	16·1	4·83	Mellington Hall.....	XI.
1896 ...	9·5	2·50	26·3	11·1	2·78	Barkby .....	VII.
1897 ...	10·8	2·48	23·2	14·1	m 2·40	Chatteris, H. L.....	III.
1898 ...	11·5	2·92	25·0	M 18·1	M 6·70	Angerton Hall.....	X.
1899 ...	11·3	2·53	22·6	14·6	3·10	Wallingford .....	II.
1900 ...	11·3	3·37	29·8	13·1	4·50	Gilstead Filters.....	IX.
1901 ...	14·1	3·37	24·0	17·9	4·24	Maidenhead, The Firs	II.
1902 ...	12·7	2·90	22·8	15·5	3·51	Esher Sewage Works.	„
1903 ..	10·6	M 3·76	35·6	12·8	4·41	Dartford, West Hill House	„
Mean ..	10·2	2·83	28·3	13·0	3·80	.....	...
1904 ...	12·5	2·87	23·0	15·8	3·48	Leamington, Binswood Av.	VI.
Diff. ...	+ 2·3	+ ·04	— 5·3	+ 2·8	— ·32	.. ..	..

TABLE V.—*Comparison of the Mean of all the Maximum Falls of 1904 with similar data for previous years.*

Years.	Number of Returns.	Mean Percentage.	Mean Amount.	Mean Total Fall in year.	Ratio taking 34=100.	Total Fall being assumed =34in. Mean Max. =
			in.	in.		
1865.....	481	5·1	1·70	33	97	5·0 per cent
1866 .....	590	3·7	1·48	40	118	4·4 „
1867.....	584	4·6	1·44	31	91	4·2 „
1868.....	676	4·3	1·43	33	97	4·2 „
1869.....	637	4·2	1·42	34	100	4·2 „
1870.....	687	4·9	1·30	27	79	3·8 „
1871.....	752	4·9	1·49	30	88	4·4 „
1872.....	743	<i>m</i> 3·4	1·59	<i>M</i> 47	<i>M</i> 138	4·7 „
1873.....	809	4·6	1·35	29	85	4·0 „
1874... ..	1010	4·4	1·41	32	94	4·1 „
1875... ..	1081	5·0	<i>M</i> 1·83	37	109	<i>M</i> 5·4 „
1876.. ...	1112	3·9	1·49	38	112	4·4 „
1877.....	1180	3·8	1·56	41	121	4·6 „
1878.....	1186	4·3	1·49	35	103	4·4 „
1879.....	978	4·2	1·52	36	106	4·5 „
1880.....	1117	4·8	1·72	36	106	5·1 „
1881.....	1194	4·1	1·45	35	103	4·3 „
1882.....	1463	3·6	1·42	39	115	4·2 „
1883.. ...	1505	4·0	1·41	35	103	4·1 „
1884.....	1691	4·8	1·32	28	82	3·9 „
1885.....	1801	4·5	1·41	31	91	4·2 „
1886.....	1718	4·6	1·64	35	103	4·8 „
1887.....	1921	4·5	<i>m</i> 1·14	<i>m</i> 25	<i>m</i> 74	<i>m</i> 3·4 „
1888.....	1974	4·4	1·41	32	94	4·1 „
1889.....	1812	4·8	1·41	29	85	4·1 „
1890.....	2081	5·0	1·46	29	85	4·3 „
1891.....	2218	4·1	1·47	35	103	4·3 „
1892.....	2231	5·4	1·62	30	88	4·8 „
1893.....	2267	4·8	1·30	27	79	3·8 „
1894.....	2321	4·2	1·46	35	103	4·3 „
1895.....	2423	4·5	1·37	30	88	4·0 „
1896.....	2465	4·4	1·33	30	88	3·9 „
1897.....	2598	4·1	1·36	33	97	4·0 „
1898.....	2691	5·0	1·42	28	82	4·2 „
1899.....	2791	4·7	1·42	30	88	4·2 „
1900.....	2702	4·6	1·61	35	103	4·7 „
1901.....	2747	<i>M</i> 5·7	1·58	28	82	4·6 „
1902.....	2832	4·4	1·20	27	79	3·5 „
1903.....	2936	4·0	1·67	41	121	4·9 „
Mean ...	1641	4·5	1·46	33	97	4·3 „
1904.....	3093	4·6	1·31	29	85	3·9 „
Diff.....	+1452	+ ·1	— ·15	— 4	—12	— ·4 „

TABLE VI.—*Max. Falls in each year exceeding 2·00 in., and exceeding 3·00 in.*

Year.	Total number of records.	Falls of 2·00 in. or more.		Falls of 3·00 in. or more.	
		Number.	Per cent. of total No.	Number.	Per cent. of total No.
1882	1463	140	9·6	8	0·6
3	1505	170	11·3	23	1·5
4	1691	138	8·2	9	0·5
5	1801	179	10·0	24	1·3
6	1718	158	9·2	44	2·6
7	1921	52	m 2·7	4	m 0·2
8	1974	374	18·9	34	1·7
9	1812	170	9·4	24	1·3
1890	2081	345	16·6	54	2·6
1	2218	270	12·2	39	1·8
2	2231	470	21·1	81	M 3·6
3	2267	183	8·1	29	1·3
4	2321	313	13·5	36	1·6
5	2423	249	10·3	31	1·3
6	2465	249	10·1	16	0·6
7	2598	275	10·6	62	2·4
8	2691	373	13·9	72	2·7
9	2791	283	10·0	43	1·5
1900	2702	641	M 23·7	89	3·3
1	2747	497	18·1	68	2·5
2	2832	163	5·8	30	1·1
3	2936	625	21·3	83	2·8
Mean	2236	287	12·5	41	1·8
1904	3093	246	8·0	29	0·9
Diff.	+857	-41	- 4·5	-12	-0·9

## DROUGHTS IN 1904.

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FOR an unusually dry year the distribution of rain in time was remarkably uniform, so that, notwithstanding the low rainfall, the comparatively large number of rainy days made droughts few and far between. In considering this matter the definitions of droughts must be remembered, and although these definitions are quite arbitrary, experience has shown them to be serviceable and convenient. They run :—

AN ABSOLUTE DROUGHT is a period of *more than* 14 consecutive days no one of which is a rainy day.

A PARTIAL DROUGHT is a period of more than 28 consecutive days the average rainfall of which does not exceed  $\cdot 01$  in. per day.

We have slightly altered the wording of the first definition in order to avoid an ambiguity of expression. It has hitherto referred to “fourteen consecutive days without measurable rain,” and by measurable rain was meant any quantity which would be recorded as  $\cdot 01$  in. or over. Much smaller quantities are, as a matter of fact, measurable, and are measured by observers who read to thousandths of an inch; but such minute fractions are not taken into account. By the new wording the old meaning is made unmistakable, for the definition of a rainy day has now been driven well home into the minds of all ordinary observers as a day on which  $\cdot 01$  in. of rain or more is recorded, and  $\cdot 01$  in. is recorded if the amount measured exceeds half a hundredth of an inch even if it fails to reach the mark of  $\cdot 01$ .

The same selection of stations is employed as was used last year (with a few necessary substitutions) for the discussion of droughts, rainy spells, intensity of rainfall and number of rainy days. They number 73 and are distributed uniformly over the British Isles. The



names of all are given later in the Table of intensities. The arrangement has been criticised by some of our correspondents, who suggest that a different set of stations should be used for droughts and rainy spells because some parts of the country have more of the former and other parts more of the latter. This is precisely the reason why an impartial and uniform distribution of stations is used for both purposes, because the main object of these sections is not to study droughts as droughts, or rainy spells as rainy spells, but to study the relation between droughts and rainy spells and the natural history of the rainfall as a whole in all parts of the country alike.

It is by no means easy to make a satisfactory selection, for every station which gives a perfectly accurate record of the total annual or even of the total monthly rainfall is not to be trusted for the individual daily falls. It would surprise a careful and methodical observer to know how many daily records which at first sight appear excellent are deficient in days of small amount. We know that many of these records are kept by observers who mean to be accurate and who honestly believe that they are accurate, but who do not think it necessary to examine the rain gauge on days when they know there has been no rain. We would impress on such observers the fact that no one who has had a good night's rest ever does know in the morning that there has been no rain, or dew heavy enough to be measured as rain. From the point of view of the measurer dew is rain, because from the point of view of the farmer, gardener, or water engineer every hundredth of an inch of dew in a rain gauge means at least a ton of water deposited on every acre of land.

The 73 stations reported 9 absolute droughts and 13 partial droughts, as compared with 11 absolute and 16 partial droughts in the excessively wet year 1903.

Six of the cases of absolute droughts occurred in the month of July, from the 3rd or 4th to the 18th or 21st. This drought extended over most of the south-eastern corner of England, within a line drawn from Swanage to Oxford and thence to Yarmouth; but the margin of the Thames estuary as far west as London and the counties of Surrey and Kent seem to have escaped it.

One case of absolute drought occurred in early June at Aberdeen, one in late October at Morpeth, and one in the end of December at Brighton. All of these seem to have affected small areas only. Brighton was the only station out of the 73 reporting two absolute

droughts in the year. At 65 stations no absolute drought was recorded.

The number of cases of partial drought reported was 13 from 12 stations, only one of which, Hodsock Priory, had two to record; and 61 stations out of the 73 had no partial drought; 58 of the stations had no drought, either absolute or partial, in the year. Five of the stations which had an absolute drought reported a partial drought also, including the same period.

Eight of the cases of partial drought occurred in June and July, and they were all reported from the south-eastern half of England, Hodsock Priory, Worksop, being the most northerly point to which this partial drought extended. The other five instances of partial drought occurred in October and November, and they were all reported from stations near the east coast of Great Britain, the most southerly being Hodsock Priory (the only place reporting two absolute droughts in the year) and the most northerly Forfar.

No station to the west of the meridian of  $3^{\circ}$ W., except Edinburgh, reported a drought of any kind; Wales and Ireland in particular had none. This is shown clearly in the maps given in the next section.

It is unnecessary to waste four pages on the names of the 58 stations where there were no droughts, but all those reporting a drought are given in the usual form.

From 1888 to 1902 the number of stations studied for droughts was only 50, and in order to admit of comparison with the past we have reduced the number of instances of drought at 73 stations to their equivalent at 50. The result is equal to 6 absolute and 9 partial droughts, both values much below the average, and the number of absolute droughts is the smallest except in 1902, when there were only 5; the number of partial droughts has, however, been as small or smaller on six previous occasions. The summary table shows that the average duration of the absolute droughts in 1904 was 2 days less than the mean, and that of the partial droughts 3 days less; and a much greater falling off in the length of the longest droughts has to be noticed.

*Droughts in 1904.*

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Last- ed.	Began.	Ended.	Last- ed.	Amount.
			Days			Days	in.
<b>ENGLAND &amp; WALES.</b>							
St. Pancras (Camden Square) ... <i>London.</i>	None			June 26	July 24	29	·27
Brighton (Old Steyne)..... <i>Sussex, East.</i>	July 4 Dec. 15	July 18 Dec. 29	15 15	June 16	July 24	39	·39
Basingstoke (Sherborne St. John) <i>Hampshire.</i>	July 4	July 19	16	None			
Oxford (Magdalen College) ..... <i>Oxfordshire.</i>	July 4	July 18	15	June 15	July 24	40	·31
Blisworth (Crieff House)..... <i>Northamptonshire.</i>	None			June 15	July 18	34	·34
Saffron Walden ..... <i>Essex.</i>	July 4	July 18	15	None			
Geldeston [Beccles] ..... <i>Norfolk.</i>	July 4	July 21	18	June 15	July 23	39	·31
Swanage (Royal Victoria Hotel). <i>Dorsetshire.</i>	July 3	July 18	16	June 25	July 24	30	·27
Weston Park [Shifnal] ..... <i>Staffordshire.</i>	None			June 15	July 21	37	·35
Worksop (Hodsock Priory) ..... <i>Nottinghamshire.</i>	None			June 1 Oct. 1	July 11 Nov. 2	41 33	·41 ·33
Darlington (Hurworth Grange)... <i>Durham.</i>	None			Oct. 8	Nov. 5	29	·27
Morpeth (Bothalhaugh) ..... <i>Northumberland.</i>	Oct. 21	Nov. 5	16	Oct. 6	Nov. 6	32	·32
<b>SCOTLAND.</b>							
Edinburgh (Royal Observatory).. <i>Midlothian.</i>	None			Oct. 7	Nov. 7	32	·28
Forfar (Lilyfield) ..... <i>Forfar.</i>	None			Oct. 6	Nov. 6	32	·32
Aberdeen (Cranford) ..... <i>Aberdeen.</i>	May 28	June 12	16	None			

*Comparative Summary of Droughts.*

	ABSOLUTE DROUGHTS.				PARTIAL DROUGHTS.			
	No. of Droughts at 50 Stations	Duration.		Stations without one.	No. of Droughts at 50 Stations	Duration.		Stations without one.
		Average.	Greatest.			Average.	Greatest.	
		days.	days.			days.	days.	
1888	17	17	20	35	4	42	50	46
1889	42	21	30	13	38	34	45	15
1890	13	18	20	39	3	30	31	47
1891	26	18	34	28	38	36	49	14
1892	36	16	20	25	17	35	64	33
1893	39	20	44	23	53	51	114	10
1894	52	18	31	10	44	37	62	13
1895	52	19	29	16	47	39	64	19
1896	27	18	26	25	49	40	75	16
1897	20	18	20	31	7	40	61	44
1898	31	17	28	27	31	38	77	26
1899	60	21	31	10	41	35	48	20
1900	14	17	21	38	9	32	35	41
1901	56	17	20	10	9	37	56	42
1902	5	17	18	45	2	37	41	48
1903*	11	19	25	39	16	34	41	35
Mean	31	18	26	26	26	37	57	29
1904*	6	16	18	44	9	34	41	42
Diff.	-25	-2	-8	+18	-17	-3	-16	+13

\* Reduced to value for 50 stations for comparison.

# RAINY SPELLS IN 1904.

LAST year we introduced the discussion of rainy spells to these pages and put forward the following as a convenient definition—

A RAINY SPELL is a period of *more than* 14 consecutive rainy days.

We continue the discussion on the same lines, and although we have not as yet found time to carry the study of rainy spells back into past years so as to be able to compare one year with another, we are inclined to think that 1904 had more than the usual number of spells of rainy days, though they were far fewer than in 1903.

The same stations were used as in the discussion of droughts and of intensity of rainfall. They number 73 and are all given in the section on Rainy Days which follows this, only those at which at least one rainy spell occurred being quoted here.

The number of rainy spells recorded was 111 at 73 stations, compared with 203 in 1903, and none were reported from 23 stations, compared with 8 stations in 1903. The greatest number of rainy spells at any one station was 7 at Horn Head ; in 1903 three stations showed 7 and one as many as 8.

Only one rainy spell gave an average rainfall as high as .50 in. per day, while no less than 9 did so in 1903, but we may quote the six severest long spells of wet weather which occurred in 1904, two each at one station in the Lake District and two in the West Highlands.

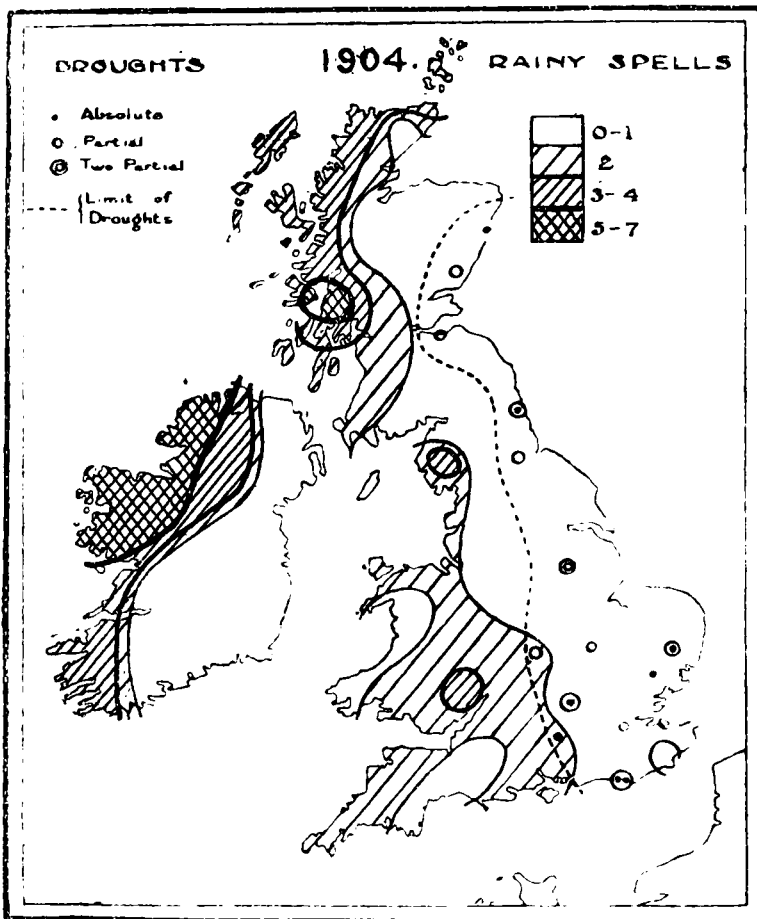
*Rainy Spells of an Average Rate of .40 in. or more per Day.*

Div.	Station.	Began.	Ended.	Lasted.	Total Fall.	Rain per day.		
						Max.	Min.	Mean.
X.	Dungeon Ghyll ...	Mar. 26	Apr. 10	16	10.44	2.55	.02	.65
"	" " " ...	Aug. 1	Aug. 18	18	8.12	1.55	.01	.45
XV.	Strontian, Laudale	Feb. 12	Feb. 26	15	6.47	1.22	.04	.43
"	" " " ...	Mar. 31	Apr. 16	17	8.19	1.80	.04	.48
XVIII.	Bendamph .....	Apr. 23	May 8	16	6.92	1.25	.01	.43
"	" " " .....	Sept. 25	Oct. 12	18	7.27	1.47	.02	.40

People speak glibly of forty days of rain, but the 73 observers whose records have been analysed could give no instance of such an

occurrence in 1904, and there were only 9 cases from the same number of stations in the exceptional year which went before.

The largest number of rainy spells was experienced in Ireland, the whole north-western part of which from Galway to Londonderry had 5 or more. Only one instance of more than 5 was reported from the stations representing Scotland, and none in England or Wales. The eastern half of England and of Ireland and the south and east of Scotland were not subjected to more than one rainy spell, and most of stations in those parts of the country had none to report. The Map shows the distribution of rainy spells and



droughts, the latter being entirely confined to the eastern half of Great Britain.

It may be remarked that no wet spells ended in June, July or September, and only one in March or October. No less than 56, or

half the total number, ended in January and February, while 19 ended in December and 12 each in April and May.

As the beginning of a table of comparison, which should grow in interest year by year, we give the figures for 1903 and 1904 arranged so as to show the characteristic features of the two years.

*Comparative Table of Rainy Spells at 73 Stations.*

Year.	No. of Spells.	DURATION OF SPELLS.				STATIONS WITH			
		Average.		Greatest.					
		days.	Mean R per day. in.	days.	Mean R per day. in.	0	1 or 2.	3 or 4.	5 or more.
1903...	203	22	·28	52	·51	8	30	19	16
1904...	111	19	·22	34	·27	23	37	8	5

The difference is very marked, especially in the duration and intensity of the longest rainy spells and in the number of stations reporting none and three or more.

*Table of Rainy Spells.*

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES.			Days	in.	in.	in.	in.
Hythe (Hillcrest Road) .....	Jan. 26	Feb. 14	20	3·32	·51	·01	·17
<i>Kent, East.</i>	Dec. 2	Dec. 16	15	2·52	·55	·01	·17
Basingstoke(SherborneSt.John)	Jan. 26	Feb. 10	16	4·39	·66	·01	·27
<i>Hampshire.</i>	Dec. 2	Dec. 16	15	2·49	·58	·01	·17
Oxford (Magdalen College) ...	Jan. 26	Feb. 10	16	3·87	·73	·01	·24
<i>Oxfordshire.</i>							
Blisworth (Crieff House).....	Jan. 26	Feb. 17	23	5·77	·81	·01	·25
<i>Northamptonshire.</i>							
Colchester (Lexden).....	Jan. 26	Feb. 12	18	2·48	·35	·01	·14
<i>Essex.</i>							
Bishops Cannings .....	Jan. 26	Feb. 10	16	3·97	·60	·05	·25
<i>Wiltshire.</i>							
Swanage (Royal Victoria Hotel)	Jan. 25	Feb. 17	24	5·20	·57	·01	·22
<i>Dorset.</i>	Dec. 2	Dec. 18	17	3·60	·75	·01	·21
Barnstaple (North Devon Athe-	Jan. 1	Jan. 15	15	2·93	·77	·02	·20
næum).....	Jan. 24	Feb. 17	25	5·85	·60	·02	·23
<i>Devon, North</i>							

*Table of Rainy Spells—(continued).*

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES ( <i>con.</i> )			Days	in.	in.	in.	in.
St. Austell (Trevarna).....	Jan. 25	Feb. 17	24	8·94	·86	·08	·37
<i>Cornwall.</i>	Nov. 27	Dec. 15	19	5·06	·79	·01	·27
Crewkerne (Merefield House)...	Jan. 29	Feb. 17	20	6·80	·98	·05	·34
<i>Somerset, South.</i>							
Ross (The Graig) ..	Jan. 1	Jan. 15	15	1·39	·24	·01	·09
<i>Herefordshire.</i>	Feb. 1	Feb. 17	17	4·07	·59	·01	·24
	Dec. 2	Dec. 17	16	2·08	·56	·01	·13
Weston Park [Shifnal] .....	Jan. 6	Jan. 20	15	1·39	·35	·01	·09
<i>Staffordshire.</i>	Jan. 25	Feb. 10	17	2·54	·36	·02	·15
Caistor (Castlemount) .....	Jan. 26	Feb. 10	16	2·29	·50	·01	·14
<i>Lincoln, North.</i>							
Worksop (Hodsock Priory) ...	Jan. 26	Feb. 9	15	2·75	·95	·01	·18
<i>Nottinghamshire.</i>							
Chellaston .....	Jan. 25	Feb. 10	17	3·00	·59	·01	·18
<i>Derbyshire.</i>							
Knaresborough (Farnham) .....	Jan. 25	Feb. 10	17	2·31	·66	·01	·14
<i>Yorkshire, W.R. (N.)</i>							
Lowthorpe (The Elms) .....	Feb. 6	Feb. 22	17	1·86	·34	·01	·11
<i>Yorkshire, E.R.</i>							
Dungeon Ghyll.....	Jan. 25	Feb. 8	15	4·51	1·50	·02	·30
<i>Westmorland.</i>	Mar. 26	Apr. 10	16	10·44	2·55	·02	·65
	Apr. 21	May 8	18	6·80	2·04	·01	·38
	Aug. 1	Aug. 18	18	8·12	1·55	·01	·45
Llantrisant (Talygarn).....	Jan. 2	Jan. 17	16	5·65	2·04	·01	·35
<i>Glamorgan.</i>	Feb. 1	Feb. 17	17	6·28	1·29	·01	·37
Llanwrda (Dolaucothy) .....	Jan. 25	Feb. 21	28	7·82	1·20	·03	·28
<i>Carmarthen.</i>	Nov. 30	Dec. 17	18	4·94	·90	·02	·27
Haverfordwest (High Street)...	Feb. 1	Feb. 17	17	4·49	·60	·03	·26
<i>Pembroke.</i>							
New Radnor (Ednol) .....	Feb. 1	Feb. 21	21	5·50	·68	·01	·26
<i>Radnor.</i>	Dec. 1	Dec. 17	17	3·47	·75	·03	·20
Lake Vyrnwy .....	Feb. 1	Feb. 17	17	4·44	·69	·01	·26
<i>Montgomery.</i>							
Denbigh (Garn).....	Jan. 6	Jan. 20	15	2·12	·39	·02	·14
<i>Denbigh.</i>	Dec. 3	Dec. 18	16	2·98	·83	·01	·19
Llanerchymedd (Llwdiarth Esgob)	Jan. 23	Feb. 9	18	3·04	·52	·01	·17
<i>Anglesea.</i>	Dec. 1	Dec. 18	18	3·65	·55	·01	·20



Table of Rainy Spells—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
SCOTLAND.							
			Days	in.	in.	in.	in.
Girvan (Pinmore).....	Jan. 6	Jan. 23	18	3·79	·57	·01	·21
<i>Ayr.</i>	Apr. 20	May 10	21	2·74	·58	·01	·13
Buchlyvie (The Manse) .....	Mar. 31	Apr. 17	18	5·65	·74	·01	·31
<i>Stirling.</i>	Apr. 24	May 18	25	3·77	·64	·01	·15
Inveraray (Newtown) .....	Jan. 5	Jan. 23	19	4·80	·56	·01	·25
<i>Argyll.</i>	Mar. 27	Apr. 17	22	8·08	1·32	·02	·37
	Apr. 21	May 5	15	4·22	·92	·02	·28
	May 9	May 24	16	2·65	·75	·01	·17
	July 31	Aug. 15	16	5·50	1·22	·01	·34
	Nov. 1	Nov. 20	20	4·50	1·78	·01	·23
Strontian (Laudale).....	Jan. 6	Jan. 30	25	9·82	1·25	·04	·39
<i>Argyll.</i>	Feb. 12	Feb. 26	15	6·47	1·22	·04	·43
	Mar. 31	Apr. 16	17	8·19	1·80	·04	·48
	Apr. 21	May 8	18	5·83	1·05	·02	·32
Islay (Eallabus).....	Jan. 6	Jan. 21	16	4·42	·65	·03	·28
<i>Argyll.</i>	Mar. 27	Apr. 12	17	4·78	·74	·03	·28
Forfar (Lilyfield) .....	Jan. 25	Feb. 8	15	3·10	·54	·01	·21
<i>Forfar.</i>							
Aberdeen (Cranford) .....	Jan. 25	Feb. 13	20	3·52	·65	·01	·18
<i>Aberdeen.</i>							
Keith .....	Jan. 31	Feb. 14	15	2·29	·54	·02	·15
<i>Banff.</i>							
Fort Augustus (St. Benedict's)	Apr. 20	May 9	20	3·13	·48	·01	·16
<i>Inverness, East.</i>							
Loch Torridon (Bendamph) ...	Apr. 23	May 8	16	6·92	1·25	·01	·43
<i>Ross, West.</i>	Sep. 25	Oct. 12	18	7·27	1·47	·02	·40
	Nov. 15	Dec. 9	25	6·04	·92	·01	·24
Alness (Ardross Castle) .....	Jan. 6	Jan. 21	16	1·95	·46	·01	·12
<i>Ross, East.</i>	Apr. 20	May 10	21	2·94	·45	·01	·14
Altnaharra .....	Jan. 6	Jan. 21	16	2·82	·50	·01	·18
<i>Sutherland.</i>							
Castletown (The Clett) .....	Jan. 31	Feb. 15	16	2·73	·43	·02	·17
<i>Caithness.</i>	Aug. 3	Aug. 17	15	2·00	·59	·01	·13
	Oct. 23	Nov. 9	18	2·23	·35	·01	·12
	Nov. 26	Dec. 15	20	3·15	·58	·01	·16
IRELAND.							
Darrynane Abbey.....	Jan. 1	Jan. 20	20	4·94	·81	·01	·25
<i>Kerry.</i>	Feb. 4	Feb. 29	26	7·48	1·09	·01	·29
	Apr. 24	May 11	18	2·65	·64	·01	·15
	Nov. 29	Dec. 18	20	3·99	·68	·01	·20

*Table of Rainy Spells—(continued).*

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
IRELAND—(con.)			Days	in.	in.	in.	in.
Clonmel (Bruce Villa) ..... <i>Tipperary.</i>	Dec. 1	Dec. 18	18	1·88	·35	·01	·10
Miltown Malbay ..... <i>Clare.</i>	Jan. 7	Jan. 22	16	3·01	·70	·01	·19
	Feb. 5	Feb. 29	25	6·08	1·14	·01	·24
	Mar. 26	Apr. 14	20	3·50	·52	·01	·18
	Apr. 23	May 9	17	2·23	·60	·01	·13
Mountrath (Ballyfin) ..... <i>Queen's County.</i>	Jan. 6	Jan. 20	15	2·38	·48	·01	·16
Moynalty (Westland) ..... <i>Meath.</i>	Jan. 25	Feb. 8	15	2·17	·41	·02	·14
Ballinasloe ..... <i>Galway.</i>	Jan. 1	Jan. 20	20	3·09	·49	·01	·15
	Feb. 15	Feb. 29	15	2·48	·56	·01	·17
	Mar. 26	Apr. 10	16	2·20	·42	·01	·14
	Aug. 8	Aug. 23	16	2·28	·76	·01	·14
	Nov. 30	Dec. 19	20	3·42	·75	·01	·17
Westport (Murrisk Abbey) ... <i>Mayo.</i>	Jan. 1	Jan. 19	19	5·49	·97	·01	·29
	Feb. 5	Feb. 29	25	7·25	1·59	·01	·29
	Mar. 26	Apr. 14	20	4·48	·63	·01	·22
	July 28	Aug. 27	31	6·37	·96	·01	·21
	Nov. 29	Dec. 19	21	3·78	·50	·01	·18
Collooney (Markree Observat'ry) <i>Sligo.</i>	Jan. 6	Jan. 21	16	3·13	·70	·01	·20
	Jan. 25	Feb. 8	15	1·99	·32	·02	·13
	Feb. 15	Feb. 29	15	2·52	·34	·02	·17
	Mar. 26	Apr. 10	16	2·94	·49	·01	·18
	July 19	Aug. 21	34	9·17	1·80	·01	·27
	Nov. 18	Dec. 17	30	6·39	·85	·03	·21
Banbridge (Milltown) ..... <i>Down.</i>	Mar. 27	Apr. 10	15	1·42	·20	·02	·09
Bushmills (Dundarave) ..... <i>Antrim.</i>	Nov. 24	Dec. 17	24	3·92	·60	·01	·16
Newtown Stewart (Baron's Court <i>Tyrone.</i>	Feb. 16	Mar. 3	17	2·50	·61	·01	·15
	Mar. 27	Apr. 10	15	4·45	·60	·02	·30
	Aug. 8	Aug. 22	15	3·25	·72	·02	·22
	Nov. 17	Dec. 18	32	4·67	·56	·01	·15
Horn Head ..... <i>Donegal.</i>	Jan. 6	Jan. 22	17	3·54	·66	·01	·21
	Jan. 25	Feb. 8	15	2·13	·48	·01	·14
	Feb. 11	Feb. 29	19	2·56	·39	·01	·13
	Mar. 27	Apr. 10	15	3·12	·58	·03	·21
	Apr. 21	May 8	18	2·13	·38	·01	·12
	Aug. 8	Aug. 22	15	2·13	·53	·01	·14
	Nov. 17	Dec. 17	31	6·72	·55	·01	·22

# RAINY DAYS IN 1904.

THIS section appears for the second time, and it gives a detailed analysis of the number of days with different amounts of rain at the 73 stations which were selected for the treatment of droughts and rainy spells. These stations represent all parts of the country as fairly as possible, and the Table which follows gives the best possible statement of the geographical distribution of rainfall intensity.

We first consider the number of days on which .01 in. or more was recorded, and find that of the 73 stations Oxford had the smallest number, 158, with an intensity of .13 in. per rainy day ; the least intensity, .11 in., was observed at Ross and Lowthorpe, which had 205 and 195 rainy days respectively. The greatest number of rainy days fell to the lot of Inveraray with 272, the mean intensity of fall being .26 in. per rainy day. Murrisk Abbey in the west of Ireland was only one day behind. The greatest intensity of rainfall was .42 in. per rainy day at Dungeon Ghyll, where there were 248 rainy days.

All these figures are less than the extremes recorded in 1903, a year which was unusually rainy and unusually wet. For the country as a whole, the number of rainy days averaged 206 and the intensity .18 in., as compared with 229 days and .20 in. in 1903. The relation to the average is given below :—

	Average 1891—1902.*			Year 1904.†			Difference from Average.		
	No. of Rainy Days.	Total Fall.	Rate per Rainy Day.	No. of Rainy Days.	Total Fall.	Rate per Rainy Day.	No. of Rainy Days.	Total Fall.	Rate per Rainy Day.
England & Wales	181	in. 35·57	in. .197	188	in. 31·55	in. .168	+ 7	in. —4·02	in. —·029
Scotland .....	206	43·93	.213	219	42·81	.195	+13	—1·12	—·018
Ireland .....	216	42·38	.196	231	41·35	.179	+15	—1·03	—·017
British Isles .....	197	39·63	.201	206	36·63	.178	+ 9	— 3·00	—·023

\* Average of 62 Stations.      † Average of 73 Stations.

This shows that in all parts of the British Isles the number of days with rain was above the average, the amount of rain below the average and the rate per rainy day below the average also.

Expressing the differences as percentages of the average number of days and amount of rain we get :—

*Differences from Average 1891—1902 expressed as Percentages.*

	Rainy Days.	Total Rainfall.
England and Wales .....	+4	—11
Scotland .....	+6	— 3
Ireland .....	+7	— 2
British Isles .....	+5	— 8

Turning to the relative frequency of falls of rain of different amount on rainfall days, we note that the number of days with  $\cdot 01$  in. was practically the same as in 1903; but that falls of an inch or more were much less frequent. Only 8 stations out of 73 recorded falls of 2·00 in. or over as compared with 18 in 1903. The number of stations in the two years recording falls of 1·00 or more on one or more occasions was as follows :—

*Falls of 1·00 in. or more.*

No. of Stations.	Never.	One occasion.	Twice.	Three or Four times.	Five or more times.
1903 ..	1	6	13	26	26
1904 ...	10	33	13	8	9

In order to afford a basis of comparisons between different parts of the country we have brought together the facts regarding three representative stations, and various large groups calculated on the assumption that the total number of wet days at each was the average for the whole country, 206 for 1903; this number being divided amongst the different intensities in the same proportion as the actual number recorded for the station or group was in fact divided.

*Frequency of Falls of Rain in 1904 reduced to 206 Rainy Days.*

	$\cdot 01$ in.	$\cdot 02$ – $\cdot 04$ in.	$\cdot 05$ – $\cdot 09$ in.	$\cdot 10$ – $\cdot 24$ in.	$\cdot 25$ – $\cdot 49$ in.	$\cdot 50$ – $\cdot 99$ in.	1·00–1·99 in.	2·00 in. & over.
<b>STATIONS.</b>								
Camden Square.....	30	53	33	61	24	4	1	0
Dungeon Ghyll.....	13	42	17	39	37	30	22	6
Inveraray, Newtown	19	38	28	44	43	26	8	0
<b>GROUPS.</b>								
England I.—IV. ...	31	52	39	50	26	7	1	0
England and Wales	26	45	37	52	31	13	2	0
Wales & Lake Dist.	21	38	32	50	37	21	6	1
Scotland .....	18	39	39	55	34	17	4	0
Ireland .....	21	37	37	60	36	13	2	0
British Isles .....	23	42	38	54	32	14	3	0

*Intensity of Daily Rainfall and Number of Rainy Days at 73 Stations in 1904.*

Div.	STATION.	Number of Days on which various amounts of Rain fell.										No. of Rainy Days.	Total Rainfall.	Amount per Rainy day.
		in. .01.	in. .02-.04.	in. .05-.09.	in. .10-.24.	in. .25-.49.	in. .50-.99.	in. 1.00-1.99.	in. 2.00 or over.					
I.	ENGLAND & WALES.													
II.	St. Pancras, Camden Square.....	23	41	26	47	19	3	1	0	160	in. 20.65	in. .13		
"	Hythe, Hillcrest Road .....	24	41	33	39	26	6	0	0	169	22.72	.13		
"	Brighton, Old Steyne.....	19	34	31	49	20	9	1	0	163	24.38	.15		
III.	Basingstoke, Sherborne St. John .....	27	38	28	41	30	10	1	0	175	26.79	.15		
"	Oxford, Magdalen College .....	22	44	30	33	20	8	1	0	158	21.16	.13		
"	Blisworth, Crieff House... ..	31	44	36	28	25	7	1	0	172	23.73	.14		
"	Stamford, Easton .....	18	40	38	42	18	4	1	0	161	20.12	.13		
IV.	Colchester, Lexden.....	19	45	31	40	15	4	1	0	155	18.41	.12		
"	Saffron Walden .....	20	45	30	46	19	2	2	0	164	20.95	.13		
"	Geldeston [Beccles].....	32	41	34	45	19	2	1	0	174	20.67	.12		
"	Hillington.....	39	46	32	43	22	8	1	1	192	25.65	.13		
V.	Bishops Cannings .....	20	28	42	52	30	10	0	0	182	27.68	.15		
"	Swanage, Royal Victoria Hotel..	11	37	24	52	30	14	0	0	168	30.66	.18		
"	Torquay, Cary Green.....	26	31	19	44	34	17	0	0	171	33.73	.20		
"	Barnstaple, N. Devon Athenæum .....	11	46	38	69	40	10	1	0	215	35.21	.16		
"	St. Austell, Trevarna.....	12	39	33	59	40	29	1	0	213	46.92	.22		
"	Crewkerne Merefield House.....	19	32	33	49	34	15	1	0	183	34.29	.19		
VI.	Ross, The Graig .....	49	49	28	49	24	6	0	0	205	23.35	.11		
"	Weston Park [Shifnal] .....	16	44	36	43	22	6	1	0	168	22.43	.13		
VII.	Caistor .....	30	57	41	39	18	6	2	0	193	23.98	.12		
"	Workop, Hodsock Priory .....	32	39	40	29	18	6	1	0	165	19.81	.12		
"	Chellaston.....	37	44	38	33	21	4	2	0	179	20.90	.12		
VIII.	Wilmslow, Parksye .....	24	37	36	52	20	7	1	0	177	23.29	.13		
"	St. Michael's-on-Wyre Vicarage .....	31	25	45	52	34	11	1	0	199	32.35	.16		
IX.	Knarsborough, Farnham.....	34	58	27	52	18	5	2	0	196	24.70	.13		
"	Sedbergh, Akay .....	9	32	44	50	41	27	5	0	208	50.06	.24		
"	Lowthorpe, The Elms .....	46	45	40	40	15	8	1	0	195	21.69	.11		

*Intensity of Daily Rainfall and Number of Rainy Days at 73 Stations in 1904—(continued).*

Div.	STATION.	Number of Days on which various amounts of Rain fell.								No. of Rainy Days.	Total Rainfall.	Amount per Rainy Day.
		in. ·01.	in. ·02-·04.	in. ·05-·09.	in. ·10-·24.	in. ·25-·49.	in. ·50-·99.	in. 1·00-1·99.	in. 2·00 or over			
X.	ENGLAND & WALES—(con.)	22	51	35	44	21	7	1	0	181	in. 23·96	in. ·13
"	Darlington, Hurworth Grange...	27	44	30	52	14	7	2	0	176	23·45	·13
"	Morpeth, Bothalhaugh .....	25	56	37	55	30	4	1	0	208	26·82	·13
"	Brampton, Denton House .....	16	51	21	47	44	36	26	7	248	103·94	·42
XI.	Dunoon Ghyll.....	29	39	39	37	43	23	9	3	222	61·03	·27
"	Llantrisant, Talygarn.....	9	50	26	63	45	28	3	0	224	51·23	·23
"	Llanwrda, Dolaucothly .....	12	29	45	46	41	25	0	0	198	42·72	·22
"	Haverfordwest, High Street.....	20	42	45	54	31	13	3	0	208	35·89	·17
"	New Radnor, Ednol .....	21	28	42	66	34	28	2	0	221	45·73	·21
"	Lake Vyrnwy .....	27	44	27	59	30	7	2	0	196	29·74	·15
"	Denbigh, Garn.....	39	38	32	50	43	14	2	0	218	38·16	·18
"	Llanerchymedd, Llwydiarth Esgob..											
SCOTLAND.												
XII.	Whithorn, Cutroach .....	13	52	48	46	32	15	1	0	207	34·18	·17
"	Dumfries, Ivy Bank.....	29	33	47	53	26	15	1	0	204	31·25	·15
"	Lilliesleaf, Riddell .....	29	63	40	56	28	5	1	0	222	27·75	·13
XIII.	Edinburgh, Royal Observatory...	32	43	36	40	24	7	1	0	183	24·06	·13
XIV.	Girvan, Pinnore .....	20	39	43	76	47	22	3	0	250	54·35	·22
XV.	Buchlyvie, The Manse .....	38	50	41	57	50	27	3	0	266	53·09	·20
"	Inveraray, Newtown .....	25	50	37	58	57	34	11	0	272	70·65	·26
"	Strontian, Laudale .....	2	30	38	62	55	40	24	1	252	90·57	·36
"	Islay, Eallabus.....	4	34	46	67	56	22	1	1	231	51·73	·22
XVI.	Blair-Atholl .....	12	30	43	49	27	10	3	0	174	30·28	·17
"	Forfar, Lilyfield .....	24	45	43	43	27	7	1	0	190	25·87	·14
XVII.	Aberdeen, Cranford.....	21	60	41	52	19	10	1	0	204	26·13	·13
"	Keith .....	22	40	32	62	17	8	3	1	185	28·71	·16
XVIII.	Fort Augustus, St. Benedicts ..	12	48	36	59	31	28	1	0	215	44·30	·21
"	Alvey Manse.....	17	31	40	52	21	12	0	0	173	26·40	·15

*Intensity of Daily Rainfall and Number of Rainy Days at 73 Stations in 1904—(continued).*

Div.	STATION.	Number of Days on which various amounts of Rain fell.										No. of Rainy Days.	Total Rainfall.	Amount per Rainy Day.
		in. ·01.	in. ·02-04.	in. ·05-09.	in. ·10-24.	in. ·25-49.	in. ·50-99.	in. 1·00-1·99.	in. 2·00 or over					
XVIII.	SCOTLAND—(con.)													
	Loch Torridon, Bendamph.....	5	31	37	50	70	43	17	0	253	in. 87·58	in. ·35		
XIX.	Alness, Ardross Castle .....	35	47	57	61	28	13	1	0	242	34·86	·14		
"	Altnaharra .....	4	13	37	73	36	14	2	0	179	38·14	·21		
"	Castletown, The Clett.....	25	64	61	74	30	7	1	0	262	33·44	·13		
XX.	IRELAND.													
	Cork, The Palace .....	23	21	34	65	31	18	0	0	192	35·48	·18		
"	Darrynane Abbey .....	25	35	50	65	56	24	6	1	262	60·23	·23		
"	Clonmel, Bruce Villa .....	14	37	42	52	38	14	1	0	198	36·39	·18		
"	Limerick, Roxborough.....	11	49	42	66	39	12	1	0	220	37·14	·17		
XXI.	Miltown Malbay .....	34	41	43	72	46	18	3	3	260	51·53	·20		
"	Enniscorthy, Ballyhyland.....	17	39	36	45	45	19	0	0	201	38·47	·19		
"	Bray, Fassaroe.....	22	37	28	67	18	14	3	0	189	34·06	·18		
"	Mountrath, Ballyfin .....	31	42	34	69	49	14	2	0	241	44·01	·18		
XXII.	Moynalty, Westland .....	23	50	35	72	35	12	0	0	227	34·50	·15		
"	Ballinasloe .....	46	56	35	64	44	12	2	0	259	39·28	·15		
"	Westport, Murrisk Abbey.....	31	47	37	83	46	21	6	0	271	55·25	·20		
XXIII.	Collooney, Markree Observatory	21	44	47	86	50	11	1	0	260	44·86	·17		
"	Banbridge, Milltown .....	19	54	37	58	23	10	1	0	202	29·21	·14		
"	Bushmills, Dundarave.....	23	30	55	57	42	10	1	0	218	36·34	·17		
"	Newtown Stewart, Baron's Court	19	52	49	62	46	19	1	0	248	43·62	·18		
"	Horn Head .....	22	41	48	83	40	10	3	0	247	41·25	·17		
	ENGLAND & WALES (Mean).....	24	41	34	47	28	12	2	0	188	31·55	·17		
	SCOTLAND .....	19	42	42	58	36	18	4	0	219	42·81	·20		
	IRELAND .....	24	42	41	67	40	15	2	0	231	41·35	·18		
	BRITISH ISLES .....	23	42	38	54	32	14	3	0	206	36·63	·18		

## MONTHLY RAINFALL OF 1904.

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THE monthly rainfall of 1904 is, as usual, represented by the monthly totals at 233 stations. If expense were no object, we should like to publish the monthly rainfall at every station from which records are available, although that would entail not only much additional work but eighty-five extra pages of solid figures. In default of such desirable comprehensiveness, we have made as careful a selection as possible, having regard both to an equal distribution over the country and to the quality of the records utilized. For every month a rainfall map was prepared, showing the actual depth of rain, and in its construction the records from about 500 stations were used. Those maps are not published, but they have been of great value in enabling us to draw up the brief characterization of the months which follows. Like the Table of 233 stations, the unpublished maps deal with the actual depth of rain and are most useful in comparing the rainfall of different places in the same month ; but it is necessary to go beyond this and compare the rainfall of each month at every place with that of the same month in other years. The most convenient unit to use in this comparison is the average rainfall of the month for a long period, the longer the better. It is not possible to use a very long period, but thirty years are available in most cases, and are used in all. For stations with a record of less than thirty years the mean which would have resulted from adding up the thirty figures, did they exist, and dividing by 30, has been computed by a well-known process which has been long in use and can be trusted.

In the Table published monthly in *Symons's Meteorological Magazine* the difference from the thirty years' average is expressed in inches, but that is not a fully satisfactory method, because at a dry station a difference from the average of two inches might mean twice the average fall and at a station in a wetter district the same number of inches might mean only one quarter of the average fall. It has consequently been considered advisable to represent the mean rainfall for



each station by 100, and to state the actual rainfall of each month as the ratio to this mean. Thus the figure 50 in Table I., or on one of the maps, represents a fall of 50 per cent. or one half of the mean fall, and the figure 200 represents a fall twice as great as the mean fall. The maps are made clearer by shading the area over which the fall exceeded the average, and by drawing lines within which the rainfall was less or greater than certain values. In drawing these lines several additional stations were used for which room could not be found in Table I., and the unpublished maps of actual rainfall were also helpful in showing some details of the outline of the wetter and drier areas.

The means of the ratios in each division of the British Isles are given at the foot of Table I., and these may be taken as roughly approximate to the average over the various regions, although the number of stations available is too small to permit one to say with certainty that they are true averages.

TABLE I.—*Variation of Monthly Rainfall from the Average taken as 100.*

Div.	Station.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
I.	St. Pancras, Camden Square ..	123	159	106	60	114	40	97	68	51	55	69	84	82
II.	Tenterden .....	157	179	78	69	119	84	96	50	49	55	63	130	89
"	Arundel, Patching .....	178	147	57	114	264	72	30	118	74	64	39	107	97
"	Osborne, Newbarn Cottage ..	177	200	69	93	235	57	53	123	91	68	36	129	106
III.	Basingstoke, Sherborne St. John	160	149	81	74	195	54	80	101	51	57	53	103	93
"	Hitchin, Wratton .....	121	186	86	50	85	46	148	111	50	42	53	102	88
"	Oxford, Magdalen College.....	148	173	81	48	168	36	121	64	64	27	62	89	86
IV.	Kettering .....	145	181	97	65	104	46	73	93	77	24	52	78	80
"	Shoburyness .....	127	122	108	43	134	63	88	95	32	65	52	105	81
"	Bury St. Edmunds, Westley....	101	181	94	57	116	40	86	111	47	43	60	85	81
V.	Cawston .....	97	201	117	42	101	55	72	81	79	46	67	93	83
"	Cerne Abbas, Melbury .....	154	185	77	70	134	60	125	111	79	42	28	113	95
"	Sidmouth, Sidmount .....	123	221	87	57	181	49	189	101	64	51	53	96	102
"	Northam .....	137	224	63	64	125	52	139	86	77	50	92	91	98
"	Phillack Rectory .....	158	192	70	47	169	74	89	92	70	46	71	90	95
"	Alkarnon .....	158	208	80	103	148	62	135	65	78	45	94	82	103
"	East Harptree, Sherborne Res...	113	169	90	75	129	61	95	85	70	33	60	56	83
VI.	Stroud, Upfield .....	153	206	84	60	88	53	119	99	83	19	51	87	90
"	Church Stretton, Woolstaston ..	111	179	78	77	87	48	115	98	77	18	38	87	81
"	Warwick, Barford Rectory .....	94	201	96	54	95	29	140	90	91	17	47	79	83
VII.	Boston .....	99	149	108	47	76	80	125	78	136	35	27	109	87
"	Mickleover Manor .....	86	171	120	99	85	19	80	146	86	26	62	64	82
VIII.	Chester, The Nurseries .....	95	191	99	48	92	57	47	127	91	30	66	60	79
"	Blackburn, Guide Reservoir....	102	143	82	113	101	61	43	100	37	36	73	78	76
IX.	Barnsley, Church Street .....	128	242	110	73	162	44	61	160	32	13	53	62	87
"	Knarborough, Farnham .....	133	165	96	74	167	55	127	123	53	20	89	61	93
"	Arncliffe Vicarage .....	120	109	92	231	135	60	48	106	34	45	117	71	92
"	Hull, Pearson Park .....	79	117	103	67	109	35	134	117	71	15	62	60	79
"	Middlesbrough, Albert Park....	116	184	77	72	177	63	62	91	59	19	101	93	86
X.	Newcastle, Town Moor .....	90	165	66	89	150	104	51	82	50	28	119	73	84
"	Borrowdale, Seathwaite .....	111	87	119	233	106	63	89	98	59	69	90	100	97
XI.	Cardiff, Ely .....	140	198	98	97	119	57	146	77	99	56	82	76	101
"	Haverfordwest, High Street....	111	165	76	73	116	112	53	67	121	40	65	98	89
"	Aberystwyth, Gogerddan .....	124	151	72	129	141	75	61	149	94	58	68	106	99
"	Brecon, Llandefaelog-fach .....	115	144	73	80	85	46	76	85	46	38	63	63	77

TABLE I.—*Variation of Monthly Rainfall from the Average taken as 100—(continued).*

Div.	Station.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
XI.	Llandudno.....	135	152	66	82	100	96	91	114	39	32	55	102	84
XII.	Auchencairn, Torr House.....	73	86	107	137	118	57	82	134	91	61	85	72	90
XIII.	Moffat, Ericstane.....	79	86	111	194	115	134	97	119	80	52	33	73	89
XIV.	Marchmont House.....	102	103	88	89	118	89	71	80	34	31	47	86	75
	Girvan, Pinmore.....	122	102	92	168	119	108	138	148	106	58	128	87	111
	Loch Thom.....	121	120	88	217	113	85	77	112	110	69	76	88	103
XV.	Falkirk, Kerse.....	97	125	82	254	131	58	61	125	74	39	48	110	94
"	Islay, Eallabus.....	125	109	88	226	128	57	114	132	104	85	116	75	109
"	Mull, Quinish.....	122	121	93	220	132	108	66	121	84	87	68	70	101
XVI.	Balquhadder, Stronvar.....	95	94	84	251	134	110	99	128	122	57	32	113	102
	Dundee, Eastern Necropolis.....	88	202	91	87	133	23	38	180	92	26	22	66	85
XVII.	Braemar.....	126	53	56	128	93	62	60	97	65	32	35	59	69
"	Aberdeen, Cranford.....	100	167	121	82	130	43	44	72	77	32	41	83	79
"	Keith.....	68	200	44	112	106	70	25	138	75	58	73	132	88
	Cawdor, Budgate.....	75	123	29	186	109	67	19	132	57	47	63	89	77
XVIII.	Invergarry.....	129	90	65	427	195	127	58	108	112	69	63	100	113
	Applecross Gardens.....	116	102	80	253	109	165	63	137	111	79	102	110	112
XIX.	Dunrobin Castle.....	45	158	62	289	74	60	40	114	89	55	67	72	87
	Watten.....	65	175	51	201	68	74	62	110	106	53	80	83	90
XX.	Cork, Queen's College.....	125	165	93	56	106	82	159	83	132	70	36	61	95
"	Killarney.....	130	105	88	87	105	68	128	82	73	47	74	75	88
"	Waterford, Brook Lodge.....	122	194	142	45	115	97	124	113	143	43	55	87	105
"	Broadford, Hurdlestown.....	131	223	116	96	144	80	140	112	101	101	79	100	116
	Milton Malbay.....	140	191	116	138	70	52	186	124	109	99	81	92	116
XXI.	Carlou, Browne's Hill.....	127	144	101	66	128	60	111	117	120	43	54	60	93
"	Dublin, FitzWilliam Square.....	118	167	113	56	139	55	42	96	109	15	41	63	80
"	Mullingar, Belvedere.....	112	209	137	94	105	49	93	71	94	73	58	65	93
XXII.	Ballinasloe.....	116	208	118	90	112	103	114	122	98	80	75	96	106
"	Clifden, Kylemore House.....	127	132	101	156	96	103	144	84	89	62	75	69	99
XXIII.	Collooney, Markree Observatory.....	128	157	82	152	101	59	124	146	76	59	137	90	107
"	Seaforde.....	84	146	94	96	126	80	68	135	110	22	60	68	88
"	Ballymena, Harryville.....	118	121	84	113	106	48	104	169	109	49	92	78	99
"	Omagh, Edenfel.....	139	216	121	137	98	64	130	133	85	94	97	76	113
"	Buncrana, Rockfort.....	117	105	63	151	102	27	105	171	57	63	135	82	97
	England and Wales.....	126	172	88	82	131	59	94	99	68	40	65	88	89
	Scotland.....	97	123	80	196	118	83	67	122	88	55	65	87	93
	Ireland.....	122	166	105	102	110	66	118	117	100	61	77	77	100
	British Isles.....	117	158	89	116	123	67	92	109	81	48	68	86	92

### JANUARY.

The month proved wet and sunless over nearly the whole of Ireland, the greater part of England and Wales and the west of Scotland. The east coast of England had rather less than the average rainfall and a belt of country from the Mersey to the Wash was also somewhat dry. The south of Scotland was a little less wet than the average, but the north-east was very dry, less than half the small fall peculiar to the district being experienced around the Dornoch and Cromarty Firths. The wettest part of our islands was the south of England, where the rainfall was no less than 78 per cent. in excess of the average in places.

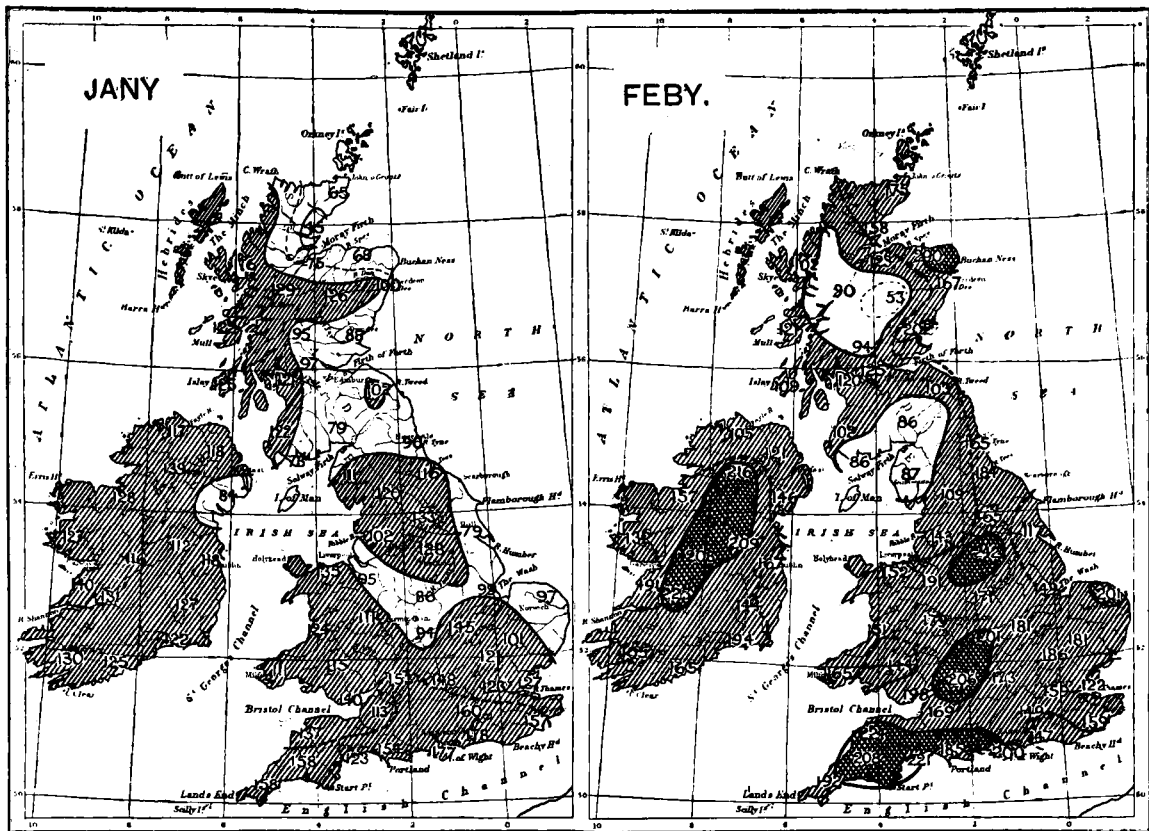
### FEBRUARY.

The shortest month of the year proved also the wettest absolutely as well as relatively, and it would have been so even without the extra day due to Leap Year, for that exceptional day was dry almost everywhere. The rainfall was below the average only in the north-west of England and south-west of Scotland and in the centre of the Highlands. The wettest parts of the country occurred irregularly in patches within which more than twice the average rainfall descended on the land. The map shows such patches round Aberdeen, in the north-east of Norfolk, in Derbyshire, in the west of England between Birmingham and Bristol, and in the south-west stretching from Cornwall to the Isle of Wight. The largest of the very wet patches occupied the whole of the central part of Ireland. The southern part of our islands was thus by far the wettest, and it is interesting to notice that of the nine well-marked cyclonic disturbances the tracks of which are given in the Monthly Summary of the *Weekly Weather Report*, only two touched Scotland at all. Although a wet month for a dry year, February, 1904, is in no way unprecedented. It is curious to note that the only place where a rainfall under 2 inches was recorded was in the neighbourhood of Braemar.

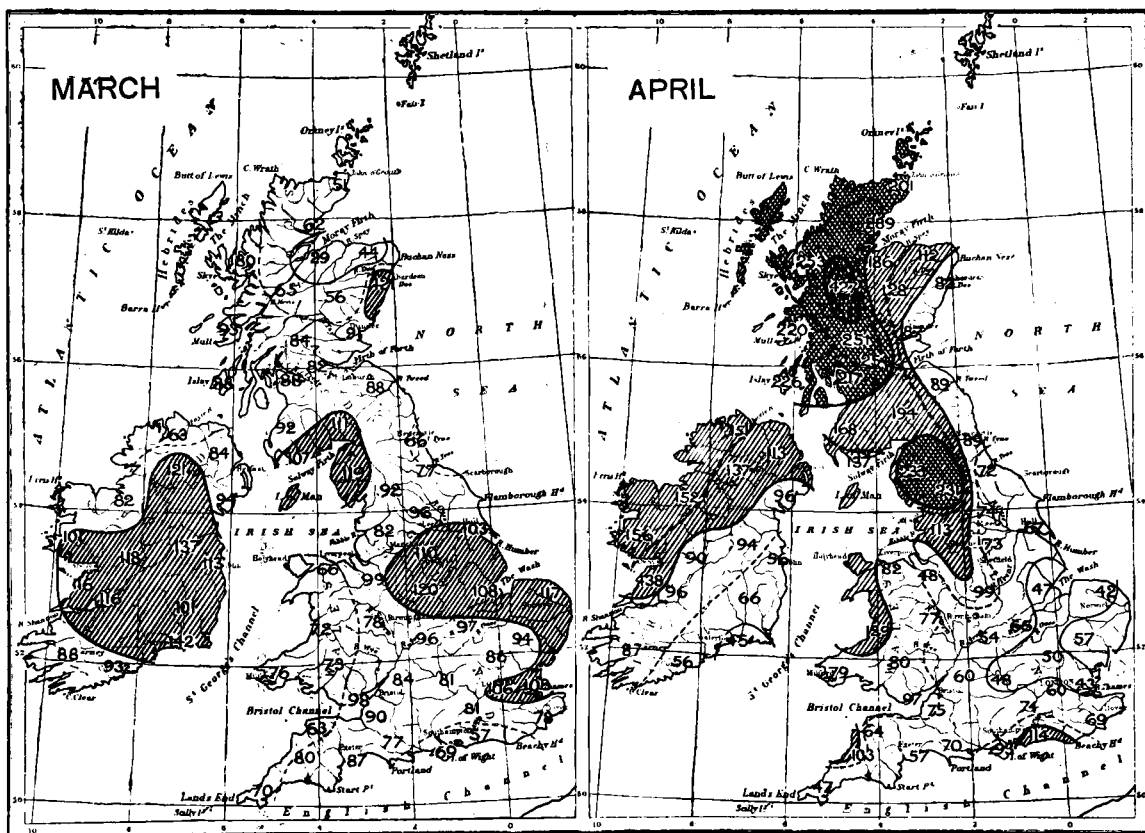
### MARCH.

A dry month especially in Scotland, where a large area round the Moray Firth received less than half the average rainfall, and over most of that area the total fall was less than an inch. In England the driest part relatively was in the west and south, and practically the whole of Wales suffered from a deficiency exceeding 25 per cent. A very slight excess of rainfall was experienced in the east of England. In Ireland the rainfall was nearly of average amount: some

# MAPS OF MONTHLY RAINFALL, 1904.



1904.



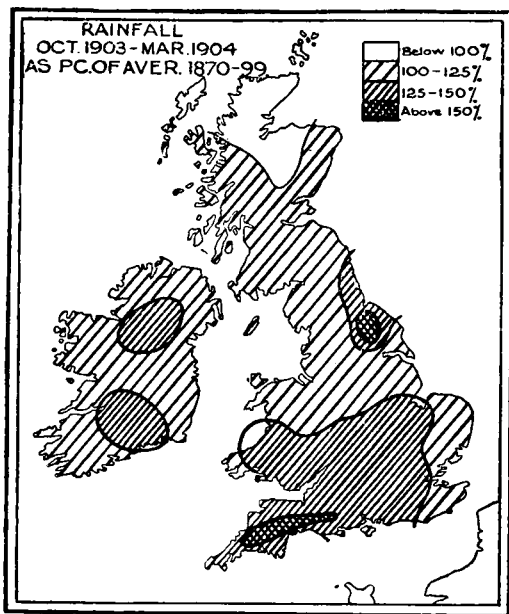
The figures express the relation of the Rainfall to the average of the month during 1870-99, which is taken as 100. Unshaded areas are below the average.



what excessive over the large central portion, rather deficient in the south and distinctly so in the north. The month was singularly free from cyclonic disturbances.

### The Six Winter Months : October, 1903—March, 1904.

Although it has not been usual in these pages to deal with the statistics



of more than one year, there are advantages in summarising the winter six months as a whole, so as to be compared with the summer six months, which the accident of our situation in the northern hemisphere throws all into one calendar year. It is not necessary to repeat what has been said elsewhere on the winter of 1903-4;\* but we may profitably represent the variation of rainfall from the average of the winter months in a table and on a map.

These differ from those published in the *Met. Mag.* by being calculated for the average of 30 years, but the main results are the same. The winter half year was not so wet as the average in the north of Scotland, and it was more than 50 per cent. wetter than the average in the North Riding of Yorkshire and in the south-west of England, the country on the whole having a half year relatively wetter and wetter as one went from north to south. Ireland, as usual, was less extreme than Great Britain, no part of it having less than the average fall and very little of it an excess greater than 25 per cent.

### APRIL.

Although the rainfall for this month over the British Isles as a whole was little above the average, the distribution was the most extreme that occurred in the whole year, or that has occurred in many years. In the north-west, where the rainfall is normally high, the fall was from two to four times greater than the average; in the south-east, where the rainfall is normally low, it was on this

\* *Met. Mag.*, April, 1904, pp. 41—43.

*Six Months' Winter Rainfall: October, 1903—March, 1904.*

Div.	STATIONS.	Average, 1870-1899. in.	Rainfall, Oct., 1903, to Mar., 1904 in.	Per cent. of Average.	Div.	STATIONS.	Average, 1870-1899. in.	Rainfall, Oct., 1903, to Mar., 1904 in.	Per cent. of Average.
I.	Camden Square .....	12.55	15.81	126	XI.	Llandudno .....	16.92	19.82	117
II.	Tenterden .....	15.66	16.96	108	XII.	Cargen .....	24.74	28.15	114
"	Hartley Wintney .....	14.88	19.92	134	"	Lilliesleaf .....	17.12	20.17	118
III.	Hitchin .....	12.21	16.15	132	XIV.	Colmonell .....	26.03	30.03	115
"	Winslow .....	13.19	16.54	126	"	Glasgow .....	18.48	21.26	115
IV.	Bury St. Edmunds .....	12.16	14.79	122	XV.	Inveraray .....	36.61	43.14	118
"	Brundall .....	12.63	13.97	111	"	Islay, Ballabus .....	28.00	32.60	116
V.	Alderbury .....	16.07	23.96	149	"	Mull, Quinish .....	33.58	39.12	117
"	Winterbourne Steepleton .....	22.70	30.06	132	XVI.	Dundee .....	14.32	16.50	115
"	Torquay .....	19.77	27.11	137	XVII.	Braemar .....	19.17	16.73	87
"	Polapit Tamar .....	22.77	35.25	155	"	Aberdeen .....	17.22	20.45	119
"	Bath .....	15.62	20.05	129	"	Cawdor .....	14.19	12.67	89
VI.	Stroud .....	15.02	20.08	134	XVIII.	Invergarry .....	34.54	38.13	110
"	Woolstaston .....	17.18	20.94	122	"	Bendarnph .....	50.71	46.75	92
"	Bromsgrove .....	11.67	15.15	130	XIX.	Dunrobin .....	17.45	17.32	99
VII.	Boston .....	11.05	13.68	124	XX.	Killarney .....	34.58	34.41	100
"	Worksop .....	11.76	14.13	120	"	Waterford .....	22.13	29.50	133
"	Derby .....	12.43	14.99	121	"	Broadford .....	17.02	24.75	145
VIII.	Bolton .....	21.75	26.33	121	XXI.	Carlrow .....	18.10	19.69	109
IX.	Wetherby .....	12.97	19.51	151	"	Dublin .....	14.06	14.27	101
"	Arnccliffe .....	35.06	40.53	116	"	Mullingar .....	18.33	21.98	120
"	Hull .....	13.52	13.73	102	XXII.	Ballinasloe .....	19.10	22.39	117
X.	Newcastle .....	13.87	18.96	137	"	Clifden .....	44.78	47.77	107
"	Seathwaite .....	78.82	84.79	108	"	Crossmolina .....	29.44	36.00	122
XI.	Cardiff .....	23.27	32.79	141	XXIII.	Seaforde .....	20.56	23.77	116
"	Haverfordwest .....	28.12	32.46	115	"	Londonderry .....	22.30	23.62	106
"	Aberystwyth .....	24.58	32.82	134	"	Omagh .....	19.32	27.59	143



occasion only half the average. Thus there were thousands of square miles in the west of Scotland with more than 10 inches of rain and thousands of square miles in the east of England with less than one inch. The following Table contrasts the highest and the lowest falls of April, and it will be observed that sixty times as much rain fell in the month at Ben Nevis, in Inverness-shire, as at Alford, in Lincolnshire. For Scotland this was the wettest month, the general rainfall being scarcely less than twice the average; England, save in the north-west, was, on the other hand, remarkably dry, with a deficiency of 18 per cent.; and Ireland had a normal fall on the whole, nicely graduated from an excess of more than 50 per cent. in the north-west to a deficiency of more than 50 per cent. in the south-east.

*Rainfall in April, 1904.*

WETTEST STATIONS.			DRIEST STATIONS.		
Div.		in.	in.		Div.
XVIII.	Ben Nevis Observatory..	26·57	·44	Alford, The Burial Ground...	VII.
X.	The Sty, C. ....	20·55	·46	Patrington, Spurn Head .....	IX.
XVIII.	Glenquoich.....	17·86	·51	Emneth .....	IV.
X.	Borrowdale, Seathwaite.	15·35	·52	Wisbech, Bank House.....	III.
XVIII.	Loch Shiel, Glenfinnan..	15·18	·52	„ Monica Road .....	„
X.	Sprinkling Tarn.....	15·10	·53	Epping, The Hemnalls .....	IV.
„	Stye Head Tarn .....	14·95	·54	Shoeburyness .....	„
„	Mickleden .....	14·53	·54	Southend, York Road .....	„
XV.	Kingairloch.....	14·15	·54	Danbury Rectory .....	„
X.	Dungeon Ghyll .....	13·64	·55	Abington Pigotts .....	III.
XV.	Ben Lomond .....	13·60	·56	St. Ives, Slepe House .....	„
XVIII.	Glencarron Lodge.....	13·29	·56	Chatteris, The Priory .....	„

**MAY.**

The rainfall was somewhat above the average except in the extreme north of Scotland, the extreme west of Ireland and the centre of England; in these places it was rather below the average, but the differences were not great. The only remarkable feature was a very wet patch in the south of England, spreading northward from the Isle of Wight, where the fall was more than twice the average.

**JUNE.**

This was the first of the nearly unbroken succession of very dry months which gave its character to the year. The general rainfall of the British Isles was two-thirds of the average amount, and except for the west of Scotland and one or two small irregular patches where thunderstorms occurred and raised the rainfall a little above the average, the whole country was dry. The centre of England,

from the Welsh border to the East Riding of Yorkshire and Essex, had less than half its average rainfall, and the middle of the dry belt from Derby to Birmingham had less than a quarter. June is frequently a dry month, but it is rarely so uniformly dry as on this occasion.

#### JULY.

The month as a whole was dry and exceptionally sunny. The rain that fell in the districts which were wettest was mainly due to a remarkable series of severe thunderstorms between the 24th and 26th—the 25th furnishing by far the largest number of maximum falls on any rainfall day in the year. The series of thunderstorms referred to did not penetrate far into Scotland, where the amount of rain accordingly hardly touched the average at any point, while the north of England and Wales also were extremely dry. The driest part of the country, both absolutely and relatively, was the north-east of Scotland surrounding the Moray Firth, where scarcely more than half-an-inch of rain fell and at some stations the amount was less than one quarter of the monthly average. A strip of northern England from Chester to Newcastle-on-Tyne had also less than half the average; but although the rain in the south and east fell heavily in patches, with comparatively dry spaces between, the intensity of the precipitation during the thunderstorms raised the general rainfall over England very nearly to the average. The month was wet on the whole in Ireland, though the east of that island had rather less than the average fall and there was a dry patch round Dublin.

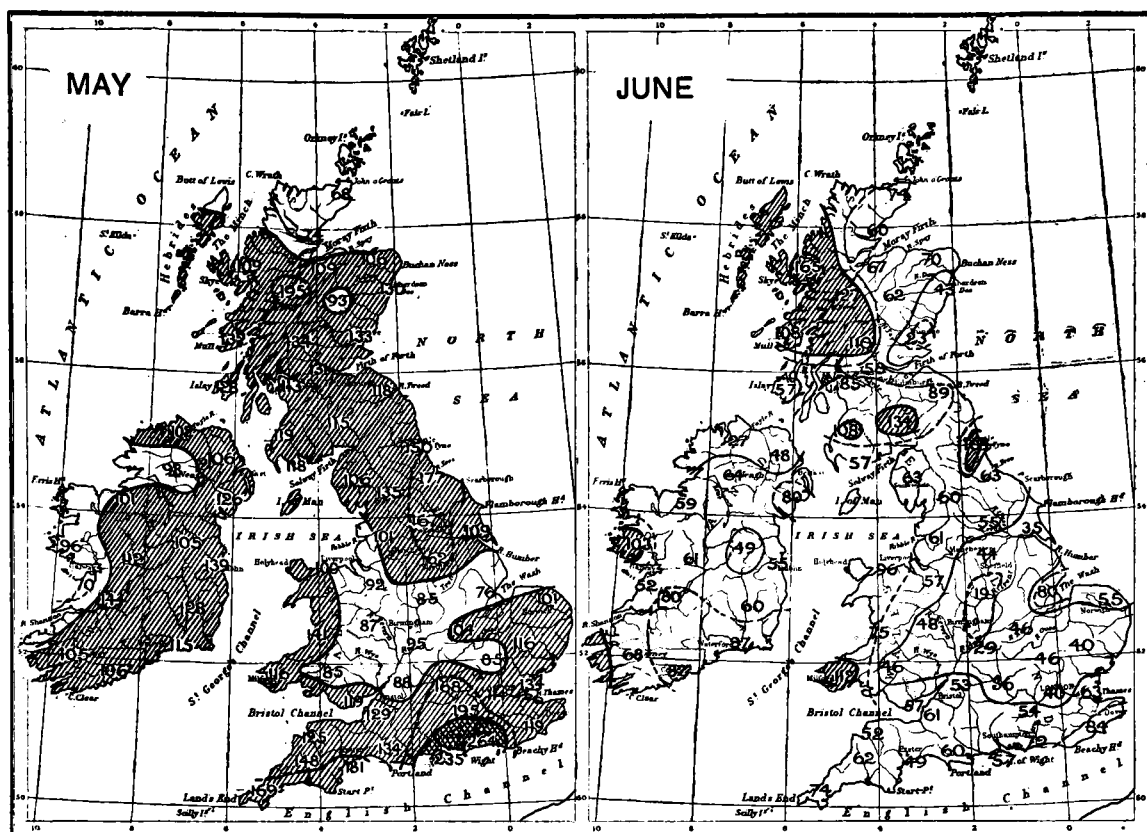
#### AUGUST.

The favourite holiday month approached more nearly to average conditions than any other month in the year. Scotland and Ireland were decidedly wet on the whole, yet Deeside in the former country and the Killarney district in the latter rejoiced in comparatively dry weather. North Wales was rather wet, but over the whole of England the rainfall was scarcely anywhere so much as 10 per cent. above the average except in the basin of the Humber, in which from the Trent to the Ouse there was a more pronounced excess. The month was remarkable because it was the last until March, 1905, in which either England, Scotland or Ireland had a normal supply of rain.

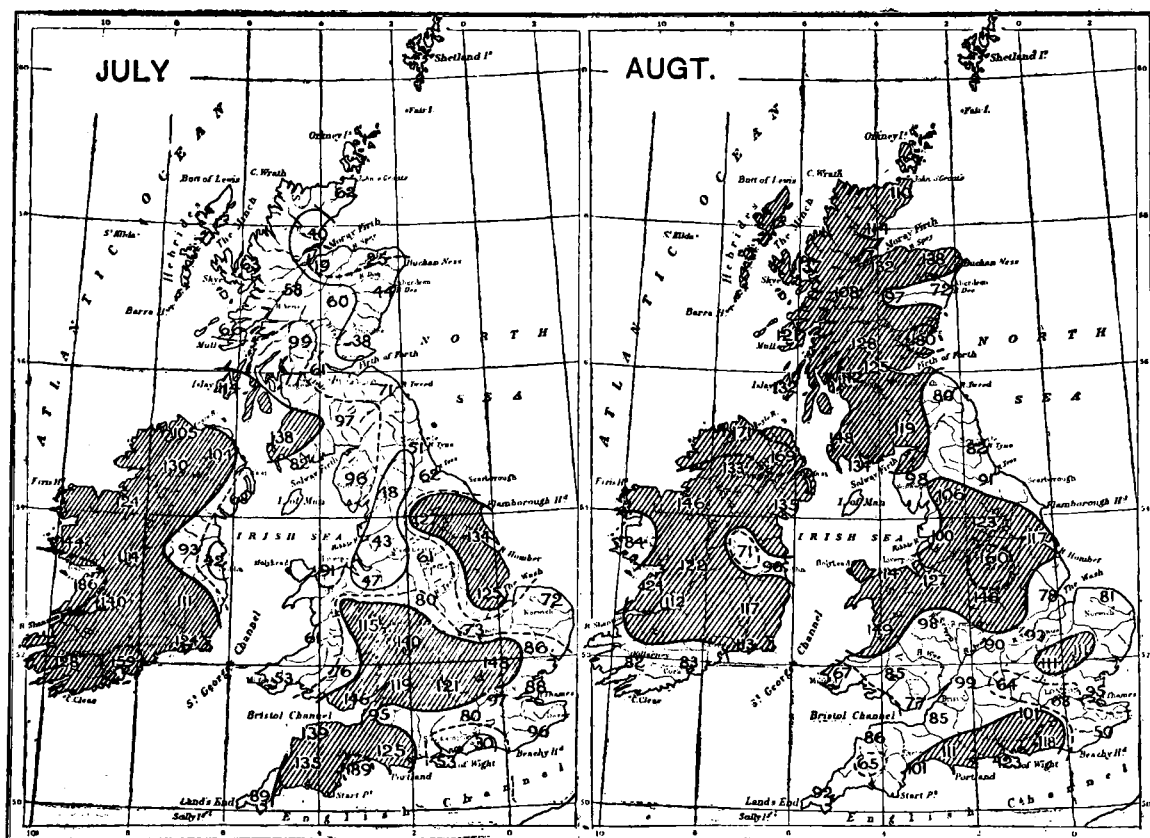
#### SEPTEMBER.

A dry month, though in Ireland the general fall just came up to the average, the coast being a little wetter and the interior a little

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drier. The west of Scotland also just exceeded the average, and a strip across England from South Wales to the Wash was less dry than the rest, though it was only at the extremities that one or two stations caught a trifle more than their normal September fall. The dryness was unusually uniform, and few falls of less than an inch in the month were recorded, such as did occur being found on the borders of the east coast estuaries in England. There were, however, two large tracts of country in which less than half the average rainfall had been experienced. One of these stretched southward from the Firth of Forth to Sheffield and North Wales, the other occupied the east of England from Yarmouth to Hastings.

### OCTOBER.

This was the most remarkable month of the year on account of the extraordinary deficiency of rain in all parts of our islands. Except for two spots in Ireland the average fall was reached nowhere. The general fall was less than half the average, and in the whole course of the publication of *British Rainfall*, from 1860 onwards, only three Octobers, those of 1879, 1888 and 1897, have been found to compare with it. We have accordingly dealt with the matter of dry Octobers in some detail in Part I., to which we now refer the reader.

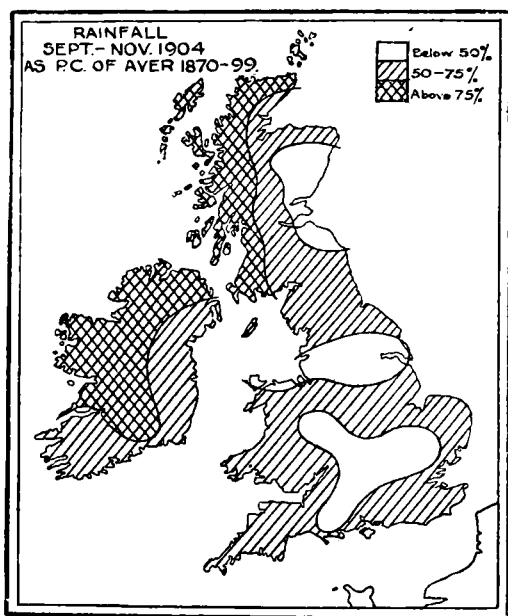
### NOVEMBER.

Coming after so dry a month as October, the remarkably small rainfall of November was, perhaps, less noticed at the time. The distribution was unusually uniform, the few small and scattered areas where precipitation was in excess of the average need scarcely be taken into account, and over Great Britain the rainfall averaged rather less than two-thirds, and over Ireland rather more than three-quarters, of the normal amount. A considerable part of Scotland, in the east and south, received less than half the average, a smaller proportion of England was equally dry, and so was a portion of the east of Ireland, near Dublin.

### The Autumn Months: September, October, November.

The autumn of 1904 was one of the driest on record. We do not say that it was the driest, for in order to pronounce a definite opinion on the matter it would be necessary to perform an immense amount of computation, because the comparison of a small number of stations, however regularly distributed, would not suffice, espe-

cially since the same stations could not be used throughout the forty-five years. It is, however, more likely that it was the driest autumn on record than that it was not. Apart from any claim to unique dryness, the months are interesting in themselves, and we have accordingly prepared a table showing for 69 stations the fall for each month, the total for the three months in 1904, the thirty years' average for the three months, and the ratio of the three



months of 1904 to the average taken as 100. The last column is utilized to produce the accompanying map of the three months' deficiency. The unshaded area shows three large expanses of country—one in the Midlands and south of England, one extending from North Wales to the East Riding, and one in the east of Scotland — over which less than half of the usual autumn rain fell. The cross-shading shows that only in the west of Scotland and in the west

and centre of Ireland did more than three quarters of the normal rainfall appear, and there is no area in which the average was reached. For England and Wales as a whole the deficiency amounted to 44 per cent. or nearly one half, for Scotland to 31 per cent. or nearly one third, and for Ireland to 29 per cent. or much more than a quarter of the average. The driest station shown in the Table is Barnsley, where the deficiency amounted to 70 per cent. or between two-thirds and three-quarters. The importance of a dry autumn in agriculture has been brought into prominence by Dr. W. N. Shaw, who, after considering the relation of the rainfall of autumn to the wheat harvest of the following year, expressed the opinion that the yield of wheat in England would be unusually large at the harvest of 1905, and even suggested as a figure which there was some reason to expect, an average yield of 34·5 bushels per acre.\* The serious import of a dry autumn when followed by a

\* *Met. Mag.* February, 1905, p. 10.

dry winter with regard to water-supply was referred to by us when discussing the winter rainfall of 1904-5 in another place, and we also ventured upon a prediction that the supply of water available for large towns would give rise to anxiety in the summer of 1905 even if the rains of spring and early summer should suffice for agricultural purposes.†

*Rainfall of September to November, 1904.*

Div.	STATIONS.	1904.			Sept.--Nov.		
					1904.	Aver., 1870 to 1899.	Per cent. of Aver.
		Sept.	Oct.	Nov.			
		in.	in.	in.	in.	in.	
I.	Camden Square .....	1·17	1·56	1·70	4·43	7·59	58
II.	Tenderden .....	1·28	1·98	2·04	5·30	9·44	56
„	Arundel, Patching .....	2·10	2·66	1·46	6·22	10·70	58
„	Osborne, Newbarn Cottage ...	2·41	2·38	1·20	5·99	9·51	63
„	Basingstoke, Sherborne S. John	1·28	1·88	1·66	4·82	8·99	54
III.	Hitchin, Wratten .....	1·12	1·13	1·36	3·61	7·54	48
„	Oxford, Magdalen College.....	1·44	·74	1·46	3·64	7·38	49
„	Kettering .....	1·72	·69	1·25	3·66	7·49	49
IV.	Shoeburyness .....	·64	1·59	1·14	3·37	6·65	51
„	Bury St. Edmunds, Westley..	1·17	1·14	1·50	3·81	7·65	50
„	Cawston .....	2·08	1·45	1·98	5·51	8·75	63
V.	Cerne Abbas, Melbury .....	2·67	1·81	1·32	5·80	12·43	47
„	Sidmouth, Sidmount .....	1·76	1·82	1·84	5·42	9·84	55
„	Northam .....	2·62	2·35	3·65	8·62	12·04	72
„	Phillack Rectory.....	2·10	2·04	2·97	7·11	11·70	61
„	Altarnon .....	3·92	3·30	5·87	13·09	18·61	70
„	East Harptree, Sherborne Res.	2·53	1·47	2·56	6·56	12·37	53
VI.	Stroud, Upfield .....	2·27	·58	1·52	4·37	8·81	50
„	Church Stretton, Woolstaston	2·12	·70	1·20	4·02	9·91	41
„	Warwick, Barford Rectory ...	2·17	·45	1·15	3·77	7·56	50
VII.	Boston .....	3·13	·91	·57	4·61	7·06	65
„	Mickleover Manor .....	2·07	·75	1·46	4·28	7·62	56
VIII.	Chester, The Nurseries.....	2·53	·99	1·73	5·25	8·75	60
„	Blackburn, Guide Reservoir...	1·51	1·62	2·58	5·71	12·04	47
IX.	Barnsley, Church Street .....	·75	·42	1·19	2·36	7·87	30
„	Knarborough, Farnham.....	1·26	·61	1·97	3·84	7·65	50
„	Arncliffe Vicarage .....	1·75	2·92	7·04	11·71	17·68	66
„	Hull, Pearson Park .....	1·70	·50	1·51	3·71	8·11	46
„	Middlesbrough, Albert Park...	1·28	·52	2·25	4·05	7·21	56
X.	Newcastle, Town Moor .....	1·18	·81	3·14	5·13	7·95	65
„	Borrowdale, Seathwaite.. ..	7·48	9·21	12·52	29·21	40·02	73
XI.	Cardiff, Ely .....	4·03	2·69	3·49	10·21	13·15	78
„	Haverfordwest, High Street...	5·10	2·25	3·51	10·86	15·25	71
„	Aberystwyth, Gogerddan.....	3·96	3·23	3·18	10·37	14·46	72
„	Brecon, Llandefaelog-fach ...	1·60	1·98	3·37	6·95	13·60	51
„	Llandudno .....	1·15	1·29	1·84	4·28	10·38	41
XII.	Auchencairn, Torr House.....	3·99	3·02	4·05	11·06	14·08	79
„	Moffat, Ericstane .....	3·47	2·71	2·03	8·21	15·70	52

† *Met. Mag.* March, 1905, p. 21.

*Rainfall of September to November, 1904—(continued).*

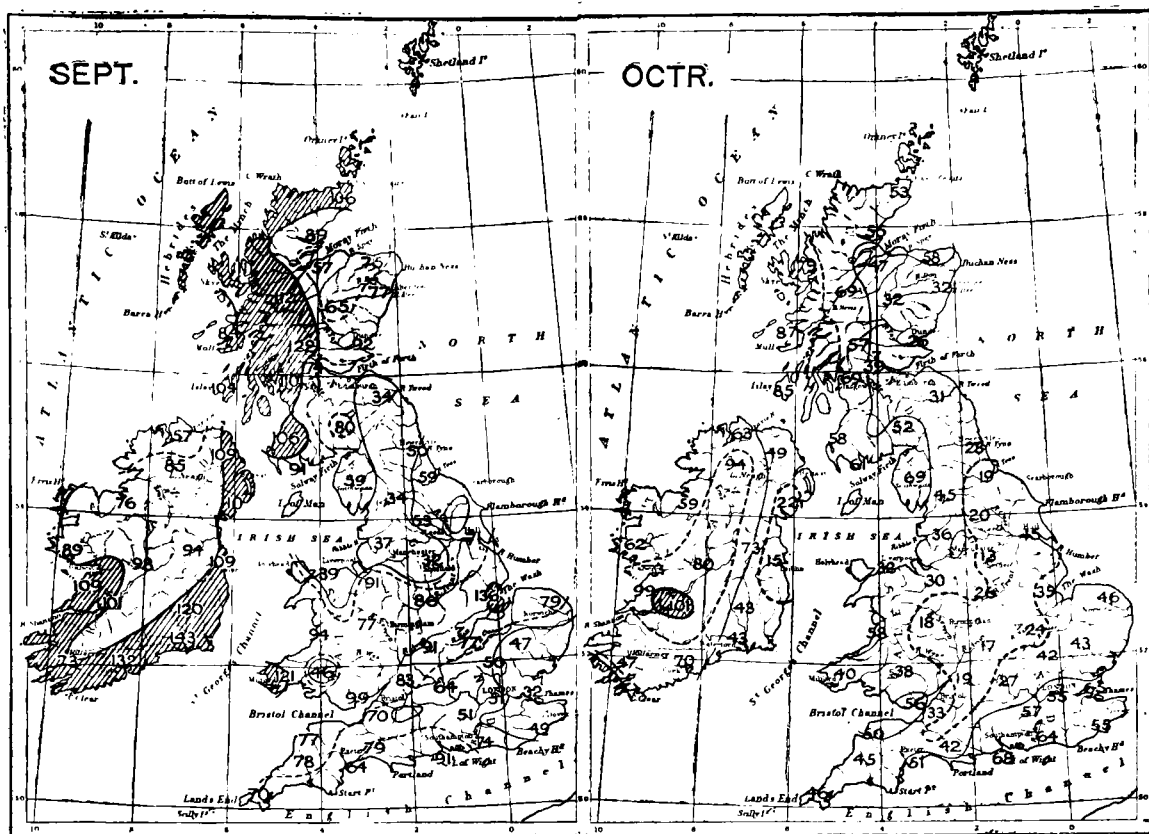
Div.	STATIONS.	1904.			Sept.—Nov.		
		Sept.	Oct.	Nov.	1904..	Aver., 1870 to 1899.	Per cent. of Aver.
		in.	in.	in.	in.	in.	
XIII.	Marchmont House .....	1·07	1·16	1·66	3·89	10·36	38
XIV.	Girvan, Pinmore.....	4·71	3·14	6·76	14·61	15·17	96
„	Loch Thom .....	7·04	4·34	5·06	16·44	19·37	85
XV.	Falkirk, Kerse .....	2·00	1·20	1·50	4·70	8·89	53
„	Islay, Eallabus .....	4·90	4·45	6·13	15·48	15·22	102
„	Mull, Quinish .....	4·61	5·30	4·35	14·26	17·99	79
XVI.	Balquihidder, Stronvar .....	7·60	4·29	2·63	14·52	22·02	66
„	Dundee, Eastern Necropolis...	2·35	·70	·60	3·65	8·02	46
XVII.	Braemar .....	2·14	1·29	1·39	4·82	11·26	43
„	Aberdeen, Cranford ..	2·33	1·03	1·41	4·77	9·69	49
„	Keith.....	2·58	2·15	2·39	7·12	10·42	68
„	Cawdor, Budgate .....	1·73	1·33	1·67	4·73	8·51	56
XVIII.	Invergarry .....	5·72	3·85	3·77	13·34	16·64	80
„	Applecross Gardens .....	5·83	5·02	6·31	17·16	17·77	97
XIX.	Dunrobin Castle .....	2·40	1·82	2·20	6·42	9·29	69
„	Watten .....	2·79	1·70	2·20	6·69	8·59	78
XX.	Cork, Queen's College .....	4·02	2·85	1·55	8·42	11·42	74
„	Killarney .....	3·42	2·85	4·34	10·61	16·57	64
„	Waterford, Brook Lodge .....	4·40	1·74	2·15	8·29	10·99	75
„	Broadford, Hurdlestown .....	2·97	3·15	2·51	8·63	9·25	93
„	Miltown Malbay.....	4·52	4·24	3·45	12·21	12·66	97
XXI.	Carlow, Browne's Hill .....	3·35	1·51	1·68	6·54	9·42	69
„	Dublin, FitzWilliam Square...	2·34	·45	1·08	3·87	7·83	49
„	Mullingar, Belvedere.....	2·98	2·50	1·99	7·47	10·03	74
XXII.	Ballinasloe .....	3·11	2·77	2·70	8·58	10·22	84
„	Clifden, Kylemore House.....	5·97	4·92	6·22	17·11	22·90	75
„	Collooney, Markree Observaty.	2·91	2·68	5·39	10·98	12·32	89
XXIII.	Seaforde .....	3·71	·85	2·36	6·92	11·13	62
„	Ballymena, Harryville .....	3·92	1·89	3·58	9·39	11·38	83
„	Omagh, Edenfel .....	3·00	3·51	3·41	9·92	10·80	92
„	Buncrana, Rockfort .....	2·22	2·94	5·55	10·71	12·74	84

**DECEMBER.**

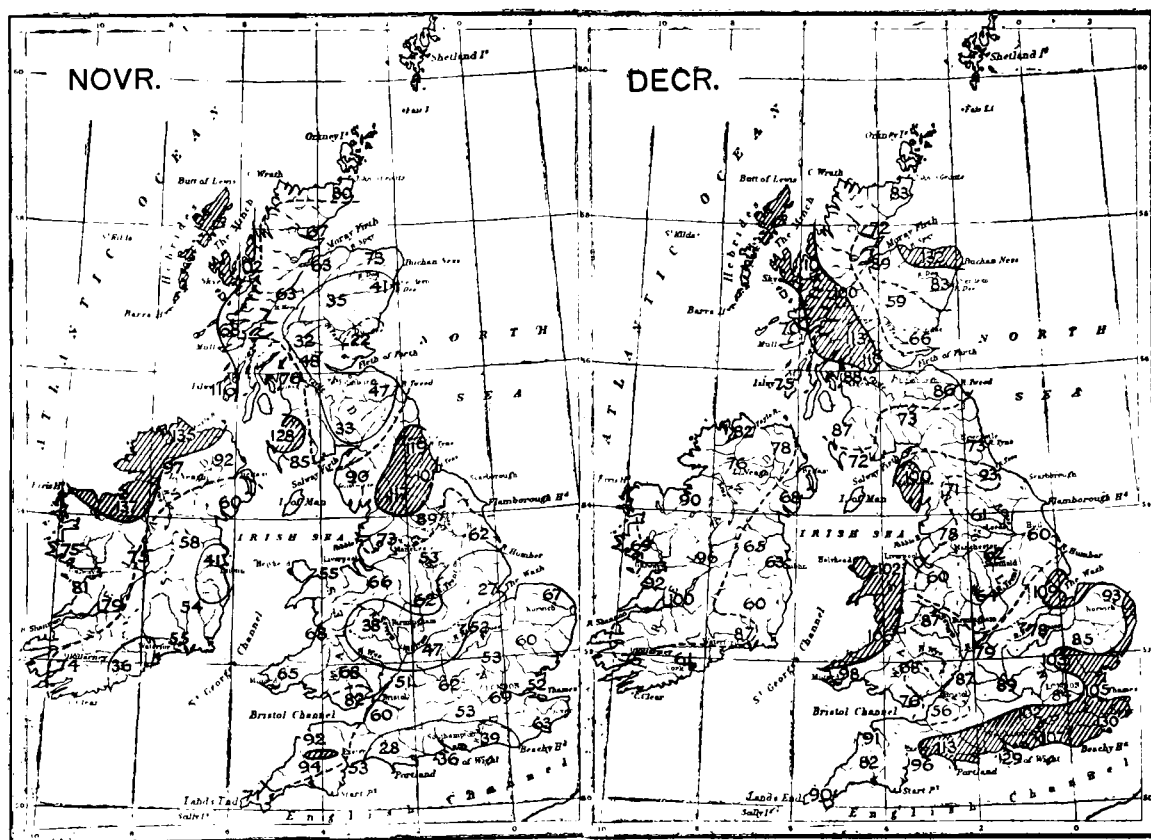
Again the rainfall proved deficient for the British Isles as a whole and for each of the larger divisions. The distribution of rainfall was more uniform than in the previous months, for while no part of the country seemed to have received so little as half the average amount, the excesses in the few strips round the coast where they occurred scarcely anywhere exceeded 10 per cent., a very trifling amount when the smallness of the actual figure is considered. Ireland was on this occasion relatively drier than England or Scotland, and this was the only month in the year when it was so.



# MAPS OF MONTHLY RAINFALL, 1904.



1904.



The figures express the relation of the Rainfall to the average of the month during 1870-99, which is taken as 100. Unshaded areas are below the average.



# MONTHLY RAINFALL AT 233 STATIONS IN THE BRITISH ISLES DURING 1904.

## ENGLAND.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
I.	London	St. Pancras (Camden Square)	2.32	2.58	1.72	1.01	1.96	.84	2.41	1.59	1.17	1.56	1.70	1.79	20.65
II.	Surrey	Guildford (Epsom Road)	4.05	3.68	1.41	1.27	3.45	.61	1.31	1.80	1.69	2.33	1.68	2.84	26.12
"	Kent	Tenterden	3.71	2.94	1.47	1.22	2.04	1.64	2.16	1.18	1.28	1.98	2.04	3.56	25.22
"	"	Sevenoaks (Riverhead)	4.67	3.39	1.32	.71	1.74	1.04	1.69	1.61	1.60	2.35	1.82	3.24	25.18
"	"	Hythe (Hillcrest Road)	3.55	2.65	1.72	1.19	1.91	1.04	1.21	1.54	1.60	2.12	1.39	2.80	22.72
"	"	Ospringe (Lorenden)	3.75	2.93	1.75	1.41	1.87	1.41	1.72	2.34	1.12	1.75	1.61	2.64	24.30
"	Sussex, West	Arundel (Patching)	4.89	3.31	1.07	1.79	4.44	1.36	.79	2.91	2.10	2.66	1.46	3.06	29.84
"	"	Uckfield (Sheffield Park)	4.50	3.80	.91	.78	2.77	1.73	1.25	1.08	2.41	2.27	1.34	3.65	26.49
"	Hants, I. of W.	Totland Bay (Aston House)	3.69	3.18	1.56	1.16	3.19	.73	1.38	2.74	2.83	2.33	1.34	3.16	27.29
"	"	Bps. Waltham (Swanmore Ho.)	4.79	4.56	1.33	1.61	4.33	1.89	1.24	2.75	2.72	2.97	1.19	3.35	32.73
"	"	Basingstoke (Sherborne S.J.)	4.04	3.27	1.49	1.34	3.66	1.06	2.07	2.37	1.28	1.88	1.66	2.67	26.79
III.	"	Newbury (Welford Park)	4.55	3.72	1.56	1.35	3.22	.93	2.38	3.01	1.51	1.60	2.11	2.43	28.37
"	Berks	Hertford (Bayfordbury)	2.94	3.48	1.45	.82	1.75	1.30	2.69	2.25	1.64	1.26	1.62	1.90	23.10
"	Herts	Royston (Therfield Rectory)	2.11	2.99	1.64	.93	1.70	1.04	3.00	2.50	1.26	1.32	1.36	1.86	21.71
"	"	Slough (Upton)	2.54	2.65	1.22	1.00	3.06	.99	3.35	2.08	1.40	1.36	1.59	2.14	23.38
"	Bucks	Greenlands (Henley-on-Thames)	2.99	3.00	1.26	1.46	2.72	.98	2.28	2.04	1.34	1.49	1.85	2.75	24.16
"	"	Buckingham (Adstock)	2.40	3.10	1.62	1.09	2.71	.55	2.79	2.36	1.35	.89	1.51	1.56	21.93
"	Oxford	Oxford (Magdalen College)	2.84	2.84	1.12	.77	2.89	.75	3.05	1.48	1.44	.74	1.46	1.78	21.16
"	Northampton	Wellington (Swanspool)	2.19	3.38	1.34	1.29	2.40	1.08	2.15	3.46	1.98	.79	1.18	1.54	22.78
"	Bedford	Shillington	2.12	2.50	1.34	1.03	1.45	.74	3.55	2.08	1.12	1.16	1.53	1.82	20.44
"	Cambridge	Stretham Engine	1.06	2.25	.95	.54	1.62	.55	2.89	1.57	1.22	1.30	.95	1.60	16.50
IV.	"	Wisbech (Bank House)	1.47	2.28	1.34	.52	1.73	.52	1.84	2.08	1.99	1.35	.82	1.65	17.59
"	Essex	Loughton (High Beech)	2.27	2.69	1.48	.70	1.85	1.18	2.36	1.91	1.30	1.29	1.46	1.63	20.12
"	"	Chelmsford (High Street)	2.00	2.54	1.76	.83	1.53	1.02	1.65	2.40	.95	1.11	1.42	1.85	19.06
"	"	Braintree (Bocking Place)	2.31	2.49	1.64	.74	1.77	.65	1.87	1.06	1.16	.74	1.49	1.56	17.48
"	Suffolk	Ipswich (Woolverstone Pk.)	2.20	2.01	1.81	.92	2.28	1.10	1.73	1.43	1.66	1.05	1.30	2.09	19.58
"	"	Haverhill (Great Thurlow)	1.96	2.68	1.58	.90	1.58	1.04	2.04	2.40	1.04	.71	1.30	1.78	19.01
"	"	Aldborough (Aldringham Ho.)	1.56	2.34	1.27	.88	1.59	.80	1.61	.57	1.90	.96	1.26	1.94	16.68
"	"	Gedeston [Beccles]	1.97	2.50	1.47	.78	1.81	.60	2.60	2.63	1.39	.93	1.87	2.12	20.67
"	Norfolk	Swaffham	1.80	3.15	1.49	1.12	1.76	.67	2.91	3.38	2.24	1.14	1.60	1.48	22.74
"	"	Holt	1.32	2.84	1.56	.72	1.70	.80	3.18	2.83	2.10	1.25	1.76	2.03	22.09

# ENGLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
V.	Wilts	Alderbury	4.89	4.10	1.39	1.08	2.86	.87	2.27	2.49	2.00	1.72	1.07	3.29	29.03
"	"	Trowbridge (W. W. Biss)	4.33	4.56	2.20	1.59	2.42	1.22	3.60	3.28	2.48	1.27	1.86	3.10	31.91
"	"	Marlborough (Mildenhall)	4.20	3.34	1.53	1.23	2.74	.92	2.93	2.35	1.76	1.04	1.81	2.47	26.32
"	Dorset	Beaminster Vicarage	5.54	5.26	1.99	1.46	2.67	1.29	4.40	3.94	3.31	2.11	1.73	3.70	37.40
"	"	Wimborne (Horton Vic.)	5.18	4.56	1.48	1.24	2.66	.92	2.83	4.11	2.47	2.19	1.93	3.71	33.28
"	"	Buckhorn Weston	3.08	3.81	1.14	1.04	2.71	.71	3.09	2.93	1.58	2.03	1.36	2.80	26.28
"	Devon, South	Buckfastleigh (Bossell Pk.)	11.09	10.49	3.67	2.79	4.06	1.92	4.76	3.25	3.75	3.18	2.61	5.93	57.50
"	"	Dartmoor (Lowery)	9.26	8.14	3.23	2.36	5.72	1.79	7.72	4.17	4.13	3.13	2.35	5.51	57.51
"	"	Exeter (Manston Terrace)	3.92	5.58	1.97	.86	2.18	.85	6.10	2.32	1.99	1.38	1.75	2.83	31.73
"	"	Cullompton	4.32	5.63	2.26	1.24	2.77	.82	5.82	2.35	2.72	1.57	2.31	3.13	34.94
"	"	South Molton (Castle Hill Sch.)	5.24	5.73	2.16	2.32	3.10	1.34	5.29	3.53	3.03	3.13	4.47	3.62	42.96
"	Cornwall	Penzance (Penlee)	6.07	7.83	2.19	1.89	3.74	1.69	2.57	3.62	3.19	3.13	3.36	4.62	44.10
"	"	St. Agnes	5.33	6.28	2.12	1.60	3.01	1.23	4.25	2.65	2.26	2.20	2.69	3.76	37.38
"	"	Bude	4.65	4.92	1.58	1.25	2.80	.89	5.09	2.46	1.32	2.24	3.44	2.83	33.47
"	"	Crewkerne (Bincombe Ho.)	4.56	5.31	1.49	1.12	1.97	1.14	4.32	3.98	1.78	1.52	1.19	3.46	31.84
"	Somerset, South.	Holford (Woodlands House)	4.02	6.26	2.44	.77	2.94	1.06	3.60	2.70	2.10	1.06	1.86	2.05	30.86
"	"	Street	3.14	3.98	1.14	1.01	2.50	.99	3.70	2.76	2.18	1.76	2.67	2.57	28.40
V.I.	Gloucester, West.	Clifton (Pembroke Road)	3.58	4.09	2.17	2.29	3.19	1.92	4.40	3.23	1.54	1.37	2.12	2.32	32.22
"	"	Stroud (Upfield)	3.77	4.40	1.57	1.23	1.86	1.18	3.46	2.80	2.27	.58	1.52	2.15	26.79
"	"	Fairford (Hatherop Rec.)	3.62	4.39	1.19	1.02	2.84	.93	4.11	2.63	2.01	.63	1.64	1.93	26.94
"	"	Moreton-in-Marsh (Longboro')	3.55	5.03	1.78	1.21	3.89	1.11	3.09	2.67	2.74	.86	1.72	2.16	29.81
"	"	Ross (The Graig)	3.10	4.42	1.70	1.25	2.11	.97	1.90	1.77	2.16	.55	1.23	2.19	23.35
"	Hereford	Leominster (Farm)	2.48	4.42	1.44	1.00	2.58	.79	1.93	2.47	2.12	.59	1.49	1.86	23.17
"	"	Ch. Stretton (Woolstaston)	3.13	4.08	1.57	1.64	2.27	1.17	3.06	3.19	2.12	.70	1.20	2.53	26.66
"	Shropshire	Much Wenlock (Wiley Pk.)	2.80	4.26	1.61	1.07	2.18	.74	2.48	2.67	1.88	.80	1.43	1.76	23.68
"	"	Shrewsbury (Highfield)	2.21	3.29	1.37	1.07	2.16	.89	2.25	3.33	1.43	.39	1.00	1.72	21.11
"	"	Oswestry (The Mount Res.)	4.28	4.57	2.04	1.51	2.46	1.53	1.99	5.21	1.49	1.16	1.51	2.40	30.15
"	Stafford	Penkridge (Rodbaston)	2.65	3.58	1.54	1.85	1.97	.43	2.14	2.76	1.99	.71	1.62	1.45	22.69
"	"	Burton (Shobnall)	1.81	3.15	1.47	1.52	2.46	.48	2.18	3.37	1.97	.83	1.26	1.46	21.96
"	"	Market Drayton (Old Springs)	2.70	3.63	1.92	1.23	2.05	.85	2.24	4.46	1.80	.75	1.56	1.77	24.96
"	Worcester	Malvern (Madresfield Rec.)	2.51	3.93	1.08	1.09	1.80	.58	2.06	1.72	2.22	.43	1.27	1.84	20.53
"	"	Stourbridge (Pedmore)	2.90	3.74	1.66	1.48	4.67	.67	2.06	2.42	2.24	.82	1.40	2.09	26.15
"	"	Leamington (Cubington)	2.10	3.03	1.42	.95	1.92	.43	3.57	2.19	1.97	.52	1.26	1.66	21.02
"	Warwick	Bedworth Cemetery	2.87	3.04	1.68	.94	1.74	.47	2.13	2.65	1.96	.71	1.32	1.98	21.49
VII.	"	Loughboro' (Nan Pantan Res.)	3.54	3.08	2.02	1.20	1.54	.47	3.08	3.97	1.93	.58	1.34	1.90	24.65
"	"	Belvoir Castle	2.23	2.87	1.98	1.15	2.09	.89	3.31	2.16	1.81	.62	1.13	1.71	21.95

# ENGLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	Mar.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
VII.	Rutland.....	Market Overton .....	2.75	3.51	1.71	1.28	1.37	.58	3.57	2.08	1.91	.64	1.16	1.67	22.23
"	Lincoln, South...	Sleaford (Rauceby Hall) ...	1.74	3.24	1.92	1.30	3.10	.45	2.94	2.78	1.85	.70	.93	1.74	22.69
"	" North.....	Market Rasen .....	1.67	2.55	1.79	.99	1.60	.30	3.37	5.62	2.27	.69	1.07	1.76	23.68
"	" ".....	Burton-on-Stather .....	1.89	2.78	1.93	1.29	1.86	.61	2.13	4.03	1.85	.82	1.17	1.49	21.85
"	Notts.....	Ollerton (Boughton W. W.)	2.61	3.49	2.31	1.13	2.59	1.38	3.13	3.86	1.28	.41	.93	1.39	24.51
VIII.	Derby.....	Darley Hall .....	4.09	4.95	2.16	1.94	1.66	.73	2.40	4.59	1.76	.68	1.92	1.66	28.54
"	Cheshire.....	Congleton(Buglawton Vic.)	2.47	2.60	1.24	1.59	2.01	.86	1.61	3.77	1.64	1.05	2.05	1.85	22.74
"	Lancashire, South	Manchester (Withington) .	2.51	2.59	1.80	1.84	2.13	.72	1.26	4.16	1.31	1.14	2.22	2.49	24.38
"	" ".....	Ormskirk (Rufford) .....	2.81	3.87	2.14	2.05	1.58	2.25	1.22	4.32	2.03	2.34	2.31	2.94	29.66
"	" ".....	Burnley (Swinden, Lower)	4.59	5.40	2.86	2.85	3.18	1.24	2.52	5.02	1.59	1.79	3.51	3.17	37.72
"	" North	St. Michael's-on-Wyre ...	3.54	3.31	2.53	2.19	2.54	1.61	2.09	3.97	1.95	2.80	2.89	2.93	32.35
IX.	" ".....	Cartmel (Pit Farm) .....	5.05	3.76	3.88	3.77	2.69	1.56	2.70	4.07	2.69	3.82	3.24	4.44	41.67
"	York, W. R. South	Rotherham (Moorgate).....	1.98	3.31	1.92	1.72	2.76	.28	2.02	3.48	1.06	.60	1.20	1.16	21.49
"	" Central	Meltham (Harewood Lodge)	6.28	6.91	2.95	3.55	3.84	1.03	3.70	4.89	1.34	1.40	3.66	2.95	42.50
"	" ".....	South Milford Rectory ...	2.44	3.18	1.99	1.94	2.52	1.00	2.30	3.97	1.29	.72	1.83	1.77	24.95
"	" ".....	Malham Tarn .....	5.73	4.22	3.30	5.09	3.77	2.20	2.17	4.49	2.13	2.93	6.80	4.51	47.34
"	" North	Ripon (Mickley) .....	3.34	3.10	2.24	1.84	3.68	1.19	2.42	3.27	1.17	.71	1.53	2.14	26.63
"	" E. R. ....	Pattingham.....	1.35	2.34	1.63	.80	1.27	.38	2.23	3.88	1.48	.50	1.45	2.09	19.40
"	" ".....	Pocklington (Warter) .....	2.26	3.17	1.97	1.07	2.15	.55	1.68	3.31	1.85	.72	2.49	1.31	22.53
"	" ".....	Lowthorpe (The Elms) ...	2.06	2.63	1.65	1.08	2.07	.75	2.03	3.03	1.22	.60	2.38	2.19	21.69
"	" N. R. ....	Thirsk (Mount St. John)...	2.03	2.16	1.58	1.57	3.63	1.22	1.71	3.20	1.62	.61	2.54	2.20	24.07
"	" ".....	Whitby (Mulgrave Castle).	2.03	3.18	1.69	1.10	2.64	1.01	1.94	3.46	1.02	.48	2.39	2.12	23.06
"	" ".....	Middlesbrough (Ormesby) .	1.62	2.21	1.25	1.40	3.17	1.31	2.59	2.55	1.41	.59	2.66	2.30	23.06
X.	Durham.....	Darlington(Hurworth Grange)	2.26	1.97	1.99	1.57	3.59	1.84	2.22	2.60	1.59	.74	1.59	2.00	23.96
"	" ".....	Hartlepool(HurworthBuru)	1.59	3.09	1.91	1.29	2.94	1.93	1.27	2.97	1.97	.76	2.37	2.49	24.58
"	" ".....	Wolsingham .....	3.46	2.68	2.08	1.82	2.91	2.17	1.79	2.62	.84	.74	2.59	2.40	26.10
"	Northumberland	Corbridge (Howden Dene).	1.67	2.01	2.04	1.67	2.66	2.05	1.01	2.44	1.39	.65	3.09	1.76	22.44
"	" ".....	Morpeth (Bothalhaugh) ..	1.76	2.04	1.35	1.27	2.92	2.18	1.03	3.13	1.20	.46	3.97	2.08	23.39
"	" ".....	Alwinton (Biddleston) ...	2.25	3.58	2.14	1.47	2.59	1.41	1.91	2.88	.97	.64	3.04	2.43	25.31
"	" ".....	Howick Hall .....	2.25	3.41	1.95	1.56	3.21	2.20	1.51	3.56	1.24	.83	4.45	2.43	28.60
"	Cumberland .....	Borrowdale (Seathwaite)...	16.37	10.13	12.51	14.60	7.68	4.39	8.29	10.94	7.48	9.21	12.52	14.69	128.81
"	" ".....	Brampton (Denton House)	2.86	1.84	1.89	2.98	2.35	1.69	1.34	4.13	1.55	1.30	2.59	2.30	26.82
"	Westmorland ..	Kendal (Ivy Garth) .....	6.05	3.99	4.59	4.85	3.85	1.95	3.48	3.69	2.89	3.32	4.07	5.64	48.37
"	" ".....	Appleby (Castle Bank) ...	5.18	3.14	1.89	2.49	3.45	2.23	1.61	3.04	.87	1.13	2.93	3.34	31.30
"	" ".....	Lowther Castle.....	5.56	4.22	1.67	3.07	2.26	2.94	1.54	3.63	1.29	.97	3.46	3.19	33.80

# MONMOUTH, WALES AND THE ISLANDS.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XI.	Monmouth.....	Chepstow (Piercefield Park)	4.74	4.93	1.74	2.12	2.73	1.04	4.03	2.88	2.51	.78	1.75	2.63	31.88
"	"	Abergavenny (Larchfield) ..	5.22	6.91	2.26	1.87	2.55	1.18	2.14	3.03	3.17	.49	1.22	3.44	33.48
"	Glamorgan.....	Cardiff (Roath Park) .....	5.60	5.81	2.97	2.44	3.05	1.29	4.13	3.56	3.49	2.48	3.50	3.40	41.72
"	"	Neath (Fairy Land).....	6.35	6.19	2.29	2.67	3.86	2.11	3.58	3.93	4.24	3.59	4.30	4.04	47.15
"	"	Llanelli (Old Market Yard) ..	5.69	5.19	1.59	2.42	2.70	1.86	3.65	2.72	3.47	3.75	3.73	4.67	41.44
"	"	Llanwrda (Dolaucothy) ...	7.55	5.40	2.55	4.05	3.12	2.54	3.30	4.87	3.53	4.09	4.86	5.37	51.23
"	"	St. David's .....	4.98	6.08	2.19	1.41	2.63	2.07	1.36	3.30	3.77	1.81	3.75	4.62	37.97
"	Pembroke .....	Aberystwyth (Nth. Parade)	4.06	4.05	1.18	2.28	3.35	1.31	2.42	4.79	3.55	1.85	2.59	3.18	34.61
"	Cardigan .....	Cantref Rectory .....	9.47	6.67	2.86	2.65	2.44	1.77	3.25	3.94	1.98	1.40	2.76	5.51	44.70
"	Brecon .....	Llysdinam [Newbridge] ...	5.43	4.73	1.86	2.02	2.16	1.51	2.41	3.84	2.10	2.50	2.98	4.02	35.56
"	"	Rhayader (Nantgwillt) ...	8.57	7.38	3.05	4.18	2.65	2.06	2.56	3.86	3.12	2.97	4.03	5.14	49.57
"	"	Newtown (Dolfor) .....	4.18	4.92	1.78	1.61	2.18	1.69	2.20	3.43	2.11	.90	1.67	2.70	29.06
"	Montgomery .....	St. Asaph (Nantlys) .....	2.90	2.90	1.48	1.01	1.93	1.33	1.35	3.18	1.03	1.43	2.02	1.80	22.22
"	Flint .....	Gresford (Trewythen) .....	2.42	3.75	1.30	1.00	1.95	1.18	2.54	4.32	1.74	.65	1.68	(2.35)	21.88
"	Denbigh.....	Llanbedr (Minafon) .....	4.51	4.21	3.05	3.15	3.24	1.49	2.74	6.41	4.00	2.72	2.70	4.42	42.64
"	Merioneth .....	Llanderfel (Palé) .....	6.34	6.24	2.19	4.42	2.54	1.79	2.59	4.66	1.96	1.97	3.06	4.19	41.95
"	"	Rhiwbryddir .....	8.81	6.71	8.47	9.72	6.07	2.66	6.16	8.52	5.67	8.84	8.13	11.76	91.52
"	"	Criccieth (Talarvor) .....	3.53	3.25	2.61	2.52	2.55	1.32	2.30	3.91	2.62	1.58	2.76	3.97	32.92
"	"	Llanerchymedd .....	5.63	4.35	3.27	2.59	1.87	1.94	2.95	2.96	3.60	2.18	2.96	3.86	38.16
"	Carnarvon .....	Douglas (Woodville) .....	3.10	4.74	3.07	2.20	3.17	1.65	2.31	4.21	3.74	2.16	3.37	3.25	36.97
"	Anglesea .....	St. Helier (St. Louis Obs.)	4.30	3.64	1.94	1.90	2.16	.80	2.44	2.07	2.83	4.93	2.64	4.23	33.88
"	Isle of Man .....	St. Peter Port (Villa Carey)	5.00	4.65	1.42	1.19	2.24	1.34	2.29	2.10	2.58	5.25	2.72	4.29	35.07
"	Jersey.....														
"	Guernsey .....														

## SCOTLAND.

XII.	Wigton .....	Garliestown (Galloway House)	3.19	4.31	2.80	2.39	2.53	1.48	2.79	4.45	3.58	2.13	3.44	3.31	36.40
"	"	Corsewall .....	3.67	3.12	2.53	1.90	1.93	2.07	3.09	4.50	3.82	1.65	4.52	2.46	35.26
"	"	Dalbeattie (Little Richorn)	3.67	2.84	3.59	2.99	3.12	2.09	3.39	5.62	3.81	3.34	3.22	3.64	41.32
"	"	Dalry (Glendarroch) .....	6.27	4.64	3.57	4.68	2.45	2.14	3.13	6.94	4.77	2.62	5.19	5.17	51.57
"	"	Langholm (Drove Road)...	5.13	4.09	5.93	5.74	3.76	3.84	5.34	5.63	2.92	2.57	3.83	4.55	53.33
"	"	Moffat (Ericstane) .....	5.15	4.37	4.53	5.53	3.30	3.99	3.68	5.03	3.47	2.71	2.03	5.05	48.84
"	"	Hawick (Branxholme) .....	2.49	2.42	2.41	2.73	2.12	2.68	2.22	2.69	.80	1.29	2.13	1.99	25.97
"	"	Jedburgh (Ancrum Bridge)	2.26	2.35	2.01	2.03	2.99	2.08	1.65	2.82	.60	.86	2.03	1.55	23.23
"	"	Selkirk (The Hangingshaw)	2.50	3.13	2.12	2.43	2.77	2.60	2.85	2.13	1.31	.99	2.03	3.06	27.92
XIII.	"	Eddlestone (Portmore) ...	2.37	3.05	1.67	2.82	3.87	2.54	2.16	4.90	1.18	1.14	2.22	2.77	30.69

# SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XIII.	Berwick .....	Marchmont House .....	2.53	2.33	2.22	2.04	2.83	2.31	2.45	2.83	1.07	1.16	1.66	2.63	26.06
"	Haddington .....	Whittinghame Gardens ..	2.67	3.61	1.61	1.14	3.38	2.70	1.54	3.85	1.24	.76	1.40	2.31	26.21
"	Midlothian .....	Edinburgh (Royal Obs.)...	2.87	2.38	1.08	1.69	2.88	2.12	1.19	4.30	1.55	.54	1.06	2.40	24.06
"	Linlithgow .....	Carribber Reservoir .....	3.22	2.66	1.63	3.25	3.62	1.35	2.90	3.72	2.24	1.15	1.41	4.09	31.24
XIV.	Lanark .....	Cleghorn .....	3.59	2.33	1.63	3.91	3.16	2.05	2.81	4.06	1.87	2.27	2.41	3.57	33.66
"	" .....	Hamilton (Water Works)..	4.30	2.30	1.70	5.00	2.70	1.40	2.15	3.80	2.60	1.60	2.00	3.65	33.20
"	Ayr .....	Colmonell .....	4.90	3.80	2.50	2.71	2.28	1.92	3.20	5.81	4.49	2.59	5.30	3.72	43.22
"	" .....	Maybole (Culzean Gardens)	3.40	2.95	2.00	3.35	1.80	1.80	2.90	5.20	3.40	2.10	3.90	2.65	34.95
"	" .....	Kilmarnock (North Craig).	4.50	3.00	2.00	5.40	3.00	1.80	3.40	5.30	5.00	2.00	4.00	3.00	42.40
XV.	" .....	Helensburgh (Water Works)	3.70	4.68	2.08	4.14	3.58	2.51	1.97	4.58	4.20	2.13	2.86	5.21	41.64
"	Stirling .....	Buchlyvie (The Manse) ..	5.48	4.85	2.96	6.77	4.12	2.49	3.31	6.13	5.39	3.03	2.38	6.18	53.09
"	Bute .....	Rothsay (Crichton Road)	6.06	5.30	2.96	5.43	3.61	2.43	3.43	5.61	5.80	3.39	4.56	4.82	53.40
"	Argyll .....	Kintyre (Devaar) .....	6.35	3.96	2.67	4.17	2.33	1.21	3.71	4.89	5.37	3.13	4.47	4.27	46.53
"	" .....	Lochgilphhead (Poltalloch).	5.16	3.54	2.25	3.74	3.18	2.89	4.46	4.39	4.70	4.13	5.35	6.08	49.87
"	" .....	Inveraray (Newtown) ..	6.69	6.28	3.77	9.69	4.07	3.35	4.11	7.41	6.25	5.69	5.42	7.92	70.65
"	" .....	Morvern (Drimnin) .....	8.67	5.95	3.32	6.61	3.92	4.44	2.85	6.68	5.28	4.93	5.58	5.89	64.12
"	" .....	Ballachulish (Ardsheal) ..	11.47	7.64	5.89	11.66	6.75	4.80	5.31	8.12	8.82	6.45	6.23	9.98	93.12
"	" .....	Strontian (Laudale) .....	10.58	7.67	7.00	11.21	5.83	5.01	4.61	7.18	8.43	7.48	6.96	8.61	90.57
"	" .....	Islay (Ardbeg) .....	4.60	2.71	2.19	5.06	3.40	.55	3.14	4.46	2.75	3.99	5.72	3.79	42.36
XVI.	Clackmannan ..	Dollar .....	2.93	3.79	1.57	5.02	3.09	1.06	2.36	5.61	3.57	1.54	1.67	5.55	37.76
"	Kinross .....	Loch Leven Sluice .....	2.71	2.92	2.13	4.23	3.25	1.77	2.02	5.69	2.23	1.85	1.00	2.08	31.88
"	Fife .....	Kilconquhar (Balcarres) ..	2.30	5.12	1.98	1.92	3.03	1.25	2.01	5.80	1.67	.89	1.04	2.50	29.51
"	Perth .....	Balquhiddier (Stronvar) ..	8.40	6.32	4.82	9.79	5.38	4.71	4.71	7.74	7.60	4.29	2.63	9.57	75.96
"	" .....	Coupar Angus .....	2.07	3.70	1.90	2.27	2.40	.86	2.28	4.34	2.46	.97	.69	2.16	26.10
"	" .....	Blair-Atholl .....	3.39	2.58	1.67	4.01	1.45	1.97	1.77	4.13	3.44	.91	1.63	3.33	30.28
"	Forfar .....	Arbroath (Dishland Hill)..	1.84	3.00	1.04	1.16	1.96	.65	.83	4.51	1.93	.74	.84	1.45	19.95
"	" .....	Kirriemuir (Balnakeilly)...	2.90	4.00	2.40	3.20	2.80	1.60	2.00	4.60	2.70	1.80	.90	2.60	31.50
XVII.	Kincardine .....	Fettercairn (The Burn)...	2.17	4.62	2.76	2.11	2.57	1.05	1.00	4.69	3.12	1.02	1.53	3.30	29.94
"	Aberdeen .....	Alford (Lynturk Manse)...	1.28	4.20	1.96	1.97	2.88	.95	1.61	3.04	2.16	1.15	2.03	2.38	25.61
"	" .....	New Deer School House...	2.53	3.63	2.41	2.20	2.48	.90	1.53	2.74	3.29	1.85	2.00	2.79	28.35
"	Banff .....	Banff (Earl Hill) .....	1.32	2.26	1.29	2.14	1.44	.85	.40	4.92	2.13	1.05	1.75	2.61	22.16
"	Moray .....	Grantown .....	1.40	1.96	.88	2.33	2.26	1.10	1.21	3.88	1.93	1.31	2.62	2.76	23.64
"	" .....	Gordon Castle .....	.77	2.83	.77	1.79	1.90	1.24	1.00	3.67	2.53	1.58	1.93	3.08	23.09
"	Nairn .....	Cawdor (Budgate) .....	1.61	2.29	.63	2.77	2.22	1.50	.63	4.04	1.73	1.33	1.67	2.26	22.68

## SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XVII.	Nairn	Nairn (Achareidh)	60	1.91	.45	1.42	1.33	1.17	.45	4.11	1.65	1.24	1.53	1.82	17.68
XVIII.	Inverness, West	Mucomir	6.44	4.46	2.92	7.30	4.90	3.51	3.72	5.42	6.96	4.40	4.20	7.19	61.42
"	"	Glen Quoich	14.57	7.26	5.76	17.86	8.77	7.05	4.39	8.45	8.92	10.62	10.70	15.35	119.70
"	"	Alvey Manse	2.01	1.34	1.22	2.96	3.67	1.42	1.04	3.67	2.43	1.83	1.68	3.13	26.40
"	"	Loch Ness (Whitebridge)	6.67	3.67	1.54	8.15	4.37	2.02	.97	3.90	1.89	2.41	3.04	7.08	45.71
"	Ross, West	Applecross	6.42	4.36	3.24	6.91	3.50	5.00	2.59	6.01	5.83	5.02	6.31	6.29	61.48
"	"	Strathconan (Dalbreac)	6.56	3.95	1.34	9.09	4.46	1.60	.31	3.74	1.79	3.48	4.91	4.58	45.81
"	"	Loch Torridon (Bendamph)	12.58	3.76	5.68	12.15	6.22	5.83	3.16	7.10	8.28	7.39	6.70	8.73	87.58
"	"	Ardross Castle	2.65	4.89	1.37	3.72	2.43	1.53	1.85	4.13	2.33	2.42	3.08	4.46	34.86
XIX.	"	Invershin	1.64	3.86	.80	4.44	1.54	1.17	.75	3.68	2.24	2.38	2.80	2.78	28.08
"	Sutherland	Dunrobin Castle	1.18	3.78	1.53	5.25	1.50	1.28	1.14	3.03	2.40	1.82	2.20	2.45	27.56
"	"	Wick	1.50	1.83	1.40	3.86	1.68	1.35	1.26	3.30	2.65	2.27	2.31	1.88	25.29
"	Caithness	Watten Station	1.34	3.01	.94	3.19	1.26	1.30	1.53	2.87	2.79	1.70	2.20	2.46	24.59
"	"	Sumburghead (Dunroseness)	5.25	2.79	1.83	5.05	2.26	1.32	1.29	2.61	2.39	4.33	3.72	5.16	38.00

## IRELAND.

XX.	Cork	Castletownshend (Glen Barrabane)	5.81	5.80	3.39	2.37	2.58	1.70	4.84	4.10	3.79	5.25	3.02	4.34	46.99
"	"	Cork (The Palace)	5.46	5.57	2.38	1.19	2.16	1.76	3.31	2.90	3.75	2.80	1.44	2.76	35.48
"	"	Mallow (Summer Hill)	5.08	5.46	3.10	1.62	3.02	2.11	3.12	3.83	2.79	2.70	1.97	3.22	38.02
"	Kerry	Waterville	6.61	5.65	2.58	2.74	2.61	3.08	5.19	4.84	5.83	4.02	3.24	3.54	49.93
"	"	Kenmare (Derreen)	10.18	8.53	4.51	4.34	3.41	5.12	8.22	6.41	9.76	5.63	4.11	7.02	77.24
"	"	Waterford (Brook Lodge)	4.97	6.39	3.61	1.15	2.42	2.52	3.83	4.18	4.40	1.74	2.15	3.76	41.12
"	Waterford	Clonmel (Bruce Villa)	5.01	5.15	2.27	1.64	2.70	2.51	3.51	3.56	3.78	2.00	2.06	2.20	36.39
"	Tipperary	Nenagh (Castle Lough)	4.76	4.73	3.04	3.00	2.93	1.72	3.83	5.00	3.13	3.17	2.46	2.74	40.51
"	"	Ballingarry (Hazelfort)	3.61	4.10	2.54	1.95	3.26	1.49	3.37	3.58	2.25	2.26	2.29	2.14	32.84
"	"	Limerick (Roxborough)	4.43	4.87	2.98	2.86	2.79	1.70	3.75	3.60	2.49	2.56	2.84	2.27	37.14
"	Limerick	Carraigaholt Castle	4.36	6.11	2.47	3.15	1.65	1.12	2.01	3.45	3.88	3.01	2.90	2.97	37.08
"	Clare	Miltown Malbay	5.69	6.09	3.35	3.79	1.83	1.68	6.68	6.01	4.52	4.24	3.45	4.20	51.53
"	"	New Ross (Longraigue)	4.19	5.66	4.06	1.23	2.43	2.77	3.12	4.18	4.64	2.21	1.95	3.09	39.53
XXI.	Wexford	Enniscorthy (Ballyhyland)	4.28	5.18	3.19	1.63	2.67	2.48	3.82	3.76	4.39	1.49	2.08	3.50	38.47
"	"	Gorey (Courtown House)	3.82	4.28	3.01	1.22	1.99	2.01	2.56	2.77	3.81	1.23	1.35	2.53	30.58
"	"	Kilkenny (Sion Villa)	3.80	4.31	2.44	1.41	2.96	1.30	2.92	4.03	3.32	1.33	1.86	1.75	31.43
"	Kilkenny	Bray (Fassaroe)	4.08	5.07	3.60	1.79	2.70	2.47	1.42	3.33	4.48	.62	1.67	2.83	34.06
"	Wicklow	Carlow (Browne's Hill)	4.01	3.75	2.29	1.54	3.00	1.40	3.34	4.10	3.35	1.51	1.68	2.09	32.06



IRELAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XXI.	Queen's County...	Abhey Leix (Blandsfort)...	4.85	5.87	3.29	2.01	2.88	2.14	3.22	4.70	3.18	2.60	2.20	2.29	39.23
	Kildare .....	Straffan House.....	3.03	3.64	2.61	1.73	2.96	1.16	1.95	3.33	2.65	1.02	1.59	1.72	27.39
	Dublin .....	Glasnevin (Botanic Gardens)	2.53	3.62	2.58	1.30	2.76	1.13	1.32	3.11	2.06	.48	1.41	1.65	23.95
	Meath .....	Athboy .....	3.60	4.20	2.86	1.78	2.36	.89	3.63	4.44	2.78	1.89	1.88	2.17	32.48
	" .....	Moynalty (Westland) .....	3.95	4.25	3.24	1.88	2.75	1.42	3.54	3.67	3.49	1.64	2.12	2.55	34.50
	" .....	Athlone (Twyford) .....	3.37	5.49	2.94	2.17	2.21	1.72	3.88	5.26	3.83	3.23	2.53	2.65	39.28
	" .....	Mullingar (Belvedere) .....	3.44	5.24	3.38	2.19	2.52	1.34	3.21	2.88	2.98	2.50	1.99	2.23	33.90
	Louth .....	Ardee (Lissrenny) .....	3.21	3.50	2.40	1.97	2.47	1.81	3.55	4.09	2.87	1.10	2.05	2.30	31.32
	" .....	Greenore .....	2.60	4.09	2.30	1.68	2.65	1.84	3.08	4.95	3.53	.72	2.39	2.58	32.41
	" .....	Ballinasloe .....	4.04	5.17	2.88	2.08	2.80	1.65	3.78	4.82	3.11	2.77	2.70	3.48	39.28
XXII.	Galway .....	Clifden (Kylemore House) .....	9.95	8.04	5.74	7.39	4.44	5.48	8.85	6.63	5.97	4.92	6.22	6.21	79.84
	" .....	Tuam (Gardenfield) .....	5.28	5.76	3.48	3.28	3.65	2.09	5.66	6.45	4.19	3.03	3.17	4.31	50.35
	Mayo .....	Ballinrobe (Cranmore) .....	6.65	5.70	3.42	4.14	2.78	2.98	5.62	6.13	3.97	2.83	3.95	4.83	53.00
	" .....	Doo Castle [Tobercurry] .....	4.05	4.84	2.75	3.26	2.38	2.10	6.16	5.78	3.55	2.38	3.64	3.50	44.39
	" .....	Blacksod Point.....	7.93	4.87	2.70	5.22	2.68	2.99	4.02	4.93	4.69	3.96	5.28	3.95	53.22
	" .....	Crossmolina (Enniscoe) .....	6.53	7.53	3.75	5.33	3.82	3.02	5.60	6.98	3.81	2.98	5.55	4.82	59.72
	Sligo .....	Ballysadare B. (Glen Lodge) .....	4.41	4.06	2.66	2.99	2.23	2.54	4.68	6.25	3.90	2.02	3.81	2.97	42.52
	Cavan .....	Stradone House .....	4.06	4.06	3.19	2.43	2.18	1.61	4.28	5.71	2.40	3.28	2.26	2.95	38.41
	" .....	Ballyconnell House.....	4.19	4.85	3.42	2.84	2.37	1.85	4.46	5.19	3.06	3.26	3.37	3.14	42.00
	Monaghan .....	Monaghan (Rowantree Ho.) .....	2.70	2.86	2.48	1.53	2.61	1.37	4.71	5.77	2.49	1.52	2.23	2.19	32.46
XXIII.	Armagh .....	Armagh Observatory .....	2.87	3.22	2.23	1.89	2.70	1.41	3.01	5.47	2.92	.98	2.24	1.94	30.88
	Down.....	Seaford .....	3.05	4.34	2.41	2.49	3.08	2.18	2.31	4.73	3.71	.85	2.36	2.46	33.97
	" .....	Donaghadee .....	2.54	2.63	1.51	1.59	2.54	2.32	3.06	4.00	2.94	1.04	2.45	2.08	28.70
	" .....	Belfast (Springfield).....	3.45	4.10	2.01	3.20	2.92	1.35	3.75	4.90	3.89	1.26	2.87	2.95	36.65
	Antrim .....	Ballymena (Harryville) .....	4.41	3.43	2.29	2.60	2.72	1.39	3.51	6.58	3.92	1.89	3.58	3.05	39.37
	" .....	Bushmills (Dundarave) .....	4.12	2.52	1.62	2.77	2.41	1.01	2.61	5.52	2.85	2.56	5.08	3.27	36.34
	" .....	Garvagh (Moneydig) .....	5.21	2.90	2.25	2.53	2.27	1.46	4.26	5.88	3.25	1.67	4.51	2.58	38.77
	Londonderry.....	Stewartstown (The Square)	3.53	3.80	2.33	2.65	2.51	1.40	4.35	5.22	4.83	1.55	3.15	2.53	37.85
	Tyrone .....	Omagh (Edenfel) .....	4.64	5.40	2.99	3.07	2.39	1.85	4.41	5.37	3.00	3.51	3.41	2.85	42.89
	" .....	Lough Eask Castle .....	6.53	7.02	4.35	5.84	3.02	2.04	5.77	7.36	3.27	4.53	5.36	6.82	61.91
XXIV.	Donegal.....	Raphoe (Convoy House) .....	5.66	3.82	2.28	3.60	2.51	1.17	4.85	6.28	2.79	2.72	4.94	4.38	45.00
	" .....	Buncrana (Rockfort) .....	4.09	2.89	1.86	3.53	2.54	.77	3.84	6.70	2.22	2.94	5.55	3.45	40.38
	" .....	Horn Head .....	5.22	3.51	1.91	3.36	2.05	1.04	3.19	4.51	3.80	3.06	5.60	4.00	41.25

## ON THE RELATION OF THE TOTAL FALL OF RAIN IN 1904 TO THE AVERAGE.

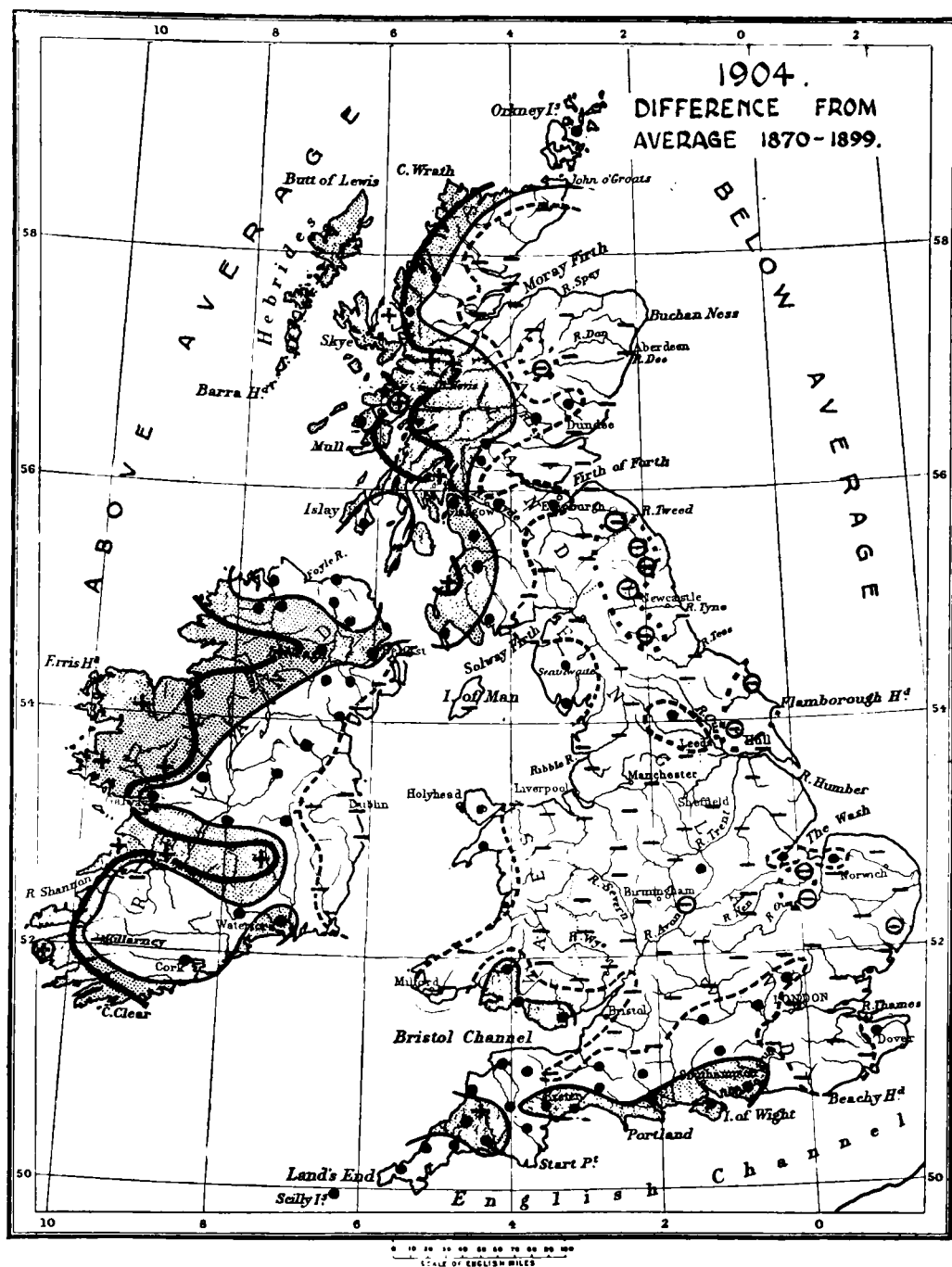
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THE year 1904 was not on the whole remarkable, and the result of the discussion given in this section is to show that it was a dry year, which appeared the drier on account of the great contrast presented with the previous year, the wetness of which was almost unprecedented.

We were tempted to postpone the publication of this volume for ten days to complete a detailed rainfall map of the British Isles, and to determine the actual rainfall by the only fully satisfactory method, that of measuring the areas between successive zones of rainfall. We considered, however, that the result would not be of sufficient interest to the reader to make up for the delay in presenting the statistics and discussions that are of special utility, and therefore we treat this section in accordance with past custom.

The Table of differences from the average, with which the section concludes, contains the results of observations at 173 stations distributed as uniformly over the country as is possible when the necessary condition of the station having a 30 years' average is fulfilled. The first column of figures gives the average for the ten years 1890—99, which is in every case the mean of ten consecutive years the rainfall of which was measured at the station in question. The second column of figures gives the average for the 30 years 1870—99, which is in every case a very close approach to the average of a much longer period—in fact, to what might be termed the true average. In some cases, chiefly in Scotland and Ireland, the figures are placed in brackets. This means that the records do not extend over 30 years, but that it has been found possible to compute what the thirty years' average would be by taking into account the records of other gauges. The third column

# DIFFERENCE OF TOTAL RAINFALL IN 1904 FROM THE AVERAGE OF 1870-99.



The districts in which the rainfall exceeded the average of 30 years are shaded. The round dot indicates a station with rainfall within 10 per cent. of the average. The + and - respectively show stations with excess or defect of between 10 and 25 per cent.

The same signs enclosed by a ring indicate departures from the average of more than 25 per cent.



of figures gives the rainfall observed in 1904, and the last shows the difference between the 1904 readings and the thirty years' average expressed both in inches and as a percentage of the average. The sign — between the two means "less than the average," the sign + means "more than the average."

On the map it is seen at once that generally speaking the oceanic border of the British Isles had a rainfall above the average. A few narrow patches in South Wales and along the south coast of England, although above the average, were not so much as 10 per cent. above it; but the comparatively broad strip which bordered the west of Ireland and the west of Scotland had falls very considerably more than 10 per cent. above the average on the seaward side, and in Ireland these wet areas stretched more than half way across the island at two points. The wet belt was broken in two places—first at Galway Bay and second in the north of Ireland, Islay and Kintyre. The east of Ireland, the east of Scotland, and all but the extreme west and south of England and Wales were more than 10 per cent. in defect of the average. The east of Scotland and of England could fairly be termed very dry, the deficiencies culminating in four isolated areas lying close to the east coast but only reaching the sea in one instance. The northern dry area lay mainly in the counties of Aberdeen, Banff and Inverness, and Braemar showed the greatest deficiency reported by any station for the year, 31 per cent. below the average. The largest very dry area included parts of the counties of Berwick and Roxburgh, most of Northumberland and part of Durham. The driest station in it was Lilburn Tower with 29 per cent. less than the average. The third very dry area was in the east of Yorkshire, and the driest station it contained was Osgodby, near Scarborough, with 30 per cent. less than the average. The last very dry area was in the east of Huntingdonshire and north of Cambridgeshire, where Wisbech had 29 per cent. less than the average.

The general result of the distribution of rainfall in 1904 was to heighten the contrast between west and east, the normally wet west being wetter and the normally dry east being much drier than in an average year. The dry area was much more extensive as well as more extreme than the wet area; and as it happens that the parts of the country where rain gauges are fewest and the distribution of stations most irregular had almost exactly the average rainfall, the averages of the 173 stations may be taken as representing the facts of the case even more closely than usual. They are as follows:—

## ABSTRACT.

COUNTRIES.	No. of Records utilized.	Average. 10 years 1890-99.	Average. 30 years 1870-99.	1904.	Diff. from Average 1870-99.	
					Amount.	Per cent.
		in.	in.	in.	in.	
England and Wales...	94	32·38	34·38	30·25	4·13	— 12
Scotland .....	46	45·47	45·51	43·72	1·79	— 4
Ireland .....	33	39·65	40·29	40·67	·38	+ 1
Mean of all Stations...	173	37·25	38·46	35·81	2·65	— 7

Here we find that on the whole England and Wales had a deficiency of 12 per cent., or about one-eighth; Scotland a deficiency of 4 per cent., or one-twenty-fifth; while Ireland had almost exactly the average rainfall. For purposes of comparison the general rainfall of the British Isles may be taken as 7 per cent. below the average, showing a deficiency corresponding to considerably less than one month's rainfall.

We reproduce on p. [183] the Table first given last year, as an attempt to compare 1904 with its predecessors and repeat that it is only partially satisfactory. The column for England and Wales is probably fairly correct throughout, those for Scotland, Ireland and the British Isles are less closely approximate except in the last six years. An addition of +10 to the figures in the last column from 1881 to 1889 and of +5 from 1890 to 1899 would probably give a nearly correct view of the fluctuations of rainfall in the British Isles. It would thus appear that 1904 was not so dry as 1901 or 1902, but drier than any other year since 1895.

**COMPARISON OF THE RAINFALL OF THE YEAR 1904  
WITH THE AVERAGE OF THE PERIODS  
1890-99 & 1870-99.**

**ENGLAND & WALES.**

DIV.	COUNTY.	STATION.	Average, 1890-99.	Average, 1870-99.	Depth in 1904.	Difference from average, 1870-99.	
						Per Amount.	cent.
I.	London .....	St. Pancras (Camden Square) ..	in. 22·78	in. 25·16	in. 20·65	in. 4·51	— 18
II.	Surrey, West...	Abinger Hall .....	30·03	(31·70)	28·13	3·57	— 11
„	Kent, West ..	Tenterden .....	26·76	28·36	25·36	3·00	— 11
„	„ „ ..	Sevenoaks (River Hill) .....	26·23	27·49	24·15	3·34	— 12
„	„ East ..	Selling (Harefield) .....	28·83	29·55	28·09	1·46	— 5
„	Sussex. West...	Chichester (Chilgrove) .....	33·60	33·82	36·87	3·05	+ 9
„	„ East ..	Falmer .....	32·47	33·58	30·01	3·57	— 11
„	Hampshire.....	Isle of Wight (Osborne) .....	27·87	28·12	29·81	1·69	+ 6
„	„ ..	Alresford (Ovington) .....	30·41	(32·00)	32·12	·12	+ 0
„	Berkshire .....	Newbury (Welford Park) .....	28·75	30·29	28·37	1·92	— 6
III.	Hertfordshire ..	Hertford (Bayfordbury) .....	22·84	24·97	23·10	1·87	— 7
„	„ ..	Hitchin (Wratten) .....	23·25	24·66	21·65	3·01	— 12
„	Buckingham ..	Slough (Langley) .....	23·25	24·00	23·34	·66	— 3
„	„ ..	Winslow (Addington Manor) ..	23·84	26·75	22·36	4·39	— 16
„	Oxfordshire ..	Oxford (Magdalen College) ..	21·40	24·54	21·16	3·38	— 14
„	„ ..	Bloxham Grove .....	23·40	(27·20)	23·57	3·63	— 13
„	Northampton...	Wellingboro' (Croyland Abbey)	21·55	25·31	21·42	3·89	— 15
„	Cambridgeshire	Stretham Engine .....	20·96	22·16	16·50	5·66	— 25
„	„ ..	Wisbech (Bank House) .....	22·28	24·89	17·59	7·30	— 29
IV.	Essex .....	Chelmsford (High Street) .....	21·22	22·96	19·06	3·90	— 17
„	„ ..	Newport (The Vicarage) .....	24·27	(24·80)	20·74	4·06	— 16
„	Suffolk .....	Rendlesham Hall .....	22·60	(23·70)	17·81	5·89	— 25
„	„ ..	Ixworth (Walsham-le-Willows)	25·17	25·87	20·29	5·58	— 22
„	Norfolk .....	Geldeston [Beccles] .....	22·97	23·93	20·67	3·26	— 14
„	„ ..	Swaffham (Dunham) .....	25·92	28·41	22·22	6·19	— 22
„	„ ..	Cawston Rectory .....	25·22	27·28	22·60	4·68	— 17
V.	Wiltshire .....	Salisbury Plain (Chitterne Ho.)	26·88	28·56	25·81	2·75	— 10
„	„ ..	New Swindon .....	26·26	(28·20)	23·55	4·65	— 16
„	Dorsetshire ..	Wareham (Castle Gardens) ..	30·32	(31·90)	33·18	1·28	+ 4
„	„ ..	Beaminster Vicarage .....	34·87	(38·20)	37·40	·80	— 2
„	Devonshire, S...	Ashburton (Druid House) .....	49·99	52·92	50·26	2·66	— 5
„	„ „ ..	Polapit Tamar .....	36·79	38·85	43·35	4·50	+ 12
„	„ „ ..	Bampton (Huntsham) .....	45·28	(46·80)	39·77	7·03	— 15
„	„ „ N..	Barnstaple (Arlington Court) ..	51·68	53·30	51·21	2·09	— 4
„	Cornwall .....	Phillack Rectory .....	35·27	36·68	34·82	1·86	— 5
„	„ ..	St. Austell (Trevarna) .....	42·75	47·16	46·92	·24	— 1
„	Somerset, N....	Street .....	26·90	30·40	28·40	2·00	— 7
VI.	Gloucester, W..	Clifton (Pembroke Road) .....	32·59	35·45	32·22	3·23	— 9
„	„ „ ..	Stroud (Upfield) .....	26·83	29·85	26·79	3·06	— 10
„	Herefordshire...	Ross (The Graig) .....	25·61	29·51	23·35	6·16	— 21

## ENGLAND &amp; WALES—(continued).

DIV.	COUNTY.	STATION.	Average, 1890-9.	Average, 1870-99.	Depth in 1904.	Difference from average, 1870-99.	
						Per Amount.	cent.
			in.	in.	in.	in.	
VI.	Herefordshire...	Kington (Lynhales) .....	29.50	33.56	27.65	5.91	— 18
„	Shropshire .....	Bishops Castle (Castle Street)..	28.46	(32.90)	26.77	6.13	— 19
„	„ .....	Shifnal (Haughton Hall) .....	25.41	28.21	23.64	4.57	— 16
„	„ .....	Market Drayton (Buntingsdale) ..	26.53	(28.70)	25.38	3.32	— 12
„	Staffordshire ...	Burton (Rangemore) .....	24.96	28.01	21.74	6.27	— 22
„	„ .....	Cheadle (The Heath House) ...	30.05	(33.50)	26.25	7.25	— 22
„	Worcestershire.	Northwick Park .....	25.24	29.22	24.81	4.41	— 15
„	„ .....	Grt. Malvern (Church Street)..	24.79	(29.00)	22.61	6.39	— 22
„	„ .....	Stourbridge (Pedmore) .....	25.59	(29.20)	26.15	3.05	— 10
„	Warwickshire..	Coventry (Kingswood) ... ..	26.98	29.21	20.88	8.33	— 29
VII.	Leicestershire..	Thornton Reservoir .....	24.17	26.48	24.42	2.06	— 8
„	Rutland .....	Market Overton .....	24.05	(26.90)	22.23	4.67	— 17
„	Lincoln, South.	Stubton [Newark] .....	21.47	24.87	20.34	4.53	— 18
„	„ North.	Horncastle (Bucknall) .....	21.25	(23.90)	18.11	5.79	— 24
„	„ „	Brigg .....	24.40	(26.31)	23.71	2.60	— 10
„	Nottingham ...	Worksop (Hodsock Priory) ...	22.67	(24.70)	19.81	4.89	— 20
„	Derbyshire.....	Matlock Bath .....	28.93	25.07	30.33	4.74	— 14
VIII.	Cheshire .....	Chester (The Nurseries) .....	26.74	29.17	23.05	6.12	— 21
„	„ .....	Chelford (Aste Hall).....	28.49	(30.60)	24.19	6.41	— 21
„	„ .....	Torrside Reservoir.....	43.93	44.98	36.14	8.84	— 20
„	Lancashire, S...	Ormskirk (Rufford) .....	32.63	33.71	29.66	4.05	— 12
„	„ „	Stonyhurst College .....	48.16	47.57	39.64	7.93	— 17
„	„ N...	Kirkham (Weeton) .....	36.86	(38.60)	31.94	6.66	— 17
„	„ „	Ulverston (Poaka Beck) .....	52.16	51.80	50.34	1.46	— 3
IX.	York, WR Central	Wakefield Prison .....	24.86	(26.80)	22.25	4.55	— 17
„	„ „	Malham Tarn.....	58.44	58.17	47.34	10.83	— 19
„	„ „ North	Knaresborough (Farnham) ...	25.07	26.70	24.70	2.00	— 7
„	„ E. Riding.	Pocklington (Warter) .....	29.03	30.75	22.53	8.22	— 27
„	„ N. Riding.	Scarborough (Osgodby).....	25.11	(27.70)	19.50	8.20	— 30
„	„ „	Northallerton (Osmotherley)...	23.86	27.35	23.43	3.92	— 14
„	„ „	Middlesbrough (Albert Park)..	24.72	(24.30)	20.85	3.45	— 14
X.	Durham .....	Wolsingham .....	33.26	34.75	26.10	8.65	— 25
„	„ .....	Sunderland (W. Hendon House)	25.11	26.19	20.35	5.84	— 22
„	Northumberland	Hallington (Fawcett) .....	28.73	29.12	22.74	6.38	— 22
„	„ .....	Rothbury (Crag-side) ... ..	33.27	34.41	25.25	9.16	— 27
„	„ .....	Ilderton (Lilburn Tower) .....	(26.17)	(29.19)	20.79	8.40	— 29
„	Cumberland ...	Borrowdale (Seathwaite) .....	135.75	132.74	132.49	.25	— 0
„	„ .....	Carlisle (Cemetery) .....	33.04	31.64	26.72	4.92	— 16
„	Westmorland...	Kirkby Stephen (Redmaine Ho.)	46.05	42.12	36.33	5.79	— 14
XI.	Monmouth .....	Abergavenny (Larchfield).....	34.91	37.82	33.48	4.34	— 11
„	Glamorgan.....	Cardiff (Ely) .....	39.51	42.81	43.26	.45	+ 1
„	„ .....	Neath .....	47.28	(50.50)	50.38	.12	— 0
„	Carmarthen ...	Llandilo (Dynevour Castle) ...	50.57	(52.80)	53.71	.91	+ 2
„	Pembroke .....	Pembroke (Stackpole Court) ..	37.70	(41.20)	32.75	8.45	— 21
„	„ .....	Castle Malgwyn [Llechryd] ...	40.85	43.85	38.34	5.51	— 13
„	Cardigan .....	Aberystwyth (Gogerddan) ...	44.67	45.41	44.83	.58	— 1
„	Brecon .....	Cantref Rectory.....	46.39	(51.10)	44.70	6.40	— 13



## ENGLAND &amp; WALES—(continued).

DIV.	COUNTY.	STATION.	Average, 1890-9.	Average, 1870-99.	Depth in 1904.	Difference from average, 1870-99.
						Per Amount. cent.
			in.	in.	in.	in.
XI.	Radnor .....	Rhayader (Nantgwillt) .....	56·82	61·45	49·57	11·88 — 19
„	Flint .....	St. Asaph (Nantlys) .....	26·30	28·71	22·22	6·49 — 23
„	Merioneth .....	Llanderfel (Palé) .....	45·65	(48·20)	41·95	6·25 — 13
„	Carnarvon .....	Criccieth (Talarvor) .....	35·56	35·83	32·92	2·91 — 8
„	Anglesea .....	Llanerchymedd (Llwydiarth Esgob) ...	38·60	38·21	38·16	·05 — 0
„	Isle of Man ...	Douglas (Woodville) .....	41·83	(43·30)	36·97	6·33 — 15
„	Scilly .....	St. Mary's .....	31·23	(32·80)	34·41	1·61 + 5

## SCOTLAND.

XII.	Wigton .....	Stoneykirk (Ardwell House)...	34·77	(35·05)	36·85	1·80	+ 5
„	Kirkcudbright.	Auchencairn (Torr House) ...	46·02	(46·45)	41·62	4·83	— 10
„	„	Gatehouse (Cally) .....	47·90	48·74	44·61	4·13	— 8
„	„	Cargen [Dumfries] .....	43·90	43·43	38·91	4·52	— 10
„	Dumfries .....	Moffat (Ericstane) .....	52·60	54·97	48·84	6·13	— 11
„	Roxburgh .....	Hawick (Wolfelee) .....	38·74	40·07	31·46	8·61	— 21
XIII.	Selkirk .....	Galashiels (Abbotsford Road).	31·26	33·82	26·52	7·30	— 22
„	Berwick .....	Marchmont House .....	31·93	34·94	26·06	8·88	— 25
„	Haddington ..	Prestonkirk (Smeaton) .....	24·33	25·72	23·01	2·71	— 11
„	Midlothian.....	Pentland Hills (Glencorse) ...	38·93	39·55	37·06	2·49	— 6
XIV.	Lanark .....	Airdrie (Hillend Res.) .....	38·68	37·30	34·59	2·71	— 7
„	Ayr .....	Girvan (Pinmore) .....	46·98	48·87	54·35	5·48	+ 11
„	„	Loch Finlas .....	50·86	(51·70)	52·74	1·04	+ 2
„	„	Kilmarnock (North Craig) ...	42·45	39·46	42·40	2·94	+ 7
„	Renfrew .....	Gorbals W.W. (Waulk Glen)..	49·00	46·91	44·15	2·76	— 6
XV.	Stirling .....	Stirling (Polmaise Gardens)...	34·59	35·80	32·30	3·50	— 10
„	Argyll .....	Kintyre (Skipness Castle).....	50·14	49·18	49·25	·07	+ 0
„	„	Inveraray (Newtown) .....	72·27	(62·80)	70·65	7·85	+ 13
„	„	Appin (Airds) .....	55·56	55·90	58·84	2·94	+ 5
„	„	Strontian (Laudale) .....	68·69	(72·20)	90·57	18·37	+ 25
„	„	Islay (Ardbeg) .....	43·00	(44·60)	42·36	2·24	— 5
„	„	Mull (Quinish) .....	56·30	(57·50)	57·95	·45	+ 1
XVI.	Kinross .....	Loch Leven Sluice .....	35·83	36·20	31·88	4·32	— 12
„	Fife .....	Kilconquhar (Balcarres) .....	32·93	(34·90)	29·51	5·39	— 15
„	Perth .....	Bridge of Turk .....	60·56	66·66	66·50	·16	— 0
„	„	Balquhiddie (Stronvar) .....	72·98	(74·70)	75·96	1·26	+ 2
„	„	Dunkeld (Inverbraan) .....	(38·00)	(39·80)	38·07	1·73	— 4
„	Forfar .....	Dundee (Eastern Necropolis)..	27·55	28·95	24·70	4·25	— 15
„	„	Kirriemuir (Lintrathen) .....	33·03	(35·60)	34·50	1·10	— 3
„	„	Montrose (Sunnyside Asylum)	26·98	29·16	22·54	6·62	— 23
XVII.	Aberdeen .....	Braemar .....	34·51	36·07	25·00	11·07	— 31
„	„	Cromar (Tillypronie) .....	31·73	30·65	24·11	6·54	— 21
„	„	Ellon (Mains of Waterton) ...	30·09	30·91	24·78	6·13	— 20
„	Banff .....	Keith Station .....	33·84	32·72	28·71	4·01	— 12
„	Elgin .....	Grantown .....	31·69	31·00	23·64	7·36	— 24
„	Nairn .....	Nairn (School House) .....	25·42	(24·60)	20·78	3·82	— 16
XVIII.	Inverness, West	Loch Shiel (Glenfinnan) .....	108·85	105·29	111·68	6·39	+ 6

## SCOTLAND—(continued)

DIV.	COUNTY.	STATION.	Average, 1890-9.	Average, 1870-99.	Depth in 1904.	Difference from average 1870-99.	
						Amount.	Per cent.
XVIII.	Inverness, West	Glenquoich .....	112·44	108·26	119·70	11·44	+ 11
"	Ross, West	Strathconan (Dalbreac) .....	53·62	(50·90)	45·81	5·09	— 10
"	"	Loch Torridon (Bendamph) ...	88·95	86·50	87·58	1·08	+ 1
"	"	Braemore House .....	64·48	58·56	61·83	3·27	+ 6
"	" East	Fearn (Lower Pitkerrie) .....	23·50	23·52	19·15	4·37	— 19
XIX.	Sutherland	Invershin .....	32·66	32·76	28·08	4·68	— 14
"	"	Dunrobin Castle .....	32·26	31·60	27·56	4·04	— 13
"	Caithness	Watten Station .....	28·03	(27·40)	24·59	2·81	— 10
"	Orkney	Shapinsay (Balfour Castle) ...	32·74	31·66	29·31	2·35	— 7

## IRELAND.

XX.	Cork	Cork (Queen's College) .....	40·66	(41·28)	39·03	2·25	— 5
"	Kerry	Valencia (Glanleam) .....	55·30	(55·90)	70·32	11·42	+ 26
"	"	Killarney District Asylum ...	55·10	58·11	51·12	6·99	— 12
"	Waterford	Waterford (Brook Lodge) .....	38·56	(39·30)	41·12	1·82	+ 5
"	"	Glenam [Clonmel] .....	40·89	42·17	42·08	·09	— 0
"	Clare	Broadford (Hurdlestown) .....	33·31	(33·50)	38·74	5·24	+ 16
"	"	Miltown Malbay .....	45·31	(44·50)	51·53	7·03	+ 16
XXI.	Wexford	Enniscorthy (Ballyhyland) ...	41·45	42·87	38·47	4·40	— 10
"	"	Gorey (Courtown House) .....	33·62	35·72	30·58	5·14	— 14
"	Wicklow	Bray (Fassaroe) .....	39·68	40·55	34·06	6·49	— 16
"	Carlow	Carlow (Browne's Hill) .....	33·65	34·44	32·06	2·38	— 7
"	King's Co.	Birr Castle .....	32·96	33·06	32·31	·75	— 2
"	Dublin	Dublin (Fitz William Square) ..	27·30	27·75	22·18	5·57	— 20
"	Meath	Moynalty (Westland) .....	36·67	(37·40)	34·50	2·90	— 8
"	Westmeath	Mullingar (Belvedere) .....	36·50	(36·50)	33·90	2·60	— 7
XXII.	Galway	Ahascragh (Clonbrock) .....	39·32	(40·40)	38·68	1·72	— 4
"	"	Clifden (Kylemore Castle) ...	71·03	(72·50)	86·27	13·77	+ 19
"	"	Tuam (Gardenfield) .....	42·18	(41·90)	50·35	8·45	+ 20
"	Mayo	Crossmolina (Enniscoe) .....	52·60	(50·50)	59·72	9·22	+ 18
"	Sligo	Collooney (Markree Obs.) .....	41·27	41·83	44·86	3·03	+ 7
XXIII.	Armagh	Armagh Observatory .....	30·97	31·36	30·88	·48	— 2
"	Down	Warrenpoint (Summer Hill) ..	36·44	(38·70)	32·96	5·74	— 15
"	"	Seaforde .....	36·27	38·61	33·97	4·64	— 12
"	"	Banbridge (Milltown) .....	30·23	31·47	29·21	2·26	— 7
"	"	Donaghadee .....	30·39	(32·00)	28·70	3·30	— 10
"	Antrim	Belfast (Antrim Road) .....	35·28	34·57	37·25	2·68	+ 8
"	"	Ballymena (Harryville) .....	39·52	(39·60)	39·37	·23	— 1
"	"	Bushmills (Dundarave) .....	36·70	(38·20)	36·34	1·86	— 5
"	Londonderry	Garvagh (Moneydig) .....	37·95	39·16	38·77	·39	— 1
"	"	Londonderry (Creggan Res.) ..	41·36	(41·20)	41·74	·54	+ 1
"	Tyrone	Stewartstown (The Square) ...	36·14	(35·10)	37·85	2·75	+ 8
"	"	Omagh (Edenfel) .....	39·66	37·85	42·89	5·04	+ 13
"	Donegal	Buncrana (Rockfort) .....	40·24	(41·50)	40·38	1·12	— 3

*Rough Comparison of the Rainfall for 24 Years.*

	ENGLAND & WALES.			SCOTLAND.			IRELAND.			BRITISH ISLES.		
	Fall.	Diff. from Av.		Fall.	Diff. from Av.		Fall.	Diff. from Av.		Fall.	Diff. from Av.	
		Amt.	p.c.		Amt.	p.c.		Amt.	p.c.		Amt.	p.c.
Mean	in. 33·92	in. —	—	in. 46·85	in. —	—	in. 42·28	in. —	—	in. 39·25	in. —	—
Year.												
1881	35·81	1·89	+ 6	38·09	8·76	—19	36·11	6·17	—15	36·26	2·99	— 8
1882	41·91	7·99	+24	44·75	2·10	— 4	40·83	1·45	— 3	42·42	3·17	+ 8
1883	36·82	2·90	+ 8	39·81	7·04	—15	39·91	2·37	— 6	37·51	1·74	— 4
1884	29·24	4·68	—14	40·25	6·60	—14	35·50	6·78	—16	31·56	7·69	—20
1885	33·25	3·67	— 2	33·78	13·07	—28	35·52	6·76	—16	33·41	5·84	—15
1886	37·53	3·61	+11	37·31	9·54	—20	41·61	·67	— 2	37·59	1·66	— 4
1887	23·60	10·32	—30	29·14	17·71	—38	24·72	17·56	—42	24·80	14·45	—37 <sup>m</sup>
1888	31·66	2·26	— 7	37·10	9·75	—21	39·61	2·67	— 6	32·98	6·27	—16
1889	31·10	2·82	— 8	32·81	14·04	—30	33·49	8·79	—21	31·52	7·73	—20
1890	30·07	3·85	—11	46·56	·29	— 1	38·54	3·74	— 9	36·20	3·05	— 8
1891	37·36	3·44	+10	43·59	3·26	— 7	39·35	2·93	— 7	39·41	·16	+ 0
1892	30·35	3·57	—11	42·55	4·30	— 9	39·13	3·15	— 7	35·42	3·83	—10
1893	28·21	5·71	—17	41·67	5·18	—11	32·50	9·78	—23	32·63	6·62	—17
1894	36·14	2·22	+ 6	44·20	2·65	— 6	40·82	1·46	— 3	39·18	·07	— 0
1895	31·32	2·60	— 8	39·32	7·53	—16	37·63	4·65	—11	34·66	4·59	—12
1896	30·94	2·98	— 9	42·11	4·74	—10	37·35	4·93	—12	35·06	4·19	—11
1897	34·14	·22	+ 1	43·70	3·15	— 7	43·53	1·25	+ 3	38·38	·87	— 2
1898	29·42	4·50	—13	49·82	2·97	+ 6	38·40	3·88	— 9	36·46	2·79	— 7
1899	31·52	2·40	— 7	47·82	·97	+ 2	40·04	2·24	— 5	37·28	1·97	— 5
1900	36·37	2·45	+ 7	53·38	6·53	+14	45·48	3·20	+ 8	42·34	3·09	+ 8
1901	29·83	4·09	—12	41·04	5·81	—12	40·33	1·95	— 5	34·85	4·40	—11
1902	28·01	5·91	—17	38·73	8·12	—17	37·56	4·72	—11	32·71	6·54	—17
1903	43·81	9·89	+29	59·05	12·20	+26	51·11	8·83	+21	49·26	10·01	+26 <sup>M</sup>
1904	30·25	3·67	—11	43·70	3·15	— 7	40·67	1·61	— 4	35·81	3·44	— 9

**EXTREMES OF RAINFALL IN 1904.****Greatest Rainfall, at Glaslyn, Snowdon, Carnarvonshire... 179·50 in.****Least Rainfall, at Huntingdon..... 14·58 ,,****ENGLAND.**

GREATEST.			LEAST.		
Div.		in.	Div.		in.
X.	The Styne, C .....	176·85	III.	Huntingdon .....	14·58
,,	Stynehead Tarn .....	148·65	,,	Hemingford Grey Vicarage ..	14·94
,,	Sprinkling Tarn .....	140·45	,,	Stanground Sluice .....	14·99
,,	Borrowdale (Seathwaite)...	132·65	IV.	Shoeburyness .....	15·55
,,	Ullscarf .....	119·90	,,	Clacton-on-Sea .....	15·65
,,	Mickleden .....	118·19	III.	St. Ives (Slepe House) .....	15·71

**WALES.**

GREATEST.			LEAST.		
Div.		in.	Div.		in.
XI.	Snowdon (Glaslyn), No. 13	179·50	XI.	St. Asaph (Nantlys) .....	22·22
,,	,, (Llydaw), No. 12	152·71	,,	Welshpool (Pool Quay Vic.) ..	22·70
,,	Dolwyddelan (U.Nhadog) No. 2	129·00	,,	Rhyl (Sewage Works) .....	23·11
,,	,, (Tunnel Mouth) No. 20	111·54	,,	Colwyn Bay .....	23·13
,,	Eigiau, Upper, No. 15 .....	111·53	,,	Prestatyn (Edlestone House) ..	23·55
,,	Beddgelert (Moel Hebog) No. 19	105·34	,,	Monmouth (The Hendre) ...	23·56

**SCOTLAND.**

GREATEST.			LEAST.		
Div.		in.	Div.		in.
XVIII.	Glenquoich .....	119·70	XVII.	Nairn (Achareidh) .....	17·68
XV.	Morvern (Kingairloch) .....	115·88	XVIII.	Fearn (Lower Pitkerrie) ...	19·15
,,	Mull (Knock) .....	112·17	XVII.	Kinloss ... ..	19·35
XVIII.	Loch Shiel (Glenfinnan) ...	111·68	XVI.	Arbroath (Waterworks).....	19·64
XV.	Ben Lomond .....	106·20	XVII.	Duffus House ... ..	19·66
,,	Ballachulish House .....	100·03	XVI.	Arbroath (Dishland Hill) ...	19·95

**IRELAND.**

GREATEST.			LEAST.		
Div.		in.	Div.		in.
XX.	Mangerton .....	102·00	XXI.	Kingstown (People's Park) ..	20·01
,,	Gap of Dunloe (Garrymeen) ..	100·10	,,	Dublin (Trinity College) ...	21·74
XXII.	Clifden (Kylemore Castle) ..	86·27	,,	Killiney (Cloneevin) .....	22·14
,,	,, ( " House) .....	79·84	,,	Dublin (Fitzwilliam Square) ..	22·18
XX.	Kenmare (Derreen) .....	77·24	,,	Carrickmines (Claremont)...	22·37
,,	Valencia (Glanleam) .....	70·32	,,	Rathmines (Terenure) .....	22·51

**NOTE.**

Second gauges, and those at Lighthouses, are excluded from the above, and in selecting the minima, no record is used from any gauge of which the receiving surface is known to be more than 3 ft. above ground.

**GENERAL TABLE**  
**OF**  
**TOTAL RAINFALL IN 1904,**  
**AT ABOUT**  
**4000 STATIONS**  
**IN THE**  
**BRITISH ISLES.**

## EXPLANATORY NOTE.

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The divisions in the General Table are the same as those adopted by the Registrars General of England and Scotland, and the counties follow the same order as in the reports of those officers ; but reference to the stations is facilitated by sub-dividing some of the larger counties. The stations in each county or sub-division are arranged nearly in the order of their latitude from South to North.

For convenience in finding the locality of any gauge, the first name is almost always that of a place given in *Bradshaw*, the *Post Office Guide*, or the *Clergy List* ; the second name is generally added to fix the site of Observation more closely ; but, in a very few instances, when in [ ] instead of ( ), it is that of the nearest town in an adjoining county ; e.g., “Haslemere (Weycombe)” means Weycombe near Haslemere, both in one county ; but “Geldeston [Beccles]” means Geldeston near Beccles, which is in another county.

In the column headed “diameter,” figures in old-style type indicate the length of the sides of rectangular mouthed gauges. These measurements are all in inches.

The letter D denotes that a copy of the daily record has been received, that it is complete for the year, and that the printed amount is the correct total of the daily entries. The letter M indicates that the gauge is read only on the first of each month. (R) denotes that the gauge used is a self-recording instrument.

A few entries of total rain will be found in italics—indicating uncertainty as to the exact fall, owing to monthly gauges being read on a date other than the 1st, or to slight accidents.

A dagger (†) denotes that the rain gauge has been visited and examined by the Editor, and a section (§) that it has not been seen by the Editor, but is subject to inspection by the Meteorological Office or by one of the Meteorological Societies. A note of interrogation (?) implies doubt, not necessarily error ; the absence of information is indicated by ...

In the column of altitudes the sign  $\mathfrak{A}$  means that a series of levels has been taken from the gauge to an Ordnance Survey bench mark ;  $\mathfrak{T}$ , that the height has been ascertained approximately from the same source ;  $\mathfrak{L}$ , that levels have been taken from the gauge to the sea, or to some non-official datum ; and  $\mathfrak{B}$ , that the altitude has been taken by the barometer.

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ENGLAND AND WALES.

DIVISION I.—LONDON.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
NORTH OF THE THAMES.						
D PADDINGTON (Westbourne Grove)	A. P. Baker, Esq. ....	5	0 9	64 7	20·42	161
D† KENSINGTON (V. & A. Museum).	W. I. Last, Esq., C.E..	8	0 6	27 7	20·60	172
D „ (Holland House) ...	Mr. C. Dixon .....	5	4 6	68 7	19·83	164
D „ (Addison Gardens).	G. H. M. Whish, Esq..	5	1 1	23	19·27	158
D „ (Campden Hill) ...	H. F. Rutter, Esq., C.E.	8	4 10	130 7	19·79	153
FULHAM,						
D† W. Kensington (Edith Rd.)	G. von U. Searle, Esq..	5	0 10	16	19·51	161
D CHELSEA (Pumping Station) ...	M Fitzmaurice Esq CMG	8	1 0	19 7	19·68	143
D „ (Physic Garden) .....	W. Hales, Esq. ....	5	1 0	...	19·84	162
D „ (St. Luke's Gardens) ...	T. W. E. Higgins Esq. CE	5	1 0	25 7	20·28	162
WESTMINSTER (Chester Square).	C. Lethbridge, Esq. ...	5	10 0	...	19·33	184
„ (Spring Gardens) (1)	M Fitzmaurice Esq CMG	8	66 4	95 7	19·17	...
„ ( „ „ ) (3)	„ „ „	8	6 0	35 7	19·84	...
D „ (Strand) .....	J. J. Steward, Esq. ...	5	40 0	80	20·39	153
ST. MARYLEBONE						
D (Northwick Terrace) .....	E. Heron Allen, Esq...	5	0 5	...	20·71	165
§ „ Regent's Pk (R Botanic Gdns)	J. B. Sowerby, Esq. ...	8	0 8	126 7	21·43	157
„ (Hamilton Terrace) .....	Miss Cobb .....	5	0 11	125 7	21·87	175
HAMPSTEAD (Burrard Road) .....	W. Godden, Esq. ....	5	1 6	261 8	20·83	...
D „ (Barrow Hill) .....	H. F. Rutter, Esq., C.E.	5	3 4	196 7	19·45	166
„ (Squire's Mount) ...	The Misses Field .....	5	1 0	388 7	17·65	...
D† ST. PANCRAS (Camden Square) ...	Dr. H. R. Mill .....	8	1 0	111 7	20·65	160
† „ ( „ „ ) weekly	„ „ „	5	1 2	111 7	20·65	...
D† „ ( „ „ ) Snow g.	„ „ „	8	3 5	113 7	19·30	144
† „ ( „ „ ) float g.	„ „ „	8	0 11	111 7	20·20	...
STOKE NEWINGTON						
D (New River Filter Beds)	E. L. Morris, Esq., C.E.	5	1 0	101 7	19·42	156
D „ „ ( „ „ Reservoirs)	J. Francis, Esq., C.E..	5	4 0	105 7	19·32	156
D HACKNEY (Clapton Pond) .. (R)	Norman Scorgie, Esq. CE	8	2 6	70 7	17·63	145



STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground	Height Above Sea Level	1904		
		in.	ft.	in.	feet.	inches.	
<b>NORTH OF THE THAMES-(con.)</b>							
D FINSBURY (New River Head) ...	J. Francis, Esq., C.E..	5	3	8	100	18·16	149
D CITY OF LONDON (Guildhall) ...	D. J. Ross, Esq., C.E..	8	2	6	49 T	21·10	141
D " " " " " "	" " " " " "	8	51	0	98 T	20·09	139
D SHOREDITCH (City Road) .....	J. Bigwood, Esq., M.P.	5	1	2	...	20·95	163
§ " " (Old Street) .....	Royal Meteorological Soc	5	1	0	70 T	20·14	163
D STEPNEY (Mile End).....	J. Metson, Esq. ....	5	14	0	...	20·82	138
D POPLAR (Isle of Dogs) .....	M Fitzmaurice Esq CMG	8	1	0	15 A	17·85	162
D " (Old Ford) .....	W. Blackburn, Esq. C.E.	8	0	9	19 A	18·26	161
D " " " " " "	M Fitzmaurice Esq CMG	8	1	0	35 A	17·83	147
D WOOLWICH (Barking Outfall)...	" " "	8	0	6	6 A	18·38	165
<b>SOUTH OF THE THAMES.</b>							
<b>LAMBETH,</b>							
D § West Norwood (Thornlaw Rd.)	W. Marriott, Esq. ....	5	1	0	221	20·40	190
§ " Brixton (Acre Lane) .....	Meteorological Council.	8	1	0	77 T	20·22	158
<b>BATTERSEA,</b>							
D Nine Elms (Heathwall)	M Fitzmaurice Esq CMG	8	37	0	51 A	16·67	149
<b>WANDSWORTH,</b>							
D Clapham Park (New Park Rd.)	D. W. Horner, Esq. ...	5	1	0	128 T	20·78	167
D " Wimbledon Com. (Richmond Ho.)	E. Rawlings, Esq. ....	5	1	3	175 A	21·94	162
D " (Putney Heath) .....	H. E. H. Wrinch, Esq. CE	5	1	0	180 A	20·69	180
D " Wimbledon Pk. (Woodhouse)	Sir A. E. Bateman ...	5	1	1	150	21·60	149
D § " Wandsworth Com. (Patten Rd)	F. C. Bayard, Esq. ...	5	1	0	100	20·53	167
D " Clapham Com. (Macaulay Rd.)	Miss A. H. Boyson.....	5	1	0	75	20·49	134
D CAMBERWELL (Dulwich Wood Pk)	H. V. Caldicott, Esq. ..	5	1	2	276	21·63	164
D " Nunhead (Southwark W.W.)	J. W. Restler, Esq., C.E.	5	4	0	176	15·58	146
D † DEPTFORD (Kent Water Works)	F. C. Bayard, Esq. ...	5	1	0	20	18·83	167
<b>GREENWICH</b>							
D † (Deptford Pumping Station)	M Fitzmaurice Esq CMG	10	4	0	15	21·82	148
† " (Royal Observatory) .....	Sir W. Christie, K.C.B	8	0	5	155 T	20·66	153
D " Blackheath (Eastcombe Villas)	H. K. G. Rogers, Esq..	5	1	1	135 B	20·22	185
<b>LEWISHAM,</b>							
D Forest Hill (Dartmouth Rd.)	F. C. Bayard, Esq. ...	5	1	0	220	20·53	163
D " " (Barr Beacon)...	J. W. Restler, Esq., C.E.	5	1	0	344 A	20·46	188
D WOOLWICH, Eltham (Cliefden)..	the late Miss Yeatman..	5	0	11	198 T	21·62	180
D " " (Court Rd.)	A. Roberts, Esq. ...	5	1	10	177	21·74	...
D " " (High St.).	F. C. Bayard, Esq. ...	5	1	0	245	22·12	177

WEST SURREY.

WEST SURREY.									
D	Haslemere (Lower Street).....	J. W. Penfold, Esq. ....	8	4	0	481	⌘	33·95	172
	„ (Jesses).....	M A. F. Parbury, Esq....	5	1	0	575	⌘	31·65	...
	„ ( ).....	<i>Snowdon</i> „ „ „ .....	5	1	0	572	⌘	32·66	176
D	„ (Hazelhurst) .....	T. P. Newman, Esq....	5	1	0	550	B	33·63	180
D	„ (Grayswood Hill) ...	B. E. C. Chambers, Esq.	5	1	0	580	⌘	30·55	...

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>WEST SURREY—(con.)</b>						
Dunsfold (Durfold) .....	Miss Billiter .....	5	1 0	225 T	28.44	...
Chiddingfold (Pickhurst) .....	Admiral Maclear .....	5	1 0	250	28.42	...
D " (Beaconscroft) .....	" " .....	5	1 0	230 A	29.51	191
Dunsfold Rectory .....	Rev. W. H. Winn .....	5	1 0	170	27.08	...
Haslemere (Weycombe) .....	G.B. Buckton, Esq. F.R.S. ....	5	1 0	562 A	30.63	...
D Hambledon (Matteryes) .....	J. Borrowman, Esq. ....	5	4 6	300	25.40	212
D Witley (Fernside) .....	Mrs. J. H. Foster .....	5	1 0	350 T	27.21	170
Hascombe Rectory .....	Rev. Canon Musgrave .....	8	1 0	450 T	25.62	...
" (Hall Place) .....	E. L. Rowcliffe, Esq. ....	8	1 5	273 A	27.98	141
D Cranleigh Common (Homefield Cott.)	A. F. Jones, Esq. ....	5	1 2	175 T	26.85	168
" " .....	W. Welch, Esq. ....	5	1 0	182 A	28.40	...
§ " (County School) .....	Royal Meteorological Soc .....	5	1 0	232 A	26.43	169
D " (Winterfold) .....	Mr. R. Turvey .....	8	3 6	603 T	29.97	164
D Ewhurst (Downhurst Lodge) ...	Mr. W. Bradfield .....	5	1 0	350	28.96	173
" (Malquoits) .....	W. Webb, Esq. ....	5	1 6	400	30.34	188
D " (Coneyhurst) .....	Miss Ewart .....	8	1 0	561 A	30.08	184
D " (Heathside) .....	J. Sparkes, Esq. ....	5	1 6	600 A	30.02	141
" (Woolpit) .....	Mr. H. W. Perrin .....	5	1 6	600	30.39	...
D Abinger (Feldemore) .....	E. Waterhouse, Esq. ....	5	3 6	505 T	27.85	159
D " (Joldwynds, Holmbury) .....	Mr. F. Cornish .....	5	1 0	536	29.93	180
D Godalming (Hurtmore Lane) ...	O. H. Latter, Esq. ....	5	1 0	310 A	26.96	194
D Wonerish (Shamley Green) ...	Mr. A. Nash .....	5	1 0	400	29.64	174
D § Bramley (Cloverlea) .....	J. Bartlett, Esq. ....	5	1 2	147	28.32	169
Godalming (Tilthams) .....	Col. A. C. Bigg-Wither .....	5	1 0	130 A	24.17	...
D Abinger Rectory .....	Miss Brodie Hall .....	5	1 0	381	28.66	150
D " Hall .....	Lord Farrer .....	8	2 0	320 T	28.13	162
D Farnham (Crooksbury Ridges) ...	F. R. Walters, Esq. M.D. ....	5	1 4	440 A	26.77	162
D " (The Bourne Vicarage) .....	Rev. T. W. Sidebotham .....	5	1 0	308 T	25.73	180
D " (Dippen Hall Cottage) .....	M. Birkbeck, Esq. ....	5	1 0	345 T	27.43	209
D " Castle .....	Mr. H. Dowding .....	8	1 0	330	26.33	156
D " (Short Heath Lodge) ...	Col. G. Chrystie .....	5	1 0	365 T	26.52	199
D " (Great Down, Seale) ...	Mrs. Kitchin .....	12	1 0	470 T	24.43	142
D Guildford (Piccard's Rough) ...	H. A. Powell, Esq., M.D. ....	5	6 0	325 T	22.79	139
D " (Briarfield) .....	Miss M. E. Swaine .....	5	2 4	300 T	25.38	194
D " (Newlands Corner) ...	Mr. H. Tann .....	5	1 6	550 ?	26.24	185
D " (Hillside) .....	Miss H. S. Pitman .....	5	1 0	250 T	25.72	203
D " (Kair, Epsom Road) ...	Miss Johnston .....	5	1 0	...	26.12	197
D " (Maori Road) .....	J. H. Billing, Esq. ....	5	1 0	230	26.34	183
D " (Cross Lanes) .....	F. Smallpiece, Esq. ....	5	0 8	200	23.68	166
D " (Craigie, Merrow) ...	Miss Lomer .....	5	0 9	250 T	23.40	160
D " (Burpham) .....	W. H. Burbidge, Esq. ....	5	0 8	...	25.19	158
D " (Temple Court) .....	Arthur H. Bowles, Esq. ....	8	4 0	264 T	24.79	165
High Clandon .....	F. B. Eastwood, Esq. ....	5	0 6	500 T	26.43	...
D Horsley Towers .....	Capt. Hon L F King-Noel .....	8	1 2	285 A	27.41	163
D " (Woodcote Lodge) .....	Sir H. E. Roscoe, F.R.S. ....	5	0 6	650	30.10	176
D § Pirbright Camp .....	Capt. E. R. Taylor .....	5	1 0	201 T	23.53	162

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
WEST SURREY—(con.)						
D Frimley Green .....	F. W. Talbot, Esq. ...	5	8 0	220 $\nabla$	22.02	148
" " (Ridgemount) ...	C. C. Haviland, Esq....	5	0 9	350	26.43	207
D Woking .....	Rev. F. Wilson .....	5	0 8	78 $\uparrow$	24.07	197
D Pyrford (Pyrford Croft) .....	H. W. Page Phillips, Esq.	5	1 6	...	27.74	189
D Horsell (Lindisaye) .....	H. Horncastle, Esq. ...	5	4 2	120 $\uparrow$	22.74	162
" " (M) .....	" " .....	5	0 9	120 $\uparrow$	22.71	...
" " (Kettlewell Hill) .....	Claude Marzetti, Esq....	6	0 9	115	22.93	...
D Camberley (Park Road) .....	Mr. J. Bryan.....	5	1 0	255 $\nabla$	25.84	167
D Chobham (The Elms) .....	Mrs. Brown .....	5	2 3	98	25.38	147
D Chertsey (Ottershaw) .....	R. H. Otter, Esq. ....	5	1 0	200 $\uparrow$	22.39	185
D Bagshot (Hall Grove) .....	Mr. W. Burgess.....	8	1 0	229 $\uparrow$	24.88	178
Chertsey (Long Cross) .....	F. A. Baker, Esq.....	5	4 0	200 $\uparrow$	21.44	...
Windlesham (Westwood) .....	Col. G. A. Curzon .....	5	0 10	300 $\uparrow$	25.35	...
† Sunningdale (The Camp) .....	Lady Hooker .....	5	1 0	...	23.01	...
D Weybridge (Field Place) .....	G. A. Yool, Esq.....	5	1 0	118 $\nabla$	22.46	177
" " (M) .....	" " .....	5	1 0	109 $\nabla$	22.19	...
" " (Heath Field).....	Miss A. T. Gardiner ..	5	1 0	100 $\uparrow$	23.63	171
D " (West Oaks) .....	A. Whittet, Esq. ....	5	1 0	36 $\uparrow$	21.00	169
D " .....	Maj.-Gen. J P Battersby	5	0 10	40	21.59	159
D Virginia Water (Lyne Grove) ...	Theodore J. Hare, Esq.	5	0 11	150 $\uparrow$	22.47	182
D " " (St. Ann's Heath) .....	Rev. J. Peck .....	8	1 1	120	21.08	166
EAST SURREY.						
D Lyden Croft [Edenbridge] .....	Surg.-Gen. C. Planck ..	8	0 8	212 $\nabla$	28.45	180
† Dorking (Fir Tor) .....	F. Taylor, Esq. ...	5	1 0	300 $\nabla$	25.73	...
D† " (Rose Hill) .....	H. Belfield, Esq. ....	5	1 3	250	26.72	160
D† " (High Street) .....	Mr. J. Beetham Wilson	5	0 7	235 $\uparrow$	28.27	162
" (West Street) .....	Mrs. W. A. Marsh.....	8	26 0	224 $\uparrow$	22.81	146
" (Denbies) .....	Mr. J. Beesley .....	5	0 9	610 $\uparrow$	28.59	156
D† " (Pixham Firs).....	J. Croft Deverell, Esq..	8	0 6	180 $\nabla$	26.42	163
Brockham (North Lodge) .....	H. R. Kempe, Esq. ...	8	0 9	160 $\uparrow$	22.35?	...
D Reigate (Hartswood) .....	R. W. Clutton, Esq. ...	5	1 0	174	25.74	196
D Earlswood (Sewage Farm) .....	F. T. Clayton, Esq., C.E.	8	1 0	196 $\nabla$	26.81	143
Red Hill (Hurstleigh) .....	Mrs. Stephenson.....	5	1 0	320	25.05	...
Reigate (Aldersyde) .....	H. Rosling, Esq. ....	5	1 2	...	28.39	175
D " (Holmfels) .....	T. Jackson, Esq. ....	5	1 2	200 $\uparrow$	27.45	153
" (Mill Lawn).....	G. Weston, Esq. ....	5	1 0	330 $\uparrow$	27.14	...
" (Wray Lodge) .....	A. Rosling, Esq. ....	8	1 0	316 $\uparrow$	28.66	171
" (Northcote) .....	F. C. Pawle, Esq. ....	5	1 0	360	28.19	201
D " (Castle Grounds) .....	F. T. Clayton, Esq., C.E.	5	1 0	325 $\nabla$	27.95	169
" (Laglands) .....	J. Welch, Esq. ....	5	1 2	375 $\uparrow$	27.36	165
D " (Nutwood).....	H. E. Gurney, Esq. ...	5	0 9	440 $\uparrow$	24.00	172
D Nutfield Priory .....	Mrs. Fielden .....	8	1 2	468 $\nabla$	25.06	190
" " .....	Mr. J. Moffatt .....	8	1 2	431 $\uparrow$	27.33	193
D " (Holmesdale) .....	C. T. Maw, Esq. ....	8	3 0	500 $\uparrow$	24.76	190
Blechingley House .....	Rev. Preb. A H S Barwell	5	1 0	550 $\nabla$	24.90	...
D Betchworth (Sandhills).....	C. J. Whittington, Esq.	8	3 0	250 $\uparrow$	23.84	145

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
EAST SURREY—(con.)						
d Betchworth (The Holmes) ..	F. R. Rushton, Esq. ...	5	0 8	322 T	28.40	187
Reigate (Hatherlow Observatory)	S. T. Klein, Esq. ....	5	0 9	405	25.19	192
Dorking (High Ashurst) .....	Mr. G. Bond .....	5	3 0	550	25.40	...
d Merstham (Rockshaw) .....	F. C. Bayard, Esq. ...	5	1 0	475	25.36	170
d§ Upper Gatton .....	F. Druce, Esq. ....	5	1 0	601	27.76	199
d Headley (The Hurst) .....	F. C. Bayard, Esq. ...	5	1 3	450	28.30	150
Leatherhead (Downside) .....	A. Tate, Esq. ....	5	1 0	250	24.85	...
d Chaldon Rectory .....	F. C. Bayard, Esq. ...	5	1 0	542	27.11	161
d Chipstead (Shabden Park) .....	" " " " " " " " " " " "	5	1 0	550	27.48	182
d Caterham Asylum .....	Dr. P. E. Campbell ..	5	1 0	610 T	28.37	188
d " Valley (Bradenhurst).	Henry Haes, Esq. ....	5	1 0	510 B	29.09	178
d Kenley (Place Fell) .....	F. C. Bayard, Esq. ...	5	1 0	300	26.73	178
d " (Hazelea) .....	Mrs. Carr Dyer .....	8	1 0	281 T	25.89	169
d Warlingham (Egremont) .....	H. Rogers, Esq. ....	5	1 0	614 B	30.32	174
d Ashtead (Hill Field) .....	C. T. Howell, Esq. ....	5	1 0	215	24.27	197
d " (Oakfield Road) .....	C. Candler, Esq. ....	5	1 2	180 T	24.36	143
d " (D'Abernon Chase) .....	Sir W. Vincent, Bart..	5	1 0	280 T	24.68	159
d Cobham (Hatchford) .....	late W. M. Chinnery, Esq.	8	1 0	170	23.51	154
d† Oxshott .....	W. H. Dines, Esq. F.R.S.	5	1 0	206 T	22.90	165
Banstead (Burgh Heath Reservoir)	W. Vaux Graham Esq. CE	5	1 0	570 T	29.07	...
d " (The Hall) .....	F. C. Bayard, Esq. ...	8	1 0	488	26.49	149
d " (Benhillton) .....	" " " " " " " " " " " "	5	1 3	125	21.93	167
Chelsham (Fairchildes) .....	A. S. Daniell, Esq. ...	8	1 0	600 T	27.14	...
" " " " " " " " " " " "	Mr. G. Mansfield .....	5	0 10	600 T	26.89	...
Epsom (Water Works) .....	W. Vaux Graham Esq. CE	5	3 1	149 T	22.66	...
d Sanderstead (Red House) .....	F. C. Bayard, Esq. ...	5	1 0	320	24.71	183
d Esher (Sewage Works) .....	" " " " " " " " " " " "	5	1 0	42 T	19.76	167
d South Croydon (Avondale Road)	Dr. G. J. Hinde .....	5	1 0	225 T	26.20	187
d Addington (Hares Bank) .....	F. C. Bayard, Esq. ...	8	1 0	331 T	25.20	180
d " (Park Farm) .....	" " " " " " " " " " " "	5	1 0	268 T	26.34	169
d " Hills .....	" " " " " " " " " " " "	8	0 9	473 T	24.21	210
d Wallington (Cotswold) .....	" " " " " " " " " " " "	5	4 1	140 T	23.57	190
d Sutton (Sewage Works) .....	C. C. Smith, Esq., C.E.	8	1 0	94 T	22.89	184
d " (Water Works) .....	W. Vaux Graham Esq. CE	5	1 0	157 T	23.13	183
d Carshalton (Sewage Works) .....	Baldwin Latham Esq. CE	5	1 0	118 T	22.78	157
d§ Beddington (Riverside) .....	F. C. Bayard, Esq. ...	5	1 0	120	22.95	169
d† Croydon (Duppas House) .....	Baldwin Latham Esq. CE	5	1 0	158	22.56	174
d " (Waddon New Road) .....	G. Corden, Esq. ....	5	1 0	146	23.00	162
d " (Brimstone Sew. Works)	F. C. Bayard, Esq. ...	5	1 0	130 T	20.81	151
d " (Park Hill Rise) .....	H. F. Parsons, Esq., M.D.	5	1 3	240	21.45	170
d " (Windmill Road) .....	A. Malden, Esq. ....	5	1 6	174 T	21.40	167
d " (Ashburton Road) .....	J. E. Clark, Esq. ....	5	1 0	188	23.46	178
d Worcester Park (Parkside) .....	A. Vaughan Pott, Esq.	5	1 0	80	21.98	145
d " " (Manor Lodge) .....	F. C. Bayard, Esq. ...	5	1 9	120	20.96	164
d Beddington Corner (Millgreen Rd)	" " " " " " " " " " " "	5	5 0	77	21.77	154
d Morden (Steel Hawes) .....	Miss R. Hames .....	5	2 3	97	22.21	198
d Thames Ditton (Weston Green).	Mr. T. H. Potter .....	8	1 0	35 T	21.30	187
Surbiton (Seething Wells) .....	H. E. H. Wrinch Esq. CE	5	0 10	34 T	20.34	172



## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
WEST KENT—(con.)						
Tonbridge (Colebrooke).....	W. A. Smith, Esq.....	5	0 10	350 T	26·38	160
„ ( „ ) <i>Snowdon</i> .....	„ „ „ „.....	5	1 0	350 T	25·60	160
Staplehurst (Pagehurst Farm)...	J. Norris, Esq. ....	5	1 4	310 A	28·64	158
D Chiddingstone Rectory .....	Rev. J. T. Pearse .....	5	1 0	170 T	24·99	162
Tonbridge (Penshurst Place) ...	Lord De Lisle.....	5	1 0	...	25·80	...
D „ ( „ ) <i>Park</i> ...	Mr. J. M. Sturgess ...	5	0 4	265 T	26·64	172
D „ (Mabledon Park).....	J. F. W. Deacon, Esq.	5	1 2	...	24·16	142
D „ (Primrose Hill) .....	G. J. Kimmins, Esq....	5	0 10	175 A	24·83	168
D „ (Beech Hurst).....	W. C. Punnett, Esq....	5	1 6	102 A	24·21	152
„ ( „ ) <i>Snowdon</i> .....	„ „ „ „.....	5	1 6	102 A	24·06	152
„ ( „ ) <i>M</i> .....	„ „ „ „.....	8	4 0	105 A	24·20	...
D Ashford (Westwell Vicarage) ...	Rev. H. H. D'Ombraim	5	1 0	272	26·00	145
D Edenbridge (Falconhurst) .....	Rt.Hon.J.G.Talbot, MP	5	0 6	350	29·67	152
D Hadlow .....	F. W. E. Shrivell, Esq.	5	1 0	100	23·10	171
D Ulcombe Place .....	A. O. Walker, Esq. ...	5	1 0	350 T	23·29	161
D Maidstone (Linton Park) .....	Mr. C. Pratt ...	5	0 8	...	22·96	152
D „ (Rumwood, Langley).....	Mr. W. J. Gould .....	5	1 9	...	24·50	176
D „ (Lower Tovil) .....	Lawrence Green, Esq..	5	1 0	30 L	21·69	158
„ (W.W., Barming) ...	W. J. Ware, Esq., C.E.	8	1 0	30 A	21·21	...
„ (Long Rede, „ ) ...	Rev. T. W. Carr .....	8	3 2	280 T	22·47	...
D „ (Brenchley Gardens)...	T.F.Bunting, Esq., C.E.	5	0 9	50	23·78	167
D „ (BoroughSurveyor'sOffice)	„ „ „ „.....	8	8 0	32 A	24·58	163
D East Malling (Broadwater) .....	C. B. Mercer, Esq. ...	5	1 6	169	23·31	166
D West Malling (St. Leonards) ...	G. Phillips, Esq. ....	5	1 0	...	24·72	169
D Detling (The Croft) .....	R. Cooke, Esq. ....	5	1 2	330 T	24·08	180
Maidstone (Allington) .....	Messrs.G.Bunyard&Co.	5	1 4	150 B	22·18	...
D Aylesford (Preston Hall) .....	Mr. H. J. Knight .....	5	1 6	80	23·72	157
D Westerham (The Fishponds) ...	F. C. Bayard, Esq. ...	5	1 0	380	28·46	150
D „ Hill Estate .....	„ „ „ „.....	5	1 0	539	27·16	159
†Sevenoaks (River Hill).....	Major J. M. Rogers ...	8	4 0	535 A	24·15	156
„ (Plaxtol) .....	H. Stonham, Esq. ....	5	3 0	300 T	23·70	...
„ (Bitchet Wood) .....	Admiral G.S.Bosanquet	5	1 0	580 A	27·04	...
„ (The Rectory) .....	Rev. T. S. Curteis.....	5	1 0	497	25·78	...
„ (St. John's Hill).....	W. W. Wagstaffe, Esq.	5	1 10	380	25·35	166
D „ (Riverhead).....	Dr. J. Sterry .....	5	0 6	300 ?	25·18	161
D „ (Chevening Gardens)...	Mr. C. Sutton.....	5	1 0	360	28·98	156
D Ightham (Belmont Lodge) .....	BurleighD.Kilburn Esq	5	1 4	380	26·77	183
D†Knockholt (Kent Waterworks)...	F. C. Bayard, Esq. ...	5	24 6	812	22·51	158
D† „ ( „ ) .....	„ „ „ „.....	5	1 0	785	29·22	160
Otford (Beechy Lees) .....	R. Edwards, Esq. ....	5	0 10	480	27·29	170
Farnborough (Downe Lodge) ...	F.Lander Muirhead, Esq	5	0 5	555 T	28·22	...
D Ash (Pettings House) .....	C. J. G. Hulkes, Esq... <i>Press-cutting</i> .....	5	1 0	540 T	25·94	180
Keston (Forest Lodge) .....	„ „ „ „.....	...	...	...	25·47	132
D West Wickham (Wickham Court)	F. C. Bayard, Esq. ...	5	1 2	300	24·67	144
D Hayes (Hayes Place).....	„ „ „ „.....	8	1 0	350	23·91	140
D†Orpington (Kent Waterworks)...	„ „ „ „.....	5	1 0	220	22·69	156
Chatham (Luton W.W.) .....	W. Coles Finch, Esq....	5	3 0	88 A	21·49	149
D Meopham .....	Jesse Garratt, Esq. ...	5	1 1	290	23·06	145

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
WEST KENT—(con.)						
d Rochester (Knights Place) .....	J. Pye, Esq. ....	4	3	0	320	23.23 176
Strood Water Works .....	W. Banks, Esq., C.E. ...	5	3	0	112 $\nabla$	20.27 167
d Frindsbury (The Shrubbery) ...	Warwick Stunt, Esq. ..	5	1	6	150	21.37 154
„ (Manor Farm) .....	F. Baker, Esq. ....	5	1	0	100	21.75 ...
Bromley Common (Elmfield) ...	Rev. J. P. Faunthorpe..	5	0	9	235 $\nabla$	22.35 171
Bickley (The High Field) .....	J. Batten, Esq. ....	5	1	2	295	22.41 155
d Bromley (The Palace) .....	F. C. Bayard, Esq. ...	5	1	0	187	21.64 161
„ (Lansdown Road) .....	C. A. Case, Esq. ....	5	1	0	...	21.13 ...
„ (Widmore Road) .....	Miss Scott .....	5	1	0	230	20.66 144
d „ (Kinnaird Avenue) ...	C. T. Drew, Esq. ....	8	2	0	...	21.13 172
Chislehurst (Foxbury) .....	H. F. Tiarks, Esq. ....	8	4	6	250	21.20 178
d „ (Hawkwood) .....	F. C. Bayard, Esq. ....	5	1	0	300	20.81 140
d Southfleet (Kent Waterworks)...	„ „ „ ..	5	1	0	82	20.08 176
d Wilmington ( „ „ )...	„ „ „ ..	5	1	0	25	19.93 166
d Sidcup (Hatherley Road) .....	Dr. L. Burrell .....	5	1	2	170 $\nabla$	21.81 180
d „ (Park Road) .....	S. A. Sharman, Esq. ...	5	1	0	230 $\nabla$	21.67 176
d „ (Station Road) .....	Clayton Beadle, Esq. ...	5	1	0	...	21.09 135
d Beckenham (Wickham Road) ...	E. Scovell, Esq. ....	5	1	2	156 $\nabla$	21.71 174
d Dartford (West Hill House).....	F. C. Bayard, Esq. ...	5	1	3	100	18.95 140
Higham (Oakleigh) .....	C. Lake, Esq. ....	8	1	2	25	18.43 ...
d Cooling (Broomy Farm) .....	Mr. J. Filmer .....	5	1	0	10	23.67 162
d Hoo St. Mary .....	H. Pye, Esq., Junr. ...	5	5	6	146 $\nabla$	19.50 155
d Erith (Crossness) .....	MFitzmaurice EsqCMG	14	0	6	16 $\nabla$	18.08 145
EAST KENT.						
§Dungeness .....	Meteorological Council.	8	1	3	75 $\nabla$	17.82 168
§Littlestone-on-Sea.....	„ „ „ ..	8	1	0	...	18.89 165
Dymchurch Rectory .....	Rev. C. E. Plater .....	8	1	6	5	20.21 174
d Hythe (Hillcrest Road) .....	J. B. Jordan, Esq. ....	5	1	0	190 $\nabla$	22.72 169
d „ (Blackrock Res., Seabrook)	Christopher Jones EsqCE	5	0	6	71 $\nabla$	21.14 151
d „ (Sandling Park) .....	Lawrence Hardy EsqMP	8	1	0	268	25.41 161
d „ (Hillhurst Farm) .....	G. F. Deedes, Esq. ...	5	1	6	280 $\nabla$	24.56 171
d Sandgate .....	A. R. Bowles, Esq., C.E.	5	1	0	52 $\nabla$	20.70 154
d §Folkestone (Sanatorium) .....	M. Yunge Bateman, Esq.	5	1	0	101 $\nabla$	22.27 156
d „ (Limes Road) .....	J. Duncan Walker, Esq.	5	1	0	...	22.53 163
d „ (Radnor Park) .....	J. W. Stainer, Esq. ...	5	4	8	129 $\nabla$	22.13 148
d „ ( „ „ ) ... (R)	A. E. Nichols, Esq., C.E.	...	6	2	127 $\nabla$	19.78 166
d „ (Cherry Gardens) ...	H. Turner, Esq. ....	5	1	6	230 $\nabla$	25.17 170
d „ (Capel Lodge) .....	E. Norton, Esq., M.D..	5	1	0	470 $\nabla$	22.00 169
d „ (Lower Standen, Capel)	H. Turner, Esq. ....	5	2	11	250 $\nabla$	22.02 162
Hythe (Paddlesworth) .....	Mr. R. Dixon .....	8	1	0	612 $\nabla$	29.52 ...
d Acrise Place .....	F. A. MacKinnon, Esq.	7	0	9	484 $\nabla$	27.01 131
d Dover (Water Works) .....	H. E. Stilgoe, Esq., C.E.	5	1	6	200 $\nabla$	23.82 157
d Kearsney (Chilton Farm) .....	„ „ „ ..	5	1	6	127 $\nabla$	27.04 148
„ „ „ „ „ ..	the late C. W. Curtis, Esq.	5	1	0	94 $\nabla$	27.95 ...
d Ashford (Beavor Green) .....	T. Nickalls, Esq. ....	5	1	0	155 $\nabla$	25.03 152
Deal and Walmer W. W. ....	A. Mantle, Esq. ....	12	1	0	110 $\nabla$	22.28 ...
d „ „ „ „ „ ..	„ „ „ ..	5	1	0	110 $\nabla$	22.47 157

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with -01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>EAST KENT—(con.)</b>						
Wye (Bilting House) .....	Mr. A. H. Briggs .....	5	1 3	158	28.42	142
Petham (Buckholt Farm).....	W. H. Hammond, Esq. ....	8	0 8	460 T	23.60	...
D Deal (Sewage Works) .....	J. W. Barrow, Esq. ...	5	1 0	11 T	22.44	190
D Tilmanstone (Danefield) .....	Mrs. Rice .....	6	1 1	130 ?	24.18	155
D Eastry .....	L. A. Fawcett, Esq. ....	5	0 10	85 T	22.93	167
D „ (Great Walton) .....	W. V. Lister, Esq. ...	5	1 0	25 T	20.68	155
D Sandwich (Word) .....	W. Elwin Napier, Esq. ....	5	1 0	32	21.22	150
Wingham (Crockshard).....	J. E. Elgar, Esq. ....	7	1 6	90 ?	20.96	...
Sheldwich .....	Rev. B. S. Malden.....	5	1 0	249 T	27.30	164
D Selling (Harefield).....	Sidney Neame, Esq. ...	5	4 0	219 B	28.09	175
Sandwich (St. George's Golf Club)	W. Ryder Richardson Esq. ....	...	1 1	4 ?	19.27	155
Ickham .....	Press-cutting .....	...	...	45 ?	25.33	...
D Canterbury (Irrigation Works)...	C. Terry, Esq., C.E. ....	5	3 3	15 T	20.26	143
„ (Medical Hall) .....	Mr. A. Lander .....	...	...	...	20.96	...
D Sittingbourne (Sharsted Court)...	A. J. Rayfield, Esq. ...	5	1 6	277 T	22.76	145
Canterbury (St. Thomas' Hill)...	J. Spillett, Esq. ....	5	1 0	250	24.23	...
Ospringe (Lorenden).....	Walter C. Stunt, Esq. ....	5	1 2	180 B	24.30	150
D Ramsgate (West Cliff Villas) ...	T. N. Ritson, Esq., C.E. ....	6	1 0	124 T	19.86	145
Minster (Gas Works).....	„ „ „ .....	6	1 0	60 T	19.59	...
D Broadstairs.....	P. Johncock, Esq. ....	5	0 9	55	21.56	161
Herne Bay (Eddington) .....	Miss Hawksworth .....	5	1 0	4 ?	21.51	...
„ „ (Water Works) .....	J. W. Thorp, Esq. ....	5	0 6	122 T	19.82	...
D Reculver .....	Allington Collard, Esq. ....	5	5 2	27 T	17.84	141
D St. Peter's .....	Rev. H. C. V. Snowden .....	5	0 9	140 T	19.98	146
D Margate (Westlands) .....	J. Stokes, Esq. ....	5	1 0	55	18.67	157
Kingsgate (White Ness) .....	Mr. R. Silk .....	5	3 6	98 L	20.51	...
D Sheppey (Leysdown).....	Rev. J. Castle .....	5	1 2	50	19.41	169
<b>WEST SUSSEX.</b>						
§ Bognor .....	Royal Meteorological Soc .....	8	1 0	14	25.36	206
„ (Lidsey Lodge).....	H. Neale, Esq. ....	8	1 2	...	26.90	152
Littlehampton (Surrey House)...	A. J. White, Esq. ....	5	1 8	20 T	24.05	...
„ (Dorset House)...	G. H. Beecheno, Esq. ....	5	2 0	30	24.39	...
D St. Worthing (Corporation Obs.) ..	Frank Roberts, Esq. C.E. ....	8	1 0	34	26.76	171
West Thorney .....	H. Padwick, Esq. ....	5	1 0	23 T	27.64	...
D Arundel (Yapton, Drove Farm)...	W. A. Hounsom, Esq. ....	5	1 0	14 T	25.64	163
Angmering .....	Rev. J. B. Orme.....	5	1 3	44	25.07	...
D Tortington .....	Major J. A. Travers .....	...	1 0	25 T	26.99	156
D Chichester (Westgate Meadow)...	G. A. Tyacke, Esq. ...	8	0 6	40	28.15	171
D Arundel (Patching) .....	J. Drewitt, Esq. ....	5	1 0	180	29.84	168
D „ „ .....	Mrs. Joad .....	5	0 10	130 T	30.11	199
D „ (Warningcamp) .....	C. A. Crafer, Esq. ....	5	1 0	25	30.89	176
D West Bourne [Emsworth] .....	Rev. L. B. Birkett.....	5	0 8	50 T	30.41	186
D Funtington.....	J. A. Greenwood, Esq. ....	5	1 0	95 T	28.48	158
D West Stoke Rectory .....	Rev. W. F. Shaw .....	5	1 0	176 T	30.65	165
Goodwood House .....	Press-cutting .....	...	...	...	31.84	...
D Steyning .....	Col. Ingram .....	5	1 0	80 T	30.07	144
„ (Crescent Road) .....	Mr. H. J. Hide .....	5	1 0	80 T	31.66	...



## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>WEST SUSSEX—(con.)</b>						
D Chichester (Forest Side Vic.) ...	Mrs. J. C. Parson .....	5	1 0	341 T	34·71	142
D „ (Watergate) .....	W. M. Christy, Esq. ....	5	1 0	236 T	34·25	192
„ (West Dean Park) ...	Mr. W. H. Smith .....	10	1 6	190	34·66	146
„ (Chilgrove) .....	J. W. Woods, Esq. ....	5	0 6	284 T	36·87	...
D Compton [Petersfield] .....	Rev. H. M. Langdale... ..	5	1 0	255 T	33·76	175
Petworth Park .....	Mr. E. W. Pull .....	5	1 0	182 T	30·63	156
D Stedham (Rotherhill) .....	R. Stanley Clarke, Esq. ...	8	1 2	170 T	29·09	181
Cowfold (The Laurels) .....	Mr. S. Ford .....	5	1 6	373	25·79	..
Midhurst (Lodsworth) .....	Lt.-Col. E.O. Hollist, RA ..	8	1 3	220	26·91	...
„ (Linch Farm) .....	G. Eames, Esq. ....	5	0 8	160 T	33·90	151
D „ (Borden Wood) .....	E. Lamb, Esq. ....	8	1 0	260 T	34·33	202
„ (Hollycombe) .....	J. C. Hawkshaw, Esq. ..	8	6 6	550	33·76	...
Billingshurst (Hawkhurst Court)	B. de F. Osmaston, Esq. ...	5	1 0	120	26·33	...
D Horsham (Denne Park) .....	Mr. H. Harris .....	5	4 0	240 T	28·63	156
D Slinfold (Rapkyns) .....	W. Duncan Knight, Esq. ...	5	1 0	170	26·51	162
Fernhurst (Blackdown House)...	F. Philipson Stow, Esq. ...	5	1 10	488 T	31·05	...
§ Horsham (Christ's Hospital) .....	Royal Meteorological Soc ..	5	1 0	161	25·88	180
D „ (Selehurst) .....	W. E. Hubbard, Esq. ..	5	1 0	305	30·23	181
† „ (Manor House) .....	H. Padwick, Esq. ....	8	0 10	140 T	29·59	165
D† „ (Richmond Road) .....	M. L. Craven, Esq. ....	5	1 2	170	29·85	200
D† „ (Wimblehurst) .....	Miss F. E. Allcard ...	5	1 0	195 T	27·38	188
Lynchmere (Shottermill) .....	Rev. C. Holland .....	5	4 0	450	36·08	...
<b>EAST SUSSEX.</b>						
† Beachy Head .....	Miss Brodie Hall .....	5	1 0	515 T	21·76	...
East Dean (Hill Side) .....	E. Norville Smith, Esq. ...	5	1 0	250 T	24·01	157
D† Eastbourne (Wilmington Square)	R. Sheward, Esq. ....	8	0 6	39	28·36	163
D§ „ (Osborne House) ...	Miss Hood .....	5	1 0	12 T	27·23	162
D „ (Glenthorne) .....	Miss Woodd .....	8	1 6	86 T	26·53	181
D „ (Trevella) .....	F. G. Whitley, Esq. ...	5	0 6	64 T	28·04	168
„ (Arundel Road) .....	J. C. Wright, Esq. ....	5	0 4	70	28·49	...
D „ (Cemetery) .....	Miss Brodie Hall .....	5	4 0	160 T	24·78	142
„ (Staveley Cross) ...	J. Weston, Esq. ....	5	1 6	110 T	26·05	...
D Seaford .....	B. A. Miller, Esq., C.E. ...	5	1 6	40 T	26·88	162
Jevington (Church Farm) .....	F. Stileman, Esq., C.E. ...	8	0 9	261 T	26·39	...
D Litlington (Plough & Harrow Inn)	„ „ „ .....	8	1 0	19 T	27·41	168
D§ Brighton (Old Steine) .....	A. Newsholme, Esq., MD ..	5	1 0	32 T	24·38	163
D „ (W.W. Goldstone Bottm)	J. Johnston, Esq., C.E. ...	8	0 7	140 T	23·84	153
D „ ( „ Lewes Road)...	„ „ „ .....	8	3 6	88 T	26·68	176
D „ ( „ Upper Portslade)	„ „ „ .....	8	1 3	167 T	26·01	151
D „ ( „ Patcham) .....	„ „ „ .....	5	1 6	207 T	29·11	174
D „ ( „ Race Hill) ...	„ „ „ .....	8	1 0	466 T	27·07	176
D† Bexhill (Marina) .....	Mr. G. Brisley .....	8	1 0	10 ?	30·08	155
„ (The Grange) .....	Miss A. Scrivens .....	8	4 0	143 T	22·21	...
§ St. Leonards (West Marina) ...	H. Colborne, Esq. ....	8	1 0	21 T	23·70	171
§ „ (Gensing Gardens) ..	„ „ „ .....	8	1 0	179 T	24·59	191
D Polegate (Alciston) .....	R. Matthews, Esq. ....	5	1 4	172 T	29·43	185
Hailsham .....	Rev. F. Clyde Harvey..	5	1 0	105	27·31	...

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
EAST SUSSEX—(con.)						
D Falmer .....	R. R. Verrall, Esq. ...	5	3	0	312 $\nabla$	30.01 167
D Lewes (Fairhall, Southover) .....	Miss Mathew .....	5	1	0	45	29.66 162
D „ (Bedford Lodge) .....	Mrs. Kemp .....	5	1	0	85 $\nabla$	25.66 185
D „ (Saxonbury) .....	A. Hillman, Esq. ....	5	1	0	75 $\nabla$	27.65 165
D Hailsham (Magham Down) .....	W. Bear, Esq. ....	5	1	2	90 $\nabla$	24.12 150
D Ringmer (Downlands) .....	R. R. Davis, Esq. ....	5	0	8	120	28.56 157
D Hastings .....	P. H. Palmer, Esq., CE	10	5	6	240	22.32 142
„ (Filsham Res.) .....	„ „ „ .....	5	0	10	91	23.50 162
„ (Halton Res.) .....	„ „ „ .....	5	0	10	301	24.61 154
„ (Fairlight Res.) .....	„ „ „ .....	5	0	10	510	24.25 147
D „ (High Beech Hollington) .....	Miss Lewis .....	5	1	0	320 $\nabla$	23.83 176
D „ (Guestling Rectory) .....	Rev. E. N. Bloomfield.	5	1	5	125 $\nabla$	24.00 164
D Hassocks (Pyecombe) .....	Mr. F. S. Mitchell.....	5	0	7	392	32.29 165
Clayton Rectory .....	Rev. T. H. R. Shand...	5	1	6	201 $\nabla$	32.66 166
Hurstpierpoint (Danny Park) .....	Mr. J. Bunney .....	8	1	3	180	36.44 ...
D Winchelsea (The Friars) .....	Major R. C. Stileman..	5	1	2	115 $\nabla$	20.44 137
Horeham Manor .....	Miss P. C. Harrison ...	5	0	9	250	24.80 ...
D Battle (Whatlington) .....	Miss H. Gripper.....	5	1	3	90 $\nabla$	23.61 157
Udimore (The Hammonds) .....	J. G. Mair-Rumley, Esq.	8	1	0	144 $\nabla$	22.07 156
Playden (East Guldeford Lane).	G. Pile, Esq. ....	5	1	0	...	22.06 ...
D Burgess Hill (Silverdale Road) .....	F. H. Phillips, Esq. ...	8	0	10	162 $\nabla$	28.95 180
„ (Ote Hall) .....	Mrs. Woods .....	5	1	6	...	30.32 ...
D Heathfield (Summerlands) .....	Dr. A. Brown .....	5	1	0	500 $\nabla$	28.98 162
D „ (Tottingworth Park) .....	Mr. J. Masson .....	5	1	0	500 $\nabla$	29.75 166
D Cuckfield (Bolney Vicarage) .....	Rev. T. Austen Holcroft	5	0	11	99 $\nabla$	27.89 151
D Uckfield (Sheffield Park) .....	Mr. W. T. Moore .....	5	1	0	...	26.49 170
D Haywards Heath (Abbots Leigh) .....	Mr. R. Inglis .....	5	1	0	190 $\nabla$	28.86 166
D Robertsbridge (Salehurst Vic.) .....	Rev. E. J. Sing .....	5	0	9	110 $\nabla$	28.66 170
D Buxted Park .....	Mr. H. C. Prinsep.....	8	1	0	94	27.07 174
„ (Strawberry Hall) .....	C. Rintoul, Esq. ....	5	1	0	180	25.32 ...
§ Cuckfield (Workhouse) .....	Meteorological Council.	...	1	0	389	25.56 150
D Lindfield (Wood Knoll) .....	L. Weedon, Esq. ....	5	1	0	188 $\nabla$	28.39 207
D Bodiam (South Park) .....	L. M. Jackson, Esq. ...	5	1	1	208 $\nabla$	26.05 164
D Nutley Vicarage .....	Rev. H. J. Peckham ...	5	1	0	386 $\nabla$	27.93 190
D „ (The Hall) .....	Miss Cook .....	5	0	10	417	27.91 192
D „ (Chelwood Beacon) .....	H. Clarke Jervoise, Esq.	5	1	3	530 $\nabla$	30.00 159
Handcross (The Warren) .....	Leicester M. Reed, Esq.	5	0	10	430 $\nabla$	28.64 ...
D Crowborough (Jarvis Brook) .....	Crowborough Water Co.	5	1	0	325 $\nabla$	31.12 169
D „ (Beechcroft) .....	R. L. de Zoete, Esq. ...	5	0	11	750	32.14 185
D „ (Uckfield Lodge) .....	J. J. S. Driberg, Esq. ...	8	1	0	796 $\nabla$	31.63 202
Haywards Heath (Brook House) .....	H. R. G. Clarke, Esq. ..	5	1	0	220	28.50 155
D Ardingley (Lynwood House) .....	G. Forrester Scott, Esq.	5	0	9	240 $\nabla$	27.15 178
D Balcombe (The Gables) .....	Mr. G. J. Warren .....	8	1	3	352 $\nabla$	30.97 184
D Ticehurst House .....	Mr. J. D. Jordan .....	5	4	9	423 $\nabla$	25.91 148
D „ (Whiligh) .....	G. J. Courthope, Esq. ...	5	1	0	440	28.08 176
D Wadhurst (Uplands) .....	Miss M. C. Watson ...	5	1	0	480	28.31 165
„ (Kirkstone) .....	J. C. Lane Andrews, Esq.	...	0	5	550	29.21 ...

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		1904	
		in.	ft.	in.	feet.	inches.
<b>EAST SUSSEX—(con.)</b>						
D Wadhurst (Lower Cunsley Wood)	F. Wilkin, Esq. ....	5	1	0	416 $\pi$	25.18 169
D Balcombe (Stockcroft) .....	R. Newton, Esq. ....	5	1	1	341 $\uparrow$	30.80 166
D „ (Highley Manor) .....	Mr. J. Coles .....	8	1	6	422 $\uparrow$	29.69 162
D Crowborough (Steel Cross House)	J. C. Stenning, Esq. ...	5	1	1	534 $\uparrow$	32.00 192
D „ (Renby Grange) .....	Miss Emily Aston .....	5	1	7	390 $\uparrow$	29.70 196
Forest Row (Hindleap Lodge) ...	Mr. A. Adam .....	5	1	6	620	27.20 ...
„ „ (Charlwood Farm) ..	A. Hoare, Esq. ....	5	1	0	250 $\uparrow$	28.37 ...
Frant (Eridge Castle) .....	Mr. A. Wilson .....	5	2	0	400	32.09 141
D Crawley Down (The Grange) ...	T. H. W. Buckley, Esq.	5	0	9	430	31.34 180
Worth (Paddockhurst) .....	Mr. A. B. Wadds .....	6	2	0	500	28.14 ...
D „ (South Hill) .....	P. E. Ravenshow, Esq.	8	1	6	558 $\uparrow$	33.37 186
D East Grinstead (Cranston Road).	Mr. G. Mitchell .....	8	2	2	420 $\uparrow$	31.42 180
D Glen Andred [Groombridge] ...	Mrs. Boardman .....	8	1	0	320	29.61 153
<b>HAMPSHIRE.</b>						
<b>ISLE OF WIGHT.</b>						
D Ventnor .....	J. S. Ineson, Esq. ....	10	2	0	100 $\pi$	29.62 174
§ „ (Consumption Hospital)	Royal Meteorological Soc	5	1	0	81	29.78 166
Brading Vicarage .....	Rev. E. Summers .....	5	1	6	50 ?	30.98 ...
D Totland Bay (Aston House) .....	J. Dover, Esq. ....	8	1	0	145 $\pi$	27.29 170
D Carisbrooke (Rainsgrove) .....	Baldwin Latham Esq CE	5	1	0	180 $\pi$	31.20 153
D „ (Rowborough) .....	„ „ „ „	5	1	0	193 $\pi$	33.10 153
D Newport (Grammar School) .....	C. D. Vibert, Esq. ....	5	1	0	45	29.31 169
Ryde (W. W., Knighton) .....	J. T. Harvey, Esq., C.E.	8	2	0	68 $\pi$	34.25 153
D „ (New Lodge) .....	Capt. W. A. Dobie .....	5	1	1	147	29.24 170
„ „ „ „	T. Cole Flower, Esq. ...	12	9	0	35	30.87 ...
D „ (Beldornie Tower) .....	Percy C. Hall, Esq. ...	5	1	0	30 $\downarrow$	24.30 167
D Wootton (Fernhill) .....	C. G. Brodie, Esq. ....	8	0	6	118 $\uparrow$	33.75 172
D Osborne (Newbarn Cottage) .....	R. Scott, Esq. ....	8	0	8	172 $\pi$	29.81 164
D Bournemouth (Clarendon Court).	G. Galpin, Esq. ....	5	1	0	130 $\uparrow$	30.20 145
„ (South Cliff) .....	C. Dales, Esq. ....	5	1	0	41	28.84 182
„ (Pleasure Gardens) „ „ „	„ „ „ „	5	1	0	41	33.38 183
„ (Vale View) „ „ „	„ „ „ „	5	1	0	150	32.62 183
D „ (Wellington House)	Messrs. Primavesi Bros	5	1	0	100 $\uparrow$	28.71 188
D § „ (Kempsey, Bath Rd.)	E. L. M. Colville, Esq. ...	5	1	0	121 $\uparrow$	30.96 174
D Christchurch (Southbourne-on-Sea) ..	C. S. Pringle, Esq. ...	8	1	0	100 $\uparrow$	30.83 165
Milford-on-Sea (Keyhaven) .....	A. C. G. Heygate, Esq.	5	1	0	6	28.83 ...
D Christchurch (Winkton Lodge) ..	Miss Lassell .....	5	0	9	34 $\pi$	26.54 171
D „ (Heron Court) .....	The Earl of Malmesbury	8	0	6	25 $\uparrow$	32.66 140
Portsmouth (Fort Cumberland) ..	P. Murch, Esq., C.E. ...	8	0	9	16 $\pi$	22.93 ...
D § „ (Milton) .....	Dr. A. Mearns Fraser ...	5	1	0	18 $\pi$	26.68 177
North Hayling .....	F. Padwick, Esq. ....	5	0	8	10	24.24 ...
Ringwood (Burley Park) .....	Rev. W. Esdaile .....	5	...	...	200 ?	36.33 140
D „ (Bisterne) .....	Rev. C. Mills .....	8	0	11	45 $\uparrow$	32.76 157
Fareham (Belvoir House) .....	E. Woakes, Esq., M.D.	5	0	11	20	28.00 ...
D Porchester (Noel Cottage) .....	Miss Montgomerie Frost	5	1	0	...	27.79 167
D Havant (Farlington) .....	H. Ashley, Esq., C.E. ...	5	1	0	77 $\uparrow$	26.42 144

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.		AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with 10 or more recorded.
			Diameter	Height Above Ground		Height Above Sea Level	1904	
			in.	ft.	in.	feet.	inches.	
<b>HAMPSHIRE—(con.)</b>								
Havant (Farlington).....	M	H. Ashley, Esq., C.E....	5	1	0	77 T	26·58	...
" .....		" " " "	5	1	0	25 T	22·64	148
" .....	M	" " " "	5	1	0	25 T	22·84	...
Emsworth (Redlands) .....	D	F. Jacomb Hood, Esq..	5	1	0	90 T	29·37	156
Southampton (Cadland) .....	D	A. C. Drummond, Esq..	8	4	6	52 T	28·26	176
Lyndhurst (Cuffnells) .....		R. G. Hargreaves, Esq..	6	1	0	200	37·62	...
Southampton (Netley, Lake Ho.)	D	Col. Pennington .....	8	1	0	54 A	31·10	194
Cosham (Purbrook Grange) .....		Miss F. A. Deverell ..	8	0	9	100 ?	32·19	147
Lyndhurst (Fritham House)		F. E. Chapman, Esq...	5	1	0	420	33·83	154
†Southampton(OrdinanceSurv.Of.)		Col. D.A.Johnston, C.B.	5	1	0	79 A	31·02	166
" (Thornhill Park) ...		Col. F. Willan .....	5	1	8	220 T	28·11	...
" (Totton) .....	D	W. F. Harold, Esq. ...	5	4	0	85	33·57	166
" (Anglesea Rd., Shirley)		A. Spooner, Esq. ....	5	1	1	83	29·89	...
" (Tatchbury Manor)..		C. F. Wilson, Esq.....	5	1	0	...	32·33	158
Wickham (The Croft) .....	D	Rev Stanhope Rashleigh	5	0	11	80	30·83	179
Botley (Botley Hill) .....	D	Lady Jenkyns .....	5	1	6	36 T	29·55	163
" (Beechcroft, Curdridge)..	D	Miss L. Pasley .....	8	1	6	100	30·05	143
Horndean (Blendworth Lodge)...		Mrs. Long .....	8	0	10	217	35·86	180
" (St. Catherine's) .....		Miss Barnes .....	8	0	8	417 T	31·82	175
Fordingbridge (Oaklands) .....		Mrs. T. Westlake .....	8	1	0	135 T	30·27	...
Hambledon (Rosecroft) .....	D	Mr. L. Dawes.....	5	2	6	200 T	33·80	181
Bishops Waltham (Swanmore House)		W.H.Myers, Esq., M.P.	8	1	0	390 T	32·73	177
" " (Hill Place) ....	D	Major W. A. Daubeney.	8	0	9	260 T	32·80	179
" " (Northbrook Ho.)		H. W. Trinder, Esq....	5	1	0	136 A	31·99	164
" " (Wintershill Hall)	D	J. S. Moss, Esq.....	5	1	6	253 A	29·45	145
Droxford (Fir Hill) .....		Capt.Mackenzie-Grieve	5	3	6	212 T	32·28	163
Chandlers Ford (Fryern) .....		Miss Grace Stuart .....	5	1	2	200	30·17	...
East Meon (Westbury House) ...	D	Col. Le Roy Lewis .....	5	2	6	296 A	34·54	160
Ampfield Vicarage.....	D	Rev. Vere Awdry .....	5	3	0	230 T	29·31	168
Otterbourne (Elderfield) .....	D	G. Norsworthy, Esq....	5	1	0	137 A	32·11	189
" (W.W., Shawford).	D	W.Matthews,Esq.,C.E.	5	1	0	113 A	26·89	186
" " " " )M		" " " "	5	1	0	113 A	27·28	...
Petersfield (Fairley) .....	D	A WLeachman, Esq.MD	5	0	9	202 T	34·36	177
Romsey (Timsbury) .....	D	BaldwinLathamEsq.CE	8	1	8	96 A	29·75	168
Twyford (Pumping Station).....	D	" " " "	8	1	9	139 A	30·61	152
West Dean .....		Rev. E. Wells .....	5	1	0	137 B	27·23	157
East Liss (Newlands) .....	D	E. B. Falwasser, Esq. .	5	1	0	390 T	33·65	173
Colmer Rectory .....	D	Rev. A. C. Hervey.....	5	1	1	560 A	32·94	142
Alresford (Ovington Rectory) ...	D	Rev.H.F. La M.Stowell	5	1	0	221 T	32·12	153
West Liss (Berry Grove) .....		Mrs. Latter.....	5	1	3	250	34·37	164
" (Hawkley) .....	D	Rev. G. A. Rideout ...	5	1	0	480	31·79	180
Greatham (King's Holt) .....		Mrs. Chase Parr.....	5	1	7	279 T	30·93	...
" (Manor House).....		F. Coryton, Esq. ....	7	0	7	250	27·28	...
Winchester (Wyke) .....	D	Miss I. M. Deedes .....	5	1	3	282	29·63	141
Horsebridge (Bossington).....		W. H. Deverell, Esq...	8	0	9	92 A	29·35	162
Liphook (Fowley) .....	D	E. A. Lee, Esq. ....	5	0	10	296 T	32·01	186
" (White Hill Chase) ..		Col. R. H. Maude .....	5	1	0	300 A	29·27	169
Newton Valence Vicarage.....	D	Rev. A. C. MacIachlan.	5	1	0	600	31·92	155

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>HAMPSHIRE—(<i>con.</i>)</b>						
§ Grayshott [Hindhead] .....	Mrs. Lyndon .....	5	1 0	660 T	33·61	194
▮ Headley (Eveley) .....	Mr. T. Carter .....	5	1 3	295 T	31·43	158
Liphook (Bordon Camp) .....	Lt.-Col. W. S. Gordon .....	8	1 0	268 T	30·73	175
▮ § Swarraton Rectory .....	Rev. W. L. W. Eyre... ..	5	1 0	310 T	30·55	194
Headley House .....	Mr. G. Glaysher .....	6	1 6	250 T	28·94	...
▮ Alton (Ashdell) .....	F. Crowley, Esq. ....	8	3 6	433 T	31·29	155
„ (Eagles Nest) .....	„ „ „ „ .....	5	52 4	505	19·68	...
▮ „ (Holybourne) .....	R.-Admiral H. C. Bigge .....	5	1 3	380 T	28·30	160
„ (Shalden Manor) .....	J. G. Wood, Esq. ....	8	3 0	594	31·58	159
▮ Long Parish .....	C. R. Durnford, Esq. ...	5	1 2	210	28·84	165
▮ Andover (The Knoll) .....	G. H. Westbury, Esq. ..	5	0 10	196 T	33·07	164
▮ Tidworth House [Ludgershall] ..	Mr. G. A. Inglefield ...	5	1 8	357 T	25·35	157
▮ Warren Corner [Farnham] .....	F. Wilkin, Esq. ....	5	1 0	575 T	24·87	168
Upton Grey (Hoddington Ho.) ..	Lord Basing .....	8	1 0	378 T	30·45	163
Oakley .....	Rev. F. G. Hume .....	5	1 6	400	30·55	162
§ Aldershot .....	Royal Meteorological Soc ..	5	1 0	232	26·28	195
▮ Basingstoke (Chapel Hill) .....	G. Stephens, Esq. ....	5	1 0	328 T	26·22	149
▮ „ (Sherborne St. John) .....	Rev. D. W. Chute .....	5	1 2	267 T	26·79	175
▮ Winchfield (Elvetham Park) ...	Mr. G. B. Mitchison ...	8	1 0	217 T	25·72	197
▮ Farnborough (The School) .....	Rev. G. C. Carter .....	5	1 6	257 T	25·67	179
▮ Hartley Wintney .....	W. G. Machin, Esq. ...	5	1 2	222 T	23·88	163
„ Grange .....	F. Walkinshaw, Esq. ...	8	1 0	221 T	25·67	167
▮ Kingsclere (Tower Hill House) ...	Dr. R. Maples .....	5	3 0	327 T	29·80	177
Strathfield Turgiss .....	the late Mrs. Griffith ...	5	2 6	200 T	27·90	...
▮ Strathfieldsaye Rectory .....	Rev. F. Page-Roberts. ..	5	2 0	164	23·52	187
▮ „ Gardens .....	Mr. A. G. Nichols .....	5	1 8	166	23·60	162
▮ Heckfield (Highfield Park) .....	F. B. Marson, Esq. ...	5	1 3	192	22·85	180
„ (Park Corner) .....	J. Martineau, Esq. ....	5	1 2	257	21·68	142
<b>BERKSHIRE.</b>						
Sandhurst Lodge .....	Sir W. J. Farrer .....	8	2 9	263	25·86	...
▮ Wellington College .....	S. A. Saunder, Esq. ...	5	1 0	283 T	23·45	161
Finchampstead (West Court) ...	C. E. Harris, Esq. ....	5	1 0	180	21·96	171
Mortimer (Wokefield Park) .....	A. Palmer, Esq. ....	5	4 0	180 T	23·33	173
▮ Newbury (Sandleford Priory) ...	Mr. R. H. Butcher ...	8	2 0	381 T	26·93	165
▮ Aldermaston Wharf .....	J. T. Strange, Esq. ...	5	1 0	181 T	24·94	173
▮ Sunningdale (Lynwood) .....	G. Rodie Thompson, Esq. ..	5	1 0	266 T	25·24	166
▮ Ascot (Winkfield Manor) .....	C. A. Ferard, Esq. ....	5	1 0	240 T	23·29	169
Shinfield (Clares Green) .....	W. Haynes, Esq. ....	5	4 6	160 T	23·48	163
▮ Wokingham (Staverton) .....	H. C. Mylne, Esq. ....	5	1 0	220 T	23·21	193
„ .....	Meteorological Council. ...	...	...	...	23·23	151
▮ Beenham House .....	H. Waring, Esq. ....	8	2 2	320	24·13	158
▮ Bracknell (Warfield) .....	Rev. B. C. Littlewood .	5	0 6	199 T	23·71	182
▮ Windsor (Royal Gardens) .....	Mr. T. Edwards .....	5	1 0	...	23·95	177
Reading (Englefield) .....	Mr. J. Coombes .....	5	1 1	...	26·64	156
▮ „ (Calcot Place) .....	General Swettenham ...	5	1 4	176 T	24·70	189

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
BERKSHIRE—(con.)							
D Reading (Ellerslie) .....	Rev. A. Cheales .....	5	1	0	195 $\pi$	21·68	143
D „ (Forbury Gardens) .....	J. Bowen, Esq., C.E. ...	5	1	5	145 $\pi$	23·28	175
D „ (Earley) .....	M. J. Sutton, Esq. ...	8	1	6	150 $\uparrow$	23·57	...
Newbury (Welford Park) <i>old g.</i>	Mr. C. Ross .....	5	1	0	335 $\pi$	28·37	177
D „ ( „ „ ) <i>new g.</i>	„ „ .....	5	1	0	341 $\uparrow$	29·56	177
D „ (Weston) .....	R. Osmond, Esq. ....	5	1	4	335 $\pi$	26·41	178
D Frilsham House .....	Mr. W. E. Austen .....	5	1	0	370	24·78	146
D Yattendon Court .....	Mr. R. Maker .....	5	1	0	450 $\uparrow$	25·97	149
D Lambourn (East Garston) .....	Mr. J. H. Spackman ...	5	2	6	395 $\uparrow$	28·03	175
D Maidenhead (Heywood Park) ...	Greville H. Palmer, Esq.	5	1	0	100	23·13	152
D „ (The Firs, Castle Hill) .....	J. W. Duncan, Esq. ...	5	1	0	170 $\uparrow$	23·22	168
D „ (Isis Cottage) .....	O. King, Esq. ....	5	1	0	80	23·39	165
Farnborough Rectory .....	Rev. J. B. H. Whitehurst	5	1	3	713 $\uparrow$	29·85	189
D Bisham Vicarage .....	(R) Rev. Wm. Farrer .....	10	1	9	100	24·62	159
D Cookham Vicarage .....	Rev. R. W. Rogers ...	5	1	3	90 $\uparrow$	24·68	159
D Temple House [Marlow] .....	Mr. G. Groves .....	5	1	0	106	24·18	170
D Wantage (Letcombe Regis) .....	the late S. W. Silver, Esq.	5	0	9	...	22·60	149
Wallingford (Aston Upthorpe) ..	J. Harold Slade, Esq. ...	5	1	1	...	23·37	146
D Didcot (Upton) .....	J. F. Fry, Esq. ....	5	2	3	240 $\uparrow$	24·11	165
Wantage .....	W. Hanson, Esq., C.E.	5	1	0	304	23·75	...
D „ (Ardington) .....	Miss G. Elliot .....	3	0	10	292 $\uparrow$	25·71	203
D Wallingford (Woodlea) .....	G. F. Slade, Esq. ....	5	0	11	...	24·67	159
„ Castle .....	E. J. Hedges, Esq. ...	5	1	0	175 $\pi$	22·22	...
D „ (Brightwell) .....	Lt.-Col. G. H. Dyke ...	5	1	4	...	23·25	140
D Little Wittenham .....	J. Latham, Esq. ....	5	2	0	187	24·41	146
D Long Wittenham (Manor Ho.) ...	Admiral Clutterbuck ...	12	1	0	170 $\pi$	23·24	150
„ „ (Lovegrove's Cott.) .....	Rev. F. C. Clutterbuck	5	1	0	165	22·85	151
Faringdon .....	Mr. C. Luker .....	5	1	0	333 $\uparrow$	24·89	...
D Abingdon (Park Road) .....	A. Pettipher, Esq. ....	5	1	6	150 $\pi$	22·70	172
„ (Caldecott House) ...	Maj.-Gen. I. M. Bailie.	6	1	6	...	20·08	136
„ (Sewage Works) .....	G. Winship, Esq., C.E.	5	0	6	169	21·30	...
D „ Union .....	Mr. J. Fray .....	5	1	0	196	21·62	159
„ (Northcourt) .....	M. T. Tatham, Esq. ...	5	0	5	190 $\uparrow$	22·12	...

## DIVISION III.—SOUTH MIDLAND COUNTIES.

## MIDDLESEX.

Laleham .....	W. Trusler, Esq. ....	...	1	0	50 ?	21·29	...
Hampton (Southwark W.W.) ...	J. W. Restler, Esq., C.E.	5	2	0	...	17·10	...
D Sunbury (Hanworth Road) .....	W. Blackburn, Esq., C.E.	8	0	6	50 $\pi$	21·71	176
Teddington (Hampton Road) ...	T. Gale, Esq. ....	5	1	3	52 $\uparrow$	19·59	154
D Staines (Belle Vue) .....	J. Gundry, Esq. ....	5	1	0	51 $\pi$	23·59	183
„ (Cambria House) .....	C. Ashby, Esq. ....	5	0	10	50 ?	23·20	235
D Twickenham (Sewage Works) ...	F. W. Pearce, Esq., C.E.	5	1	7	37 $\pi$	18·99	147
„ ( „ „ ) M	„ „ „	5	1	7	37 $\pi$	21·03	...
D Acton (Newburgh Road) .....	Miss Baker .....	5	1	6	86 $\uparrow$	20·26	166
Ealing (Public Buildings) .....	C. Jones, Esq., C.E. ...	5	9	0	114	20·60	145

## DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
MIDDLESEX—(con.)						
Ealing (Gordon Road) .....	Joseph Box, Esq. ....	5	10	0	85 T	19·21 153
„ (Castle Bar Road).....	T. Simpson, Esq. ....	5	1	0	152 T	20·79 147
D „ (St. Stephen's Road) ...	H. W. Peal, Esq. ....	8	2	4	159 T	20·36 165
D „ (Grange Park).....	H. M. Baker, Esq.....	5	1	6	98 T	19·81 157
Uxbridge (Cowley) .....	H. Judson, Esq.....	5	1	0	90 T	21·63 ...
Perivale (Sewage Farm) .....	C. Jones, Esq., C.E. ...	5	12	0	56	20·22 149
D Willesden Reservoir .....	H. F. Rutter, Esq., C.E.	5	2	6	199 T	21·08 156
D „ Green (Strode Road)..	Miss Lamport.....	5	1	0	150	23·41 186
„ (Stonebridge Farm) (R)	O. C. Robson, Esq., C.E.	10	8	0	99	22·15 ...
D Highgate (North Hill) .....	L. J. Tatham, Esq. ...	5	1	0	400	21·44 170
D „ ( „ ) .....	E. J. Lovegrove, Esq., CE	5	3	10	302	22·48 152
D Child's Hill (Helenslea) .....	A. J. Woodhouse, Esq.	5	1	6	245 T	22·46 155
D Harrow .....	J. P. Bennetts, Esq., C.E.	5	1	0	215	22·56 175
D Hornsey (High Street).....	E. J. Lovegrove, Esq., CE	8	4	3	97	22·06 161
D „ ( „ ) .....	J. Francis, Esq., C.E..	5	4	0	109	21·62 163
Muswell Hill (Grand Avenue)...	G. Michael Williams, Esq	5	1	0	317	22·80 ...
D „ „ (Colney Hatch Lane)	Miss Abethell.....	5	0	10	310 T	23·35 167
„ „ (Irish Corner Sewage Farm)	E. J. Lovegrove, Esq., CE	8	4	8	216 T	20·84 ...
Wealdstone House .....	K. R. Cobb, Esq. ....	5	0	11	236 T	21·93 ...
Finchley (Etchingham Park) ...	Mrs. J. W. Scott .....	5	1	2	295 T	22·77 ...
„ ( „ ) .....	„ „ „ „ .....	8	1	3	295 T	22·70 ...
§ Harefield (The Scrubbs) .....	Meteorological Council.	5	1	0	338	23·66 ...
Pinner (Moss Cottage) .....	Mrs. Birkett .....	5	1	0	209	21·55 ...
„ Green (Northwold).....	Miss Stanley Smith ...	8	0	6	200 ?	23·86 154
D „ (Hatch End) .....	W. M. Cann, Esq.....	5	0	11	260	23·02 149
D Harrow Weald (Hill House) ...	A. Crossman, Esq.....	5	3	6	284	23·05 194
D North Finchley .....	G. B. Shoults, Esq. ...	5	0	8	295 T	22·99 177
Friern Barnet (Sewage Works)..	Baldwin Latham Esq CE	5	1	0	156 T	20·18 ...
D Southgate (Reservoir Road).....	W. B. Butler, Esq.....	5	1	0	255 T	22·06 173
D Ponders End (Bylock Hall) .....	F. W. Freir, Esq. ....	5	1	0	50	21·06 152
D† „ „ .....	W. Blackburn, Esq. C.E.	8	1	6	45 T	19·40 155
D Enfield (Old Park).....	A. L. Ford, Esq. ....	5	1	9	156 T	21·19 147
D „ (Southbury Road) .....	J. Francis, Esq., C.E..	5	4	0	109 T	19·66 174
D† „ (Carisbrooke) .....	J. McEwan, Esq. ....	5	1	0	204 T	23·00 177
D „ (Chace Court) .....	A. G. Kitching, Esq....	5	2	5	...	22·43 197
D „ (The Ridgeway) .....	W. Blackburn, Esq. C.E.	8	0	6	223 T	22·29 172
Trent Park [New Barnet] .....	Mr. H. Parr.....	5	1	1	...	23·02 166
D Risegate [Hadley, Barnet] .....	H. E. Freir, Esq. ....	5	0	11	400	23·30 196
[Hadley, Barnet] .....	H. E. Cooper, Esq.....	5	1	0	390	26·05 159
D† Rammey Marsh [Waltham Abbey]	W. Blackburn, Esq. C.E.	8	1	6	60 T	19·29 143
D Potters Bar (Little Heath) .....	Henry Ellis, Esq. ....	5	4	8	375	23·04 168
HERTFORDSHIRE.						
D Eastbury [Northwood] .....	H. Langford Lewis, Esq.	5	1	0	360 T	21·93 164
D „ [ „ ] (Easby)..	Mrs. Sandford Fawcett	8	0	10	400 T	23·15 158
D Rickmansworth (Moor Park)...	Lord Ebury.....	5	2	0	340	22·50 183
„ (Croxley Green)..	S. Ingleby Oddie, Esq..	5	0	7	250 T	24·73 141
D Elstree (Aldenham House) .....	Mr. E. Beckett .....	10	4	9	305	21·88 157





### DIVISION III.—SOUTH MIDLAND COUNTIES—(continued.)

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.	
		Diameter	Height Above Ground	Height Above Sea Level	1904		
		in.	ft.	in.	feet.	inches.	
HERTFORDSHIRE—(con.)							
† Hitchin (The Chilterns) .....	F. Ransom, Esq. ....	5	0	9	300	21·86	177
† „ (High Down) .....	J. Pollard, Esq. ....	5	1	1	422	21·60	155
„ Buntingford (Hillside) .....	G. Melville Smith, Esq. ....	5	1	0	350	19·72	152
„ Weston Park .....	M. R. Pryor, Esq. ....	5	0	8	470	22·46	182
„ Buntingford (Throcking Rectory) ..	Rev. C. W. Harvey ...	5	1	0	487	22·38	201
„ Baldock (High Street) .....	Dr. Langston Day.....	5	1	0	214	20·10	142
„ Royston (Therfield Rectory). ....	Rev. J. G. Hale .....	5	4	3	510	21·71	181
„ „ (Union Workhouse) ...	H. Warren, Esq., C.E. ....	5	1	0	217	19·67	156
„ „ (Melbourne Street) .....	J. E. J. Phillips, Esq..	8	0	11	201	19·37	145
BUCKINGHAMSHIRE							
Eton (Tangier Islands) .....	C. Sainty, Esq. ....	5	1	0	67	21·78	...
„ Slough (Langley) .....	R. H. Major, Esq. ....	8	0	10	85	23·34	159
† „ (Upton) .....	R. Bentley, Esq. ....	8	2	0	80	21·58	...
„ „ „ „ .....	„ „ „ „ .....	5	2	0	78	23·38	172
Burnham (Burnham Cottage) ...	G. J. Williams, Esq....	5	3	0	162	23·39	...
„ Taplow Court .....	W. H. Grenfell, Esq. MP	8	1	0	217	23·18	152
„ Farnham Royal (Broomlands) ...	F. C. Moscrop-Young Esq	5	1	0	200	23·06	165
Greenlands [Henley-on-Thames]	Hon. W. F. Smith, M.P.	8	1	3	116	24·16	...
„ Hedsor .....	Lord Boston .....	8	1	0	170	28·67	157
„ Beaconsfield (Gerrard's Cross) ...	R. C. Sikes, Esq. ....	5	1	0	286	25·81	188
„ Marlow Mills .....	S. H. Wright, Esq. ....	8	2	0	105	25·50	212
„ Wooburn (The Chestnuts) .....	F. W. C. Read, Esq....	5	3	0	...	24·14	152
„ High Wycombe ..	H. S. Wheeler, Esq....	8	0	9	253	22·86	158
„ Chalfont St. Giles (The Stone)...	Col. R. W. Phipps.....	5	1	4	270	26·47	173
„ Amersham (The Plantation).....	G. Weller, Esq.....	8	1	0	464	26·30	167
„ „ (Rumseys) .....	G. M. H. Weller, Esq.	8	0	10	309	28·12	152
„ Great Missenden .....	Mr. W. Douglas .....	5	1	0	400	28·38	...
„ Wendover (Halton Gardens) ...	Mr. R. C. Sanders.....	5	1	10	400	26·67	159
„ Bulbourne [Tring] .....	Gordon C. Thomas, Esq.	5	2	3	401	26·91	180
„ Mentmore .....	Mr. J. MacGregor .....	5	1	2	...	22·00	...
„ Oving House .....	H. Yates Thompson, Esq.	5	1	6	515	25·57	189
„ „ „ „ .....	„ „ „ „ .....	5	1	6	515	25·28	...
„ Swanbourne House .....	Lord Cottesloe .....	5	1	0	411	24·51	164
„ Winslow (Addington Manor) ...	Lord Addington .....	8	1	0	309	22·36	164
„ „ „ „ .....	„ „ „ „ .....	5	1	0	309	21·76	...
„ Buckingham (Adstock Fields) ...	J. E. S. Weston, Esq...	5	0	9	352	21·93	153
„ „ (The Vicarage).....	Rev. P. P. Goldingham	5	2	0	255	22·82	...
„ Wolverton (St. George's Vic.) ...	Rev. W. L. Harnett ...	5	1	0	270	21·59	172
„ „ (The School House) ...	H. J. Hipsley, Esq....	5	1	0	264	22·09	183
„ Newport Pagnell .....	F. Littleboy, Esq.....	5	2	0	196	19·89	...
OXFORDSHIRE.							
„ Caversham (Eastfield) .....	C. M. Powell, Esq.....	5	1	0	180	22·69	158
„ „ (Cane End House) ...	D. Vanderstegen Esq..	5	0	4	400	22·86	...
„ Goring (Elmcroft).....	Major E. Gambier Parry	5	0	10	150	22·49	175
„ Henley-on-Thames (Greys) .....	Col. Howell Davis.....	5	2	0	350	25·52	166
„ „ „ „ (Highmore Vic.)	Rev. F. R. Harnett ...	5	1	0	500	26·34	164

### DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.		AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with -0·1 or more recorded.
			Diameter	Height Above Ground		Height Above Sea Level	1904	
			in.	ft.	in	feet.	inches.	
<b>OXFORDSHIRE—(con.)</b>								
	Henley-on-Thames(Henley Park)	Martin J. Sutton, Esq.	5	0	8	410 $\nabla$	24·04	...
D	" " " (Assenton) ..	Mr. J. Ratty .....	5	1	0	281 B	26·03	145
	Dorchester (Manor House) .....	Hugh R. Blunt, Esq... ..	5	0	9	169 $\nabla$	23·62	152
D	" " (Bishops Court) .....	T. Latham, Esq. ....	5	2	0	169	22·55	192
D	Abingdon (Culham Vicarage) ..	Rev. F. C. Clutterbuck	5	1	0	200 $\nabla$	22·35	181
	" " (College).....	J. S. Davis, Esq. ....	8	0	11	213 T	21·41	167
D	Watlington (Pyrton Manor).....	E. Hamersley, Esq....	5	1	6	321 T	25·97	195
D	Nuneham Park Gardens .....	Mr. C. E. Munday.....	8	3	0	280 T	23·10	144
	Wheatfield Rectory .....	F. A. M. Spencer, Esq.	5	1	3	250	25·83	173
D	Toot Baldon (Potland) .....	D. Clinkard, Esq. ....	5	1	0	288	23·02	172
D	Oxford (Pumping Station) .....	W.H.White, Esq., C.E.	8	1	0	187 $\nabla$	21·76	159
D	" " (Magdalen College) .....	E. Chapman, Esq., M.P.	5	1	0	186 $\nabla$	21·16	158
	" " " " " " " " " " " "	" " " " " " " " " " " "	5	33	11	223 $\nabla$	18·88	...
†	" " (Radcliffe Observatory)..	Dr.A.A.Rambaut, FRs	8	1	8	210 $\nabla$	22·66	145
D†	" " " " " " " " " " " "	" " " " " " " " " " " "	11	2	4	210 $\nabla$	23·56	141
†	" " " " " " " " " " " "	" " " " " " " " " " " "	10	22	0	230 $\nabla$	22·58	145
†	" " " " " " " " " " " "	" " " " " " " " " " " "	10	112	0	320 $\nabla$	17·08	163
D	" " (Norham Road).....	Rev. C. B. Mount .....	10	1	2	206 $\nabla$	23·13	162
D	" " (Banbury Road) .....	Miss E. M. Tawney ...	5	1	1	211	22·21	152
D	" " (Headington Hill) .....	Miss Davenport ...	5	0	10	354	24·36	137
D	" " (Elsfield) .....	H. Parsons, Esq. ....	5	1	0	330 T	23·12	163
	Witney (Ringwood Farm) .....	J. W. Abraham, Esq..	5	1	0	...	25·96	149
	Stanton St. John ...	Miss Thomson.....	8	1	0	340	24·94	183
	" " " (Woodperry)..	J. Thomson, Esq. ....	6	1	0	399 T	25·25	175
	Islip.....	Col. G. E. Eliot.....	5	1	0	200 T	22·64	...
	Woodstock (Hampton Poyle Rec.)	Rev. S. T. Gwilliam ...	5	1	0	201 T	23·31	...
D	Chipping Norton (Lyneham).....	R. de M. Pratt, Esq....	5	1	7	351 T	26·39	172
D	" " " (Sarsden) .....	J. M. Blair, Esq. ....	8	1	3	490 T	24·15	166
D	" " " (Kingham).....	Mr. T. Phipps .....	5	3	0	442	25·62	147
	" " " " " " " " " " " "	A. Pettipher, Esq.....	5	1	6	700	25·26	...
	" " " (Heythrop) ...	Albert Brassey, Esq.MP	8	3	0	600	24·43	155
D	Bicester (National School) .....	Mr. W. H. Piggott ...	9	0	6	238 T	22·08	171
D	" " (Middleton Park) .....	The Earl of Jersey.....	5	2	6	325 $\nabla$	22·67	173
D	Steeple Aston (The Grange).....	Mrs. Bradshaw .....	8	1	0	400 T	23·01	178
D	Swerford .....	Mr. W. Hall ..	5	1	0	500 T	26·82	206
D	Adderbury .....	G. H. Norris, Esq.....	5	1	1	338 $\nabla$	23·60	170
	Bloxham Grove .....	W. H. Warriner, Esq.	8	3	10	387 $\nabla$	23·57	...
	Banbury (Sibford Ferris) .....	Joshua Lamb, Esq. ...	5	1	0	575 $\nabla$	25·11	...
D	" " (Bodicote) .....	J. F. Starkey, Esq. ...	8	1	3	388 $\nabla$	24·23	177
<b>NORTHAMPTONSHIRE.</b>								
D	Brackley House .....	J. Allen, Esq.....	5	1	0	425 T	24·51	182
D	Grimsbury [Banbury] W.W. ...	W. E. Wood, Esq.....	5	1	3	320 T	21·85	153
	Thorpe Mandeville .....	C. A. Markham, Esq... ..	5	1	0	530	24·82	141
D	Towcester (Paulerspury) .....	F. J. Gurney, Esq. ...	5	1	0	395	24·46	170
	" " (Bradden Rectory) ...	Rev. C. Blathwayt ...	5	4	6	403	24·23	...
	" " (Stoke Bruern Park)..	Mr. W. Batchelor .....	5	1	0	320	24·09	...
	" " (Easton Neston) .....	Mr. E. Slarke.....	8	1	0	340 T	24·56	161

### DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.	
NORTHAMPTONSHIRE—(con.)							
D Blisworth (Crieff House) .....	A. Westley, Esq. ....	5	5	0	330	23·73	172
D " .....	T. W. Millner, Esq. ...	5	1	6	300 $\pi$	21·31	160
" (Milton House) .....	C. A. Markham, Esq. ...	...	...	...	...	19·34	...
D Lichborough Hall .....	E. Grant, Esq. ....	5	1	10	500	26·89	174
D Daventry (Fawsley) .....	The Lady Knightley ..	5	1	0	477 $\uparrow$	23·36	143
D Castle Ashby .....	R. G. Scriven, Esq. ...	5	1	0	263 $\pi$	22·17	195
Great Houghton .....	C. A. Markham, Esq. ...	...	...	...	...	22·60	188
Little Houghton .....	" " " " .....	5	2	2	270	21·33	152
Northampton (Berry Wood).....	" " " " .....	8	1	4	399	20·96	147
" (Balmoral Road).....	B. Burrows, Esq. ....	5	1	0	240	22·85	...
D " (Dallington Avenue).....	C. A. Markham, Esq. ...	5	1	0	265 $\pi$	19·87	161
§ " (Gt. Billing Rec.).....	" " " " .....	8	1	6	275 $\pi$	21·39	...
D " (Kingsthorpe).....	Sidney Law, Esq. ....	5	1	0	280	25·92	157
D Althorp House .....	Miss Chowler .....	8	3	10	310 $\pi$	19·91	151
Great Brington .....	C. A. Markham, Esq. ...	5	2	9	448	19·27	...
D Daventry (Tunnel End) .....	T. W. Millner, Esq. ...	5	1	6	394	22·39	166
" (Welton) .....	G. M. Soames, Esq. ...	5	1	0	430 $\uparrow$	22·71	...
D Sywell Hall .....	T. A. Dickson, Esq. ...	5	1	0	371 $\pi$	23·45	171
D Pitsford (Sedgebrook) .....	C. A. Markham, Esq. ...	5	1	0	311 $\pi$	22·29	135
" " " " .....	M " " " " .....	5	1	0	311 $\pi$	22·32	...
D Mears Ashby .....	Rev. J. B. Fawssett ..	5	6	5	339	23·18	188
D Wellingborough (Swanspool) ...	N. P. Sharman, Esq. ...	5	0	2	155	22·78	168
D " (Croyland Abbey).....	E. Sharman, Esq. ....	5	0	5	...	21·42	167
Watford Court .....	C. A. Markham, Esq. ...	9	1	2	380	22·08	153
D§ Ravensthorpe (Coton Mill) .....	G. S. Eunson, Esq. ...	5	1	0	355	23·21	180
Finedon .....	C. A. Markham, Esq. ...	...	...	...	...	20·25	162
Scaldwell.....	Capt. R. Soames.....	5	1	0	404 $\pi$	20·86	...
D Burton Latimer Rectory .....	Rev. W. B. Jacques ...	5	4	0	280	20·23	148
Hazelbeeck .....	C. A. Markham, Esq. ...	5	2	6	560	24·36	151
D Kettering (Sewage Works) .....	T. R. Smith, Esq., C.E.	8	1	0	199 $\pi$	19·81	152
D " (Queensberry Road).....	P. Wallis, Esq. ....	8	1	3	300	20·56	181
D " (Headlands) .....	C. W. Lane, Esq. ....	5	1	0	288 $\pi$	20·24	176
D " (W. W., Cransley) ...	T. R. Smith, Esq., C.E.	8	0	11	275 $\pi$	19·15	139
D Naseby Reservoir .....	Gordon C. Thomas, Esq.	6	1	6	525 ?	23·14	143
Orton (Sandy Hill Farm).....	Mr. E. E. Grundy .....	5	1	0	400	23·16	...
Thrapston (Islip) .....	J. Edmonds, Esq. ....	5	1	6	145 $\pi$	17·70	...
D Welford (Salford House) .....	J. Gee, Esq. ....	5	1	3	430 ?	23·58	180
Aldwinkle St. Peter .....	C. A. Markham, Esq. ...	5	0	11	175	18·88	139
Rushton Manor .....	R. A. Willows, Esq. ...	5	1	0	400 $\uparrow$	20·31	133
Desborough.....	C. A. Markham, Esq. ...	5	1	0	453	24·27	173
D Barnwell (Lilford Hall) .....	Mr. E. Wilson .....	5	1	0	...	18·81	143
D Oundle (Hemington Vicarage)...	Rev. F. C. Newbery ...	5	1	1	300 ?	18·15	150
§ " .....	J. M. Siddons, Esq. ...	5	3	4	105 $\uparrow$	17·98	...
§ " .....	Meteorological Council.	5	1	0	140	18·81	...
D Corby (Weldon Grange) .....	John Rooke, Esq. ....	8	1	0	342 $\pi$	20·13	188
D Rockingham Castle .....	Mr. W. Nobes .....	5	4	4	300 $\downarrow$	23·21	154
Kingscliffe (Fineshade).....	C. A. Markham, Esq. ...	5	0	9	200	19·05	...
Peterborough (Thorpe Hall).....	Col. C. I. Strong .....	6	0	6	30	17·74	...

## DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>NORTHAMPTONSHIRE—(con.)</b>						
d Eye (Newborough) .....	R. Williams, Esq. ....	5	1 0	8 $\nabla$	18.54	153
Stamford (Collyweston Road) ...	Baldwin Latham Esq CE	5	1 0	315 $\nabla$	20.33	...
d§ " ( " House) ...	Miss Tasker .....	5	1 0	281 $\nabla$	19.38	186
d " (Easton) .....	Nevile Day, Esq. ....	5	0 9	271 $\nabla$	20.12	161
d " (St. Martin's) .....	Mr. T. Booth .....	5	6 0	107 $\nabla$	20.33	139
<b>HUNTINGDONSHIRE.</b>						
St. Neots (Waresley Park) .....	H. Warren, Esq., C.E.	5	0 11	190	18.68	153
d " (Great Paxton) .....	Rev. A. G. Cane .....	5	1 0	100 $\nabla$	16.24	122
Offord D'Arcy .....	W. Priestley, Esq. ....	5	0 9	51 $\nabla$	17.06	136
Hemingford Grey Vicarage .....	H. Warren, Esq., C.E.	5	1 0	25	14.94	139
d Huntingdon (Brampton) .....	Miss May Bird .....	5	1 1	39 $\nabla$	18.45	148
" .....	H. Lucas, Esq. ....	5	1 6	35 $\nabla$	14.58	174
" (Hinchbrook Gardens) .....	H. Warren, Esq., C.E.	10	6 0	74 $\nabla$	17.77	...
St. Ives (Slepe House) .....	" " "	5	1 0	25	15.71	134
Catworth .....	" " "	5	0 9	210	17.11	185
Whittlesea Mere .....	A. Lunn, Esq., C.E. ...	8	1 6	...	16.52	...
<b>BEDFORDSHIRE.</b>						
Luton (Stockwood) .....	Francis Crawley, Esq..	5	3 0	539 $\nabla$	22.00	145
d " (Pumping Station) .....	late A J L Evans, Esq. CE	5	1 0	343 $\nabla$	23.51	159
d Woburn (Milton Bryant) .....	Mr. C. J. Kilby .....	5	1 0	510	20.31	148
d Shillington .....	Kilham Roberts, Esq...	5	1 0	182 $\nabla$	20.44	168
d Holwell Bury [Hitchin] .....	Henry Kenneth, Esq...	5	0 10	182 $\nabla$	18.53	145
d Ampthill (Higham Bury) .....	E. J. Jekyll, Esq. ....	5	1 0	310 $\nabla$	21.78	179
" (Silsoe) .....	H. Trethewy, Esq. ....	5	1 0	214 $\nabla$	21.45	155
Shefford (Upper Stondon) .....	R. Long, Esq. ....	5	1 0	241 $\nabla$	18.07	...
d Woburn (Crawley Farm) .....	H. M. Freear, Esq. ...	8	1 0	292 $\nabla$	22.25	175
" (Fruit Farm, Ridgmount) .....	W. H. Neild, Esq. ....	5	0 8	270 $\nabla$	22.71	171
Shefford (Clifton Bury) .....	A. Inskip, Esq. ....	5	0 6	150	17.33	...
Stotfold [Baldock] .....	Dr. J. E. de Lisle .....	5	1 0	220 $\nabla$	18.49	159
d Biggleswade (Old Warden) .....	Mr. W. C. Modral .....	8	1 2	90	22.90	160
d Potton (Wrestlingworth) .....	H. J. King, Esq. ....	5	1 0	119 $\nabla$	17.55	136
Sandy (The Lodge) .....	Viscount Peel .....	5	1 0	200 $\nabla$	17.30	150
d " Rectory .....	Rev. J. Richardson ...	5	0 7	95 $\nabla$	20.45	174
d Bedford (Ampthill Road) .....	Thomas Pearse, Esq. ...	5	0 10	100	19.79	137
" (De Parys Avenue) .....	W. Godfrey, Esq. ....	5	1 0	90 $\nabla$	18.60	...
" (Castle Road) .....	Miss M. E. Newbery ...	5	7 0	130 $\nabla$	18.75	...
Goldington (Castle Mills) .....	W. H. Rogers, Esq. ...	5	1 6	90 $\nabla$	16.33	...
d Great Barford House .....	J. Arnold Whitchurch Esq	5	1 5	120 $\nabla$	18.30	138
d Sharnbrook (Colworth Gardens) .....	Mr. J. Hoad .....	5	2 0	250	21.65	123
<b>CAMBRIDGESHIRE.</b>						
d Odsey [Ashwell] .....	H. G. Fordham, Esq....	5	1 0	256 $\nabla$	18.37	167
" [ " ] .....	" " " " " "	5	1 0	256 $\nabla$	18.08	167
d Foxton House .....	A. P. Humphry, Esq. ...	5	0 8	60 $\nabla$	19.29	162
Abington Pigotts .....	H. Warren, Esq., C.E.	8	0 8	130	16.31	149
Meldreth (Chiswick Farm) .....	" " "	5	1 1	70	17.99	147

## DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with $\frac{1}{10}$ or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
CAMBRIDGESHIRE—(con.)						
d Meldreth (Belmington Close) ...	G. Warren Bindloss, Esq.	5	1	0	65 T	19.09
Whittlesford (Sawston) .....	D. L. Huddleston, Esq.	5	1	1	86 T	19.31
d Harston .....	Mrs. C. M. Baldwin ...	5	0	8	47	20.78
Wimpole Hall .....	H. Warren, Esq., C.E.	5	1	0	141	19.59
d Stapleford House .....	J. H. H. Linton, Esq.	5	2	3	75 ?	18.29
d Gamlingay (Old Woodbury) ..	Col. J. D. Gregson .....	5	1	0	213	19.21
Carlton .....	G. H. Long, Esq. ....	5	1	0	340 T	20.79
d „ Hall .....	A. S. Nice, Esq. ....	5	1	6	290 T	21.04
d Longstowe Rectory .....	Rev. J. P. Sharp .....	5	1	3	227 T	20.34
Trumpington .....	C. Parsons, Esq. ....	5	1	0	60	20.40
d „ (Gilmerton) .....	Smith Nutter, Esq. ....	8	4	0	54	19.59
Granchester Mill .....	H. Warren, Esq., C.E.	5	5	0	31 T	18.95
d Cambridge (Fulbourne Pumping Sta)	W. W. Gray, Esq., C.E.	5	1	0	37 T	19.75
d „ (W. W. Cherryinton) ..	„ „ „	5	1	0	35 T	19.00
d „ (Sidney Street) .....	W. E. Pain, Esq. ....	8	60	0	92 T	16.50
d „ (Tenison Avenue) ...	W. B. Parsons, Esq. ....	8	1	2	...	17.01
„ (Pinehurst) .....	C. F. Foster, Esq. ....	5	0	10	36	18.02
„ (Observatory) .....	Meteorological Council.	8	0	10	88	17.57
„ (Quy Hall) .....	H. Warren, Esq., C.E.	5	0	5	61	18.11
Lolworth Rectory .....	„ „ „	5	0	11	130 ?	16.99
Boxworth [St. Ives] .....	„ „ „	5	1	0	76	17.33
Burwell .....	„ „ „	5	2	0	58	17.07
Conington Hall [St. Ives] .....	„ „ „	8	0	5	50	18.59
Cottenham (Bernard House) .....	A. Bull, Esq. ....	5	1	6	30 T	15.83
Soham .....	T. Everett, Esq. ....	5	2	0	25 T	17.77
d Stretham (Dimocks Cote) .....	Mr. H. Nightingale .....	5	13	7	...	17.21
d „ Engine .....	Mr. J. Housley .....	9	4	9	13 T	16.50
„ (Orchard House) .....	H. Warren, Esq., C.E.	8	5	0	42	18.19
d „ Ferry (Elford Farm) ..	Mr. C. Wright, Junr. ....	8	4	6	...	15.58
d Ely (The Palace) .....	Rev. G. Bullock Webster	5	1	0	64 T	19.90
Chatteris (Holwood Farm) .....	H. Warren, Esq., C.E.	5	0	10	12	16.38
Littleport (Highfield House) ...	H. G. Martin, Esq. ....	8	2	7	67 T	16.85
d Chatteris (Aylesby House) .....	A. H. Ruston, Esq. ....	8	0	6	45 ?	18.06
„ (The Priory) .....	H. F. Fryer, Esq. ....	5	0	7	31	17.87
Stanground Sluice .....	A. Lunn, Esq., C.E. ....	8	1	6	...	14.99
March .....	„ „ „	9	2	0	...	19.60
Upwell (Marmont Priory Lock) ..	„ „ „	8	1	1	...	16.74
„ (Euximoor House) .....	H. West, jun., Esq. ....	5	0	8	15 ?	21.36
d Thorney (Bedford Office) .....	A. J. Forrest, Esq. ....	8	3	6	9 T	15.93
d „ (Wryde House) .....	S. Egar, Esq. ....	5	1	0	7 T	17.85
d Wisbech (Bank House) .....	A. Peckover, Esq., LL.D.	8	0	8	6	17.59
„ (Monica Road) .....	H. Warren, Esq., C.E.	8	1	2	6	17.54

## DIVISION IV.—EASTERN COUNTIES.

## ESSEX.

d Grays Sewage Works .....	A. C. James, Esq., C.E.	8	2	3	12 T	18.13	170
d Orsett .....	W. Powell, Esq. ....	8	3	0	73 T	19.26	151

**DIVISION IV.—EASTERN COUNTIES—(continued).**

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter.	Height Above Ground		Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.	
ESSEX—(con.)							
East Ham	W. Blackburn, Esq. C. E.	8	0	11	17 7/8	17.49	146
Shoeburyness	Superintend. of Expts.	8	1	0	13 7/8	16.09	135
"	M	5	1	0	13 7/8	15.55	...
West Ham (Abbey Mills)	M Fitzmaurice Esq. CMG	8	1	0	11 7/8	18.70	166
Barking Cemetery	H. Hargreaves, Esq.	5	1	0	18	18.29	144
Southend	Press-cutting	8	0	6	89 7/8	17.12	...
" (Water Works)	Southend Water Wks Co	8	1	0	112 7/8	18.76	132
" (" " Eastwood)	" " "	8	1	0	50 7/8	18.57	146
" (York Road)	Charles Clarke, Esq.	5	2	6	85	18.57	...
Wanstead (Red Bridge)	W. Blackburn, Esq. C. E.	8	8	0	33	18.40	151
Romford (North Ockendon)	Rev. R. T. Crawley	5	1	3	100 1/2	18.65	173
Manor Park (Albany Road)	A. J. Wilmshurst, Esq.	5	3	0	40 1/2	17.79	...
Leyton (Town Hall)	W. Dawson, Esq., C. E.	5	1	0	22 1/2	17.46	145
Lea Bridge	W. Blackburn, Esq. C. E.	8	0	6	23 7/8	17.03	145
Leyton (Lea Bridge Road)	C. E. Jones, Esq., C. E.	5	1	0	49 7/8	18.39	159
Upminster Hall	Captain G. H. T. Swinton	5	1	0	121 1/2	17.68	163
"	M	5	1	0	121 1/2	17.37	...
Walthamstow (Ferry Lane)	W. Blackburn, Esq. C. E.	8	0	10	30	19.57	152
Romford (Harold Wood)	J. G. Broadbank, Esq.	...	...	...	...	21.09	169
Woodford (Haggar Lane)	W. Blackburn, Esq. C. E.	8	0	8	176 7/8	19.45	158
Foulness (The Lodge)	B. C. Hall, Esq.	5	1	2	6 7/8	16.88	125
Billericay (Ramsden Hall)	T. W. Bacon, Esq.	5	0	9	260 7/8	18.92	161
Wickford (Runwell Hall)	Col. H. Kemble	5	1	6	75 1/2	19.21	139
Havering Grange	G. P. Hope, Esq.	5	1	0	255 1/2	22.48	234
" -atte-Bower	Mrs. Pemberton Barnes	5	1	0	...	19.56	168
" " (Fernside)	Benjamin Smith, Esq.	5	1	0	341 1/2	22.65	233
Buckhurst Hill Reservoir	W. Blackburn, Esq. C. E.	8	1	7	275 7/8	18.03	151
" " House	" " "	8	34	0	305 7/8	18.01	141
" (Ardmore)	Mrs. Eliot Howard	8	1	0	270	22.25	...
Chingford Mill	W. Blackburn, Esq. C. E.	8	0	6	40 7/8	20.06	154
Brentwood (Shenfield Rectory)	Rev. Canon Quennell	5	0	7	305 1/2	20.45	173
Loughton (High Beech)	W. Blackburn, Esq. C. E.	8	1	0	376 7/8	20.12	152
Southminster	H. Murton, Esq.	5	1	1	85 7/8	17.62	123
Ingatestone (Fryerning)	A. E. Christy, Esq.	5	1	0	291 7/8	18.44	167
" " (Furze Hall)	E. H. N. Wilde, Esq.	5	1	0	285 1/2	19.94	177
Waltham Abbey	W. Blackburn, Esq. C. E.	8	5	0	66 7/8	20.52	140
" " (Gunpr. Factory)	The Superintendent	5	2	0	64 7/8	20.94	147
Epping (The Hemnalls)	J. Nicholl, Esq.	8	0	8	345	20.27	...
Bradwell-on-Sea (Bradwell Hall)	J. C. Chillingworth, Esq.	5	1	1	27	16.96	121
" " (Down Hall)	Mrs. Stuart Wortley	6	1	0	20	17.14	129
Danbury Rectory	Rev. J. Bridges Plumptre	5	1	0	365 1/2	19.56	177
Writtle (Melbourne)	E. Rosling, Esq.	5	0	9	140 1/2	17.48	154
"	R. Woodhouse, Esq.	8	2	0	100 1/2	18.52	...
"	Miss Osborne	5	2	6	100	19.94	...
Chelmsford (High Street)	F. Chancellor, Esq.	8	1	0	86 7/8	19.06	165
" (County Hort. School)	C. W. Aylett, Esq.	5	1	0	...	18.98	...
" (Spargula)	J. C. Thresh, Esq., M. D.	5	1	0	136 1/2	16.89	146
" (Springfield Place)	Miss Jackson	5	0	11	143 7/8	20.09	180

## DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
ESSEX—(con.)						
Chelmsford (Roxwell) .....	R. W. Christy, Esq. ....	5	1 0	190 T	18·57	...
Abbees Roding Rectory .....	Rev. L. Capel Cure ...	8	1 5	300	21·09	...
Clacton-on-Sea .....	Mr. A. W. Shadick ...	5	1 2	55 T	15·65	162
Great Clacton (Clay Hall) .....	Philip Smith, Esq. ....	5	2 0	40 T	18·09	157
Witham (Little Braxted Hall)...	A. G. Taber, Esq. ....	5	1 0	50	18·87	151
„ (Terling Vicarage) .....	H. C. Boutflower, Esq. ..	5	1 0	115 T	20·00	168
Great Leighs (Hole Farm) .....	Miss J. A. J. Barclay..	5	1 0	120 T	19·68	158
„ „ (Lyons Hall) ...	J. H. Tritton, Esq. ...	5	3 0	130 T	19·48	138
„ „ „ „ „ „ „ „	„ „ „ „ „ „ „ „	5	0 6	140 T	20·32	138
Laver Breton Rectory .....	Rev. F. Owston .....	5	1 0	88 T	17·01	160
Fingringhoe (Ballast Quay Farm)	T. B. Grubb, Esq. ....	5	2 0	47	18·46	142
Colchester (Berechurch) .....	R. P. Blyth, Esq. ....	5	0 9	120 ?	18·18	...
„ (Borough Surveyor's Office)	H. Goodyear, Esq., C.E.	8	17 0	82 T	16·12	124
„ (Hill House, Lexden)	S. F. Hurnard, Esq. ...	5	1 0	90 T	18·41	155
„ „ „ „ „ „ „ „	„ „ „ „ „ „ „ „	5	1 0	90 T	18·49	...
„ (Home Farm, „ „)	Mr. W. Bird .....	5	1 0	125 T	17·83	...
Dunmow (Bigods Hall) .....	T. Hacking, Esq. ....	8	1 0	298 T	20·00	168
Braintree (Bocking, Fennes) .....	H. S. Tabor, Esq. ....	5	1 0	240 T	18·54	151
„ „ „ „ „ „ „ „	Mr. A. Evason .....	8	2 3	212 T	17·48	130
Dunmow (Saling Grove) .....	Capt. J. Nicolls Harrison	8	0 10	290 T	18·64	128
Ardleigh (Hungerdown) .....	C. R. Baker, Esq. ....	5	1 0	...	19·90	148
„ (Good Hall) .....	G. F. Hempson, Esq. ....	5	1 0	133 T	19·20	163
Earls Colne (Chalkney House)...	H. F. Hills, Esq. ....	5	1 0	168 T	19·83	...
Manningtree (Bradfield Lodge) ..	G. Hempson, Esq. ....	5	1 0	113 T	18·94	171
„ „ (Lawford) .....	O. Bendall, Esq. ....	5	...	...	18·89	176
Harwich (Hill House, Ramsey) ..	Miss K. Hempson .....	5	0 6	80	20·55	177
„ „ (The Mill, „ „) ..	Mr. H. Knights .....	5	0 9	80 T	19·86	168
„ „ (Coastguard Station) ..	Mr. W. Bevan .....	5	1 0	40	16·00	136
Halstead .....	Royal Meteorological Soc	5	1 0	144	18·30	154
Dedham (Dalethorpe) .....	J. D. Tremlett, Esq. ....	5	1 1	54	18·02	159
Langham Rectory .....	Rev. T. S. Raffles .....	5	0 7	134	20·71	174
Great Maplestead (Monk's Lodge)	T. F. Miller, Esq. ....	5	0 9	245 T	18·30	...
Newport (Debden Rectory) .....	Rev. Canon F. H. Fisher	5	3 0	300	21·96	161
„ „ (The Vicarage) .....	Rev. G. F. Tamplin ...	5	3 6	208 T	20·74	155
„ „ (Wood Hall) .....	Clayton Beadle, Esq. ....	5	1 0	380	19·23	...
Saffron Walden .....	S. Leverett, Esq. ....	5	1 0	201 T	20·95	164
„ „ „ „ (Audley End) ..	Mr. J. Vert .....	5	1 0	155 T	20·26	159
Bulmer Lodge [Sudbury] .....	The Misses Burke .....	5	1 3	200 T	19·88	183
SUFFOLK.						
Felixstowe (West View) .....	S. Alexander, Esq. ....	5	1 0	70	18·03	153
Erwarton Hall [Harwich] .....	J. A. Hempson, Esq. ....	8	0 6	75	22·18	152
East Bergholt (Ackworth House)	A. Harwood, Esq. ....	8	1 6	145	18·03	171
Hadleigh (Polstead Rectory) ..(R)	Rev. F. G. Eld .....	8	3 0	97	17·50	157
Ipswich (Woolverstone Park) ...	C. H. Berners, Esq. ...	8	1 0	100 T	19·58	181
„ „ (Orwell Park) .....	Mr. J. Wallis .....	8	1 0	60 T	20·74	176
„ „ (Rookwood, Copdock) ..	F. L. Bland, Esq. ....	5	0 6	170 T	19·96	180
Alderton Rectory .....	Rev. C. G. Archer .....	8	2 2	...	18·34	143

## DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain. 1904	Days with 40 or more recorded.
			Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
SUFFOLK—(con.)						
D Sudbury (Friars Street) .....	E. Ransom, Esq. ....	5	1 7	93 T	18·34	197
D „ (Newton Road) .....	Mr. J. Alexander .....	5	1 6	130 T	18·95	168
Ipswich (Museum) .....	F. Woolnough, Esq. ....	8	0 10	74	17·96	153
„ (Bishop's Hill) .....	Miss D. E. Biddell. ....	5	1 0	104 T	21·57	...
„ „ .....	F. Turner, Esq. ....	5	1 0	150	18·54	...
D „ (Dale Hall) .....	Percy Turner, Esq. ....	8	1 0	135 T	18·02	173
D§ Hollesley Bay .....	Prof. CG Freer-Thonger ..	8	1 0	32 T	19·19	159
Boyton Rectory .....	Rev. A. Washington .....	5	1 10	33	18·71	146
D Cavendish .....	S. J. Garrett, Esq. ....	5	1 0	...	18·67	156
Lavenham Hall .....	Rev. H. Taylor .....	5	2 3	220	17·88	121
D Woodbridge Abbey .....	Major R. J. Carthew .....	8	1 2	46 T	19·45	159
D „ „ .....	„ „ „ .....	8	6 0	47	19·42	159
D „ (Melton Asylum) ..	Dr. S. G. Longworth .....	8	1 4	74 T	18·12	146
D Rendlesham Hall .....	Lord Rendlesham .....	5	1 0	88 T	17·81	155
D§ Haverhill (Great Thurlow) ..	A. Boa, Esq. ....	5	1 0	241 T	19·01	194
Clare (Stansfield) .....	J. Slater, Esq. ....	5	1 0	300 T	21·87	...
D „ (Hawkedon Rectory) .....	Rev. B. P. Oakes .....	5	3 4	305 T	20·94	195
D Cockfield Rectory .....	Rev. Edwin Hill .....	5	1 0	305 T	20·85	188
Ash Bocking Vicarage .....	Rev. M. B. Cowell .....	5	1 0	231 T	17·88	137
„ „ „ .....	„ „ „ .....	5	3 4	231 T	17·66	137
„ „ „ .....	„ „ „ .....	5	1 0	93	17·64	...
D Aldborough (Aldringham Ho.) ..	F. Garrett, Esq. ....	8	4 5	50 B	16·68	162
Great Glemham .....	Col. A. Bloomfield .....	5	0 10	80 T	19·66	...
D Little Saxham .....	Rev. H. I. Kilner .....	8	1 10	220	19·47	164
D Bury St. Edmunds (The Acacias) ..	Ernest Stork, Esq. ....	5	0 10	154	19·03	152
D „ „ „ (Westley) .....	R. Burrell, Esq. ....	5	1 0	226 T	20·69	156
D „ „ „ (Fornham St. Martin) ..	Rev. J. S. Pratt .....	5	1 0	100	18·03	133
„ „ „ (Hengrave) .....	Mr. W. Nichol .....	5	1 2	91	18·25	...
D Bacton .....	C. H. Woods, Esq. ....	5	1 6	186 T	19·68	161
Darsham (Sibton) .....	Col. T. M. Ward .....	5	2 6	94	17·74	157
D Westleton (St. Helena) .....	J. R. Grimsey, Esq. ....	8	2 0	65 T	20·74	149
D Ixworth (Walsham-le-Willows) ..	Miss M. C. Martineau ..	5	1 0	...	20·29	157
Stradbroke Vicarage .....	Rev. Canon W. Tate .....	5	1 3	172 T	19·58	...
D Southwold (Walberswick) .....	A. C. Herbert, Esq. ....	5	1 0	30	20·32	170
D§ „ „ .....	„ „ „ .....	8	1 0	44 T	20·91	178
Ixworth (Barningham) .....	Miss A. K. Lingwood .....	8	1 0	136	16·86	...
D Elveden Hall .....	Lord Iveagh, K.P. ....	5	1 0	130	19·89	199
D Halesworth (Rumburgh) .....	Rev. W. Linton Wilson ..	5	3 0	148 T	21·57	186
§ Brandon (North Court Lodge) ..	Meteorological Council ..	6	2 0	40	20·24	...
D Beccles (Sotterley Hall) .....	Capt. Miles Barne .....	5	0 11	50 T	23·42	160
D „ (Waveney House) .....	Clifford Smith, Esq. ....	5	4 2	...	21·77	192
† Lowestoft (Belle Vue Park) .....	Royal Meteorological Soc ..	5	1 0	86 T	19·32	147
D§ „ (The Clyffe, Corton) ..	R. J. Colman, Esq. ....	5	1 0	62 L	19·72	147
D „ (Lound Pumping Station) ..	Lowestoft Water & Gas Co. ..	8	1 0	34	22·00	140
Fritton [Yarmouth] .....	H. E. Buxton, Esq. ....	8	0 10	40	22·70	160
D Burgh Hall [Yarmouth] .....	H. P. Frederick, Esq. ....	8	0 6	45 T	19·03	146
D Burgh Castle Rectory .....	Rev. Canon G. Venables ..	5	0 7	40	18·85	131



DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with no or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>NORFOLK.</b>						
Thetford (King's House) .....	H. F. Killick, Esq. ....	5	1 0	70	19.26	...
„ (Waterworks) .....	The Manager .....	5	1 0	170 †	19.28	163
D Santon [Brandon] .....	A. W. Preston, Esq. ....	5	0 10	32	22.14	165
Ellingham [Beccles] .....	H. Youngman, Esq. ....	5	3 0	...	18.94	...
D \$ Geldeston [ „ ] .....	E. T. Dowson, Esq. ....	5	1 0	38 †	20.67	174
\$ „ [ „ ] .....	„ „ „ .....	8	1 0	38 †	19.69	...
D Long Stratton (The Beeches, Fritton) .....	Miss Wainwright .....	5	1 0	120 †	20.63	225
D Ravensingham Hall [Beccles] ..	N. H. Bacon, Esq. ....	8	1 3	...	21.75	153
D Saxlingham Nethergate .....	Mrs. Pitt .....	5	1 5	...	18.93	165
D Wymondham .....	J. B. Pomeroy, Esq. ....	8	1 3	118 †	21.33	194
Watton .....	R. Martin, Esq. ....	5	1 0	166 †	23.80	165
D Hingham .....	G. K. Dobbs, Esq. ....	5	1 1	188 †	21.18	172
D Norwich (Dunston Hall) .....	A. W. Preston, Esq. ....	...	...	...	20.73	163
D Denver .....	„ „ „ .....	8	1 0	80 †	20.86	144
D Stoke Ferry (Wereham) .....	G. Read, Esq. ....	5	2 3	66 †	24.11	169
Keswick Old Hall .....	E. Knight, Esq. ....	5	1 0	...	23.54	178
Hethersett (Thickthorn) ..	Miss V. Evans-Lombe. ....	5	0 9	100 †	19.60	203
Outwell Sluice .....	A. Lunn, Esq., C.E. ....	9	...	16	18.04	147
Moulton .....	A. W. Preston, Esq. ....	4	...	...	21.32	...
Emneth .....	F. M. Bland, Esq. ....	6	1 0	6	17.36	...
\$ Yarmouth (Sailors' Home) .....	Meteorological Council. ....	8	4 0	12	21.03	163
D „ (Market Place) .....	W. C. Steward, Esq. ....	5	1 0	...	20.78	166
Norwich (Postwick Hall) ..	Miss M. Cross .....	5	1 1	5	21.40	175
„ (Carrow House) .....	Miss Colman .....	5	1 3	35 †	21.14	...
D \$ „ (Brundall) .....	A. W. Preston, Esq. ....	5	1 0	66 †	21.50	180
D „ (Ipswich Road) .....	J. H. Willis, Esq. ....	5	1 0	110 †	21.90	186
D „ (Newmarket Road) .....	A. W. Preston, Esq. ....	8	1 2	89 †	25.55	215
D „ (Heigham) .....	„ „ „ .....	5	3 2	37 †	22.42	165
D Acle .....	„ „ „ .....	5	0 6	51	20.49	176
D Swaffham .....	W. H. Plowright, Esq. ....	5	5 0	250 †	22.74	163
„ (Homewood) .....	F. Everett, Esq. ....	5	2 6	210	25.93	166
D Honingham .....	A. W. Preston, Esq. ....	...	...	...	18.45	188
D Sprowston (Oak Lodge) .....	T. Cozens Hardy, Esq. ....	5	1 0	101 †	19.97	176
East Dereham .....	G. H. Cooper, Esq. ....	8	3 0	161	20.23	...
D Yarmouth (Ormesby St. Michael) ..	Gt. Yarmouth W. W. Co. ....	8	1 0	21 †	22.58	175
D Sporle .....	A. W. Preston, Esq. ....	...	...	...	23.12	191
D Swaffham (Dunham) .....	„ „ „ .....	5	1 1	320	22.22	176
Wiggenhall (Outlet Syphons) ..	A. Lunn, Esq., C.E. ....	8	1 6	...	18.59	...
Middleton Vicarage .....	Rev. H. E. Bishop .....	5	2 0	114 †	24.01	156
D Bylaugh Park Gardens .....	Mr. G. Beeton .....	5	1 0	130 †	22.55	158
D Grimston (Manor House) .....	W. S. Freuer, Esq. ....	5	0 10	90	23.58	183
D Reepham (Whitwell Vicarage) ..	Rev. R. Freeman .....	8	1 6	130 †	22.85	192
Cawston Rectory .....	the late Rev. T. H. Marsh ..	5	1 0	135 †	22.60	188
Aylsham (Woodgate) .....	R. J. W. Purdy, Esq. ....	5	1 0	100 †	23.61	146
D North Walsham (Dilham) .....	A. W. Preston, Esq. ....	5	0 8	...	23.25	227
„ „ (Worstead) ..	R. Cross, Esq. ....	8	1 0	...	22.37	161
D Stalham (East Ruston Grange) ..	W. S. Horn, Esq. ....	5	1 0	15 †	19.87	155
D \$ Hillington School .....	Rev. H. Ffolkes .....	5	3 6	93 †	25.65	192
Sandringham House .....	Mr. T. H. Cook .....	5	1 1	121 †	21.70	...

## DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
NORFOLK—(con.)						
Fakenham (Pensthorpe) .....	C. S. Hamond, Esq. ...	5	2 6	153	20·30	...
West Rudham .....	W. S. Freuer, Esq. ...	5	0 10	...	22·99	...
d Holt .....	A. W. Preston, Esq. ...	5	1 3	...	22·09	140
Cromer (Northrepps Hall) .....	Mrs. R. Gurney .....	5	0 4	200	23·23	163
„ .....	W. H. Archer, Esq. ...	8	1 0	197 †	19·49	220
Blakeney .....	C. I. Temple Lynes, Esq. ...	5	1 3	29	20·13	147
Wells (Holkham Hall) .....	Earl of Leicester, K.G. ...	12	4 0	39	19·37	...

## DIVISION V.—SOUTH WESTERN COUNTIES.

## WILTSHIRE.

Landford (Northlands) .....	Mrs. Wigram .....	5	1 10	167 †	30·76	151
d Donhead St. Mary (Charlton Ho.) .....	Lord Wynford .....	5	0 7	514	35·02	179
d Berwick St. John (Ferne) .....	Col. A. H. Charlesworth .....	5	1 0	500	37·26	171
d Broadchalke Vicarage .....	Rev. E. J. Satterthwaite .....	5	1 0	300 †	31·41	139
Longford Castle .....	The Earl of Radnor .....	5	1 0	136 †	29·14	162
d Alderbury .....	Rev. Canon Hutchings .....	5	0 8	263 †	28·03	162
d Tisbury (The Academy) .....	J. Bristol, Esq. ....	5	0 9	380 †	32·66	142
d East Knoyle .....	E. H. Miles, Esq. ....	5	1 0	560 †	33·63	182
d Salisbury (Ardath) .....	T. Awdry, Esq. ....	5	1 0	225 †	27·14	169
d „ (Brown Street) .....	T. H. Baker, Esq. ....	5	1 0	155	29·33	188
d „ (De Vaux Lodge) .....	H. Peniston, Esq. ....	5	1 0	150	28·42	181
d „ (Wilton House) .....	T. Challis, Esq. ....	8	0 6	180 †	31·78	176
§ Winterslow (Roche Court) .....	T. T. S. Metcalfe, Esq. ...	5	1 0	459 †	31·38	192
d§ „ ( „ „ ) new g. „ „ „ .....	„ „ „ .....	5	1 0	459 †	29·53	192
Mere (The Limes) .....	E. Bracher, Esq. ....	5	1 0	300	35·31	...
„ (Dews House) .....	Miss E. B. Rutter .....	5	1 7	384	36·33	...
„ Vicarage .....	Rev. J. A. Lloyd .....	5	3 0	370	34·87	...
d „ (Charnage) .....	A. R. White, Esq. ....	5	1 0	426 †	34·39	177
Maiden Bradley .....	The Duke of Somerset .....	8	1 6	626 †	41·28	195
d Warminster (Rye Hill) .....	S. E. Jefferys, Esq. ....	8	2 0	466 †	35·57	207
Salisbury Plain (Chitterne House) .....	R. Hayward, Esq. ....	11	4 0	319 †	25·81?	155
d „ „ (Shrewton) .....	F. J. Wardale, Esq. ...	5	0 9	320	31·05	190
d Orcheston (Elston Hill) .....	H. W. Green, Esq. ..	5	1 6	380 B	31·40	219
Warminster (Downside) .....	Mrs. Stent .....	8	2 3	393	31·28	...
„ (Rock Villa) .....	J. Wallis Titt, Esq. ...	5	4 0	400 †	35·44	163
d Ludgershall (Conholt Park) .....	G. Knowles, Esq. ....	5	1 3	750 †	32·28	211
d „ (Collingbourne Kingston) .....	Baldwin Latham Esq. CE	5	1 0	470 †	28·39	152
d Trowbridge (Water Works, Biss) .....	W. W. Gray, Esq., C.E. ...	5	1 0	311	31·91	163
d „ (Wingfield) .....	T. H. Clark, Esq. ....	5	1 0	190	26·18	146
d „ (Rood Ashton) .....	Mr. W. Strugnell .....	8	1 6	250	28·69	183
d Devizes (Chirton) .....	Mr. T. Selfe .....	5	3 0	370	27·23	181
d Bradford (The Chantry) .....	Dr. Beddoe, F.R.S. ...	5	0 9	125	25·62	170
d „ (Winsley Manor) .....	E. W. Knatchbull, Esq. ...	5	0 6	400	25·19	190
„ (Bearfield House) .....	G. A. R. FitzGerald, Esq. ...	5	1 10	290 †	26·96	154
d „ (Holt) .....	A. J. Beaven, Esq. ..	5	1 2	120	28·02	233
d Devizes (Wilts Co. Asylum) .....	Dr. Ireland Bowes .....	8	2 3	385 †	25·36	171

## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>WILTSHIRE—(con.)</b>						
D Buttermere Rectory .....	Rev. W. E. Burkitt ...	5	3 0	847	31.10	147
D Shalbourne (West Court) ....	Mr. T. Barns .....	5	1 0	640	30.02	177
D Bishops Cannings .....	Rev. C. W. Hony .....	5	1 0	446	27.68	182
D Devizes (Shepherd's Shore) ....	Mr. J. Carter .....	5	1 3	555	28.24	175
Chippenham (Langley Burrell)..	Rev. A. B. Mynors ...	8	1 2	250	25.54	169
D „ (Kington Langley).	H. H. Palairt, Esq. ...	5	1 0	270	25.31	196
D Marlborough (Preshute House)...	Mr. G. E. Mew .....	5	0 9	...	28.71	157
§ „ (College) .....	Royal Meteorological Soc	5	1 0	425	29.05	204
D „ (Mildenhall) .....	Rev. Gordon Soames ...	5	1 0	456	26.32	158
D Calne (High Street) .....	H. Wilkins, Esq. ....	5	3 6	244	25.78	153
„ (Compton Bassett) .....	Capt. J. Heneage .....	8	1 0	385	27.24	198
Yatesbury .....	Rev. E. D. Guillebaud.	5	0 9	564	30.08	158
Ramsbury (Littlecote) .....	<i>Press-cutting</i> .....	...	...	380	27.65	...
D „ .....	Miss M. P. McDonald..	5	1 0	398	27.04	164
D Wootton Bassett .....	H. Bevir, Esq. ....	5	1 6	422	23.87	181
D New Swindon .....	H. J. Southwell, Esq. ...	8	0 11	378	23.55	177
Malmesbury .....	Royal Meteorological Soc	5	1 0	236	26.62	180
„ (Charlton) .....	Lady Victoria Howard	8	0 6	...	28.08	157
Highworth (Hannington Hall)...	A.D. Hussey-Freke, Esq	5	1 0	375	23.75	157
<b>DORSETSHIRE.</b>						
§ Portland Bill (High Light) .....	Meteorological Council.	8	1 0	...	28.04	184
D Swanage (Worth Matravers) ...	Dorset Field Club .....	5	1 0	400	33.99	178
D Weymouth (Wyke Regis) .....	Mrs. Pretor .....	5	0 9	158	30.86	152
D § „ (The Nothe) .....	I. J. Brown, Esq. ....	5	1 0	79	28.30	163
D Swanage (Royal Victoria Hotel)	H. B. Vincent, Esq. ...	5	1 11	26	30.66	168
D Corfe Castle (Smedmore) .....	Col. A. M. Blake, C.B.	5	1 2	210	32.38	176
D East Fleet (Fleet House) .....	Dorset Field Club .....	5	1 2	48	29.60	148
D Chickerell (Montevideo) .....	Mrs. Richardson .....	5	1 0	150	29.72	186
D West Lulworth Vicarage .....	Rev. W. Percy Schuster	5	1 0	128	33.13	152
D Abbotsbury (New Barn) .....	J. C. P. White, Esq. ...	5	1 6	111	30.80	174
D Upwey (Portland W. W.) .....	R. S. Henshaw, Esq. C.E.	8	1 0	290	30.42	180
D Wareham (Holme) .....	Gerald D. Bond, Esq. ...	5	0 7	24	34.20	162
D Winterbourne Herringstone .....	R. B. White, Esq. ...	5	3 1	200	37.49	158
D Wareham (Castle Gardens) .....	S. W. Bennett, Esq. ...	5	2 6	18	33.18	172
D „ (Binnegar Hall) .....	Lt.-Col. P. Farrer .....	5	1 0	65	34.79	170
D Winterbourne Steepleton .....	H. Stilwell Esq. ....	8	1 0	316	41.49	184
D Dorchester Water Works .....	G. J. Hunt, Esq. ....	8	1 2	315	37.67	182
D „ (Wollaston House) ...	Capt. J. E. Acland .....	5	1 0	200	37.86	185
D Poole (Parkstone, Poole Road)...	W. Symes, Esq. ....	5	1 3	160	32.06	178
D Lyme Regis (Colway Cottage)...	Dr. J. Spurr .....	5	1 0	250	35.67	190
D Bridport (Coneygar) .....	H. Gordon, Esq., C.E.	5	1 0	110	37.61	171
D Puddletown .....	Dorset Field Club .....	5	1 0	190	36.97	142
D Bere Regis Vicarage .....	Mr. A. Lucas .....	5	1 0	120	33.06	164
„ „ (Bloxworth Rectory).	Rev O. P. Cambridge FRS	5	1 6	205	35.88	147
D „ „ ( „ House)...	Mr. F. G. A. Lane .....	5	1 6	118	37.38	163
D „ „ (Longthorns) .....	Mr. S. Smart .....	5	1 0	...	38.22	176
D Maiden Newton (Cattistock Lodge)	E. S. Wilmot-Sitwell Esq	5	0 6	350	43.44	187

DIVISION V.—SOUTH WESTERN COUNTIES *(continued)*.

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain.	Days with 0.1 or more recorded.
			Height Above Ground.	Height Above Sea Level.	1904	
		in.	ft. in.	feet.	inches.	
DORSETSHIRE—(con.)						
Sturminster Marshall (Baillie Ho.)	Rev. J. Cross	5	0 6	85	34.18	175
" " " " M	" " " "	5	...	85	33.40	...
Wimborne (Codford)	GH Batterbury, Esq. MD	5	0 9	69 T	36.25	165
" (Westfield)	His Hon. Judge Philbrick	5	1 0	80	36.64	...
Beaminster Vicarage	Rev. A. A. Leonard	5	1 0	216 T	37.40	179
" (Fleet Street)	J. Andrews, Jun., Esq.	5	1 0	200 T	37.38	177
Broad Windsor Vicarage	Rev. G. C. Hutchings	5	0 7	540 T	36.83	198
" (Blackdown House)	C. E. M. Pinney, Esq.	5	0 9	515	41.10	198
Winterbourne Houghton	Rev. H. H. T. Bassett	8	0 6	450	35.72	143
Cerne Abbas (Melbury)	Mr. R. Rintoul	5	1 6	500	36.69	155
Chedington Court	Mr. H. Birkinshaw	5	1 0	605	35.76	177
Stoke Wake Rectory	Rev. L. A. Williams	5	0 6	440 T	39.56	192
Chetnole	Col. E. F. Chadwick	5	1 0	227 T	35.52	185
Wimborne (Horton Vicarage)	Rev. G. Wellington	5	1 0	133 T	33.28	161
Verwood Manor	W. R. Fryer, Esq.	5	3 0	180	32.60	135
Holwell (Westrow)	Mr. G. Coffin	5	1 0	252	35.12	176
Iwerne Courtney (Shroton)	Admiral R. Stopford	5	1 2	200 T	33.54	154
Sturminster Newton (Riverside)	A. R. Hallett, Esq.	5	5 0	200	31.41	143
Sherborne (Castle)	Mr. T. Turton	5	1 0	195 T	31.99	187
Shaftesbury	Royal Meteorological Soc	5	1 2	722	32.19	196
Buckhorn Weston	Rev. W. Hughes D'Aeth	5	1 0	285	26.28	171
Gillingham	S. H. Stephens, Esq.	5	1 2	244 T	31.79	183
" (Milton-on-Stour)	Rev. L. B. Matthews	8	0 10	300 T	33.39	184
Bourton (Chaffey Moor)	Captain G. Izat, R.N.	5	2 0	425 T	34.26	168
SOUTH DEVON.						
Salcombe (Sandhills)	W. H. Pike, Esq.	5	1 0	118	36.47	188
" "	Royal Meteorological Soc	5	1 0	111	38.61	189
South Huish	W. Balkwill, Esq.	5	5 6	68 T	40.00	...
Kingsbridge (Westcombe)	T. W. Latham, Esq.	5	1 0	100	46.26	191
Start Bay (Slapton)	Horace G. Morgan, Esq.	5	1 0	...	43.79	192
Revelstoke (Membland)	Mr. G. Baker	5	1 0	180 T	41.15	162
Dartmouth (Redlap House)	L. Karslake, Esq.	5	1 1	220 T	36.99	192
Plymstock (Thorncot, Hooe)	J. Little, Esq.	5	2 0	113 T	45.23	191
Plymouth (The Hoe)	H. V. Prigg, Esq., C.E.	8	0 10	117 T	41.37	190
" (Freedom Fields)	" " "	8	0 10	208 T	44.44	188
" (Drake's Reservoir)	F. Howarth, Esq., C.E.	5	1 0	149 T	42.74	186
Devonport (Rowdens Res.)	H. Francis, Esq., C.E.	5	1 0	201 T	38.42	193
Ivybridge (Langham Hill)	Miss Glanville	5	1 0	400 T	52.87	200
" (Blackadon Asylum)	H. V. Prigg, Esq., C.E.	5	1 0	607	54.88	229
South Brent (Great Aish)	Miss Kingwell	5	1 0	500 T	64.83	207
Totnes (Berry Pomeroy)	C. Barran, Esq.	5	1 0	185 T	42.67	183
Bere Ferrers	Rev. F. T. W. Wintle	5	1 0	100	53.01	193
Bickley (Roborough Reservoir)	F. Howarth, Esq., C.E.	5	1 0	548 T	50.25	213
Torquay (Princess Gardens)	F. March, Esq.	5	1 0	12	33.12	172
" (Cary Green)	" " "	5	1 0	12	33.73	171
Lee Moor Clay Works	T. Martin, Esq.	8	1 6	950 T	64.26	...
Buckfastleigh (Bossell Park)	J. Hamlyn, Esq.	5	1 0	250	57.50	178

## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain.	Days with 40 or more recorded.
			Height Above Ground.	Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.
SOUTH DEVON—(con.)						
Yelverton .....	Dr. H. J. S. Liddell ...	5	7	0	627 $\nabla$	63·68 197
Sheepstor .....	M. F. Howarth, Esq., C.E.	5	1	0	1024 $\nabla$	53·29 ...
D „ (Red Stone) .....	„ „ „	5	1	0	760 $\nabla$	67·66 213
D „ (Burrator) .....	„ „ „	5	1	0	755	62·45 211
D „ (Head Weir) .....	„ „ „	5	1	0	720	63·39 215
D Dartmoor (Lowery) .....	H. Francis, Esq., C.E.	5	1	0	890 $\nabla$	57·51 196
D „ (Deancombe Farm) ...	F. Howarth, Esq., C.E.	5	1	0	830 $\nabla$	51·40 176
D „ (Leather Tor Farm) ..	„ „ „	5	1	0	910 $\nabla$	59·48 197
„ (Siwards Cross) .....	M „ „ „	5	1	0	1200 $\nabla$	65·81 ...
„ (Cramber Tor) .....	M „ „ „	5	1	0	1435 $\nabla$	57·95 ...
D Kingskerswell (Barton Hall) ...	Capt. H. Langford Brown	8	1	2	360 $\nabla$	32·22 171
D „ (South Hill) .....	E. A. Foster, Esq. ...	5	1	0	270 $\nabla$	35·42 175
D Abbotskerswell (Court Grange) ..	Hon. Mrs. Marcus Hare	5	1	1	150 $\nabla$	44·24 189
D Ashburton (Holne Vicarage) ...	Rev. J. Gill .....	5	1	6	650 $\nabla$	60·47 212
D § „ (Druid House) .....	Fabyan Amery, Esq. ...	5	1	0	572 $\nabla$	50·26 192
D Newton Abbot (The Chestnuts) ..	E. D. Wylie, Esq. ....	5	0	6	100 $\nabla$	36·48 152
D „ „ (Tuplins) .....	W. G. Aspland, Esq. ...	5	1	0	22 $\nabla$	36·13 190
Kingsteignton (Teignbridge Ho.)	F. H. Plumtre, Esq. ...	5	1	0	27 $\nabla$	36·61 164
Teignmouth (Bitton Street) .....	W. C. Lake, Esq., M.D.	5	1	0	70	33·29 171
D „ (Woodlands) .....	W. B. Harris, Esq. ...	8	1	2	98	30·91 169
„ „ „ .....	Mr. G. Rossiter .....	5	1	0	20 $\nabla$	31·75 164
„ (Bonnicliff) .....	Capt. J. Horner .....	5	1	0	260 $\nabla$	32·51 194
D „ (Coombe Bank) .....	P. A. Gore, Esq. ....	5	1	0	100	31·85 174
D § Tavistock (Statsford, Whitechurch)	E. E. Glyde, Esq. ....	5	1	0	594 $\nabla$	56·34 210
D „ (Public Library) .....	Mr. J. Quick .....	8	20	0	283 $\nabla$	48·00 202
† Princetown .....	H. Francis, Esq., C.E.	5	1	0	1390 $\nabla$	85·61 ...
§ „ „ .....	Royal Meteorological Soc	5	1	0	1360	89·04 196
Dartmoor (Leeden Tor) .....	M. F. Howarth, Esq., C.E.	5	1	0	1270 $\nabla$	56·48 ...
„ (N. Hessary Tor, No. 1) ..	„ „ „	5	1	0	1625 $\nabla$	59·57 ...
† „ (Cowsic Valley) .....	H. Francis, Esq., C.E.	8	1	6	1352 $\nabla$	71·50 ..
† „ (Black Dunghill) No. 5 ..	„ „ „	8	1	0	1590 $\nabla$	47·25 ...
† „ (Beardown Tor) No. 3 ..	„ „ „	8	1	0	1550 $\nabla$	47·00 ...
† „ (White Tor) .....	No. 1 „ „ „	8	1	0	1640 $\nabla$	50·25 ...
† „ (Devil's Tor) .....	No. 2 „ „ „	8	1	0	1785 $\nabla$	50·90 ...
† „ (Cowsic Head) .....	No. 4 „ „ „	8	1	0	1580 $\nabla$	63·20? ...
D Chudleigh (Ideford Rectory) ...	Rev. G. J. Ford .....	4	1	0	300 $\nabla$	37·25 189
D Bovey Tracey (Colehays) .....	Mr. G. Heath .....	5	1	0	400	51·09 216
Milton Abbot (Endsleigh) .....	Mr. F. Yole .....	5	1	0	180 $\nabla$	50·37 ...
Lifton (Kelly House) .....	Rev. Maitland Kelly ...	8	2	0	454 $\nabla$	50·18 227
D Dawlish (Mamhead Rectory) ...	Rev. W. C. Plenderleath	5	1	0	467 $\nabla$	40·66 196
D Starcross (Cofton Vicarage) .....	Rev. C. F. Benthall ...	5	1	9	60	31·79 152
D Exmouth (Nidderdale) .....	Mrs. Herbert Stewart ..	5	1	0	51	31·20 159
D „ (Filter Beds) .....	S. Hutton, Esq., C.E. ...	8	8	6	195	33·44 178
D Chudleigh (Tottiford) .....	S. C. Chapman, Esq., C.E.	8	1	0	718 $\nabla$	38·15 189
„ (Trusham) .....	Rev. O. H. Cary .....	4	0	6	322 $\nabla$	38·81 174
D Budleigh Salterton (Syon House)	H. W. Drummond, Esq.	5	1	0	...	31·13 147
D „ „ (Squabmoor) .....	S. Hutton, Esq., C.E. ...	5	1	0	267	33·25 178
D Lympstone (Watton) .....	W. G. Deedes, Esq. ...	5	5	0	220	32·21 158

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

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## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with 40 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>NORTH DEVON—(con.)</b>						
D Abbotsham (Riccard's Down) ..	Mrs. Hibbert .....	5	1 0	87 $\nabla$	36.85	221
D§ South Molton (Castle Hill School)	Mr. W. H. Reeve .....	8	1 0	363	42.96	235
D " " ( " " Gardens)	Mr. W. H. Pearson ..	12	3 6	317	45.27	228
" " " " " "	F. Day, Esq. ....	5	1 6	450 $\nabla$	43.54	203
D Bideford (Gammaton W. W.)...	Baldwin Latham Esq CE	5	1 0	335 $\nabla$	39.10	196
D " (Webbery) .....	C. E. Boyd, Esq. ....	5	1 10	300 $\nabla$	38.36	206
D " (Rectory) .....	Rev. T. Newton Leeke.	5	1 0	132 $\nabla$	38.88	196
D " (Beechcroft) .....	A. H. Hobhouse, Esq...	2	1 0	120	39.51	205
" (North Road) .....	Mr. W. Littlejohn ....	5	0 6	20	36.68	181
" (Horwood House) .....	Rev. J. Dene .....	5	1 0	288 $\nabla$	32.44	211
Northam (St. Helens) .....	Miss L. Bowles .....	6	1 0	67 $\nabla$	31.40	200
D " Vicarage .....	Rev. Preb. Dimond-Churchward	5	1 0	173 $\nabla$	35.54	185
D Westward Ho! (Bellevue) .....	A. H. Boyd, Esq. ....	10	1 0	200 $\nabla$	31.94	196
D " " (Ferndale) .....	J. W. North, Esq. ....	5	1 0	60 ?	29.84	198
D Instow .....	Miss Lock .....	5	1 0	100 B	30.72	178
Barnstaple (Newport) .....	T. Wainwright, Esq....	...	...	138	40.18	170
D† " (N. Devon Athenæum)	" " " " " "	8	1 0	25 $\nabla$	35.21	215
" (Pilton) .....	Miss Hibbert .....	5	1 0	83 $\nabla$	35.66	212
Stoke Rivers .....	T. Wainwright, Esq....	...	...	767	50.38	197
† Braunton (Preston Ho., Saunton)	Miss Durham .....	5	0 8	120 B	31.26	165
D§ Barnstaple (Arlington Court) No. 1	Lady Chichester .....	5	1 0	613 B	51.21	231
§ " " " " " " No. 2	" " " " " "	5	1 0	613 B	55.27	231
D Challacombe .....	A. Leworthy, Esq....	5	0 9	925	64.52	229
§ Woolacombe .....	Royal Meteorological Soc	5	1 0	60 $\nabla$	28.26	201
Parracombe .....	Rev. J. F. Chanter ...	5	1 0	795 $\nabla$	49.98	196
Ilfracombe (Reservoir) .....	T. Wainwright, Esq....	...	...	377	45.06	225
§ " (Hotel) .....	Royal Meteorological Soc	5	1 0	24	37.19	198
D Martinhoe Rectory .....	Rev. R. W. Oldham ...	5	2 3	808	44.55	206
Lynton (Lee Abbey) .....	C. F. Bailey, Esq. ....	5	0 6	320 $\nabla$	38.59	...
D Lynmouth (Gwynallt) .....	A. L. Ford, Esq. ....	8	0 8	284 $\nabla$	41.47	198
D " (Rock House) .....	T. H. Mead-Briggs, Esq.	5	0 11	22 $\nabla$	39.05	209
<b>CORNWALL.</b>						
Lizard (Landewednach) .....	A. P. Jenkin, Esq....	5	1 0	244 $\nabla$	35.44	...
Mullion .....	R. Thomas, Esq. ....	5	1 0	200	37.82	199
St. Keverne (Lanarth) .....	P. D. Williams, Esq...	5	0 10	290 $\nabla$	43.15	191
D " " (Rosuick Cottage)...	G. W. Jevons, Esq. ...	5	1 0	250 $\nabla$	45.22	217
D Helston (Tenderah) .....	J. Walker Tyacke, Esq.	5	1 3	210 $\nabla$	46.53	213
D§ Penzance (Morrahs) .....	C. H. Benn, Esq. ....	5	1 0	55	42.45	227
" (Penlee) .....	J. Branwell, Esq. ....	5	1 0	71 $\nabla$	44.10	232
D " (St. Clare) .....	Rev. Preben. Hedgeland	5	1 0	213 $\nabla$	45.15	233
" (Trenswanton) .....	T. R. Bolitho, Esq. ...	10	1 0	400 $\nabla$	48.54	218
Marazion .....	T. W. Field, Esq. ....	5	2 0	30	39.24	196
D§ Falmouth (New Observatory) (R)	E. Kitto, Esq. ....	11	2 0	169 $\nabla$	45.40	225
§ " " " " " " " "	" " " " " "	8	2 0	169 $\nabla$	44.95	219
" (St. Mawes, Place) ..	J. S. Spry, Esq. ....	5	1 0	12	37.11	173
D " (Carelew) .....	Mr. J. Simmons .....	5	0 9	...	44.67	185
Phillack Rectory .....	Cornwall County Council	5	1 0	70 $\nabla$	34.82	177

## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 40 or more recorded
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
CORNWALL—(con.)						
Camborne .....	Rev. G. B. Hooper .....	8	3 0	317 7	42.13	209
d Redruth (Trevince) .....	E. B. Beauchamp, Esq. ....	8	0 8	240 7	46.61	212
„ (Tolvean) .....	A. Lanyon, Esq. ....	5	0 9	365	44.44	205
d „ (Trewirgie) .....	A. P. Jenkin, Esq. ....	5	1 0	399 7	45.61	233
d „ (Tehidy Park) .....	Mr. A. Mitchell .....	8	1 1	287 7	43.42	217
d Truro (Killiow) .....	J. C. Daubuz, Esq. ....	5	1 0	230 7	43.21	196
d „ (Royal Institution) .....	G. Penrose, Esq. ....	5	43 0	83 7	40.72	203
„ (W.W., Lower Tregurrow) .....	W. J. Lean, Esq. ....	5	9 0	71 7	40.93	177
d „ (Agar Villa) .....	C. Barrett, Esq. ....	5	3 9	50 8	44.59	203
d Probus (Lamellyn) .....	H. Tresawna, Esq. ....	5	0 6	230	41.38	174
St. Agnes .....	W. Whitworth, Esq. ....	5	4 6	318	37.38	210
d Fowey (Menabilly) .....	Mr. W. H. Bennett .....	5	1 0	150	46.50	182
d Talland (Polperro) .....	H. E. Butler, Esq. ....	5	1 0	120	44.30	206
d St Austell (Trevarna) .....	W. M. Coode, Esq. ....	5	0 6	300 7	46.92	213
d Par Station (Torfrey) .....	W. G. Mills, Esq. ....	5	0 6	300	45.95	182
d Empacombe [Devonport] .....	J. Sandercock, Esq. ....	5	0 6	20 7	39.63	193
d Cremyll [Devonport] .....	W. Wonnacott, Esq. ....	5	20 0	25	40.92	201
d St. Germans (Trethill) .....	Capt. J. D. A. Roberts. ....	5	2 0	200 8	38.29	175
d Looe (Morval) .....	Miss Florence Tremayne .....	5	1 0	150 7	50.60	178
„ (Bray St. Germans) .....	Mrs. George Sneyd .....	5	1 0	550 7	41.77	210
d Lostwithiel (Lanwithan) .....	Miss Foster .....	6	1 0	80	49.91	199
d Menheniot (Coldrenick House) .....	E. Jago, Esq. ....	5	1 0	...	54.95	220
d† Liskeard (Trevillis) .....	L. C. Foster, Esq. ....	5	1 0	320 7	44.56	219
d „ (Dean Terrace) .....	S. W. Jenkin, Esq., C.E. ....	5	1 1	375 7	53.32	218
d† „ (Oak Park) .....	L. J. Bateman, Esq. ....	5	1 2	410 7	54.71	215
„ Saltash (Pentillie Castle) .....	Mr. W. T. Johnson .....	5	2 4	150 8	53.82	201
d St. Mellion Rectory .....	Rev. F. T. Wintle .....	5	1 0	400 7	52.36	209
d Bodmin (Treledan) .....	H. D. Foster, Esq. ....	8	1 0	290	53.14	234
d „ (Springfield) .....	Rev. Prebendary Every .....	5	0 9	480 7	52.79	234
Liskeard (St. Cleer Down) .....	S. W. Jenkin, Esq., C.E. ....	5	1 1	620 7	45.15	...
d Callington (Pencrebar) .....	Miss E. L. Horndon .....	5	1 9	450 7	45.39	204
„ (Mount Lodge) .....	G. Brown, Esq. ....	8	1 0	400	54.78	209
d St. Mabyn (Pencarrow) .....	Mr. A. C. Bartlett .....	5	1 0	...	46.06	236
Callington (Drakewalls) .....	Mr. C. A. Wadge .....	5	4 0	650 7	50.60	199
d Launceston (Landue) .....	Miss S. E. Tregoning .....	5	0 11	225 7	49.08	222
d Altarnon Vicarage .....	Rev. A. H. Malan .....	5	1 0	620 7	61.57	255
d Launceston (Tamar Terrace) .....	Captain L. Ching, R.N. ....	5	0 10	446	45.54	201
Egloskerry (Tregeare) .....	E.G.B. Lethbridge, Esq. ....	5	0 6	575	49.73	...
North Tamerton (Ogbeare) .....	Mr. J. S. Bray .....	5	5 0	460 7	44.10	186
d Bude .....	J. Arthur, Esq. ....	5	1 0	16 8	33.47	162
Stratton (Poughill) .....	Cornwall County Council .....	...	...	200	39.56	230
SOUTH SOMERSET.						
Chard (Tatworth) .....	Rev. H. Stuart King .....	5	1 3	347 7	40.02	171
Cricket St. Thomas .....	Mr. S. Lyon .....	5	1 0	444	38.85	172
d Crewkerne (Bincombe House) .....	Miss Sparks .....	5	1 2	293 7	31.84	168
d „ (Merefield House) .....	J. Tompsett, Esq. ....	8	14 5	240 7	34.29	183
d Ilminster (Whitelackington) .....	S. Creed, Esq. ....	5	3 0	200 7	32.92	162



## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with 40 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904		
		in.	ft.	in.	feet.	inches.	
SOUTH SOMERSET—(con.)							
d Yeovil (Gas Works) .....	E. Howell, Esq. ....	5	22	0	122 7	29.45	158
d South Petherton (Yeabridge) ..	Miss E. F. Blake .....	8	0	9	100 7	27.27	170
Henstridge .....	Mr. G. H. Hacker .....	5	1	1	270 7	30.80	166
Taunton (Blagdon Reservoir) ..	H. T. Coles, Esq. ....	8	1	6	590 7	35.71	...
„ (Leigh Reservoir) .....	„ „ „ „ .....	8	1	6	525 7	33.84	...
d „ (Leigh Court) .....	A. Eastwood, Esq. ....	8	1	0	350 7	33.13	183
d „ (Ashleigh) .....	W. A. Gunner, Esq. ....	5	1	0	78 8	25.35	175
„ „ „ „ .....	„ „ „ „ .....	5	12	6	78 8	24.27	163
d „ (Linden Grove) .....	H. Le B. Gunner, Esq. ....	5	1	0	70	26.18	180
d Wellington (The Avenue) .....	F. J. Burnett, Esq. ....	5	1	0	254 7	29.80	200
Temple Combe Rectory .....	Rev. J. C. Fox .....	5	0	6	215	34.27	197
d Milverton (Spring Grove) .....	C. Roberts Gawen, Esq. ....	5	0	8	500 7	32.75	198
„ (Olands) .....	Rev. P. P. Broadmead ..	5	1	0	330 7	30.08	181
d „ „ „ „ .....	Miss A. Bere .....	5	1	0	307	30.70	188
Taunton (Staplegrave) .....	C. Lewis, Esq. ....	8	1	9	108 8	28.95	151
Langport (Huish Episcopi) .....	W. Kelway, Esq. ....	8	1	1	30 7	22.83	...
d „ (The Grange) .....	Dr. H. Page .....	5	1	0	50 7	23.88	222
d North Cadbury Rectory .....	Rev. H. A. Boys .....	8	1	3	256 7	31.46	214
d Wincanton .....	Rev. Walter Farrer .....	5	1	0	300	34.57	214
Cothelstone House .....	C. E. J. Esdaile, Esq. ....	5	1	0	430	30.22	206
d North Petherton (The Old Rectory) ..	E. C. Curtis, Esq. ....	8	0	6	136 7	28.89	188
Winsford Vicarage .....	Rev. Preb. Anderson ..	5	1	2	623	49.76	...
Exford (North Ley) .....	Mr. F. G. Heal .....	5	5	6	1000	40.17	...
Bridgwater (Nurseries) .....	H. Corder, Esq. ....	5	1	0	30 7	25.58	185
d „ (Ashford) .....	F. Parr, Esq., C.E. ....	5	1	5	102 7	27.22	168
„ (Fiddington) .....	E. R. Case, Esq. ....	8	5	0	120	24.52	...
Williton (Aller) .....	<i>W. Somerset Free Press</i> ..	...	...	...	...	27.23	...
d Holford (Woodlands House) ..	Miss I. L. Joseph .....	5	1	0	391 7	30.86	190
Dunster (Alcombe) .....	Rev. J. Utten Todd .....	5	1	0	...	26.35	170
Stockland Bristol Manor House ..	Rev. H. A. Daniel .....	5	1	0	65	27.17	164
d Bridgwater (Pawlett) .....	H. A. Smith Spark, Esq. ....	5	1	0	45 7	28.15	147
d „ „ „ „ „ <i>Snowdon</i> ..	„ „ „ „ „ .....	5	1	0	45	27.71	147
Porlock (Bossington) .....	J. Dyke Acland, Esq. ....	5	1	3	444 7	31.44	184
NORTH SOMERSET.							
d Somerton (Butleigh Court) .....	R. Neville Grenville Esq. ....	8	1	2	80	29.99	173
Bruton (King's School) .....	D. E. Norton, Esq. ....	5	1	2	240	36.24	...
d Street .....	W. S. Clark, Esq. ....	8	0	6	100	28.40	181
Glastonbury (Wells Road) .....	J. Spire, Esq. ....	8	7	0	94 7	27.15	178
d Shepton Mallet (Pilton) .....	J. Dredge Allen, Esq. ....	...	...	...	300 7	31.19	191
d Glastonbury (Ynyswytryn) ..	Mrs. Swayne .....	5	1	8	245 7	29.56	153
d Cranmore (Southill House) ..	S. Poyntz-Wright, Esq. ....	5	1	0	635 7	37.27	217
d „ Hall .....	Rt Hon Sir R. H. Paget, Bt. ....	8	1	0	600 7	40.21	210
d Shepton Mallet (Charlton) .....	F. H. Berryman, Esq. ....	5	1	0	481 7	35.54	183
d „ „ (Field House) ..	„ „ „ „ .....	5	1	0	500	37.35	190
d „ „ (Grammar School) ..	William Aldridge, Esq. ....	5	1	0	475	35.33	211
d „ „ (Sewage Farm) ..	C. Hale, Esq. ....	5	0	9	310 7	35.85	193
d Wells (The Deanery Gardens) ..	Mr. A. King .....	5	1	0	170 7	32.48	184

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.	
NORTH SOMERSET—(con.)							
Wells (Somerset & Bath Asylum)	Rev. J. J. Downes	5	1	0	300	32.65	189
Frome (Mells)	Miss E. G. Horner	5	1	0	342	32.17	193
„ (Orchardleigh)	Rev. W. A. Duckworth	8	0	10	303	29.40	195
Downside Abbey	Rev. F. P. Whiteside	8	1	0	600	37.23	182
Chewton Mendip (The Priory)	The Earl Waldegrave	5	1	5	550	40.05	201
„ „ (Waldegrave Ho.)	J. Hansford Hill, Esq.	10	4	6	450	38.34	...
Ston Easton	H. E. Hippisley, Esq.	5	3	0	480	35.22	197
E. Harptree (Sherborne Reservoir)	Bristol Water Works	5	1	0	338	34.15	188
„ „ (Harptree Court)	W. W. Kettlewell, Esq.	5	1	0	346	37.79	197
Axbridge (Loxton Rectory)	Rev. J. E. Page	...	...	...	...	32.99	181
„ (Winscombe Court)	Rev. R. F. Follett	8	1	0	180	30.09	145
Blagdon (Nordrach-on-Mendip)	R. Thurnam, Esq., M.D.	5	0	4	862	43.10	230
Radstock (Hallatrow Court)	Sir J. A. Woolfryes, KCB	5	1	0	330	31.68	225
„ (Camerton Court)	Miss Jarrett	5	1	0	340	31.50	155
High Littleton Vicarage	Rev. A. M. Foster	5	1	0	442	29.22	207
Axbridge (The Down, Winscombe)	J. Grubb, Esq.	5	1	0	295	35.54	194
„ „ „ „ „ M	„ „ „ „ „	5	1	0	308	32.26	...
Hutton Rectory	Rev. W. F. Rose	5	1	0	75	30.33	177
Pensford (Sutton Court)	Sir E. Strachey, Bt. M.P.	8	1	0	280	32.53	208
Churchill (Springfield)	S. B. Pumphrey, Esq.	5	1	1	...	27.93	165
Weston-spr.-Mare (Leycroft Ho.)	C. Brown, Esq.	8	1	0	15	28.80	161
§ „ „ „ (Town Hall)	Royal Meteorological Soc	5	1	0	21	28.81	165
„ „ „ (Beaufort Rd.)	W. A. Fussell, Esq.	7	5	0	23	30.11	173
„ „ „ (Worle)	Dr. St. John Kemm	5	1	0	...	29.75	203
Bath (Combe Hay Manor)	F. G. Smart, Esq.	5	1	0	...	30.34	195
Wroughton (The Rectory)	Rev. G. M. Ashdown	5	5	0	68	28.51	162
„ (West Hay)	Miss Mary B. Harrison	5	2	0	100	29.33	149
Chew Magna	Bristol Water Works	5	1	0	160	31.30	185
Pensford Vicarage	Rev. H. H. Tripp	5	1	0	245	29.03	203
Bath (Royal Institution)	The Librarian	6	8	0	75	24.75	165
§ „ (Henrietta Park)	Dr. W. H. Symons	5	1	0	67	25.02	164
„ (Statutory Hospital)	„ „ „	5	1	0	520	27.69	183
„ (Kingswood School)	„ „ „	5	1	0	620	25.52	147
„ (Hampstead, Combe Park)	„ „ „	5	1	0	165	23.89	148
„ (Charlcombe)	J. Dent Young, Esq. C.E.	8	2	0	325	24.48	175
Batheaston	Col. Linley Blathwayt	5	1	0	166	25.65	182
„ „ „ M	„ „ „	5	1	0	166	26.01	...
„ Reservoir	J. Dent Young Esq., C.E.	6	2	0	248	29.72	185
Yatton (Chelvey)	Bristol Water Works	8	0	8	40	30.96	149
Barrow Gurney Reservoir	„ „ „	5	1	0	320	33.12	181
Long Ashton Estate Office	H. B. Napier, Esq.	8	1	0	134	31.45	159
Flax Bourton (Tyntesfield)	Antony Gibbs, Esq.	5	1	7	320	28.67	165
Clevedon (The Knoll)	Miss Woodward	5	1	0	120	30.34	166
„ (Water Works)	E. Button, Esq.	5	0	9	28	32.08	210
Bristol (Coronation Road)	H. C. Martin, Esq.	5	0	10	50	24.65	...
Wraxall Rectory	Rev. H. Vaughan	5	0	11	191	35.66	188
Abbots Leigh	Sir Henry Miles, Bart.	5	1	0	320	32.80	182
Failand House [Bristol]	Miss Agnes Fry	5	1	0	385	32.83	188

## DIVISION VI.—WEST MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\cdot 01$ or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>WEST GLOUCESTERSHIRE.</b>						
Monkswood Reservoir [Bath] ...	J. Dent Young Esq., C.E.	5	1 0	365 $\uparrow$	27-29	200
Bristol Docks (Underfall Yard) ...	W. W. Squire, Esq., C.E.	8	19 6	45 $\nearrow$	25-99	167
" (Telephone Avenue) .....	Bristol Water Works..	...	...	...	28-06	161
Clifton (Harley Place) .....	Miss Hooper .....	5	1 5	260	30-22	186
" (Durdham Down) .....	Mrs. Dix .....	6	1 6	310	31-23	186
" (Pembroke Road) .....	R. F. Sturge, Esq. ...	8	0 10	215	32-22	189
" College .....	D. Rintoul, Esq. ....	8	1 2	230	30-92	160
" (Stoke Bishop) .....	H. L. P. Lowe, Esq. ...	8	1 0	230 $\uparrow$	29-97	171
Fishponds (The Grove) .....	H. H. Harding, Esq. ...	5	1 0	160 $\uparrow$	28-23	183
Bristol (Ashley Down) .....	P. W. May, Esq. ....	8	1 1	210 ?	28-88	181
Westbury-on-Trym (Cote House)	Mrs. Ames .....	8	1 3	243 $\nearrow$	31-30	170
Pucklechurch .....	Rev. S. G. Gillum .....	5	0 10	374 $\uparrow$	27-85	193
Avonmouth (Bristol Docks) .....	W. W. Squire, Esq., C.E.	12	3 2	12	26-13	151
Filton .....	F. W. Gayner, Esq. ...	5	2 0	200	26-78	181
Chipping Sodbury (Stanshawes Ct)	R. N. Hooper, Esq. ...	5	1 3	280 $\nearrow$	27-18	170
" " (The Ridge) ...	P. Burges, Esq. ....	5	1 4	357 $\uparrow$	26-73	174
Patchway (Over Court Park) ...	R. C. C. Lippincott, Esq.	5	0 11	147 $\uparrow$	30-00	216
" " " Garden) ..	" " " " " "	8	1 0	137 $\uparrow$	28-01	215
Badminton .....	Mr. W. Nash .....	5	1 0	407	29-29	172
Wickwar Rectory .....	Rev. Canon R. J. Lyon	5	1 0	260 $\nearrow$	27-14	165
Alderley .....	Gen. R. Hale .....	5	1 0	310 $\uparrow$	30-12	..
Tortworth Court .....	The Earl of Ducie .....	8	1 0	264	28-33	183
Dursley .....	John Richards, Esq. ...	5	1 0	257 $\uparrow$	31-83	181
Berkeley (Castle Gardens) .....	Mr. R. Shore .....	5	1 6	62 $\uparrow$	26-10	153
" (Sharpness Docks) .....	F. A. Jones, Esq., C.E.	5	3 6	50	25-69	165
Amberley (Glen View) .....	C. C. Pratt, Esq. ....	5	1 2	600 $\uparrow$	29-80	186
Chalford (Hyde House) .....	Piers F. Legh, Esq. ...	5	1 6	545 $\uparrow$	30-54	168
Lydney (Clanna) .....	Captain W. B. Marling	5	1 0	260 $\uparrow$	31-41	167
Stroud (Stanley Park) .....	Capt W. J. Paley Marling	8	1 0	365 $\uparrow$	29-17	158
" (Upfield) .....	Miss Stanton .....	5	1 0	226 $\nearrow$	26-79	172
Stonehouse (Wycliffe College) ..	W. A. Sibly, Esq. ....	6	1 0	125	26-41	180
" (Parklands) .....	W. Grey Robinson, Esq.	8	2 6	103 $\uparrow$	22-21	165
Whitminster .....	F. A. Jones, Esq., C.E.	5	1 0	32 $\nearrow$	23-44	169
Haresfield Court .....	Mr. S. Pearce .....	5	1 0	100	24-50	173
Harescombe Grange .....	Miss Mary Hutton .....	5	1 0	545 $\nearrow$	24-87	203
Forest of Dean (Whitemead Park)	Meteorological Council.	8	1 0	200	30-22	163
" " " (Blakeney Hill Lo.)	" " " "	8	1 0	700	28-23	163
" " " (Worcester Lodge)	" " " "	8	0 11	550	26-75	147
" " " (Braceland) .....	" " " "	8	1 0	500	30-80	169
" " " (Edgehills Lodge)	" " " "	8	1 0	700	27-97	157
" " " (Ruardean Hill Lo.)	" " " "	8	...	900	28-09	149
Westbury-on-Severn (Chaxhill) ..	Mrs. Grant .....	5	3 0	122 $\uparrow$	26-71	178
Quedgeley House .....	Col. Curtis Hayward ...	5	1 0	65 $\uparrow$	23-18	150
Painswick (Cotswold Sanatorium)	F. K. Etlinger, Esq. ...	5	1 1	800	28-96	163
Birdlip Hill .....	No. 1 A. S. Helps, Esq. ....	5	1 0	800 $\nearrow$	26-20	180
" " " " " " " " " " " "	No. 2 " " " " " " " " " "	5	1 0	800 $\nearrow$	26-76	181
Witcombe Reservoir .....	R. Read, Esq., C.E. ...	8	3 0	297 $\nearrow$	26-26	157
Mitcheldean (Blaisdon) .....	P. Stubs, Esq. ....	5	1 0	117 $\nearrow$	26-03	201

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain.	Days with 0.1 or more recorded.
			Height Above Ground	Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.
<b>W. GLOUCESTERSHIRE—(<i>con.</i>)</b>						
Mitcheldean (Blaisdon).....	M. P. Stubs, Esq. ....	5	1	0	117 $\nabla$	25.79 ..
D Gloucester (Hempsted) .....	F. A. Jones, Esq., C.E. ....	5	1	0	72 $\nabla$	20.89 165
D „ (Gloucester Park) .....	G. Embrey, Esq. ....	8	1	0	50	22.13 194
D „ (Belgrave Road) .....	W. Piffe Brown, Esq. ....	5	1	0	52 $\nabla$	21.32 188
D „ (Barnwood Vicarage) .....	Rev. F. H. Fowler.....	5	1	0	80	23.45 180
D „ (Llanthony Lock) .....	E. D. Marten, Esq., C.E. ....	5	1	2	39 $\nabla$	21.55 161
D „ (Churcham) .....	L. H. Hall, Esq. ....	5	2	3	90 $\nabla$	22.64 157
D „ (Wotton Asylum) .....	R. B. Smyth, Esq., M.D. ....	8	0	9	88 $\nabla$	21.55 164
D Dowdeswell .....	J. S. Pickering, Esq., C.E. ....	5	0	10	357	28.06 168
D Gloucester (Maisemore Lock) ..	E. D. Marten, Esq., C.E. ....	5	1	1	39 $\nabla$	21.27 191
D Cheltenham (Northfield) .....	J. S. Pickering, Esq., C.E. ....	8	5	0	637 $\nabla$	23.02 181
D „ (Hewletts Res.) ..	„ „ „	8	1	6	419 $\nabla$	23.73 179
D „ (Sandford) .....	„ „ „	5	2	6	210	23.59 146
„ (Kemerton Lodge) ..	Rev. Percy Burd .....	5	1	0	211	21.98 186
„ .....	Royal Meteorological Soc. ....	5	1	0	185	22.41 177
D „ (Prestbury) .....	J. W. Guy, Esq. ....	5	0	10	...	25.57 230
D Winchcombe .....	J. Halliwell, Esq. ....	5	1	2	295 $\nabla$	26.41 177
D Tewkesbury (Upper Lode) .....	E. D. Marten, Esq., C.E. ....	5	1	0	41 $\nabla$	20.45 ..
D „ (Beckford) .....	F. Slade, Esq., C.E. ....	8	1	0	120 $\nabla$	21.79 196
<b>EAST GLOUCESTERSHIRE.</b>						
D Fairford (Kempsford) .....	A. T. Iles, Esq. ....	5	1	0	250 ?	22.45 177
D „ (The Close) .....	W. Cobbett Arkell, Esq. ....	5	1	9	...	26.92 163
D „ (Horcott) .....	G. Hill, Esq. ....	5	1	0	280 ?	22.47? ...
D „ (Draycott) .....	C. W. Edmonds, Esq. ....	5	2	0	300	27.42 168
D „ (The Croft House) .....	C. H. Bloxsome, Esq. ....	5	1	0	300	27.28 152
D Lechlade .....	T. Arkell, Esq. ....	5	0	9	253	23.37 179
„ (Southrop) .....	Thomas Arkell, Esq. ....	...	1	0	...	25.16 ...
§ Cirencester (Roy. Agricult. Coll.)	Meteorological Council. ....	5	1	0	443	28.75 187
D „ (Cripps Mead) .....	Mrs. Wilfred Cripps ...	5	0	8	366 $\nabla$	28.85 190
D „ (Dollarward House) ..	C. P. Hooker, Esq. ....	5	1	6	366	30.53 192
D „ (Further Barton) ..	Miss J. E. A. Brown ...	5	1	0	422 $\nabla$	30.40 185
D Fairford (Hatherop Rectory) ..	the late Rev. R. P. Davies	8	1	3	411 $\nabla$	26.94 166
D Northleach (Sherborne House) ..	Mr. A. Mitchell .....	5	1	0	420	28.14 142
D „ (Leygore Manor) ..	Arthur E. Moss, Esq. ....	5	1	0	750	25.37 196
D Bourton-on-the-Water .....	E. W. Kendall, Esq. ....	5	1	0	434 $\nabla$	27.64 153
„ „ „ (Chardwar) ..	G. F. Moore, Esq. ....	5	2	6	430	28.03 162
D Stow-on-the-Wold (Oddington) ..	Rev. H. B. Heberden ..	5	0	9	400 $\nabla$	24.52 155
D Moreton-in-Marsh (Longborough)	W. Arkell, Esq. ....	5	1	0	575	29.81 158
Chipping Campden (Braithwaite Ho.)	Fleetwood C. Varley, Esq.	5	1	0	460 $\nabla$	25.55 ...
D „ „ (Hidcote Ho.)	Major W. Wright .....	5	1	0	525	21.85 140
<b>HEREFORDSHIRE.</b>						
D Walford-on-Wye (Vicarage) ..	Rev. Kentish Bache ...	5	3	0	112 $\nabla$	26.21 196
Ross .....	H. M. Purchas, Esq. ....	5	1	3	123 $\nabla$	23.23 179
D „ (The Graig) .....	H. Southall, Esq. ....	5	1	0	213 $\nabla$	23.35 205
D Upton Bishop (The Baches) .....	W. Hogarth, Esq. ....	5	1	0	300	20.47 ...

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>HEREFORDSHIRE—(con.)</b>						
Ross (Perrystone Court) .....	Mrs. G. Clive .....	5	1 3	...	22·15	159
Much Dewchurch (Bryngwyn)... ..	Sir J. Rankin, Bt., M.P. ....	5	0 9	416 A	27·21	160
Allensmore (Whitfield).....	G. T. Bates, Esq. ....	6	1 3	452 I	25·54	...
D Much Marcle (Caerswall) .....	J. A. H. Charles, Esq.. ...	5	1 0	423 B	24·62	219
D " " (The Mount) .....	T. Charles, Esq.....	5	0 8	240 A	21·39	198
D Fownhope (Morney Cross) .....	O. E. Cresswell, Esq....	5	1 5	...	21·01	157
D Woolhope (Wessington Court)... ..	Miss L. Grafton.....	5	1 0	440	22·99	171
D Ledbury (Orchardleigh) .....	M. A. Wood, Esq.....	5	3 6	180	22·15	159
D " (Underdown) .....	S. H. Bickham, Esq....	5	1 0	307 A	22·14	179
" " " " " " " " " " " "	" " " " " " " " " " " "	5	1 0	306 A	21·01	...
" (Putley Court) .....	J. Riley, Esq.....	5	1 0	290	25·02	180
§ Hereford (St. Michael's Priory)..	Rev. H.L.Byrne,O.S.B. ....	8	1 0	291 A	24·95	183
D " (Broomy Hill) .....	Capt Norman H Matthews ..	5	1 0	217 A	22·15	171
D " (Breinton Court) .....	H. A. Wadworth, Esq. ....	5	1 0	238 I	22·81	168
" (Hinton Court) .....	A. Battiscombe, Esq....	5	1 0	170 I	25·17	184
" (St. Owen Street) .....	Mrs. Jay Jones .....	5	6 0	190 I	21·44	...
D Lugwardine (The Laurels) .....	Mr C. J. Johnstone ...	5	1 0	270 A	22·14	183
D Hereford (Holmer Hall) .....	Rev. M. Hopton.....	8	1 3	241	19·83	188
Yarkhill Vicarage.....	Rev. A. G. Jones .....	8	1 0	200 I	21·49	162
D Credenhill .....	R. M. Whiting, Esq....	5	1 0	280 I	24·18	174
D Hereford (Burghill Court) .....	Miss E. D. Woodhouse ..	5	0 10	293 I	23·13	181
D Hope-u-Dinmore (Hampton Ct.)	late J.H.Arkwright, Esq	8	1 2	212 B	25·24	173
Huntington Court.....	E.Radelyffe Crump, Esq. ....	5	1 1	833 I	32·44	215
D Pembridge (Dilwyn).....	Dr. T. Lambert Hall... ..	5	0 8	290 I	22·80	175
" (Burton Court) .....	Col. P. L. Clowes .....	...	...	350 ?	21·48	...
Kington (Lynhales) . . . . .	S. Robinson, Esq. ....	8	1 0	566	27·65	164
D " (Gravel Hill) .....	Col. G. F. Pearson.....	5	0 8	540 I	28·83	223
D Pembridge (Marston) .....	H. Langston, Esq.....	5	1 5	347 A	22·35	169
D Bromyard (Rowden Abbey).....	H. J. Bailey, Esq. ....	5	4 2	455 A	23·25	188
D " (Buckenhill).....	R. Phipps, Esq.....	8	1 6	213	24·78	166
D Leominster (Farm) .....	Miss Southall .....	5	1 5	268	23·17	192
<b>SHROPSHIRE.</b>						
D Ludlow (Ashford House) .....	W. Downes Hall, Esq. ....	5	0 5	315 I	25·08	183
" (The Sheet) .....	Rev. R. P. Dansey.....	5	1 0	370 I	26·14	178
D Bromfield (Oakly Park) .....	Mr. T. Reason .....	5	1 0	300	24·55	213
D " Vicarage .....	Rev. W. Selwyn .....	5	1 0	300 I	24·54	177
D Clunbury Vicarage .....	Rev. W. Clark Maxwell ..	5	1 0	497 A	26·14	163
D Craven Arms (Stokesay Vicarage)	Rev. W.M.D. La Touche ..	5	1 0	372 A	24·13	166
Bishops Castle (Totterton) .....	W. H. Whitaker, Esq. ....	5	0 7	700	28·79	...
D " " (Castle Street) ...	E. Griffiths, Esq. ....	5	2 0	720 B	26·77	179
D " " Vicarage .....	Rev. C. E. Warner ...	5	1 6	596 A	28·67	193
" " (Lydham Manor) .....	A. H. Sykes, Esq.....	8	1 6	740	24·38	...
" " (More Rectory)....	Rev. Ridley Relton ...	6	0 11	600 I	24·89	...
Bridgnorth (Coton Hall) .....	E. M. Wakeman, Esq. ....	5	1 6	460	23·89	155
D Church Stretton .....	Rev. R. P. Dansey ...	5	1 0	645 A	28·71	202
D Bridgnorth (Hookfield House) ...	Rev. Preb. F. Burd ...	5	0 11	273 A	22·14	205
D " (Cantreyn Bank) ...	Rev. H. M. Stallybrass ..	6	3 9	320 A	19·49	142



## DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>STAFFORDSHIRE—(con.)</b>						
Lichfield (Maple Hayes) .....	A.O. Worthington, Esq.	5	0 11	380	19·91	...
D Penkridge (Rodbaston) .....	the late H. Ward, Esq.	5	1 0	324 $\nabla$	22·69	174
D Hednesford (Scout House) .....	H. A. Hill, Esq., C.E.	5	1 0	750 $\nabla$	22·17	143
Shugborough .....	The Earl of Lichfield...	5	1 0	260	25·85	193
D Burton (Rangemore) .....	Mr. W. Bennett .....	5	5 6	424 $\nabla$	21·74	183
„ (Trent Cottage) .....	J. L. P. Barber, Esq. ...	5	1 0	150	21·75	185
„ (Hamilton Road) .....	M. L. Nicholas, Esq. ...	5	1 6	270	22·81	200
D „ (Shobnall) .....	Messrs. Bass & Co. ...	5	5 6	156 $\nabla$	21·96	146
„ (Hoar Cross) .....	F. W. Lycett, Esq. ....	8	4 0	400 $\nabla$	26·01	...
Stafford (Eastgate Street) .....	C. H. Greaves, Esq. ...	5	1 2	...	22·62	...
„ .....	W. Fred. Wright, Esq.	5	2 6	258 $\nabla$	23·84	172
„ (West Bank, Doxey) M	Leslie Wilson, Esq. ...	5	0 6	280 $\nabla$	22·82	...
D Salt Vicarage .....	Rev. S. W. Jones .....	8	0 8	273	23·61	184
Eccleshall (Walton Hall) .....	H. A. Wiggin, Esq. ...	5	1 0	344 $\nabla$	25·53	183
D Market Drayton (Old Springs)...	F. E. Harding, Esq. ...	5	1 0	423 $\nabla$	24·96	178
D Maer Hall Gardens .....	Mr. J. Harris .....	5	1 6	390 $\nabla$	27·20	211
D§Cheadle (The Heath House) .....	J. C. Philips, Esq. ....	5	1 0	647 $\nabla$	26·25	182
D Longton (The Meir) .....	G. D. Harrison, Esq. C.E.	5	1 0	618 $\nabla$	24·61	172
D Betley Hall [Crewe] .....	Col. J. A. Macdonald...	5	1 0	270	26·39	201
D Stoke (Hartshill) .....	J. W. Knight, Esq. ...	5	1 0	485 $\nabla$	27·04	199
D Leek (Wall Grange) .....	G. D. Harrison, Esq. C.E.	5	1 0	458 $\nabla$	28·72	181
Knypersley [Congleton] .....	E. B. Smith, Esq., C.E.	5	3 1	550 $\nabla$	30·12	...
Rudyard Reservoir .....	„ „ „	5	12 7	500 $\nabla$	25·02	...
<b>WORCESTERSHIRE.</b>						
Blockley (Upton Wold) .....	E. W. Arkell, Esq. ...	5	1 0	...	27·85	143
Northwick Park .....	The Lady Northwick...	8	1 6	410 $\nabla$	24·81	...
Shipston (Tidmington House) ...	Miss Staunton .....	5	1 1	...	25·39	...
Upton-on-Severn (Willow Bank)	J. S. Cowley, Esq. ....	5	1 3	42	20·33	172
D „ „ (The Eades) ...	Major E. W. Tennant..	5	0 9	100 $\nabla$	20·47	200
„ „ (Earl's Croome)	A. Marston, Esq. ....	5	1 2	100 $\nabla$	20·46	177
†Evesham (Lansdowne) .....	R. Burlingham, Esq. ...	6	5 0	108 $\nabla$	20·41	...
D Gt. Malvern (British Camp Res.S.)	W. Osborne Thorp, Esq., C.E.	5	1 7	670 $\nabla$	24·62	145
„ „ ( „ „ „ N.)	„ „ „	5	0 11	673 $\nabla$	24·66	146
D „ „ (Church Street) .....	„ „ „	5	1 0	330 $\nabla$	22·61	151
D§ „ „ (Belle Vue House)...	A. Mander, Esq. ....	5	4 0	520	23·95	167
„ „ (Madresfield Rect.) ..	Rev. G. S. Munn .....	5	1 4	124 $\nabla$	20·53	...
D „ „ ( „ Court) ..	Mr. W. Crump .....	8	2 6	125 $\nabla$	20·61	162
D Worcester (Boughton Park) .....	Mrs. Isaac .....	5	1 0	82 $\nabla$	23·15	164
D „ (Diglis Lock) .....	E. D. Marten, Esq., C.E.	5	1 0	49 $\nabla$	21·11	175
D „ (Belmont Road) .....	G. B. Wetherall, Esq..	5	1 8	180 $\nabla$	21·22	175
D „ (Water Works) .....	T. Caink, Esq., C.E. ...	5	0 9	56 $\nabla$	19·79	171
D „ (Bevere Lock) .....	E. D. Marten, Esq., C.E.	5	1 1	52 $\nabla$	20·95	168
D Droitwich (Himbleton Manor) ...	Lady Galton .....	5	1 0	188 $\nabla$	21·61	141
D Worcester (Hawford Lodge) .....	F. Ames, Esq. ....	5	1 1	70	24·57	141
D Martley .....	Rev. J. F. Hastings ...	5	1 0	280 $\nabla$	22·00	175
Droitwich (Holt Lock) .....	E. D. Marten, Esq., C.E.	5	1 1	55 $\nabla$	22·16	...

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea level		
		in.	ft. in.	feet.	inches.	
<b>WORCESTERSHIRE—(con.)</b>						
Tenbury (Rochford) .....	Rev. J. Tomson .....	5	1 0	317 $\pi$	22.16	...
D Bromsgrove (Tardebigge Res.)...	F. A. Jones, Esq., C.E.	5	3 0	433 $\Gamma$	23.64	182
D „ (Stoke Reformatory) .....	Mr. J. Salter .....	5	5 4	225	21.43	145
D „ (Upwood, Barnt Green) .....	Miss M. Gibbins .....	5	0 10	600	20.68	163
D Stourport (Lincombe Lock) .....	E. D. Marten, Esq., C.E.	5	1 0	62 $\pi$	22.27	165
„ (Areley Hall) .....	S. Zachary Lloyd, Esq.	5	0 5	70 $\Gamma$	23.13	146
D Bromsgrove (Lower Bittal Res.) .....	F. A. Jones, Esq., C.E.	5	3 0	430 $\Gamma$	26.05	216
D† Bewdley (Beaucaastle) .....	George Baker, Esq. ...	5	0 9	450 $\mathcal{B}$	20.68	143
D† „ (Winterdyne) .....	Miss K. M. Sturt .....	5	1 0	...	20.85	169
D† Kidderminster (Prospect Hill) .....	Mr. J. T. Cowderoy ...	5	4 6	161 $\pi$	20.54	158
Stourbridge (Pedmore) .....	E. B. Marten, Esq., C.E.	8	0 11	350 $\pi$	26.15	189
„ (Longlands) .....	„ „ .....	8	0 9	258 $\pi$	23.47	194
D Northfield (Longbridge) .....	Mrs. F. Impey .....	5	0 9	560 $\Gamma$	26.66	162
D „ (West Heath House) .....	A. J. Brown, Esq. ....	5	1 0	...	24.76	197
Kings Heath (Cambridge Rd.) (R) .....	J. H. Webb, Esq., C.E.	5	10 0	526 $\pi$	23.74	166
D „ (Brandwood House) .....	G. F. Lyndon, Esq. ...	5	1 0	550 $\Gamma$	24.41	196
Selly Oak Cemetery .....	Mr. W. Garden .....	5	1 4	540 $\Gamma$	23.62	163
Stechford (Tubortha House) .....	H. H. Newark, Esq. ...	5	1 3	360 $\mathcal{B}$	19.94	...
Moseley (Prospect Road) .....	Rev. F. Oscar Lane ...	5	1 0	550 $\Gamma$	24.51	...
Dudley (Trindle House) .....	E. B. Marten, Esq., C.E.	8	1 0	575	23.84	158
<b>WARWICKSHIRE.</b>						
Long Compton (Weston Park) .....	H. A. Warriner, Esq. ...	8	3 0	510 $\Gamma$	25.20	138
Shipston (Honington Vicarage) .....	Rev. E. H. Boddington	5	0 10	215 $\Gamma$	21.44	153
Farnborough .....	Miss Prater .....	5	1 0	515 $\Gamma$	25.78	...
Burton Dassett Vicarage .....	Mrs. Westacott .....	5	16 6	525 $\gamma$	21.49	...
D Stratford-on-Avon (Atherstone-on-Stour)	Rev. F. Smith .....	12	4 0	135	21.34	141
„ „ (Avonfield) .....	G. W. Everard, Esq. ...	5	0 10	120 $\Gamma$	21.06	133
D „ „ (Shottery Hall) .....	R. Carter, Esq. ....	5	0 8	140 $\Gamma$	20.67	157
Alcester (Ragley Hall) .....	The Marquis of Hertford	5	1 0	260 $\Gamma$	21.46	166
D Warwick (Barford Rectory) .....	Rev. W. S. Parker ...	8	0 11	167 $\pi$	21.01	166
D Leamington (Radford House) ..	C. E. G. Hatherell, Esq.	5	1 2	240 $\Gamma$	20.23	163
„ (Binswood Avenue) .....	Rev. A. Corbet .....	5	0 9	...	21.97	...
Warwick (Hatton Vicarage) .....	Rev. H. Trethewy .....	5	1 0	384 $\Gamma$	21.64	165
Milverton (Latmos) .....	Rev. E. Healy .....	5	1 0	191 $\Gamma$	19.39	...
Leamington (Cubbington) .....	Mrs. Robins .....	6	1 0	280 $\Gamma$	21.02	...
Kenilworth (The Spring) .....	W. Evans, Esq. ....	5	1 0	312 $\pi$	21.21	...
Rugby (Temple Observatory) .....	O. M. Samson, Esq. ...	5	1 1	383 $\Gamma$	20.46	181
D „ (Bilton Grange) .....	W. H. G. Southcomb, Esq.	5	1 0	400	19.69	152
D Coventry (City Hospital) .....	E. H. Snell, Esq., M.D.	8	1 0	269 $\Gamma$	19.98	168
D „ (Kingswood) .....	R. B. Caldicott, Esq. ...	8	1 0	340 $\Gamma$	20.88	147
D Hampton-in-Arden (Hampton Manor)	Mr. Neil Sinclair .....	8	0 7	345 $\Gamma$	23.13	172
D Coventry (Keresley Grange) .....	Miss H. Rotherham ...	5	0 10	413	22.75	224
D Birmingham (Sheldon Rectory) ..	Mrs. Jones-Bateman ...	8	1 0	323	25.69	169
D „ (Edgbaston) .....	A. Cresswell, Esq. ....	5	1 0	525	21.94	148
„ (Botanic Gardens) .....	Mr. T. Humphreys ...	5	5 5	505 $\Gamma$	22.24	174
D „ (The Crescent) .....	J. J. Gilbert, Esq. ....	10	21 0	495 $\pi$	19.69	141
„ ( „ „ ) ... M	„ „ „ .....	5	7 0	480 $\pi$	21.25	...



## DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.	
		Diameter	Height above Ground.		Height above Sea Level		1904
		in.	ft.	in.	feet	inches.	
WARWICKSHIRE—(con.)							
d Bedworth Cemetery .....	Mr. B. Bosworth .....	5	1	0	385 f	21.49	137
Nuneaton (Chilvers Coton Vic.)..	Rev. R. Chadwick .....	5	0	10	283 f	19.83	...
d Witton Reservoir .....	E. Antony Lees, Esq..	5	3	0	347 f	20.09	163
d Whitacre (Birmingham W.W.)..	" " " "	5	1	5	269 f	23.58	223
d Sutton Coldfield (The Park).....	Mr. H. Harlond.....	5	1	0	371 f	21.41	167
d Atherstone .....	Baldwin Latham Esq CE	5	1	0	286 f	22.29	170

## DIVISION VII.—NORTH MIDLAND COUNTIES.

LEICESTERSHIRE.

D	Kibworth Beauchamp .....	E. V. Phillips, Esq. ...	5	2	6	355 T	20-59	137
	Wistow Hall Gardens .....	<i>Press-cutting</i> .....	5	...	...	270 P	19-81	...
	Hallaton Hall.....	S. N. Bankart, Esq. ...	8	1	3	366	25-38	...
	Newton Harcourt .....	Hon. T. F. Fremantle..	5	1	0	350 T	18-43	...
	Horninghold House .....	A. Cross, Esq. ....	5	1	6	380	20-49	...
	" " float g.	" " .....	6	2	0	380	18-80	...
	Blaby .....	G. F. Shoults, Esq. ...	5	0	6	236	20-78	135
D	Glen Parva (S.Wigston Sew. Fm.)	Mr. W. G. J. Clark ...	8	0	5	231 A	20-11	148
D	Leicester (Town Hall Square) ...	E.G.Mawbey, Esq., C.E.	5	0	6	211 A	19-10	167
D	" (" " " ) <sup>(R)</sup>	" " .....	7	2	0	213 A	19-09	167
	" (Humberstone Asylum)	J.E.M.Finch, Esq., M.D	8	1	0	266 A	22-74	201
D	Thornton Reservoir .....	Leicester WWCommittee	8	1	2	371 A	24-42	158
D	Thurcaston Rectory .....	late Rev. T. A. Preston	5	1	0	253 T	21-85	184
D	" (Cropston) .....	Leicester WWCommittee	8	1	0	246 A	25-85	170
D	Syston .....	S. K. Daniels, Esq. ...	5	1	6	180 T	22-96	152
D	Swithland (The Brand) .....	Leicester WWCommittee	8	1	0	172 A	24-08	166
D	Ratcliffe-on-Wreake College ...	Rev. J. Cremonini .....	5	1	0	300 T	22-94	153
D	Ashby-de-la-Zouch(ColeOrtonHall)	F. A. Smith, Esq.....	6	0	6	540 T	25-09	161
D	Barrow-upon-Soar.....	Mrs. C. Stuart Thomson	5	1	6	...	21-53	144
D	Charnwood Forest (Blackbrook Res.)	A.H. Walker, Esq., C.E.	8	1	0	310	24-88	153
D	Loughborough (Nan PantanRes.)	" " .....	8	1	0	269 A	24-65	169
	" (The Widening's).	Adrian Young, Esq. ...	5	0	7	150 T	24-55	178
D	" (Sewage Farm)...	A.H. Walker, Esq., C.E.	8	1	0	134 A	22-57	162
D	Burton-on-the-Wolds .....	Lord Percy St. Maur...	6	0	9	...	22-16	149
D	Prestwold Hall .....	Hussey Packe, Esq. ...	8	1	0	209 A	23-19	184
D	Belvoir Castle.....	W. H. Divers, Esq. ...	8	1	0	260 T	21-95	187

RUTLAND.

Uppingham (Ridlington) .....	N. W. Wortley, Esq....	5	4	7	527	21-39	159
Tinwell (Glebe Farm) .....	H. Edwards, Esq. ....	5	1	1	...	19-94	149
Tolethorpe Hall [Stamford].....	C. O. Eaton, Esq. ....	8	0	8	161 T	18-05	140
Market Overton .....	Miss Grace Wingfield...	8	0	11	475 T	22-23	154
Stocken Hall .....	Lady Francis Cecil ...	5	0	9	365 T	23-52	150

## DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea level	1904	
		in.	ft. in.	feet.	inches.	
<b>SOUTH LINCOLNSHIRE.</b>						
(HOLLAND AND KESTEVEN.)						
d Market Deeping (Wilsthorpe) ...	J. C. Gill, Esq., C.E....	8	3 10	53 $\pi$	16.55	144
Spalding (Pode Hole) .....	Mr. W. Grigg .....	12	1 0	20 $\pi$	22.25	...
Grantham (Stainby) .....	Rev. W. A. H. Thorold	5	0 9	496	18.06	...
d „ (Denton Manor) .....	Sir C. Welby, Bt., M.P.	5	1 0	275 $\uparrow$	23.61	193
d „ (Little Ponton Rect.) .....	Rev. P. R. Worsley ...	5	1 0	250 $\uparrow$	23.45	180
d „ (Saltersford) .....	H. Preston, Esq. ....	5	0 6	188 $\pi$	20.55	166
d „ (Guildhall) .....	F. J. Morris, Esq. ....	5	13 6	202 $\pi$	19.84	142
d „ (High Street) .....	Messrs. R. & W. Bird..	5	1 0	202	19.70	137
d Horbling (The Hall) .....	Mr. C. E. Smith.....	8	1 3	35 $\pi$	21.88	174
d Boston (Black Sluice, Skirbeck).	F. S. Robins, Esq., C.E.	8	1 3	19 $\pi$	19.98	145
d „ (Grand Sluice) .....	J. H. Johnson, Esq., C.E.	8	8 0	18	18.85	146
d „ .....	W. H. Wheeler, Esq. C.E	5	6 6	25 $\pi$	20.32	122
d Sleaford (Rauceby Hall) .....	Gen. Sir M Willson, KCB	5	1 0	125 $\uparrow$	22.69	185
Leake (Lade Bank Engines).....	J. H. Johnson, Esq., C.E.	8	1 0	10 $\pi$	19.92	...
d Stubton [Newark] .....	G. Neville, Esq. ....	5	4 6	99 $\uparrow$	20.34	161
d Fulbeck .....	Rev. V. F. Willson ...	5	0 8	180 $\pi$	19.66	176
Leadenham Rectory .....	Rev. V. E. Skrine.....	5	1 2	150	18.98	153
Sleaford (Bloxholm Hall) .....	Mr. W. Lumsden .....	5	1 6	68 $\pi$	19.25	133
d Welbourn .....	Miss M. Burttt .....	5	3 6	120 $\uparrow$	18.60	154
§ Temple Bruer .....	Miss A. S. Morley .....	5	1 0	300 $^?$	21.46	161
Navenby Rectory .....	Rev. Canon G. T. Harvey	5	1 0	218 $\uparrow$	20.37	159
d Carlton-le-Moorland .....	J. Brocklebank, Esq....	5	1 2	49	18.05	143
Lincoln (Branston) .....	A. S. Leslie Melville, Esq	5	1 3	122 $\pi$	20.20	149
d „ (Boultham) .....	Mr. F. Terrill.....	5	1 0	19 $\pi$	22.02	147
d „ (Doddington Rectory)...	Rev. R. E. G. Cole ...	5	1 2	92 $\pi$	19.60	147
„ (Skellingthorpe Hall)...	A. H. B. Coupland, Esq.	5	1 0	...	20.10	144
<b>NORTH LINCOLNSHIRE.</b>						
(LINDSEY.)						
d Carrington Grange .....	Mr. T. J. Ward .....	5	6 0	15 $\pi$	21.29	159
Kirkstead .....	Mr. R. H. Brett.....	5	1 3	...	20.76	...
§ Horncastle (Mareham-le-Fen) ...	Meteorological Council.	5	1 0	35	22.38	175
d „ (Revesby) .....	J. Shaw, Esq. ....	5	2 0	135 $\pi$	22.53	135
d Skegness .....	S. Coetmore Jones, Esq.	8	1 0	13	21.02	178
d Spilsby (Hagnaby Priory) .....	Miss Pocklington .....	8	1 8	47 $\pi$	24.43	160
d „ (East Keal Manor) .....	A. M. Wilson, Esq. ...	8	1 0	181 $\pi$	22.30	170
d „ .....	Dr. J. W. Walker.....	5	1 0	160 $\uparrow$	24.63	176
d „ (Ashby Road) .....	J. Jarvis Rainey, Esq..	5	1 0	160 $\uparrow$	22.74	169
d „ (Hagworthingham) .....	Mr. R. Wright .....	5	1 1	252 $\pi$	25.19	154
d „ (Dalby Grange) .....	J. H. Wright, Esq. ...	5	1 4	250	25.73	176
Horncastle (Bucknall) .....	W. Carter, Esq. ....	5	1 6	50	18.11	...
d „ .....	H. K. Maynard, Esq....	5	1 5	110	23.07	172
d Lincoln (St. Botolphs) .....	A. M. Swift, Esq. ....	5	1 2	25 $\pi$	20.07	145
d „ (St. Catherines) .....	J. H. Teague, Esq. ....	5	5 6	33 $\uparrow$	21.37	138
d „ (Brayford Wharf) .....	Mr. J. W. Horton .....	5	5 8	28 $\pi$	19.59	154
„ (Station) .....	Great Central Rly. Co.*	9	3 6	26	18.58	143
d „ (Monk's Road).....	W. H. Curtin, Esq. ...	5	1 0	60	19.72	166

\* Kept for the Canal Department of the Great Central Railway Company.

Returns supplied by G. Taylor, Esq.

## DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>NORTH LINCOLNSHIRE</b>						
(LINDSEY)— <i>con.</i>						
D Lincoln (The Close) .....	C. J. Bromhead, Esq...	8	1	0	185 $\nabla$	19.56
„ (D'Isney Place) .....	A. H. Leslie Melville Esq	4	1	0	215 $\nabla$	20.30
Alford (The Burial Ground).....	Mr. E. Hodgson .....	5	1	0	29 $\nabla$	18.79
Scampton House .....	Mrs. G. E. Sandars ...	5	1	11	...	19.62
D Aisthorpe Hall .....	J. Billiat, Esq. ....	5	1	0	77	22.55
Willingham-by-Stow .....	R. C. Bacon, Esq. ....	5	1	6	70 $\nabla$	20.00
Louth (Westgate) .....	Dr. F. Fawcett .....	5	0	9	120 $\nabla$	26.84
Market Rasen.....	Mr. W. B. Jevons .....	5	0	8	84	23.68
„ „ .....	Great Central Rly. Co..	9	3	6	100	22.08
§ „ „ (Tealby) .....	Meteorological Council.	5	4	0	260	26.28
Gainsborough.....	Great Central Rly. Co..	9	...	...	76	15.24
D „ (Morton) .....	J. A. R. Greaves, Esq.	5	1	0	22 $\nabla$	18.22
D „ (N. Sandsfield) ..	Mr. J. Creed .....	5	1	9	21 $\nabla$	19.34
D§ Caistor .....	Mr. Thomas Ford .....	5	3	6	270	23.98
„ (Cabourne) .....	Rev. R. Thomas .....	5	1	2	280 $\nabla$	26.19
Brigg .....	Great Central Rly. Co..	9	3	6	16	20.22
D „ .....	A. Atkinson, Esq., C.E.	8	1	2	11 $\nabla$	23.71
D Grimsby (Irby-on-Humber).....	H. B. Parker, Esq.....	5	1	0	175	23.77
D „ (Abbey Road).....	W. J. Wood, Esq.....	5	3	0	23	21.16
„ .....	Great Central Rly. Co..	9	15	0	42	19.04
Barnetby.....	„ „ „ „	9	3	6	51	20.96
D Brocklesby Park.....	Mr. F. C. Stainsby ...	5	2	0	108	25.94
D N. Level Engine [Thorne] .....	Mr. J. Turner.....	5	2	3	...	18.97
Crowle (Keadby) .....	Great Central Rly. Co.	9	...	...	17	17.05
D Burton on Stather Vicarage .....	Rev. F. A. Jarvis .....	5	1	6	212 $\nabla$	21.85
D Thornton Curtis.....	Rev. C. B. Goodacre ...	8	1	4	100	23.00
D Horkstow .....	E. J. Turton, Esq.....	5	0	10	75 $\nabla$	23.78
Ferriby Sluice .....	A. Atkinson, Esq., C.E.	5	1	0	18 $\nabla$	22.53
New Holland .....	Great Central Rly. Co..	9	3	6	18	17.81
<b>NOTTINGHAMSHIRE.</b>						
D Kingston Hall [Loughborough]..	Mr. W. H. Cooke .....	5	0	9	130	21.46
D Plumtree (Normanton-on-Wolds)	T. A. Hill. Esq.....	8	1	0	170 $\nabla$	21.51
Cropwell Bishop (Cropwell Grove)	H. Smith, jun., Esq.....	5	1	1	160 $\nabla$	20.73
Bingham (Whatton Manor) .....	Capt. M. H. Hall .....	5	3	0	104 $\nabla$	18.13
Nottingham (Beeston Fields) ..	G. Fellows, Esq. ....	5	0	9	206 $\nabla$	21.65
„ (Trent Lane).....	A. Brown, Esq., C.E... 8 0 10	8	0	10	85 $\nabla$	19.96
D „ (The Castle) .....	„ „ „ „ .....	8	1	2	192 $\nabla$	19.73
„ „ „ „ „ .....	„ „ „ „ .....	8	76	0	268 $\nabla$	17.17
D „ (Carisbrook Ho., The Park)	W. Bradshaw, Esq. ...	5	2	0	247 $\nabla$	20.02
D „ (Talbot Street).....	N. S. Ferris, Esq. ....	5	2	0	250	19.78
Radcliffe-on-Trent .....	T. Yates, Esq. ....	5	1	0	...	20.14
D Nottingham (Stoke Bardolph) ..	Mr. A. A. Avis .....	8	1	0	66 $\nabla$	19.44
D§ „ (Strelley) .....	T. L. K. Edge, Esq. ...	8	1	0	396 $\nabla$	19.39
D§ „ „ „ „ „ .....	„ „ „ „ „ .....	5	1	0	379 $\nabla$	19.50
§ „ „ „ „ „ .....	„ „ „ „ „ .....	5	1	0	379 $\nabla$	19.96
„ (Mapperley Hill) ...	E. Powell, Esq. ....	8	1	0	400 $\nabla$	19.29

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>NOTTINGHAMSHIRE—(con.)</b>						
Nottingham (Basford) .....	F. W. Davies, Esq. ....	8	1 0	169 $\pi$	20.43	177
" (Burton Joyce W.W.) .....	" " " " .....	8	0 9	64 $\pi$	21.11	174
Lowdham (Chilwell Nurseries) .....	H. Mellish, Esq. ....	...	...	...	16.32	...
Bulwell (Springfield) .....	G. W. Walker, Esq. ....	5	0 9	166 $\pi$	20.54	...
" (Bestwood) .....	F. W. Davies, Esq. ....	8	1 2	317 $\pi$	22.16	170
Eastwood Colliery .....	the late E. Lindley, Esq. ....	5	1 0	245 $\tau$	21.19	157
Hucknall Torkard (Forge Mills) .....	J. D. Walker, Esq. ....	5	4 3	200 ?	18.64	163
Gonalston Rectory .....	Rev. F. H. Paley .....	5	1 0	84	20.22	184
Papplewick (Water Works) .....	F. W. Davies, Esq. ....	8	0 10	317 $\pi$	23.09	172
Annesley (Selston W.W.) .....	Messrs G. & F. W. Hodson .....	5	1 0	475 $\pi$	20.57	141
Southwell (Westhorpe Hall) ..	General Warsand .....	5	1 0	147 $\pi$	21.04	...
Newark (Averham Rectory) .....	Rev. J. Walker .....	5	0 7	150	18.11	...
Farnsfield .....	Dr. C. Wills .....	5	1 0	210 $\tau$	22.54	186
Sutton-in-Ashfield W.W. ....	Messrs G. & F. W. Hodson .....	5	1 1	462 $\pi$	22.40	150
Mansfield (W.W. Rainworth) ..	" " " " .....	5	1 0	360 $\pi$	23.08	141
" .....	Mr. P. J. Shacklock ..	5	1 0	330	25.30	180
North Collingham .....	E. Turton, Esq. ....	5	1 0	...	20.07	152
South Searle .....	Rev. E. C. Shawfield ..	5	1 4	52	17.21	...
Ollerton (Boughton W.W.) .....	F. W. Davies, Esq. ....	8	0 7	141 $\pi$	24.51	160
" (Thoresby Gardens) ..	Mr. A. Simmons .....	8	0 9	125	24.43	...
Worksop (Welbeck Gardens) ..	Duke of Portland, K.G. ....	5	1 0	196 $\tau$	24.01	139
" .....	Great Central Rly. Co. ....	9	3 6	127	21.38	169
" (Osberton Gardens) ..	Mr. W. Allsop .....	5	4 0	70	20.90	159
Retford .....	Great Central Rly. Co. ....	9	3 6	52	19.00	162
" (Morton Hall) .....	W. H. Mason, Esq. ....	5	1 0	140	20.84	167
" (Babworth Hall) .....	Col. H. Denison .....	5	1 0	92 $\pi$	21.15	...
Worksop (Hodsock Priory) .....	H. Mellish, Esq. ....	8	1 0	56 $\pi$	19.81	165
" ( " " ) .....	" " " " .....	5	1 0	56 $\pi$	19.33	...
Stockwith .....	Great Central Rly. Co. ....	9	3 6	21	18.27	162
Bawtry (Hesley Hall) .....	B. I. Whitaker, Esq. ....	8	0 11	61 $\tau$	19.37	155
<b>DERBYSHIRE.</b>						
Melbourne Vicarage .....	Rev. Canon Singleton ..	5	1 0	177 $\pi$	25.40	172
" (The Hollow) .....	Mr. W. Garratt .....	5	1 0	182 $\pi$	19.47	134
Chellaston .....	H. Chambers, Esq. ....	5	1 0	170 $\tau$	20.90	179
Willington (W.W. Milton) .....	Messrs G. & F. W. Hodson .....	5	1 0	134 $\pi$	19.68	138
Findern (The Longlands) .....	Rev. B. W. Spilsbury ..	5	0 9	186 $\pi$	19.80	...
" (Mill Hill Farm) .....	G. L. Spilsbury, Esq. ....	6	1 6	243	19.94	...
Etwell (Blakeley Lodge) .....	Mr. R. Giles .....	5	1 0	190 $\pi$	20.10	...
Mickleover (County Asylum) ..	R. Legge, Esq., M.D. ....	5	3 8	300 $\tau$	22.36	170
" Manor .....	Mr. J. Campbell .....	5	2 0	280	22.13	143
Derby (Wild Street) .....	Messrs J. Davis & Son ..	5	1 0	174	22.78	176
" (Midland Railway) .....	J. Sayers, Esq. ....	5	1 5	156 $\pi$	19.91	183
" (Royal Infirmary) .....	W. G. Carnt, Esq. ....	5	1 0	195	21.85	185
" (Arboretum) .....	J. Ward, Esq., C.E. ....	8	1 0	196 $\pi$	21.77	178
" (Duffield Road) .....	Dr. W. G. Copestake ..	5	8 0	192 $\pi$	20.21	188
Breadsall Lodge .....	Miss Thompson .....	5	1 3	280 $\tau$	21.14	175
" Priory .....	Miss H. A. Haslam ..	5	1 6	380 $\pi$	21.91	161

## DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1904
		in.	ft.	in.	feet.	inches.	
DERBYSHIRE—(con.)							
D Duffield (Castle Hill House).....	Messrs. J. Davis & Son	...	...	...	...	21-08	171
Hazelwood (Chevin) .....	Sir J. G. N. Alleyne, Bart.	5	4	0	503 $\nabla$	23-99	144
D Ashbourne Water Works.....	Mr. J. W. Twigg	5	1	0	582 $\nabla$	28-11	189
„ (Yeldersley Hall) ..	E. B. F. Wright, Esq..	5	1	0	635 $\nabla$	27-34	178
D § Belper (Quarry Bank) .....	J. Hunter, Esq., C.E....	5	0	8	255 $\nabla$	24-50	162
D „ (Highfield) .....	M. Hunter, Esq., C.E..	8	0	8	310 $\nabla$	24-12	171
Codnor (Cross Hill) .....	A. F. Pine, Esq.....	5	1	0	372 $\nabla$	23-29	...
Wirksworth .....	Thomas Gibbs, Esq. ...	5	1	0	500 $\nabla$	27-79	174
D Alderwasley .....	A. F. Hurt, Esq. ....	5	1	0	537 $\nabla$	28-33	156
Whatstandwell (Pumping Statn.)	Messrs G. & F. W. Hodson	5	1	0	246 $\nabla$	25-43	163
Matlock Bath .....	Miss E. Chadwick	5	1	6	500	30-33	...
D „ (The Gables) .....	Mrs. R. Wildgoose.....	5	1	0	459 $\nabla$	30-97	193
Darley Dale (Whitworth Inst.)..	Whitworth Inst. Trustees	5	1	8	361 $\nabla$	30-25	...
D „ Hall .....	A. Clay, Esq.....	5	1	0	400 $\nabla$	28-54	193
D Stretton (Lindway Res.) .....	The Reservoir Keeper...	5	4	3	447 $\nabla$	20-66	162
Hardwick Hall .....	Mr. E. Wilson	8	2	6	594 $\nabla$	28-62	146
D Chatsworth Gardens .....	W. Chester, Esq. ....	8	5	5	404 $\nabla$	28-02	195
Chesterfield (Gas Works) .....	Chesterfield Corporation	5	1	0	279	23-50	141
„	Great Central Rly. Co..	9	3	6	250	23-18	147
D „ (Linacre Reservoir).	Chesterfield Corporation	8	1	0	490	28-32	176
D „ ( „ „ „).	„ „ „ „	5	1	0	490	27-73	176
„ (Tapton Grove).....	Mr. W. R. Bloxham ...	5	4	3	400	23-90	...
§ Buxton (Devonshire Hospital)...	Royal Meteorological Soc	5	1	0	988	43-69	230
D „ (Portobello Bar) .....	W. H. Grieves, Esq. C.E.	8	1	0	1600 $\nabla$	44-92	239
D „ (Stanley Moor) .....	„ „ „	8	1	0	1340 $\nabla$	41-63	234
D „ (Burbage Edge) .....	„ „ „	8	1	0	1400 $\nabla$	43-79	239
Comb's Moss .....	Great Central Rly. Co..	9	3	6	1669 $\nabla$	27-78	...
„ Reservoir .....	„ „ „	9	3	6	710 $\nabla$	29-15	232
Chapel-en-le-Frith .....	„ „ „	9	3	6	965 $\nabla$	28-31	201
D Totley Hall.....	W. A. Milner, Esq. ...	5	0	10	700	31-66	176
Killamarsh (Norwood) .....	Great Central Rly. Co..	9	3	6	226 $\nabla$	22-09	168
D Norton [Sheffield] .....	Col. Creswick, C.B.	6	0	8	700	30-48	194
Bamford .....	E. Sandeman, Esq., C.E.	5	0	10	508 $\nabla$	30-59	199
Hayfield (The Dympus) .....	G. H. Hill, Esq., C.E., & }	5	1	3	1450 $\nabla$	31-42	...
„ (Edale Cross) .....	H. Sowerby Wallis Esq }	5	1	3	1760 $\nabla$	30-22	...
„ (Oaken Clough) .....	„ „ „	5	1	3	1300 $\nabla$	30-12	...
„ (Tunstead Clough).....	„ „ „	5	1	3	960 $\nabla$	30-65	...
„ (Broad Clough) .....	„ „ „	5	1	3	1420 $\nabla$	32-80	...
„ (Cluthers Rocks).....	„ „ „	5	1	3	1730 $\nabla$	38-00	...
„ (Upper House) .....	„ „ „	5	1	3	1170 $\nabla$	31-16	...
„ (Kinder Top) .....	„ „ „	5	1	3	2020 $\nabla$	40-99	...
„ (Park Hall Moor) .....	„ „ „	5	1	3	1260 $\nabla$	28-42	...
„ (Sandy Heys).....	„ „ „	5	1	3	1500 $\nabla$	35-75	...
„ (Leygatehead Moor) ...	„ „ „	5	1	3	1550 $\nabla$	32-97	...
„ (Mill Hill) .....	„ „ „	5	1	3	1730 $\nabla$	35-15	...
D Glossop (Corporation W.W.) ...	Mr. J. Garner	12	2	6	733 $\nabla$	31-93	196
Woodhead Station.....	Great Central Rly. Co..	9	3	6	878 $\nabla$	42-19	217

## DIVISION VIII.—NORTH WESTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1904	
		in.	ft	in.	feet.	inches.	
CHESHIRE.							
D Audlem Vicarage .....	Rev. H. S. Cotton .....	5	1	6	200	24·72	156
D Baddiley (Nantwich W. W.) ...	Baldwin Latham Esq CE	5	1	0	231	24·43	169
D Nantwich (Dorfold Hall) .....	J. A. Saner, Esq., C.E.	8	1	0	190	25·46	182
D " (Reaseheath Hall) ...	" " " "	8	1	0	130	25·98	178
Eaton Hall Gardens .....	Mr. N. F. Barnes .....	6	3	0	64	23·45	...
D Sandbach (Malkins Bank) .....	Mssrs Brunner Mond & Co	5	3	8	244	20·18	183
Eccleston .....	E. Wells, Esq. ....	5	1	1	94	23·34	164
D Congleton (Buglawton Vic.) .....	Rev. W. Besant .....	8	5	0	352	22·74	182
Bosley Reservoir .....	Great Central Rly. Co..	9	3	6	590	21·67	182
" Minns .....	" " " "	9	3	6	1210	22·82	176
Macclesfield (Wincle) .....	E. B. Smith, Esq., C.E.	5	3	0	500	22·34	...
D Tarporley (Willington Hall) .....	J. Tompkinson, Esq., MP	5	1	0	220	26·26	187
§ Chester (Hawarden Bridge) .....	Meteorological Council	8	1	0	20	21·36	150
D " (Christleton Hall) .....	Mr. J. Weaver .....	5	1	2	142	24·00	187
" (Water Works) .....	A. Bell, Esq. ....	5	0	10	85	24·06	201
" (Northgate Station) .....	Great Central Rly. Co..	9	3	6	84	24·21	149
D § " (Parkgate Road) .....	Rev. J. C. Mitchell .....	5	1	0	60	23·57	167
" (The Nurseries) .....	Messrs. Dicksons .....	5	1	0	62	23·05	...
" (Hoole Lodge) .....	Lt.-Col. J. H. Hamersley	5	1	0	108	22·77?	...
D Middlewich .....	Mssrs Brunner Mond & Co	5	3	10	138	21·80	180
" (Bostock Hall) .....	Col. France Hayhurst..	5	2	6	157	24·79	...
D § Macclesfield (The Park) .....	Mr. J. Dale .....	5	1	0	501	25·41	191
" .....	Great Central Rly. Co..	9	3	6	539	28·34	150
D Chelford (Aste Hall) .....	G. Dixon, Esq. ....	5	1	0	250	24·19	174
" ( " " ) .....	M " " " " .....	8	1	0	250	23·74	...
Northwich .....	Great Central Rly. Co.	9	3	6	76	22·19	148
D § " (Highfield) .....	J. A. Saner, Esq., C.E..	8	3	4	118	24·81	209
D " ( " ) Snowdon .....	" " " "	8	1	0	116	25·57	209
D " (Winnington) .....	Mssrs Brunner Mond & Co	5	3	8	80	25·26	195
D " (Lostock Gralam) ...	" " " "	5	3	6	75	21·99	199
D Macclesfield (Swanscoe Park) ...	T. C. Horsfall, Esq. ...	5	1	0	676	28·16	210
D Neston (Hinderton) ..	Miss L. H. Bushell ...	5	1	0	215	25·40	187
" ( " ) .....	M " " " " .....	8	1	0	215	25·59	...
" ( " ) Lodge) ...M	" " " "	5	1	0	145	25·12	...
Bollington (Sponds Hill) .....	Great Central Rly. Co..	9	3	6	1279	19·93	...
D Hooton Grange .....	W. H. Jones, Esq. ....	5	1	0	110	27·61	166
D Wilmslow (Parksyde) .....	E. Pearson, Esq. ....	8	1	0	253	23·29	177
" (Poplar House) .....	J. Holden, Esq. ....	5	1	0	237	22·69	180
Whaley Bridge .....	Great Central Rly. Co..	9	3	6	602	31·78	205
Handforth .....	A. Brothers, Esq. ....	5	1	6	...	25·10	...
D Disley (Lyme Park) .....	No. 1 T. Molyneux, Esq. ....	9	3	8	720	34·13	175
D " ( " " ) .....	No. 2 " " " " .....	12	2	9	674	27·66	175
D Runcorn (Weston Point) .....	J. A. Saner, Esq., C.E.	8	2	4	18	28·20	171
D West Kirby (Greenfield) .....	H. Bell, Esq. ....	5	1	0	75	24·80	186
D Thelwall (Millington House) ...	L. W. Reynolds, Esq..	5	1	0	85	27·07	231
Altrincham (Norman's Place) ....	A. Griffiths, Esq. ....	5	8	0	150	27·98	158
" (Barrington House) .....	C. E. Newton, Esq., C.E.	8	3	0	105	25·77	...
§ Hoylake (District Council Office)	T. Robinson, Esq. ....	5	1	0	33	24·93	175

## DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.	
CHESHIRE—(con.)							
§ Birkenhead (Bidston Obs.) .....	W. E. Plummer, Esq..	8	1	0	189 A	25·18	194
d Northenden (Wythenshawe).....	T. E. Tatton, Esq. ...	5	1	0	114 T	25·17	195
"          "          "          "..... M	"          "          "          ".....	8	1	0	114 T	23·69	...
Marple Top Lock .....	Great Central Rly. Co..	9	3	6	523 T	26·85	183
"          Aqueduct .....	"          "          "          ".....	9	3	6	321 T	27·28	196
d New Brighton (Rutland House)..	W. Bell, Esq.....	5	0	11	130 B	23·97	157
Godley Reservoir .....	G. H. Hill, Esq., C.E..	12	2	0	500	25·49	...
Newton .....	Great Central Rly. Co..	9	3	6	396 T	27·19	199
Mottram Station.....	"          "          "          ".....	9	3	6	452 T	24·93	180
"          (Hill End) .....	"          "          "          ".....	9	3	6	680 T	29·88	196
d Broadbottom (Harewood Lodge).	Col. Sidebottom .....	5	1	0	440	28·04	180
d Hadfield (Millbrook).....	Mr. S. H. Doxon ....	8	3	10	442 T	32·35	201
"          "          "          ".....	"          "          "          ".....	12	4	0	442 T	32·76	201
Arnfield Reservoir.....	G. H. Hill, Esq., C.E..	12	2	6	550	31·86	...
Rhodes Wood Reservoir .....	"          "          "          ".....	12	1	0	520	35·09	...
Torrside Reservoir.....	"          "          "          ".....	12	1	6	680	36·14	...
Staleybridge (Swineshaw).....	"          "          "          ".....	8	3	0	884 A	35·77	...
Woodhead Reservoir.....	"          "          "          ".....	12	0	10	660	38·40	...
SOUTH LANCASHIRE.							
d Garston (Grassendale Park).....	Miss E. C. Abraham ...	5	1	0	35 T	27·46	192
d Aigburth (Kelton).....	Joshua Sing, Esq. ....	5	1	0	150 T	27·83	194
d    "          (Holmfield) .....	Miss Maxwell.....	5	1	0	100 T	27·22	218
d Woolton (Camp Hill Gardens)...	Mr. J. Stoney.....	5	1	0	189	28·31	206
Warrington (Central Station) ...	Great Central Rly. Co..	9	3	6	59 A	24·40	159
d    "          (Training College)..	Miss F. G. Timewell ...	8	0	9	39 T	26·23	186
Liverpool (Smithdown Road) ...	J. A. Brodie, Esq., C.E.	10	0	9	135 A	30·40	201
"          (Rathbone Road) .....	"          "          "          ".....	10	1	0	199 A	28·52	199
d    "          (Hope Street) .....	George Jevons, Esq. ...	5	1	6	...	28·30	149
"          (Huyton Vicarage) ...	Mrs. E. M. Sanderson..	5	0	11	116 A	30·94	220
"          (Knotty Ash) .....	W. M. Reade, Esq. ...	5	1	0	100	29·55	...
"          (Newsham Park) .....	J. A. Brodie, Esq., C.E.	10	1	0	140 A	29·60	198
"          (Breeze Lane) .....	"          "          "          ".....	5	0	9	135 A	30·68	190
"          (Huskisson Station) ...	Great Central Rly. Co.	9	3	6	40 A	25·10	167
d Heaton Mersey [Stockport] .....	W. B. Leigh, Esq.....	5	3	11	218 A	22·68	181
d Heaton Moor [Stockport] .....	F.W.Jordan, Esq., M.D.	5	1	0	235	25·55	210
d Manchester (Withington) No. 1	J. King, jun., Esq. ...	5	1	3	110 T	24·35	191
d    "          (    "          "							

## DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>SOUTH LANCASHIRE—(con.)</b>						
Eccles (Worsley New Hall) .....	Mr. W. B. Upjohn ...	8	8 0	100 T	26·52	160
Blundellsands (Park Corner) ...	T. M. Reade, Esq. C.E.	5	1 0	33 T	25·29	170
D Manchester (Moston) .....	J. T. Warren, Esq. ...	5	1 0	300 T	28·72	178
D „ (Cheetham Hill).....	WB Worthington Esq CE	5	1 0	264 T	28·65	196
Ashton (Waterhouses) .....	Great Central Rly. Co..	9	3 6	345 T	26·48	192
§ Prestwich Asylum.....	Meteorological Council.	8	1 0	295	31·89	201
„ Reservoir .....	G. H. Hill, Esq., C.E....	12	2 0	356 T	26·43	...
Oldham (Gas Works) .....	„ „ „ „	5	4 0	600 T	31·91	...
„ (Honeywell Lane) .....	Great Central Rly. Co..	8	...	553	31·65	221
„ (Brushes Clough) <i>old g.</i>	C. J. Batley, Esq., C.E.	5	4 0	930 T	38·40	217
„ „ „ <i>new g.</i>	„ „ „ „	5	5 0	955 T	39·76	217
D Ormskirk (Aughton Springs) ...	C. E. Maples, Esq. ...	5	1 0	138 T	28·87	189
D Wigan Waterworks .....	W. Bolton, Esq. ....	8	1 6	225 T	30·20	197
D† Downholland (Barton Moss).....	J. Baxendell, Esq. ....	5	0 9	14 T	26·49	191
D† Bolton (Queen's Park) .....	T. Midgley, Esq. ....	5	1 0	390 T	34·74	197
† „ (Heaton Reservoir) .....	RHS Windlehurst Esq CE	6	1 3	520	35·65	230
D „ (Ash Lawn, Heaton). ...	Mrs. F. Taylor .....	5	1 0	406	35·47	224
D† „ (Smithills Hall) .....	Col. R. H. Ainsworth...	8	1 2	510 T	36·59	197
Horwich (Wallsuches) .....	C. E. Barr, Esq. ....	5	1 0	655 T	32·65	...
„ (Montcliffe) .....	„ „ „ „	5	4 2	901 T	32·82	...
† „ (Lower Rivington) ...	J. Parry, Esq., C.E....	5	1 0	440	33·62	...
† „ (Lower Knoll) .....	„ „ „ „	8	1 4	742	34·32	...
„ (Wildersmoor) .....	Col. R. H. Ainsworth...	8	1 2	1220	43·44	165
† Milnrow (Piethorne, Kitcliffe)...	C. J. Batley, Esq., C.E.	5	4 6	769 T	39·04	226
D† „ ( „ Coldgreave) .....	„ „ „ „	5	4 6	894 T	34·77	215
† „ ( „ Norman Hill) .....	„ „ „ „	5	4 6	1076 T	32·20	216
† „ ( „ Rooden Res.) .....	„ „ „ „	5	4 6	1131 T	31·57	213
Rochdale (Deeplish Hill) .....	J. H. Lancashire, Esq.	5	1 0	475 T	35·29	210
† „ (Park Observatory) ...	Dr. Henry .....	8	0 6	472	36·41	209
D „ (Fieldhead) .....	S. S. Platt, Esq., C.E..	8	12 0	484 T	34·44	189
D „ (The Crescent) .....	T. H. Hayle, Esq., M.B.	5	40 5	513 T	34·04	237
† „ (Ashworth Moor) .....	J. Diggle, Esq., C.E....	5	1 2	907 T	34·69	195
Bury (Gin Hall) .....	No. 1 J. Cartwright, Esq. ...	8	1 0	475	38·01	207
„ „ „ „ .....	No. 2 „ „ „ „	8	1 0	475	38·24	207
D Ormskirk (Rufford) .....	G. Hobkirk, Esq. ....	5	0 8	39 T	29·66	151
† Bolton (Belmont) .....	RHS Windlehurst Esq CE	5	0 9	800	44·99	231
† Rivington (Brown Hill) .....	J. Parry, Esq., C.E. ...	8	1 4	843	31·00	...
† „ (Stoneshouse) ...No. 1	„ „ „ „	8	1 4	623	36·84	214
† „ ( „ ) ...No. 2	„ „ „ „	10	1 4	623	36·83	...
† „ (Hurst Hill).....	„ „ „ „	8	1 10	1029	34·34	...
† „ (Great Hill).....	„ „ „ „	8	1 8	1240	36·88	...
† „ (Coppice Stile).....	„ „ „ „	8	1 8	879	34·88	...
† „ (Gamekeeper's) .....	„ „ „ „	8	0 8	850	40·80	...
† „ (Higher Hill) .....	„ „ „ „	8	1 4	733	32·24	...
Southport (Birkdale).....	J. Baxendell, Esq. ....	5	1 0	27 T	26·19	...
Rochdale (Nayden Dean Filters).	J. Diggle, Esq., C.E....	5	1 8	761 T	39·29	194
„ ( „ „ ) <i>new g.</i>	„ „ „ „	5	1 4	948 T	37·08	...
† Ramsbottom (Killgate Brook) M	„ „ „ „	5	1 0	978 T	41·16	...



## DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
SOUTH LANCASHIRE—(con.)						
†Ramsbottom (Cheesden Barn) M	J. Diggle, Esq., C.E...	5	1 0	997 $\pi$	39.28	...
† " (Shuttleworth Moss) M	" " " " ...	5	0 11	1076 $\pi$	38.95	...
D Rochdale (Spring Mill Whitworth)	W. Tomlinson, Esq. ...	8	1 7	720	44.65	204
D " (Cowm, " )	" " " " ...	8	1 7	760	43.34	185
D " (Facit) .....	T. S. Smithson, Esq. ...	5	0 6	855 $\pi$	44.63	214
†Southport (Hesketh Park).....M	J. Baxendell, Esq. ...	5	1 0	38 $\pi$	26.28	...
D† " ( " " " ) M.O.g.	" " " " ...	8	1 0	38 $\pi$	26.01	177
D† " ( " " " ) ... (R)	" " " " ...	11	1 5	39 $\pi$	26.01	194
† " (Lord Street Station).	Great Central Rly. Co. ...	9	3 6	21 $\pi$	23.28	160
†Entwistle .....	RHSwindlehurst Esq CE	5	1 0	700	43.08	205
Littleborough (Hollingworth) ...	Rochdale Canal Compy.	10	1 5	600	32.20	...
" (Windy Bank) ...	" " " " ...	10	1 6	605 $\pi$	31.40	...
† " (Blackstone Edge)	" " " " ...	10	1 9	1225 $\pi$	25.70	...
" (Canal Summit) ...	" " " " ...	10	1 10	700	26.70	...
" (Chelburn) .....	" " " " ...	10	1 3	800	31.10	...
" (Byron Edge).....	" " " " ...	8	1 5	1250 $\pi$	35.32	...
" (Lenches) .....	" " " " ...	10	1 10	806	32.30	...
Walsden (Calf Lee) .....	" " " " ...	10	1 6	960	33.18	...
" (Warland) .....	" " " " ...	8	1 5	1250 $\pi$	34.80	...
" (Whiteholme).....	" " " " ...	8	1 5	1250 $\pi$	33.63	...
" (Rishworth) .....	" " " " ...	8	1 5	1300 $\pi$	32.84	...
" (Broadhead) .....	" " " " ...	8	1 5	1300 $\pi$	25.82	...
Chorley (Crooke Hall) .....	Carlton Cross, Esq. ...	5	2 6	265 $\pi$	33.46	142
Todmorden W.W. (Ramsden Moor)	W. Tomlinson, Esq. ...	5	1 0	1326 $\pi$	33.33	...
" " ( " " Res.)	" " " " ...	8	1 0	980 $\pi$	46.56	192
†Haslingden (Holden Wood) .....	J. Cartwright, Esq. ...	8	1 0	670 $\pi$	45.19	200
† " (Calf Hey) .....	" " " " ...	8	1 0	800 $\pi$	43.66	200
D " (Hazelwood) .....	Dr. Harrison .....	5	1 9	750 $\pi$	47.42	190
" (Springfield Lodge)..	John Stott, Esq. ....	5	1 0	800	40.42	...
D " Vicarage .....	Rev. A. Spencer .....	8	1 6	820 $\pi$	44.36	213
" (Mitchells House Res.)	C. Harrison, Esq. ....	5	1 6	990	38.03	175
D Over Darwen (Sunnyhurst Hey.)	R. W. S. Saville, Esq. ..	8	1 8	915 $\pi$	38.68	208
D " " (Earnsdale Res.)....	" " " " ...	8	1 8	705 $\pi$	37.92	197
" " (Hoddlesden) No.1	W. Stubbs, Esq., C.E..	8	4 0	680	43.21	216
" " ( " " ) No.2	" " " " ...	8	1 0	675	42.73	215
" " (Daisy Green) No.1	" " " " ...	8	1 0	969	40.94	219
" " ( " " ) No.2	" " " " ...	8	1 0	969	41.02	220
" " (Pickup Bank) No.1	" " " " ...	8	1 0	720	40.59	219
" " ( " " ) No.2	" " " " ...	8	1 0	720	41.04	219
Rawtenstall Cemetery .....	J. Johnson, Esq., C.E..	8	1 0	572	44.55	198
Preston (Brindle Rectory) .....	Rev. J. Kinton Jacques	5	1 8	380	36.90	...
D " (Walton-le-Dale W.W.)	T. W. Elliott, Esq. ...	5	0 10	316	34.88	200
Blackburn (Guide Reservoir) ...	W. Stubbs, Esq., C.E..	8	1 0	650	30.39	209
" (Witton) .....	" " " " ...	8	2 6	315 $\pi$	35.00	194
" (Store Yard) .....	" " " " ...	8	30 0	373 $\pi$	31.10	208
" (Water Works Office)	" " " " ...	8	60 0	436 $\pi$	25.22	195
" (Corporation Park) ...	" " " " ...	8	0 6	584 $\pi$	35.84	221
" (Pumping Station) ...	" " " " ...	8	6 0	600 $\pi$	34.88	204
Accrington (Milnshaw Park) ...	Accrington Corporation	5	1 6	464 $\pi$	35.52	189

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>SOUTH LANCASHIRE—(con.)</b>						
† Rawtenstall (Cloughbottom Res.)	J. Cartwright, Esq. ...	8	1 0	1025	40·58	194
† „ (Clough Bridge Res.)	„ „ „ „ ...	8	1 0	930	37·63	238
• Preston (Corporation Offices) ...	T. Cookson, Esq. ....	8	18 8	148	31·40	176
Blackburn (Samlesbury Sew Wks)	W. Stubbs, Esq., C.E.	8	...	240	32·22	193
Causeway Side (Burnley W.W.)	W. Williamson, Esq.	8	2 0	1116	36·86	...
Sheddin ( „ „ )	„ „ „ „	8	2 0	960	38·12	...
Cant Clough, S. Side ( „ „ )	„ „ „ „	8	2 0	900	39·40	238
„ „ N. Side ( „ „ )	„ „ „ „	8	2 0	950	37·47	238
Rams Clough Head ( „ „ )	„ „ „ „	8	2 0	1260	36·09	...
Rishton Reservoir .....	Leeds & L'pool Canal Co. ...	...	...	467	28·55	...
Huncoat (Burnley Road Res.) ...	C. Harrison, Esq. ....	9	1 6	620	33·93	193
Burnley (Yorkshire Street) .....	W. Williamson, Esq. ...	8	30 0	420	28·35	206
„ (Swinden, Upper) .....	„ „ „ „	8	12 0	820	38·68	235
„ ( „ Lower) .....	„ „ „ „	8	2 0	745	37·72	234
„ (Extwistle Moor) .....	„ „ „ „	8	2 0	1310	39·08	...
• „ (Gawthorpe Hall) .....	Alfred Ford, Esq. ....	8	0 9	316	34·61	171
• Preston (Haighton) .....	J. J. Myres, Esq., C.E.	5	1 2	255	33·37	178
Alston .....	T. Cookson, Esq. ....	8	1 2	320	33·37	...
Nelson (Coldwell Reservoir) .....	C. E. Newton, Esq., C.E.	8	2 0	950	27·13	...
Worthdale (Watersheddles) .....	W. H. Hopkinson Esq. C.E.	5	1 0	1115	45·97	...
§ Stonyhurst College .....	Rev. W. Sidgreaves ...	11	1 0	376	39·64	204
• § „ „ „ „ „ „ „ „ „ „	„ „ „ „ „ „ „ „ „ „	11	1 10	377	39·64	204
§ „ „ „ „ „ „ „ „ „ „	„ „ „ „ „ „ „ „ „ „	11	1 0	376	38·67	...
Knowle Green (Preston W. W.)	M T. Cookson, Esq. ....	8	1 2	400	36·28	...
Loud-scales ( „ „ )	„ „ „ „	8	1 2	400	33·63	...
Spade Mill ( „ „ )	„ „ „ „	8	1 2	400	37·87	...
Jeffrey Hill ( „ „ )	„ „ „ „	8	1 2	900	40·63	...
• Beaton Fell (Barnsfold Res.) ...	J. J. Myres, Esq., C.E.	5	1 6	506	33·51	193
„ „ ( „ „ )	„ „ „ „	5	1 6	506	33·47	...
Barrowford Reservoir .....	Leeds & L'pool Canal Co.	8	1 0	473	36·99	...
Foulridge (Canal Office) .....	„ „ „ „	8	1 0	497	40·23	...
„ (Cragg Nook Hill) ...	„ „ „ „	8	1 0	690	38·39	...
„ (Upper Reservoir) ...	„ „ „ „	8	1 0	582	36·40	...
Clitheroe (Downham Hall) .....	R. Assheton, Esq. ....	10	1 6	464	36·94	...
• Chatburn (Middlewood) .....	W. K. Wilkinson, Esq.	5	1 3	363	40·02	179
<b>NORTH LANCASHIRE.</b>						
Kirkham (Weeton) .....	C. Arthur, Esq. ....	10	1 0	95	31·94	...
• Barton (Anderton Fold) .....	W. H. Mason, Esq. ...	5	0 6	90	34·56	179
† Blackpool Hospital .....	F. J. H. Coutts, Esq. M.D.	5	1 0	59	30·32	...
• „ (Met. Observatory) ...	„ „ „ „	5	1 0	67	30·86	203
• St. Michael's-on-Wyre Vicarage	Rev. P. J. Hornby .....	5	1 0	25	32·35	199
• Garstang (Bruna Hill) .....	Mrs. Wilson .....	5	0 6	90	34·74	189
„ (Holme Ho., Bleasdale)	Messrs. A. & S. Wilson	5	1 0	650	49·66	...
„ (Fairsnape Fell) .....	A. Wilson, Esq., C.E.	5	1 0	1630	56·21	...
„ (Barnacre Reservoir) ...	C. Arthur, Esq. ....	5	1 0	617	42·27	...
„ (Grizedale Reservoir) ..	„ „ „ „	5	1 0	519	39·47	...
„ ( „ Stake House)	„ „ „ „	5	1 0	775	40·89	...
• Fleetwood .....	M. S. Gaulter, Esq. ...	5	1 4	30	27·79	159

## DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.	
NORTH LANCASHIRE—(con.)							
Pilling (Smallwood Hey) .....	Mr. J. H. Curwen .....	5	0	9	12 T	29.79	...
d Garstang (Forton) .....	J. H. Bonny, Esq. ....	5	1	6	65 L	35.38	206
Wyresdale (Abbeystead) .....	J. C. Mount, Esq., C.E.	8	1	0	366 T	39.93	178
d Hampson-in-Ellel .....	W. G. Welch, Esq. ...	5	1	6	145 T	35.24	210
Quernmore (Old Gauge Basin) M	J. C. Mount, Esq., C.E.	8	1	0	963 T	42.28	...
d Lancaster (Bailrigg) ..	H. L. Storey, Esq. ....	5	1	3	200	36.80	216
Wyresdale (Wardstone) .....	J. C. Mount, Esq., C.E.	8	1	0	1440 T	55.60	...
Quernmore (Brow Top) .....	" "	8	1	0	552 T	38.78	189
d Heysham House .....	Miss Tomlinson .....	5	1	6	80	39.71	201
Lancaster (Strathspey) .....	A. B. S. Welch, Esq. ...	5	1	0	...	36.98	203
" (Brettargh House) ...	Capt. J. Barker .....	5	1	6	161 T	33.98	199
" (Blea Tarn Reservoir).	J. C. Mount, Esq., C.E.	8	1	0	330	29.54	205
d§ " (Greg Observatory) ...	W. French, Esq. ....	8	1	0	312	34.09	204
" (Robert Street) .....	J. C. Mount, Esq., C.E.	8	1	0	62 T	35.33	206
Caton (Escowbeck) .....	A. Greg, Esq. ....	12	1	0	150 T	36.38	210
" Vicarage .....	Rev. W. J. Locke .....	5	1	0	160 T	35.88	...
d " .....	F. Storey, Esq. ....	5	1	0	250	36.90	213
d§ Morecambe .....	Mr. T. B. Lamb .....	8	1	0	24 T	36.45	183
d Wray Vicarage .....	Rev. C. L. Reynolds ...	5	1	0	165 T	37.93	203
d Bolton-le-Sands .....	Rev. A. R. Tomlinson.	5	1	0	89 T	31.38	179
Melling (Hornby Castle) .....	Col. W. H. Foster, M.P.	8	1	8	100	37.52	154
d Barrow-in-Furness .....	W. Fergusson, Esq. ...	11	1	6	36 T	33.90	178
Arkholme (Storrs Hall) .....	F. F. Pearson, Esq. ...	5	1	0	220	38.20	...
d Yealand Conyers .....	W. O. Roper, Esq. ....	5	1	0	250	41.09	225
d Ulverston (Urswick School Ho.)	J. Dobson, Esq. ....	5	1	3	140 T	35.67	192
d Cartmel (Flookburgh) .....	R. Harrison, Esq. ....	5	1	0	75	40.44	175
Lindal (Moor Mines) .....	F. A. Ainslie, Esq. ...	5	7	0	...	41.67	185
d Cartmel (Carke) .....	W. R. Nash, Esq. ....	5	1	0	76 T	39.86	204
" (Holker) .....	VCW Cavendish Esq MP	8	4	6	155 T	46.27	188
d Grange-over-Sands (Belmont) ...	Dr. W. M. Burman ...	5	1	0	190 B	41.46	205
d " " " (Eggerslack) .....	Miss Arkwright .....	5	2	6	140 B	46.03	214
" " " (Merlewood) .....	E. C. Miller, Esq. ....	5	0	9	320 T	42.67	190
d Ulverston (Poaka Beck) .....	W. Fergusson, Esq. ...	11	1	6	512 T	50.34	254
Cartmel (Pit Farm) .....	W. R. Nash, Esq. ....	5	1	0	122 T	41.67	...
d " (Aynsome) .....	J. Stewart Remington Esq	8	2	0	137 T	44.19	213
" (Broughton Hall) .....	Col. D. Ainsworth .....	5	2	8	225	42.12	186
Newby Bridge (Backbarrow) ...	" " "	5	2	6	122 T	43.24	...
d Colton House .....	Mrs. A. Christopherson	5	1	0	226 T	53.05	204
" " " .....	" " "	8	1	0	226 T	53.25	...
d Finsthwaite Vicarage .....	Rev. S. Inman .....	8	1	2	250	54.23	222
d Broughton-in-Furness .....	C. P. Chambers, Esq. ...	5	1	3	101	48.13	205
d Blawith Vicarage .....	Rev. J. Ashburner .....	5	0	10	185 T	55.70	197
d Cartmel Fell Vicarage .....	Rev. W. Summers .....	5	2	3	220 T	56.36	199
d Hawkshead (Tower Bank, Sawrey)	Major W. Alcock-Beck	5	1	0	342 T	62.62	218
d Duddon Valley (Seathwaite Vic.)	Mr. W. Newton .....	5	1	0	330 T	72.54	220
Monk Coniston Park .....	Mr. W. G. Wilson .....	5	1	2	305 T	79.52	193
Hawkshead (Black Fell) .....	Miss C. Marshall .....	5	1	6	1055 T	76.40	...
d Skelwith Fold [Ambleside] .....	" " "	5	1	0	333	81.43	240
" " [ " ] ... M	" " "	5	1	0	333	80.98	...

## DIVISION IX.—YORKSHIRE.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with 01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>WEST RIDING (SOUTHERN).</b>						
D Sheffield (W.W., Gleadless) ...	Mr. R. Rodinson .....	8	0 8	700 T	31·26	198
D „ (Stumperlow Hall) ...	H. J. Dixon, Esq. ....	5	1 0	700 T	32·06	192
D „ (Redmires Res.) .....	L.S.M. Marsh, Esq., C.E. 10	5	0	1110 T	34·30	202
„ „ „ „ „ weekly	„ „ „ „ .....	8	4 0	1110 T	33·94	...
D „ (Tylecote, Ranmoor) ...	J. Dixon, Esq. ....	5	1 0	610 T	28·23	178
D „ (Rivelin) .....	L.S.M. Marsh, Esq., C.E. 10	4	0	564 T	29·38	185
„ „ „ „ „ weekly	„ „ „ „ .....	8	4 0	564 T	29·42	...
D „ (Crookes) .....	„ „ „ „ .....	10	2 0	629 T	25·19	167
„ „ „ „ „ weekly	„ „ „ „ .....	8	2 0	629 T	25·13	...
D „ (Weston Park) .....	E. Howarth, Esq. ....	8	1 0	430 T	27·53	198
„ (Victoria Station) .....	Great Central Rly. Co..	9	3 6	188 T	22·85	144
Rotherham (Ulley Res.) .....	G. W. Jennings, Esq. ...	5	1 0	184 T	19·58	...
Sheffield (Tinsley Locks) .....	Great Central Rly. Co..	9	...	117 T	20·96	145
D Tickhill (Sandbeck Park) ...	Mr. G. Summers .....	8	1 0	150 T	22·35	158
Rotherham (Moorgate) .....	C. E. Chrimes, Esq. ...	8	1 0	...	21·49	...
D Tickhill .....	G. G. Phillips, Esq. ...	8	1 0	61 T	22·20	161
Rotherham (Thrybergh) .....	W.H.R. Crabtree Esq CE	8	1 0	184 T	21·32	155
D Sheffield (Chapelton) .....	Mr. D. Bell .....	8	5 0	581 T	23·99	165
Doncaster (Firsby Reservoir) ...	W.H.R. Crabtree Esq CE	8	1 4	189 T	22·70	153
D „ (Wadworth Hall) .....	Rev. J. C. Ross .....	8	1 0	190 T	22·38	184
Bolsterstone (Waldershaigh) ...	G. D. Thorp, Esq. ....	8	3 1	950 T	25·44	...
Wentworth Woodhouse .....	Mr. J. Hughes .....	5	0 10	360 T	25·00	...
D Swinton (Council Offices) .....	R. Fowler, Esq., C.E. ...	8	1 0	126 T	22·43	179
D Mexborough .....	G.Fenwick Carter Esq CE	5	2 0	198 T	20·39	156
Wortley .....	Great Central Rly. Co..	9	3 6	548 T	23·12	187
Elsecar .....	„ „ „ „ .....	9	3 6	181 T	21·44	145
Langsett Moor (Pike Lowe) .....	J. H. Taylor, Esq., C.E. 5	1	0	1358 T	46·03	...
„ „ (Ewden Height). „ „ „	„ „ „ „ .....	5	1 0	1099 T	38·31	...
„ „ (Range Moor) ... „ „ „	„ „ „ „ .....	5	1 0	1040 T	42·45	...
D „ „ (Upper Midhope) „ „ „	„ „ „ „ .....	5	1 0	912 T	38·69	209
Wortley (Service Reservoir) .....	„ „ „ „ .....	5	1 0	700	25·69	178
D Langsett .....	W. Watts, Esq., C.E. ...	8	4 3	960 T	31·01	186
D „ „ „ „ „ „	„ „ „ „ „ „	8	4 9	761 T	31·34	185
D Hoyland (King Street) .....	J. W. Wilson, Esq. ...	5	1 0	330 T	24·18	148
D Wath-upon-Deane (Chapel St.)	Dr. F. J. Burman .....	8	3 0	188 T	22·15	153
Worsborough .....	Great Central Rly. Co..	9	3 6	225 T	22·08	149
D Stainborough (Wentworth Castle)	W. Fisher, Esq. ....	8	2 6	520 T	24·77	158
Doncaster .....	Great Central Rly. Co..	9	3 6	32 T	18·86	147
„ (Pumping Station) ...	WHR Crabtree, Esq CE	8	1 2	30 T	21·60	164
D „ (Magdalens) .....	Mr. C. Parkin .....	5	4 9	46 T	20·29	139
Dunford Brdg. (Up. Windleden) M	H. Dearden, Esq., C.E. 12	2	2	1100	41·69	...
„ „ (Dearden Res.) M	„ „ „ „ .....	12	1 6	1244 T	42·66	...
„ „ Station .....	Great Central Rly. Co..	9	3 6	954 T	39·91	208
D „ „ Reservoir .....	H. Dearden, Esq., C.E. 12	2	0	1111 T	40·76	216
Penistone .....	Great Central Rly. Co..	9	3 6	717 T	28·03	183
„ (Hazlehead) .....	„ „ „ „ .....	9	3 9	868 T	36·77	182
„ (Ingbirchworth Res.) ..	J. H. Taylor, Esq. C.E. 8	1	3	853 T	33·46	170
D Barnsley (Church Street) .....	Dr. F. J. Sadler .....	5	5 2	350 T	23·64	192

DIVISION IX.—YORKSHIRE.—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with $\geq$ 0.1 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.	
<b>W. RIDING (SOUTHERN)-(con.)</b>							
Barnsley (Jordan Hill).....	J. H. Taylor, Esq., C.E.	8	1	3	450	22·58	170
" .....	Great Central Rly. Co..	9	3	6	317 T	19·27	...
" (Cawthorne) .....	Rev. C. T. Pratt.....	5	1	6	340 T	27·09	178
D Doncaster (Kirk Bramwith) .....	H. A. Brundell, Esq. C.E.	5	1	0	17 T	21·14	186
D Hemsworth Hall .....	F. G. Leatham, Esq....	5	1	0	250 T	22·80	180
D Ackworth (Nostell Priory) .....	Mr. J. Easter .....	5	4	0	...	24·59	162
Goole (Ardingfleet) .....	Cecil C. Argles, Esq....	5	1	2	9 T	21·91	...
" (Swinfleet) .....	Mr. G. Harrison.....	5	5	6	...	23·49	...
D " .....	W. E. Grayburn, Esq.	5	1	0	18 T	22·56	177
<b>WEST RIDING (CENTRAL).</b>							
Greenfield (Chew Mount) .....	G. H. Hill, Esq., C.E..	7	0	7	...	46·30	...
" (Yeoman Hey) .....	" .....	7	0	7	759	43·40	...
D Holmbridge (Yateholme) .....	O. J. Kirby, Esq., C.E.	7	1	0	861 T	52·10	165
" (Holme Styas) .....	L. Hinchcliffe, Esq. ...	7	2	0	830 T	44·20	...
" (Boshaw Whams) ..	" .....	7	2	0	930 T	44·60	...
" (Bilberry Reservoir)..	" .....	7	2	0	820 T	50·80	...
Saddleworth Station .....	M L. K. Jones, Esq.....	5	4	2	630 T	33·42	...
Strinesdale [Oldham] .....	C. J. Batley, Esq., C.E.	5	4	0	815 T	29·78	216
Meltham (Harden Moss) .....	J. W. Schofield, Esq....	8	1	2	1212 T	43·73	...
" ( " ) new g. ....	" .....	8	1	0	1212 T	38·91	...
Wessenden Head .....	" .....	8	1	0	1270 T	37·25	...
" (Hollin Bank Moss)...	" .....	8	1	0	1360 T	27·68	...
" (Great Butterley).....	" .....	8	1	0	1110 T	34·65	...
" (Bobus).....	" .....	8	1	0	1200 T	35·83	...
D Standedge (Castleshaw, Broadhead)	C. J. Batley, Esq., C.E.	8	4	6	876 T	33·51	209
† " ( " Cudworth) .....	" .....	5	4	6	1410 T	25·03	208
" (Redbrook Res.) old g. ....	L. K. Jones, Esq. ....	8	1	8	1150	39·78	...
" ( " ) new g. ....	" .....	8	1	6	1150	39·03	...
Meltham (Brow Grains) .....	J. W. Schofield, Esq....	8	1	0	900 T	40·12	...
† Denshaw (Ox Hey) .....	C. J. Batley, Esq., C.E.	8	4	6	1030 T	36·97	222
D† " (New Year's Bridge)...	" .....	8	4	0	1012 T	38·93	222
† " (Ready Con Dean) .....	" .....	8	4	0	1414 T	37·72	222
Meltham (Royd Edge) .....	C. L. Brook, Esq. ....	8	1	0	585 T	47·43	...
D " (Harewood Lodge).....	" .....	8	1	0	514 T	42·50	209
" Grange .....	J. W. Schofield, Esq....	8	1	2	850 T	38·41	...
Marsden (Deer Hill) ..... old g.	" .....	8	1	0	1149 T	38·72	...
" ( " ) ..... new g.	" .....	8	1	0	1149 T	40·43	...
Wakefield (Woolley Park Gardens.)	Mr. T. Wells .....	5	1	6	400	25·61	...
D Slaithwaite (Blackmoorfoot).....	J. W. Schofield, Esq...	8	1	0	800 T	44·49	233
D " (Inglewood) .....	J. Woodhead, Esq. ...	5	1	0	550 T	41·94	211
D Chapelthorpe (Crigglistone).....	H. T. Burbury, Esq....	5	1	0	306 T	22·65	175
Wakefield (Walton Hall).....	E. Simpson, Esq. ....	5	0	8	140 T	19·50	...
Huddersfield (Bank Field, Golcar)	J. R. Sykes, Esq. ....	5	1	0	400 T	39·30	184
D " (Cemetery) .....	Mr. J. Firth .....	8	4	0	400 T	34·80	201
D " (Dalton) .....	J. W. Robson, Esq. ...	8	1	0	350 T	30·33	194
† Rishworth (Ringstone Res.).....	C. Clemesha Smith Esq. CE	5	1	0	990 T	37·18	199
" (Stott Hall).....	" .....	5	1	0	935 T	39·72	196

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
W. RIDING (CENTRAL)—(con.)						
†Rishworth (Great Walden Edge)	C. Clemesha Smith Esq. C.E.	5	0 10	1135 T	42.26	229
D Mirfield (Cote Wall) .....	J. Watson-Kaye, Esq.	8	1 2	200	28.43	170
Ossett (Lowood House) .....	Dr. G. S. Greenwood...	5	1 0	300 T	23.65	...
§ Wakefield Prison .....	Mr. A. Clyde .....	5	1 0	96 A	22.25	182
„ (Field Head) .....	C. Clemesha Smith Esq. C.E.	8	1 6	250 T	23.79	155
D „ (Stanley Grange) .....	H. S. Haworth, Esq.	5	1 0	235 T	21.10	179
Elland .....	P. H. Whitwam, Esq.	8	1 0	307 A	25.14	...
Batley (Staincliffe Reservoir) ...	O. J. Kirby, Esq., C.E.	7	1 0	492 A	19.87	...
„ (Woodwell Depôt) .....	„ „ „	8	1 0	301 A	21.35	...
Ardsley Reservoir .....	C. Clemesha Smith Esq. C.E.	5	1 2	395 A	22.02	165
Sowerby Bridge (Brockwell Triangle)	W. Cyril Empson, Esq.	8	1 0	500 A	35.19	...
„ „ (Haugh End) ...	J. S. Rawson, Esq.	5	0 8	450 T	35.42	215
D Fielden Hospital [Todmorden]...	Mr. F. Rogers .....	5	1 0	650 T	41.16	210
D Sourhall Hospital [„] .....	„ „ „	5	1 0	1020 T	45.96	189
Halifax (Bents, Norland) .....	M J. S. Rawson, Esq.	5	0 8	800 T	28.84	...
D § „ (Bermerside Observatory)	J. Gledhill, Esq.	8	0 6	500	28.42	198
D „ (Hall Ings, S. Owrarn)...	Rev. G. E. Aspinall ...	5	0 7	750 T	26.99	189
„ (Thorpe) .....	M J. S. Rawson, Esq.	8	0 8	345 T	37.06	...
„ ( „ ) .....	„ „ „	5	0 8	345 T	37.61	199
D „ (Public Library) .....	J. Whiteley, Esq.	8	1 0	625 T	29.31	191
„ (Albert) .....	R. J. Hartley, Esq., C.E.	5	1 0	795 T	29.65	...
„ (Gibbet) .....	„ „ „	5	6 0	568 T	30.66	...
„ (Ramsden Wood) .....	„ „ „	8	1 2	816 T	32.68	...
D Mytholmroyd (Ewood Hall) .....	Mrs. Riley .....	5	1 6	500 T	37.10	198
Hebden Bridge (Falling Royd) ..	A. R. Crossley, Esq.	4	1 0	479 A	38.28	196
D „ „ (Summerfield) .....	J. Hoyle, Esq.	5	1 0	800 A	35.23	192
Halifax (Castle Carr) .....	R. J. Hartley, Esq., C.E.	...	...	1060 T	36.69	...
„ (Midgley Moor) .....	M „ „ „	7	0 6	1350 T	41.82	...
„ (Warley Moor) .....	M „ „ „	7	0 6	1325 T	38.42	...
„ (Ogden) .....	M „ „ „	8	1 3	990 T	35.88	...
„ (Ovenden Moor) .....	„ „ „	...	...	1375	38.36	...
„ (Widdop) .....	„ „ „	...	...	1050	38.16	...
„ (Walshaw Dean) .....	M „ „ „	8	0 3	1380 T	35.93	...
D South Milford Rectory .....	Rev. F. J. Young .....	5	1 2	70 A	24.95	201
Selby .....	Mr. J. Palgrave .....	5	1 6	20	19.96	...
§ Garforth .....	Meteorological Council.	...	...	...	21.42	171
D Pudsey .....	Dr. W. Lovell Hunter.	5	1 0	521 T	24.22	175
Bradford (Horton) .....	Mr. A. E. Chilton .....	5	5 0	450 T	30.92	206
„ (Queensbury) .....	R. J. Foster, Esq.	8	2 2	1050	31.61	...
„ (Brayshaw Reservoir) ..	J. Watson, Esq., C.E.	5	1 0	982 A	32.34	211
D „ (The Exchange) .....	H. A. Johnson, Esq., C.E.	8	65 6	395 A	26.19	172
„ (Thornton Moor) .....	J. Watson, Esq., C.E.	5	1 0	1218 A	34.87	252
„ (Stubden) .....	old g „ „ „	8	1 0	1075 A	38.53	239
„ ( „ ) .....	new g. „ „ „	8	1 0	1075 A	35.75	241
„ ( „ Reservoir) .....	„ „ „	5	1 0	1071 A	33.77	240
„ (Nan Scar, Oxenhope) M	„ „ „	5	1 0	1101 A	40.88	...
„ (Stairs Top) .....	M „ „ „	5	1 0	1401 A	35.44	...
„ (Leeming Reservoir) M	„ „ „	5	1 0	850 A	36.15	...

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 401 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>W. RIDING (CENTRAL)—(con.)</b>						
Bradford (Doe Park) ..... <i>old g.</i>	J. Watson, Esq., C.E...	8	1 0	810 $\nabla$	32·43	210
„ ( „ „ ) ..... <i>new g.</i>	„ „ „	5	1 0	811 $\nabla$	28·70	211
„ (Manningham Lodge)...	J. Priestman, Esq.....	5	1 0	507	29·88	198
„ (Leeshaw Res.) ..... <i>M.J.</i>	Watson, Esq., C.E..	5	1 0	875 $\nabla$	46·48	...
„ (Chellow Dean) .....	„ „ „	5	1 0	645 $\nabla$	25·74	211
„ ( „ Heights).....	„ „ „	5	1 0	848	32·25	210
„ (Hewenden Res.) <i>old g.</i>	„ „ „	5	1 0	700 $\nabla$	35·35	220
„ ( „ „ ) <i>new g.</i>	„ „ „	5	1 0	701 $\nabla$	33·84	218
„ (Heaton Res.) <i>old g.</i>	„ „ „	8	1 0	530 $\nabla$	29·27	200
„ ( „ „ ) <i>new g.</i>	„ „ „	5	1 0	531 $\nabla$	27·42	199
Leeds (Wortley Res.) .....	C.G. Henzell, Esq., C.E.	8	0 9	307 $\nabla$	24·35	178
„ (Knostrop) .....	„ „ „	8	0 9	72 $\nabla$	20·81	161
$\nabla$ „ (Holbeck) .....	Messrs. J. Rhodes & Co.	10	32 0	127 $\nabla$	20·87	142
$\nabla$ „ ( „ W. Works Depot)	C.G. Henzell, Esq., C.E.	8	0 9	93 $\nabla$	22·09	169
$\nabla$ „ (Museum).....	H. Crowther, Esq.....	10	46 0	177 $\nabla$	21·33	173
„ (Woodhouse Moor).....	C.G. Henzell, Esq., C.E.	8	0 9	307 $\nabla$	23·27	179
„ (Elmet Hall, Roundhay)...	Mr. J. Purvis.....	5	1 6	400 $\nabla$	28·66	161
„ (Weetwood Reservoir) ...	C.G. Henzell, Esq., C.E.	8	0 9	328 $\nabla$	24·87	179
„ ( „ Lodge).....	J. P. Reay, Esq. ....	5	0 9	400 $\nabla$	23·41	155
$\nabla$ „ (Allerton Hill) .....	late T. Fenwick, Esq. CE	5	0 7	418 $\nabla$	23·34	202
Shipley (Cragg End) .....	Leeds & L'pool Canal Co.	8	1 0	304	26·27	...
$\nabla$ „ (West Point).....	A.M. Paterson, Esq. C.E.	5	0 6	382 $\nabla$	29·52	204
Oakworth (Oldfield).....	W.H. Hopkinson Esq CE	5	1 0	1008 $\nabla$	37·91	...
Bingley (Gilstead Filters) .....	J. Watson, Esq., C.E..	5	1 0	572 $\nabla$	25·91	187
$\nabla$ Keighley (The Knowle) .....	W. Clough, Esq. ....	5	1 0	385 $\nabla$	31·95	212
$\nabla$ Adel (Lawns Wood) .....	Mr. S. R. Dyson.....	5	1 0	475 $\nabla$	26·14	146
Bingley (Sunnydale).....	J. Watson, Esq., C.E..	5	1 0	825	30·05	214
$\nabla$ Skipton (Silsden) .....	Mr. A. Elder .....	5	1 0	432 $\nabla$	27·92	178
„ ( „ Gill Grange) ...	J. Watson, Esq., C.E..	5	1 0	883	24·43	...
„ (Cringle's Reservoir) ...	„ „ „	5	1 0	760 $\nabla$	23·13	165
„ (Craven Herald Office)...	E. Townsend, Esq.....	8	2 4	360	28·03	202
„ (Hawthorne Cottage) ...	Leeds & L'pool Canal Co.	8	1 0	380	25·48	...
Gargrave (Banks Hill Bank Newton)	„ „ „	8	1 0	545	28·93	...
„ (Ray Bridge Hill) .....	„ „ „	8	0 10	459	26·40	...
„ (Great Scarnber Hill)...	„ „ „	8	0 9	676	27·56	...
Winterburn (Long Hill) .....	„ „ „	8	0 9	705	26 88	...
„ (Brown Hill).....	„ „ „	8	1 0	961	34·50	...
$\nabla$ Malham Tarn ..... <i>old g.</i>	Mr. T. Coulthard .....	5	1 0	1296 $\nabla$	47·34	216
$\nabla$ „ „ ..... <i>new g.</i>	„ „ „	8	1 0	1296 $\nabla$	47·25	216
<b>WEST RIDING (NORTHERN).</b>						
Adel (Eccup, South) .....	C.G. Henzell, Esq., C.E.	8	0 9	390 $\nabla$	24·75	190
„ ( „ East) .....	„ „ „	8	0 9	375 $\nabla$	26·84	181
$\nabla$ Harewood House .....	Countess of Harewood.	5	0 10	300	27·02	189
$\nabla$ Otley (Danefield) .....	J. E. Sharpe, Esq.....	5	0 9	393 $\nabla$	26·42	194
$\nabla$ „ (Sewage Works) .....	„ „ „	5	0 9	169 $\nabla$	25·56	171
$\nabla$ „ (Farnley Hall Gardens) ...	Mr. J. Snell .....	8	0 11	400 $\nabla$	25·49	179
Harewood (Arthington) .....	C.G. Henzell, Esq., C.E.	8	0 9	139 $\nabla$	34·35	160

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1904
		in.	ft.	in.	feet.	inches.	
W. RIDING (NORTHERN)-(con.)							
D Bolton-by-Bowland .....	Mrs. Wright .....	8	1	0	300 T	44.42	185
D Ilkley (Eaton Road) .....	A. Wilson, Esq.....	5	1	0	395 T	33.70	214
D " .....	G. W. Worfolk, Esq...	5	20	0	312 T	29.46	180
Pannal (Kirkby Overblow) .....	A. Rowntree, Esq.....	5	0	9	340 T	23.45	149
Leathley (Lindley Wood S).....	C.G. Henzell, Esq., C.E.	8	0	9	312 T	31.64	218
" ( " " " N).....	" " " " .....	8	0	9	320 T	31.94	218
D Ilkley (Hollingley) .....	J. E. Sharpe, Esq.....	5	0	9	665 T	26.74	195
D York (Mount Villas) .....	J. S. Rowntree, Esq....	5	1	0	70	23.03	217
D " (Burton Croft) .....	G. Crawhall, Esq. ....	5	0	10	48 T	21.08	180
" ( " " " ) .....	M .....	...	...	...	...	20.84	...
D " (The Retreat) .....	Dr. H. J. Mackenzie ...	5	1	0	74 T	20.79	175
§ " .....	Meteorological Council.	8	1	0	57	20.84	174
D " (Cherry Hill) .....	Mrs. H. Richardson ...	5	1	6	50	21.31	165
Slaidburn (Knowlmer Manor)...	W. Peel, Esq.....	5	1	0	417 T	52.43	...
" (Hareden Brook) ... M	T. Cookson, Esq. ....	8	1	2	540	59.59	...
" (Langden Brook) ... M	" " " " .....	8	1	2	556	59.91	...
" (Whiteholme) .....	W. K. Wilkinson, Esq.	5	1	3	475 T	43.08	177
Skipton (Counter Hill) .....	J. Watson, Esq., C.E....	5	1	0	951 T	25.58	...
" (Chelker Reservoir) ... M	" " " " .....	5	1	0	730 T	26.70	...
Fewston (Timble Ings) .....	C.G. Henzell, Esq., C.E.	8	0	9	912 T	33.08	210
" ( " ) .....	" " " " .....	8	0	9	720 T	24.59	171
" (Swinsty E.) .....	" " " " .....	8	0	9	460 T	32.09	227
" ( " W.) .....	" " " " .....	8	0	9	425 T	33.20	227
" (South).....	" " " " .....	8	0	9	525 T	30.41	225
" (North) .....	" " " " .....	8	0	9	525 T	28.85	225
" (Spinksburn) .....	" " " " .....	8	0	9	636 T	30.60	205
" (Blubberhouses) .....	" " " " .....	8	0	9	575 T	33.41	217
D Wetherby (Ribston Hall) .....	Mr. J. McClelland .....	5	1	2	130 T	25.61	182
Bolton Abbey Estate Office .....	A. Downs, Esq.....	5	1	2	350	35.16	196
Harrogate (Ten Acre Reservoir).	E.W. Dixon, Esq., C.E.	8	1	6	620 T	24.81	159
" (Bonny Cap).....	" " " " .....	8	1	6	710 T	30.13	202
" (Wonderful House)...	" " " " .....	8	1	6	725 T	28.25	...
" (Wilson's Farm) .....	" " " " .....	8	1	6	630 T	30.08	202
" (Beaver Dyke Res.)...	" " " " .....	8	0	11	575 T	29.03	202
D § " (Harlow Hill) .....	G. Paul, Esq.....	5	1	0	480	30.42	186
" (Irongate) .....	E.W. Dixon, Esq., C.E.	8	1	6	455 T	24.81	154
D " (The Stray) .....	Mr. G. W. Gledhill ...	5	1	0	380	24.12	181
D " (Park Parade) .....	" " " " .....	5	1	0	400	25.19	181
" (Scargill) .....	E. W. Dixon, Esq., C.E.	8	1	0	646	29.14	201
Slaidburn (Dunsop Houses) .....	W. Stubbs, Esq., C.E..	8	1	0	450 T	55.67	207
" (Middle Knoll)..... M	" " " " .....	8	2	6	1298 T	47.30	...
" (Brennand) .....	" " " " .....	8	1	0	820 T	63.85	214
" (Whitendale) .....	" " " " .....	8	1	0	830 T	62.31	214
" (Cabin Hill)..... M	" " " " .....	8	3	1	1559 T	55.20	...
" (Baxton Fell) .....	" " " " .....	8	2	6	1540 T	51.60	...
D Goldsborough Hall.....	Mr. R. Goodall .....	5	1	0	...	27.07	185
Barden Reservoir .....	J. Watson, Esq., C.E..	8	1	2	746 T	38.13	251
" " .....	" " " " .....	5	1	2	746 T	37.99	251
" " .....	" " " " .....	5	1	2	746 T	37.99	251



## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1904	Days with .01 or more recorded
		Diameter	Height above Ground.		Height above Sea Level		
		in.	ft.	in.	feet.	inches.	
W. RIDING (NORTHERN)-(con.)							
Barden Reservoir (Upper).....	J. Watson, Esq., C.E..	5	1	0	1250 $\nabla$	35.70	251
<sup>D</sup> Nun Monkton.....	H. Horsfield, Esq.....	5	0	6	45	21.06	167
Slaidburn (Croasdale Fell) .....	Henry Backhouse, Esq.	8	1	0	1175 $\nabla$	58.66	...
„ (Lamb Fell).....	„ „ „	8	1	0	1225 $\nabla$	67.04	...
„ (Halstead) .....	„ „ „	8	1	0	875 $\nabla$	46.95	...
„ (Crutchemmer Fell)...	„ „ „	8	1	0	1230 $\nabla$	50.03	...
West End (Hard Ing) .....	C.G. Henzell, Esq., C.E.	8	0	9	1030 $\nabla$	36.03	209
„ „ (Meagill Lane) .....	„ „ „	8	0	9	762	30.65	229
„ „ Garden .....	„ „ „	8	0	9	787 $\nabla$	41.26	189
„ „ (Thruscross) ... No. 1	„ „ „	8	0	9	900 $\nabla$	30.31	224
„ „ ( „ ) ... No. 2	„ „ „	8	0	9	910 $\nabla$	27.28	222
„ „ (Lane Head) .....	„ „ „	8	0	9	938 $\nabla$	31.14	209
Burnsall (Thorpe Fell)..... <sup>M</sup>	J. Watson, Esq., C.E...	5	1	0	1661 $\nabla$	34.51	...
„ (Sandbed Beck) .....	„ „ „	5	1	0	676 $\nabla$	35.58	...
<sup>D</sup> „ Rectory .....	Rev. W. J. Stavert ...	8	4	7	503 $\nabla$	38.03	226
Washburn Dale (Ray Bank) ...	C.G. Henzell, Esq., C.E.	8	0	9	1137 $\nabla$	34.63	196
„ „ (High House) ..	„ „ „	8	0	9	1112 $\nabla$	30.02	198
„ Head.....	„ „ „	8	0	9	1275 $\nabla$	27.94	167
<sup>D</sup> Knaresborough (Farnham) .....	R. Elmhirst, Esq. ....	5	1	0	170 $\nabla$	24.70	196
Ouseburn (Thorpe Underwood Hall)	F. W. Slingsby, Esq....	5	1	1	60 $\nabla$	23.68	...
<sup>D</sup> Settle (The Terrace) .....	J. W. Shepherd, Esq..	8	1	2	531 $\nabla$	37.24	210
<sup>D</sup> Pateley Bridge (Castle Stead) ...	Mr. C. May.....	5	1	0	410	34.65	180
Grimwith Reservoir..... <sup>old g.</sup>	J. Watson, Esq., C.E..	8	1	0	890 $\nabla$	37.42	210
„ „ ..... <sup>new g.</sup>	„ „ „	5	1	0	893 $\nabla$	36.93	210
„ (Trunla Hill)..... <sup>M</sup>	„ „ „	5	1	0	1201 $\nabla$	30.95	...
Pateley Moor (Smaden Head) ...	C.G. Henzell, Esq., C.E.	8	0	9	784 $\nabla$	30.13	191
Low Bentham.....	Messrs. R. C. & G. L. Ford	5	1	5	234 $\nabla$	35.06	...
Dallow Moor (High Skeldon) ...	C.G. Henzell, Esq., C.E.	8	0	9	674 $\nabla$	31.39	190
„ „ ( „ ) ..	„ „ „	5	0	9	674 $\nabla$	31.16	190
„ „ (Harper Hill) .....	„ „ „	8	0	9	859 $\nabla$	32.20	193
„ „ ( „ ) .....	„ „ „	5	0	9	858 $\nabla$	29.88	193
<sup>D</sup> Ripon (South Lodge) .....	Mrs. G. Simpson ...	6	1	0	126	27.29	147
<sup>D</sup> „ (The Red House) .....	F. D. Wise, Esq. ....	5	1	0	120	26.85	149
Ramsgill (Raygill House) .....	J. Watson, Esq., C.E..	5	1	0	925 $\nabla$	40.64	166
„ „ .....	„ „ „	5	1	0	450 $\nabla$	35.57	169
<sup>D</sup> Arncliffe Vicarage .....	Rev. W. A. Shuffrey...	8	3	0	732 $\nabla$	56.31	223
<sup>D</sup> „ (Amerdale).....	J. Hammond, Esq. ...	8	1	6	742 $\nabla$	52.17	230
<sup>D</sup> Ingleton Vicarage .....	Rev. J. Turner . ....	5	0	6	500	35.35	207
<sup>D</sup> „ (Kingsdale Head) .....	Mr. J. Webster .....	5	0	10	994 $\nabla$	46.42	164
Nidderdale (High Riggs) .....	J. Watson, Esq., C.E..	5	1	0	1010 $\nabla$	38.73	185
„ (East Gill Head)... <sup>M</sup>	„ „ „	5	1	0	1710 $\nabla$	54.78	...
„ (Rain Stang) ..... <sup>M</sup>	„ „ „	5	1	0	1470 $\nabla$	45.52	...
„ (Angram).....	„ „ „	5	1	0	1150 $\nabla$	41.95	187
„ (New Houses) .....	„ „ „	5	1	0	755 $\nabla$	39.63	182
Kirkby Malzeard (Drovers' Inn) ..	C.G. Henzell, Esq., C.E.	8	0	9	576 $\nabla$	32.17	195
„ „ ( „ ) ..	„ „ „	5	0	9	576 $\nabla$	34.70	195
„ „ (Hawset) .....	„ „ „	8	0	9	820 $\nabla$	31.77	206
„ „ (Hambleton Hill)	„ „ „	8	0	9	1106 $\nabla$	42.30	...

### DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1904	
		in.	ft	in.	feet.	inches.	
W. RIDING (NORTHERN)-(con.)							
Kirkby Malzeard (Bagwith Brae).	C. G. Henzell, Esq., C.E.	8	0	9	703 $\pi$	29.60	196
" " ( " " )	" " " "	5	0	9	703 $\pi$	29.56	19
" " (Stone & Ears Wham)	" " " "	8	0	9	1118 $\pi$	35.28	...
D Ripon (High Bank, Mickley) ..	Miss Harrison .....	5	1	6	225 $\uparrow$	26.63	174
Masham Moor (Benjy Guide) ..	C. G. Henzell, Esq., C.E.	8	0	9	1412 $\pi$	43.74	...
" " (W. Somerside)...	" " " "	8	0	9	928 $\pi$	34.46	149
" " ( " " )	" " " "	5	0	9	928 $\pi$	31.72	149
" " (High Sour Mire)	" " " "	8	0	9	884 $\pi$	41.55	150
" " ( " " " )	" " " "	5	0	9	884 $\pi$	28.32	149
" " (Leighton) .....	" " " "	8	0	9	542 $\pi$	36.12	165
" " ( " " )	" " " "	5	0	9	542 $\pi$	28.93	165
" " (Low Houses).....	" " " "	8	0	9	693 $\pi$	32.50	184
" " ( " " )	" " " "	5	0	9	693 $\pi$	32.24	184
" " (Roundhill Res.)	E. W. Dixon, Esq., C.E.	8	0	6	743 $\pi$	29.46	194
" " ( " " Farm)	" " " "	8	0	6	975	31.87	...
D Wharfedale (Oughtershaw Hall)	Miss Woodd .....	8	1	6	1175 $\uparrow$	65.04	211
Sedburgh (Dent).....	Westmorland Gazette..	5	...		475	62.41	214
D " (Brig Flatts) .....	J. Handley, Esq. ....	5	1	3	300 $\uparrow$	47.64	209
D " (Akay) .....	C. E. Taylor, Esq.....	5	1	0	400 $\uparrow$	50.06	208
D " (Cemetery).....	Mr. J. Anderson.....	5	1	0	374 $\pi$	48.73	209
" " (Thorns Hall) .....	Miss Sedgwick ... ..	5	1	0	400 $\uparrow$	47.68	205
EAST RIDING.							
§ Patrington (Spurn Head) .....	Meteorological Council.	8	1	0	27	17.00	134
" "	W. B. Pugh, Esq. ....	5	2	6	46 $\pi$	19.40	...
D Hull (Pearson Park) .....	H. B. Witty, Esq.....	5	0	10	6	21.25	184
D " (Springhead) .....	F. J. Bancroft, Esq., C.E.	5	1	7	15 $\uparrow$	22.59	199
D Cottingham (Water Works) .....	" " " "	5	1	1	26 $\uparrow$	19.89	162
D Skipwith .....	Rev. C. D. Ash .....	5	2	6	25	20.14	179
D Beverley (East Riding Asylum).	Dr. Macleod .....	5	1	0	175 $\uparrow$	22.51	195
D " (Register House) .....	G. A. Thompson, Esq...	6	1	0	22	22.82	161
" " (New Walk) .....	W. Evans, Esq., C.E...	5	3	0	40	21.78	189
" " (Hull Bridge).....	" " " "	5	2	6	11 $\pi$	20.75	...
Market Weighton (Dalton Hall)	Mr. J. Allsop .....	5	1	6	150 $\uparrow$	20.92	146
D Hornsea (Elim Lodge) .....	T. B. Holmes, Esq. ...	8	1	6	30 $\pi$	20.94	164
Brandesburton (Hempholm).....	W. Evans, Esq., C.E...	5	2	6	11 $\pi$	21.30	174
D Pocklington (Warter) .....	J. Coxon, Esq. ....	5	1	10	230 $\uparrow$	22.53	158
Dunnington Hall [York] .....	Miss Hildyard .....	8	1	2	110	20.10	179
§ Driffeld (York Road) .....	W. F. Lovel Esq. ....	5	1	0	76 $\uparrow$	21.68	155
D " (Lockwood Street) .....	W. H. Blakeston, Esq.	8	1	0	60 $\uparrow$	21.82	147
Wetwang .....	Rev. E. M. Cole .....	5	1	0	235 $\uparrow$	18.48	158
D Thixendale .....	Rev. W. H. Fox .....	10	0	10	425 $\uparrow$	24.47	199
D Lowthorpe (The Elms) .....	H. Onslow Piercy, Esq.	5	1	0	63 $\pi$	21.69	195
Hunmanby (Holly Bank).....	Miss Suter .....	5	1	2	...	21.16	...
NORTH RIDING.							
Alne .....	R. Godfrey, Esq., C.E..	5	1	0	50 $\pi$	21.19	...
Easingwold (Marton Vicarage) ..	Rev. F. S. Newman ...	5	3	3	200 $\uparrow$	21.90	...

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>NORTH RIDING—(con.)</b>						
Terrington Hall.....	Mr. T. Suffield .....	5	1	5	300 T	23·55 226
D Wigganthorpe .....	Mr. J. S. Upex .....	5	1	0	350 T	24·08 194
D Malton.....	M. B. Slater, Esq. ....	10	0	10	139 A	21·67 152
D Gilling (Grimstone Manor) .....	W. R. I. Hopkins, Esq. ....	5	0	8	400 T	25·00 173
Hovingham Hall .....	Meteorological Council.	5	0	6	120	25·72 ...
D Baldersby .....	W. Gregson, Esq. ....	5	1	0	101 T	23·98 163
§ Ampleforth Abbey.....	Meteorological Council.	...	1	0	350	27·33 181
Thirsk (Sowerby) .....	W. Swarbreck, Esq. ...	5	1	0	105 T	23·79 187
D " ( " ) .....	A. C. Bamlett, Esq. ...	5	...	...	...	21·35 142
D " (The Hall).....	Reginald Bell, Esq. ...	5	1	2	110 T	22·77 179
D " (Mount St. John) .....	A. J. Walker, Esq. ...	5	1	0	523 A	24·07 189
" ( " " " ) .....	M " " " .....	5	1	10	542 A	23·71 ...
" (Boltby).....	" " " .....	5	0	7	495 A	20·57? ...
" (Cliff Head, Boltby) ...	" " " .....	5	4	7	773 A	20·05 ...
D Pickering .....	Dr. J. L. Kirk .....	5	1	0	150	22·55 215
D Bedale (Burneston) .....	Rev. J. T. Hartley ...	5	3	9	110 T	21·59 183
" (Park House).....	Miss M. Greenwood ...	5	1	1	180	22·42 200
" (Newton House) .....	Mr. W. Paylor .....	5	2	6	125	21·21 ...
Leyburn (Bolton Hall) .....	Mr. F. Scrivener .....	8	1	0	420	25·72 ...
D Seamer (Irtton) .....	W. Millhouse, Esq. C.E.	8	1	0	94	23·89 175
Scarborough (Osgodby).....	" " .....	8	1	0	166 A	19·50 ...
§ " .....	Royal Meteorological Soc	5	1	0	101	19·80 188
D " (Sealby) .....	late J. W. Rowntree, Esq.	5	0	11	300 B	25·74 204
D Bedale (Ivy Cottage, Fencote)...	Mr. W. Culverwell ...	5	1	6	125 T	20·17 147
D Northallerton (Osmotherley).....	T. Yeoman, Esq. ....	8	0	8	660	23·43 144
§ " (Rounton Grange).....	Royal Meteorological Soc	8	1	0	249	22·87 200
D Ingleby Manor .....	Lord De L'Isle .....	5	0	11	460 T	31·18 176
D " Greenhow.....	Mr. P. Huntington ...	5	1	0	448 T	30·19 211
East Layton Hall .....	Mrs. Proud .....	11	1	0	575 T	24·38 ...
D Stanwick Park [Darlington] .....	Mr. W. Higgle .....	5	1	1	300 T	24·51 189
D Forcett Park [ " ] .....	J. Shaw, Esq. ....	6	1	6	351 T	26·54 202
D Whitby (Park Hall, Aislaby) ...	Rev. J. H. Richardson..	5	1	0	500	25·82 217
D Great Ayton (Easby Hall) .....	J. J. Emerson Esq., LL.D.	5	1	0	355	29·06 194
Kildale Hall .....	R. B. Turton, Esq. ...	5	1	2	600 T	30·81 ...
D Whitby (Mulgrave Castle) .....	Mr. J. Corbett .....	5	1	0	410 T	23·06 175
D Guisborough (Lockwood Beck Res)	W. I'Anson, Esq., C.E.	8	1	0	632 A	28·25 185
" ( " " " ) .....	" " " .....	8	...	...	...	28·06 ...
D Middlesbrough (Ormesby) .....	Mr. W. Sanderson.....	5	1	0	100 T	23·06 210
D " (Albert Park) ...	J. M. Parnaby, Esq. ...	8	1	0	30	20·85 174
D Hury Res. [Barnard Castle].....	D. D. Wilson, Esq. ...	8	1	0	866 T	31·60 182
D Grassholme Res. [Middleton] ...	" " " .....	8	1	0	936 A	34·02 168
Mickleton .....	Dr. H. R. Mill .....	8	1	0	850	24·53 ...
" (Lime Kiln Pasture) 1	" " " .....	8	1	0	1175 T	30·75 ...
" ( " " " ) 2	" " " .....	8	1	0	1175 T	29·65 ...

## DIVISION X.—NORTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>DURHAM.</b>						
Darlington (Hurworth Grange) ..	Mrs. J. E. Backhouse...	5	1 0	161 $\nabla$	23.96	181
" (Cleveland Parade) ..	W. W. Willmott, Esq.	5	1 3	160 $\nabla$	23.41	185
" (Public Park) .....	Mr. J. Morrison .....	5	1 3	...	22.81	164
" (Hummersknott) ..	Mr. J. Short .....	5	1 0	200	23.55	...
Barnard Castle (County School) ..	E. Wells, Esq. ....	5	1 6	540 $\nabla$	24.69	190
Stockton (Rimswell) .....	W. Anderson, Esq., C.E.	5	1 0	100 $\nabla$	19.55	198
" (Ropner Park) .....	Mr. W. A. Jenkins ...	5	1 9	61 $\nabla$	20.20	144
West Hartlepool (Lynn Street) ..	Mr. H. Lamb .....	5	65 0	84	15.50	159
" (Bradgate) .....	G. H. Baines, Esq. ....	5	1 0	100 $\nabla$	21.52	204
Hartlepool (Hurworth Burn) ..	late T. Fenwick, Esq., C.E.	5	1 0	357	24.58	...
Wolsingham .....	Mr. A. Mitchell .....	5	1 0	464 $\nabla$	26.10	192
Eastgate (All Saints' Vicarage) ..	Rev. J. G. B. Knight...	5	0 9	768	33.61	193
Stanhope (Parson Byer's Quarry) ..	Messrs. Bell Bros. ....	5	6 8	846 $\nabla$	24.24	...
Wearhead Station .....	Mr. R. Rust .....	5	0 6	1104	44.65	155
§ Durham Observatory .....	Meteorological Council.	12	4 0	340	18.99	160
§ Ushaw (St. Cuthbert's College) ..	Rt. Rev. Mgr. Corbishley	5	0 9	600 $\nabla$	22.29	171
Wearhead W.W. (Tunstall) ..	R. Askwith, Esq., C.E.	8	1 2	724 $\nabla$	26.57	161
" " (Waskerley 6)	" " " .....	8	4 2	1229 $\nabla$	23.88	...
" " ( " 3)	" " " .....	8	4 6	1433 $\nabla$	28.45	...
" " ( " 4)	" " " .....	8	4 7	1321 $\nabla$	24.05	...
" " ( " 5)	" " " .....	8	4 2	1244 $\nabla$	24.61	...
D " " ( " )	" " " .....	8	0 11	1179 $\nabla$	27.00	203
" " ( " 2)	" " " .....	8	4 5	1367 $\nabla$	24.44	...
" " ( " 1)	" " " .....	8	4 4	1317 $\nabla$	23.29	...
D " " (Smiddy Shaw)	" " " .....	8	1 3	1128 $\nabla$	28.23	182
Seaham (Dalton Pumping Sta.) ..	A. B. E. Blackburn, Esq.	8	1 0	345 $\nabla$	21.97	158
Fence Houses (Chilton Moor) ...	V. W. Corbett, Esq. ...	5	1 4	186 $\nabla$	20.77	...
D Seaham Harbour .....	Mr. G. H. Aird .....	8	1 6	141	21.24	155
" Vicarage .....	Rev. A. Bethune .....	5	0 6	80 $\nabla$	25.04	...
" Hall .....	Mr. R. Draper .....	5	1 0	106 $\nabla$	22.02	...
Sunderland (Ryhope Pumping Sta.) ..	A. B. E. Blackburn, Esq.	8	1 1	228 $\nabla$	21.36	169
D " (W. Hendon Ho.) No. 5	T. W. Backhouse, Esq.	5	1 0	130 $\nabla$	20.35	174
" ( " " ) No. 6	" " " .....	5	1 0	130 $\nabla$	20.60	...
" (Mowbray Park) .....	H. Renny, Esq., M.D. ...	5	1 0	105	20.70	166
" (Claxheugh Grove) ..	J. P. Cornett, Esq. ....	5	2 6	90	21.82	...
D " (The Cedars) .....	W. F. Vint, Esq. ....	5	0 6	115 $\nabla$	21.91	156
" (Cleaton Pumping Sta.) ..	A. B. E. Blackburn, Esq.	8	1 0	216 $\nabla$	21.23	169
D Ryton-on-Tyne .....	J. P. Dalton, Esq. ....	5	1 0	258 $\nabla$	21.85	182
" " (Balgonie House) ..	J. W. Smith, Esq., M.D.	5	1 6	...	20.54	...
<b>NORTHUMBERLAND.</b>						
D Corbridge (Howden Dene) .....	J. H. Straker, Esq. ...	5	0 9	200 $\nabla$	22.44	196
D Bardon Mill (Beltingham Vic.) ..	Rev. H. C. Newbery ...	5	1 0	320	25.18	187
D Newcastle (Clifton Road) .....	E. L. Merz, Esq. ....	8	1 6	315	19.04	147
" (Lit. and Phil. Soc.) ..	H. Richardson, Esq. ...	8	55 0	160	23.12	...
§ " (Northumberland Rd.) ..	N. H. Martin, Esq. ...	8	45 0	200	20.24	199
D " (Leazes Park) .....	F. J. Edge, Esq., C.E. ...	5	1 0	255 $\nabla$	20.30	152
D " (Town Moor) .....	A. Wright, Esq. ....	5	2 0	201 $\nabla$	23.43	177

## DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
NORTHUMBERLAND—(con.)						
Newcastle (Wellburn, Jesmond).	W. H. Holmes, Esq....	5	1	6	163 T	22.63 144
§ North Shields (Dockway Square)	Meteorological Council.	8	1	4	100	20.49 170
d Tynemouth.....	J. Walker, Esq., C.E....	5	1	8	65 A	21.87 177
Stamfordham Vicarage.....	Rev. G. Evans-Gwynne	5	0	6	422	25.15 ...
Whittle Dean (Newcastle W. W.)	A. L. Forster, Esq., C.E.	10	...	...	380	20.53 ...
„ „ Filters( „ „ )	„ „ „	...	...	...	350	21.72 ...
Whittington ( „ „ )	„ „ „	...	...	...	...	21.48 ...
Burnside ( „ „ )	„ „ „	...	...	...	...	22.03 ...
N. Tyne (Green Crag)( „ „ )	„ „ „	10	0	6	800 A	21.85 ...
Hallington ( „ „ )	„ „ „	10	0	6	469 A	25.44 ...
„ Reservoirs( „ „ )	„ „ „	...	...	...	...	27.28 ...
„ (Fawcett) ( „ „ )	„ „ „	10	0	6	563 A	22.74 ...
„ (Cheviot) ( „ „ )	„ „ „	...	...	...	...	22.88 ...
Gunnerton Burn (Camphill)( „ „ )	„ „ „	10	0	6	676 A	21.47 ...
Colt Crag ( „ „ )	„ „ „	...	...	...	...	20.93 ...
d Scots Gap (Wallington) .....	Rt Hon Sir G Trevelyan Bt	8	2	9	446 T	26.85 192
d Angerton Hall .....	Mr. R. Elliott .....	5	1	0	320 A	28.86 170
Morpeth .....	T. Matheson, Esq.....	8	1	6	100	25.57 151
d „ (Bothalhaugh Garden)..	Hon. & Rev. W. C. Ellis	5	1	10	35 ?	23.45 176
„ ( „ „ „ ) M	„ „ „ „	5	0	10	35	23.34 ...
d „ ( „ „ „ ) M	„ „ „ „	5	1	10	137	23.39 176
„ ( „ „ „ ) M	„ „ „ „	5	0	10	135	24.06 ...
Scots Gap (Rothley Crag).....	J. Daglish, Esq.....	5	0	6	665 T	22.37 ...
Morpeth (Longhirst Hall).....	Sir J. Joicey, Bart., M.P.	7	1	0	168	21.57 ...
§ „ (Cockle Park).....	J. H. J. Farquhar, Esq.	8	1	0	325 A	23.89 189
d Ewesley (Font Reservoir).....	F. R. Hull, Esq., C.E....	10	0	5	620 A	21.67 200
„ (Redpath) .....	„ „ „	...	1	0	850 T	24.20 ...
„ (Tod Crag) .....	„ „ „	...	1	0	1000 T	25.96 ...
„ (Fallowlees).....	„ „ „	...	1	0	850 T	26.82 ...
„ (Chertners) .....	„ „ „	...	1	0	1000 T	24.88 ...
Rededale (Horsley) .....	A. L. Forster, Esq., C.E.	8	1	0	600	22.27 ...
§ Rothbury (Crag-side).....	Lord Armstrong .....	8	1	0	405 A	25.25 155
Redewater (Blakehope).....	A. L. Forster, Esq., C.E.	8	1	1	900	21.33 ...
„ (Chattlehope) .....	„ „ „	8	1	0	800	32.57 ...
„ (Catcleugh) .....	„ „ „	8	1	0	794	28.74 ...
Alwinton (Biddleston Hall) .....	P. Dodds, Esq. ....	5	1	0	820 T	25.31 151
§ Alnwick Castle .....	Meteorological Council.	5	0	4	178	26.36 177
d Howick Hall .....	Earl Grey .....	8	0	10	121 A	28.60 162
Ilderton (Lilburn Tower) .....	A. B. Collingwood, Esq.	10	6	0	300 T	20.79 ...
d „ ( „ „ Cottage) .....	Mr. N. D. Cowans .....	8	1	0	340 T	22.93 152
Wooler (St. Ninians).....	Dr. R. Walker .....	8	0	10	176 T	22.95 ...
Kirknewton (Hethpool) .....	V. W. Corbett, Esq. ...	5	1	4	420 T	24.47 215
Bamburgh .....	Mr. R. W. Clark .....	5	1	0	75 L	20.09 ...
d Pawston [Coldstream] .....	B. P. Selby, Esq. ....	8	1	0	328 T	23.69 177
Beal (Barmoor Castle) .....	T. Hodgkin, Esq., D.C.L.	8	3	6	400	25.17 162

## DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1904	
		in.	ft.	in.	feet	inches.	
<b>CUMBERLAND.</b>							
d Millom (Leyfield) .....	Cedric Vaughan, Esq. CE	5	1	2	81 $\nabla$	35.14	227
d Ravenglass (The Grove) .....	A. Watt, Esq. ....	5	1	2	84 $\nabla$	36.05	183
§ Eskdale Green (Gatehouse) .....	Mr. L. Burnett .....	5	0	10	215 $\nabla$	48.60	212
d Seascale (Whinthaite) .....	Dr. R. Hellon .....	5	1	0	52 $\nabla$	31.38	192
d Gosforth (Bolton Hall) .....	Col. J. R. Bain, M.P. ....	5	1	8	135 $\nabla$	41.78	200
Sprinkling Tarn .....	Dr. H. R. Mill .....	4	0	6	1985	140.45	...
Styehead Tarn .....	" " " .....	4	0	6	1472 $\nabla$	148.65	...
The Stye A .....	" " " .....	4	0	6	1077 $\nabla$	174.18	...
" B .....	" " " .....	4	1	0	1077 $\nabla$	175.76	...
" C .....	" " " .....	4	1	0	1077 $\nabla$	176.85	...
" D .....	" " " .....	4	1	0	1077 $\nabla$	140.51	...
Borrowdale (Seathwaite) .....	" " " .....	4	0	6	422 $\nabla$	132.49	...
" ( " ) .....	" " " .....	5	1	0	422 $\nabla$	131.70	...
d§ " ( " ) .....	Royal Meteorological Soc	5	1	0	423 $\nabla$	128.81	205
" ( " ) .....	Miss C. Marshall .....	5	1	0	...	132.65	...
Ullscarf .....	G. H. Hill, Esq., C.E. ....	7	1	8	2100 $\nabla$	119.90	...
d Cleator (The Floss) .....	D. Ainsworth, Esq. ....	5	1	11	208 $\nabla$	47.38	163
" Moor Water Works ...	R. Robertson, Esq., C.E. ....	5	1	0	395 $\nabla$	56.89	163
Helvellyn (Birkside) .....	G. H. Hill, Esq., C.E. ....	7	1	3	1900 $\nabla$	76.20	...
Wythburn .....	" " " .....	7	1	4	580 $\nabla$	84.40	...
Borrowdale Vic. (Rosthwaite) ...	Rev. E. A. Penson .....	5	1	0	330 $\nabla$	95.81	...
d Buttermere (Hassness) .....	Mr. R. Johnston .....	5	1	0	355	107.94	221
d Whitehaven (Hensingham Ho.) ..	E. Lonsdale Nanson, Esq. ....	5	1	6	280	37.31	200
d Borrowdale (Grange) .....	Mr. J. Threlkeld .....	5	0	9	271 $\nabla$	83.98	213
Armboth Fells (The Pewitts) .....	G. H. Hill, Esq., C.E. ....	7	1	6	1650 $\nabla$	87.20	...
Helvellyn (Whiteside) .....	" " " .....	7	1	6	2100 $\nabla$	65.30	...
Thirlmere (Dale Head Hall) ...	" " " .....	7	1	5	620 $\nabla$	74.70	...
d Whitehaven (Irish Street) .....	Dr. Welby I'Anson ...	5	1	1	21 $\nabla$	40.99	203
d Keswick (Barrow House) .....	late Miss E. G. Langton	8	0	6	282 $\nabla$	65.21	195
Distington (Gilgarran) .....	Mr. A. Kydd .....	5	4	9	470 $\nabla$	41.50	190
Ullswater (Hallsteads) .....	Miss C. Marshall .....	5	2	0	497 $\nabla$	52.06	224
Keswick (Deer Close) .....	John Marshall, Esq. ...	7	1	9	300 $\nabla$	55.02	242
" (Derwent Island) <i>old g.</i> ..	" " " .....	5	0	7	280	53.48	230
" ( " " ) <i>new g.</i> ..	" " " .....	5	0	6	290	51.27	230
d " (Eskin Place) .....	J. Postlethwaite, Esq. ....	8	6	4	298 $\nabla$	51.17	194
d " (York City & Co. Bank) ..	Mr. R. W. Mayson ...	5	1	6	265 $\nabla$	50.85	219
d " (Shu-le-crow) .....	A. Mitchell Dawson, Esq. ....	5	0	7	296 $\nabla$	53.66	218
d " (Crosthwaite School) .....	Mr. H. Swinburn .....	5	1	0	254 $\nabla$	48.90	218
d Cockermouth (Ullock) .....	J. H. Walker, Esq. ....	5	1	0	313 $\nabla$	49.49	203
d Matterdale (Bank House) .....	Rev. T. D. Hodgson ...	5	1	5	1020 $\nabla$	60.38	192
d Workington (Winscales) .....	Mrs. J. A. Trench .....	5	0	9	440 $\nabla$	37.81	184
d Cockermouth (Whinfell Hall) ...	Mrs. F. M. Peile .....	5	0	1	255 $\nabla$	50.57	223
d " (Brandlingill) .....	Col. F. R. Sewell .....	5	1	0	320 $\nabla$	57.01	207
d Bassenthwaite (Bassenfell) .....	Mrs. S. G. Rathbone ...	8	1	0	384	37.19	191
d Cockermouth (Higham) .....	the late Miss Hoskins..	5	1	0	478 $\nabla$	38.13	200
d " (Broughton Grange) .....	G. S. Wilson, Esq. ...	5	1	3	209 $\nabla$	37.22	206
Penrith (Nandana) .....	G. Varty-Smith, Esq. ....	5	3	0	650 $\nabla$	26.26	231
" (Fell Lane, Fir Bank) ..	T. Lester, Esq. ....	5	1	0	575 $\nabla$	28.08	183

## DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with '01 or more recorded.	
		Diameter	Height Above Ground.				Height Above Sea Level
		in.	ft.	in.	feet.	inches.	
CUMBERLAND—(con.)							
Penrith (Newton Rigg) .....	Meteorological Council.	...	...	...	...	30.41	192
„ (Greystoke) .....	H. Walker, Esq. ....	5	1	3	650	40.58	...
D „ ( „ Belle Vue) ..	Mr. M. Rowe .....	5	4	0	680 T	32.64	217
„ (Ennism) .....	Mrs. Hamlet Riley ...	8	0	6	660	35.12	156
„ (Inglewood) .....	H. F. Thompson, Esq..	5	1	0	550 T	28.01	163
D Bassenthwaite (Armathwaite Hall)	T. M. Hartley, Esq. ...	8	1	0	305	36.48	217
Maryport (Netherhall) .....	Mrs. H. P. Senhouse...	8	0	6	27 T	33.43	...
D Penrith (Nunwick Hall) .....	Mrs. Heywood Thompson	5	1	0	298 T	26.97	193
Melmerby Rectory.....	Rev. W. Y. Craig .....	5	0	6	583 T	32.49	..
§ Aspatria .....	Meteorological Council.	8	1	0	251	33.99	160
„ (Brayton Hall) .....	Sir Wilfred Lawson, Bart. M.P.	8	0	6	200	33.27	141
D Wigton (Brookfield) .....	J. J. Jopling, Esq. ....	5	0	9	124 T	34.21	197
Wreay Vicarage.....	Rev. A. R. Hall .....	5	2	0	310 T	26.74	176
D Silloth .....	A. C. Allen, Esq. ....	8	1	0	22 T	27.52	169
D Geltsdale.....	H. C. Marks, Esq., C.E.	5	1	2	924 T	30.37	193
Carlisle (Cemetery) .....	S. Cartmell, Esq. ....	8	4	0	114 T	26.72	198
„ (Rickerby) .....	Miles MacInnes, Esq..	8	1	2	52 T	26.41	...
„ (Stanwix).....	Sir Benjamin Scott ...	8	1	6	100 T	25.98	171
D „ (Newby Grange) .....	T. H. Hodgson, Esq....	5	0	8	64 T	21.04	193
§ „ (Scaleby) .....	Royal Meteorological Soc	5	1	0	112	28.16	218
D Brampton (Denton House) .....	Miss B. Gardhouse.....	5	1	5	541 T	26.82	208
WESTMORLAND.							
Kirkby Lonsdale .....	J. R. Picard, Esq. ....	7	0	8	215 T	43.27	...
D „ „ (Casterton).....	R. A. Clarke, Esq. ....	8	1	0	305	43.95	229
D „ „ (Barbon Manor)	A. Ford, Esq. ....	6	1	3	650 T	40.51	179
D „ „ ( „ ) .....	Miss Wilkinson .....	5	1	0	310 T	40.87	173
D Milnthorpe (Eversley) .....	T. A. Argles, Esq. ....	8	0	6	130	42.67	193
D „ (Beathwaite, Levens)	W. H. Crewdson, Esq..	5	1	3	120 T	44.57	161
Kendal (Natland Vicarage) .....	Rev. W. Kewley .....	5	1	5	162	39.46	197
„ (Helm View) .....	W. Thomson, Esq., C.E.	5	0	10	140 T	48.92	173
D „ (Holmcroft) .....	R. Rhodes, Esq. ....	5	1	3	176 T	49.17	203
D „ (Ivy Garth) .....	R. J. Nelson, Esq. ....	5	1	6	146 T	48.37	190
„ (Ellergreen) .....	Mr. J. Wray .....	8	1	6	270 T	46.39	172
D Bowness (Lindeth Howe) .....	R. H. J. Hill, Esq. ....	5	1	0	200 T	59.85	220
„ (Fallbarrow) .....	H. E. Rawson, Esq. ....	8	1	0	135 T	60.79	205
Windermere .....	Miss C. Marshall .....	5	1	0	290 T	57.16	222
D „ (Holehird).....	W. G. Groves, Esq. ....	5	1	0	483 L	64.36	225
D Ravenstonedale .....	Rev. R. W. Metcalfe...	5	1	2	800 T	51.98	207
D Ambleside (Skelwith Bridge) ...	A. J. Adams, Esq. ....	5	1	9	190 T	94.25	208
Little Langdale (Fell Foot) ...M	Miss C. Marshall .....	5	2	2	380	106.78	...
D Ambleside (Gale House) .....	G. A. Johnston, Esq. M.D.	5	1	0	250 T	72.16	221
D Elterwater Hall .....	J. Robinson, Esq. ....	5	1	1	243	88.77	221
Rydal (The Stepping Stones) ...	Gordon Wordsworth Esq	5	1	3	190	80.15	245
D Loughrigg (Silverthwaite) .....	Miss A. Sharp .....	5	1	0	192	69.62	215
D Dungeon Ghyll .....	Miss C. Marshall .....	5	1	0	310	103.94	248
„ „ „ .....	M „ „ .....	5	1	0	311	104.09	...
Mickleden .....	M „ „ .....	5	1	6	490	118.19	...

## DIVISION X.—NORTHERN COUNTIES—(continued.)

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1904	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
WESTMORLAND—(con.)							
d Grasmere (High Close) .....	F.M.T. Jones Balme, Esq.	8	0	9	553 T	83·05	211
d „ (The Wray) .....	Miss G. M. Simpson ...	5	1	0	221 T	88·83	227
d Kirkby Stephen (Redmaine Ho.) ..	Mrs. T. Mason .....	5	1	0	574 T	36·33	182
d Shap Vicarage .....	Mrs. Collinson .....	5	1	0	854 T	46·22	192
d Patterdale Hall .....	Mr. J. Munro ..	5	1	3	490 T	80·70	217
d „ (Greenside Mine) .....	W. H. Borlase, Esq. ...	7	1	6	1000 T	89·82	...
d Appleby (Castle Bank) .....	C. R. Rivington, Esq. ...	5	1	2	440 T	31·30	196
d Ullswater (Swarth Fell) .....	Dr. H. R. Mill .....	5	1	3	1000 T	40·90	...
d „ (Sharrow Bay) .....	Mr. G. Robinson .....	5	0	7	600	35·99	...
d Great Strickland (Greencroft) ...	Mrs. Whiteside .....	5	2	0	648 T	36·97	205
d Morland [Penrith] .....	Miss M. Markham .....	5	1	0	456 T	33·45	205
d Lowther Castle [Penrith] .....	Mr. F. Clarke .....	8	4	0	760 T	33·80	180
d Cliburn Rectory [Penrith] .....	Mrs. Burton .....	5	1	10	459 T	25·56	...

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

## MONMOUTH.

§ Rumney (Witla Court) .....	H. Heywood, Esq. ....	5	2	0	176	37·89	221
d Caldicot Level (Porton) .....	Togarmah Rees, Esq. CE	5	1	3	27 T	27·10	173
d Portskewett (Sudbrook) .....	W.K. Laurence, Esq. CE	8	0	10	22 T	28·03	168
d Bassalleg (Bryn Hedydd) .....	Togarmah Rees, Esq. CE	5	0	8	333 T	41·58	174
§ Newport (Friar Street Yard) ..	Meteorological Council.	...	...	...	...	36·88	192
§ „ (Ynis-y-bro) .....	„ „	5	1	0	115	34·57	180
§ „ (Pant-yr-eos Res.) .....	„ „	...	...	...	...	51·98	196
d „ (W.W., New Mills) ..	Baldwin Latham Esq CE	5	1	0	371 T	37·79	224
d „ ( „ Llanvaches) ..	„ „ „	5	0	10	514 T	34·90	219
d „ (Wentwood) .....	„ „ „	5	1	0	481 T	38·42	223
d Chepstow (Piercefield Park) .....	H. Clay, Esq. ....	5	1	6	310	31·88	161
d „ (Itton Court) .....	E. Curre, Esq. ....	8	4	6	390	36·88	180
d Llanfrechfa Grange .....	F. J. Mitchell, Esq. ...	5	4	0	326 T	39·07	197
d Tredunnoch .....	Rev. C. T. Salusbury ...	5	2	3	170 T	31·18	173
d Newport (W.W., Newchurch) ..	Baldwin Latham Esq CE	5	0	10	496 T	38·42	224
d Abersychan (The Hawthorns) ..	J. W. Mulligan, Esq. MD	5	1	0	755 T	47·92	207
d „ (Glansychan) .....	Meteorological Council.	3	2	0	700	49·93	147
d Tredegar (The Willows) .....	G. A. Brown, Esq., M.D.	8	1	0	1024 T	55·76	177
d Monmouth (School House) .....	E. H. Culley, Esq. ...	5	1	4	76 T	27·18	196
d „ (The Hendre) .....	Mr. T. Coomber .....	8	1	0	176 T	23·56	188
d Abergavenny (Larchfield) .....	Dr. J. Glendinning ...	5	1	0	240 T	33·48	178
d „ (Dyne House) .....	Dr. S. H. Steel .....	5	1	5	220 T	35·46	184
d „ (The Chain) .....	W. Baker Gabb, Esq. ...	5	1	3	300	35·66	185
d Monmouth (Pentwyn) .....	Rev. Canon Harding ...	5	1	0	191 B	26·56	162
d Llantilio Court .....	Sir H. Mather-Jackson Bt	6	0	11	207	29·81	166
d Pandy (Trewyn) .....	P. B. Barneby, Esq. ...	8	0	9	444 T	45·91	179

## GLAMORGAN.

d Barry .....	E. W. Waite, Esq., C.E.	5	1	0	97	35·90	187
d Cowbridge (Fonmon Castle) .....	O. H. Jones, Esq. ....	8	1	2	130	36·96	187



# DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.	
GLAMORGAN—(con.)							
D Barry W. W. (Biglis) .....	E. W. Waite, Esq., C.E.	5	1	0	20 T	34·29	187
„ „ (Merthyr Dofan)...	„ „ „	5	1	0	300 T	35·86	...
„ „ (Pencoedtre) .....	„ „ „	5	1	0	200 T	36·79	...
D „ „ (Dinas Powis Res.)	„ „ „	5	1	0	165 T	35·16	191
D Lower Penarth .....	E. I. Evans, Esq., C.E.	5	1	0	67 T	34·42	235
D Penarth .....	„ „ „	5	1	1	128 T	34·38	192
Cardiff (Cogan Pill, Llandough).	C.H. Priestley, Esq. C.E.	5	1	0	121 T	38·50	173
„ (Trade Street) .....	„ „ „	5	1	0	45	39·35	197
D „ (Roath Park) .....	E. Walford, Esq., M.D.	5	1	0	50	41·72	229
D „ (Ely) .....	C.H. Priestley, Esq. C.E.	8	1	0	53 T	43·26	223
D Llandaff (Howell's School) .....	Miss A. G. Winny .....	5	1	4	82 T	41·61	197
Cardiff (New Filters, Heath) ...	C.H. Priestley, Esq. C.E.	5	1	0	132	41·36	187
„ (Llanishen Reservoir) ...	„ „ „	5	1	0	155	39·08	204
D „ (Lisvane Reservoir) .....	„ „ „	5	1	0	150	37·58	205
Cowbridge (Ash Hall) .....	E. Tudor Owen, Esq. ...	8	1	2	315 T	46·65	198
D Llantrisant (Talygarn) .....	G. L. Clark, Esq. ....	5	4	3	250	61·03	222
D Oystermouth (Newton) .....	Rev. Secretan Jones ...	5	0	9	279 T	45·76	205
D Port Talbot (Twyn-yr-hydd, Margam)	G. Lipscomb, Esq. ....	5	1	0	180 T	46·27	201
D Caerphilly (The Court House) ...	Dr. Kenneth Mackenzie	5	1	3	308	51·63	211
Gilfach Goch (Gilfach House) ..	W. W. Hood, Esq. ...	8	3	0	700 T	60·86	...
Pontypridd (The Reservoir).....	W. Jones, Esq. ....	5	1	0	300	50·76	...
„ (Maesderwen, Graig) .....	T. Bowen, Esq. ....	5	10	0	425 T	51·01	187
D Caerphilly (Ystrad Mynach) ...	Col. Morgan Lindsay...	8	0	5	315 T	50·37	181
D Swansea (Le Mayals) .....	J. E. Stevens, Esq. ...	8	1	0	220 T	48·89	193
„ Harbour .....	A.O. Shenck, Esq., C.E.	12	14	9	46	44·24	184
„ (Killay House) .....	M. B. Williams, Esq. ...	5	0	6	265 T	46·35	179
„ (The Knoll).....	E. H. Perkins, Esq. ...	8	1	0	150 T	44·59	205
D „ (Glanmor Crescent) ..	T. Travers Wood, Esq.	5	1	0	235 T	44·57	207
D Llwynypia (Glyncornel) ...No. 1	W. W. Hood, Esq. ...	10	4	0	495 T	87·32	201
D „ „ „ „ ) ...No. 2	„ „ „ „ „ „ „ „ „ „	8	3	3	494 T	72·19	201
Briton Ferry .....	H. A. Clarke, Esq. ...	5	1	0	33 T	46·96	179
Morrison (Glanravan) .....	Ll. J. Naysmith, Esq. ...	5	1	0	53 T	47·01	202
Ystradyfodwg (Fever Hospital)..	J. D. Jenkins, Esq., M.D.	5	1	0	590 T	66·28	185
D Neath .....	E.C. Pole, Esq. ....	5	1	0	204 T	50·38	200
D „ (Fairry Land) .....	Major E. Ll. Green ...	5	1	9	175 T	47·15	217
D Glyncorwrg .....	T. F. Brown, Esq., C.E.	5	4	6	717 T	84·21	200
D Rhondda (Pont Lluest Wen Res.)	W. Jones, Esq. ....	5	1	0	1255	61·63	151
Blaenrhondda (Craig Carn Mosyn)	O. Thomas, Esq. ....	5	1	0	1501	63·80	...
D Mountain Ash (Maesydderwen)..	M. Morgan, Esq. ....	5	1	0	483 T	52·25	201
D „ „ (Darranlas Res.)..	W. G. Thomas, Esq. ...	5	0	11	540	59·08	198
„ „ (Clydach Res.) ...	„ „ „ „ „ „ „ „ „ „	5	1	0	937	75·15	195
D Treherbert (Bute Colliery) .....	Sir W. T. Lewis, Bt. ...	5	1	0	670	77·85	200
D „ (Tyn-y-waun) .....	O. Thomas, Esq. ....	5	1	0	801	79·54	219
„ „ „ „ „ „ „ „ „ „	„ „ „ „ „ „ „ „ „ „	5	1	0	801	80·82	...
D Gorseionon (Penllergaer).....	Sir J.T.D. Llewelyn, Bt.	5	3	0	240 T	48·22	196
D Aberdare (The Mardy) .....	Sir W. T. Lewis, Bt. ...	5	2	0	431 T	54·06	202
D „ (Abernant).....	Evan Jones, Esq. ...	5	4	6	430	53·81	151
D Felindre (Lliw Reservoir).....	R. H. Wyrill, Esq., C.E.	8	1	3	426 T	54·95	216

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with '01 or more recorded.	
		Diameter	Height Above Ground.	Height Above Sea Level			
		in.	ft.	in.	feet.	inches.	
<b>GLAMORGAN—(con.)</b>							
D Dowlais (Gwernllwyn) .....	R. C. Harrison, Esq....	5	1	6	1084 A	48·63	194
D Ystalyfera (Wern School) .....	Mr. J. Williams .....	5	1	3	240 T	62·14	193
D Cwmaman Colliery .....	W. J. Heppell, Esq. ...	5	2	2	930 A	70·82	211
<b>CARMARTHEN.</b>							
D Llanelly (Old Market Yard) ...	G. Watkeys, Esq., C.E.	5	10	0	35 T	41·44	191
D „ (New Road) .....	J. F. Young, Esq. ....	5	0	10	53 T	38·04	198
D „ (Cwmlledi W.W.) .....	G. Watkeys, Esq., C.E.	5	3	0	240 A	47·66	210
D Carmarthen (The Friary) .....	L.M. Bowen-Jones, Esq.	5	1	5	62 A	45·33	211
Llandilo (Golden Grove Gardens)	Mr. F. Surman .....	6	1	6	90 A	51·11	183
D „ (Cae-glas) .....	J. Lewes Thomas, Esq.	5	0	11	190 T	48·55	229
D „ (Dynevor Castle) .....	Lord Dynevor .....	8	1	0	202 T	53·71	218
D Llanwrda (Dolaucothy) .....	Gen. Sir J. Hills-Johnes	5	2	6	498 T	51·23	224
<b>PEMBROKE.</b>							
Pembroke (Stackpole Court) .....	The Earl Cawdor .....	6	1	6	60 A	32·75	206
§ St. Ann's Head .....	Meteorological Council.	8	0	8	150	31·78	208
D Pembroke Dock (County School)	G. H. West, Esq. ....	5	0	0	85	35·37	200
D Haverfordwest (Picton Castle) ..	Sir C. E. G. Philipps, Bt.	5	0	10	138	41·50	218
D „ (High Street) ..	E. Picton Phillips, Esq.	5	1	0	95 T	42·72	198
D „ (Portfield) .....	„ „ „	5	1	0	220	46·24	212
D St. Davids .....	D. P. Williams, Esq. ...	5	1	0	216	37·97	194
D Castle Malgwyn [Llechryd] .....	Mr. H. Baldwin .....	5	1	0	...	38·34	204
<b>CARDIGAN.</b>							
Nantneuadd [Abergwesyn] .....	Mr. W. Roberts .....	5	1	0	1290	57·60	...
D Lampeter (Abermeurig) .....	J. E. Rogers, Esq. ....	5	0	9	300 ?	40·11	211
Tregaron (Maes-y-bettws) .....	Dr. H. R. Mill .....	5	1	0	910	58·10	...
Strata Florida (Towy-fechan) ..	„ „ „	5	1	0	1330	65·28	...
D „ „ (Hafod) .....	T. J. Waddingham, Esq	5	1	0	580 T	46·88	206
§ Aberystwyth (N. Parade) .....	A. Thomas, Esq. ....	8	2	6	20	34·61	196
D „ „ (Gogerddan) .....	Sir Pryse Pryse, Bart..	5	1	1	83 B	44·83	161
Plynlimon .....	Dr. H. R. Mill .....	5	1	0	1740	89·26	...
<b>BRECON.</b>							
D Nanthir Reservoir [Aberdare] ..	O. Williams, Esq., C.E.	5	1	0	860 A	55·65	247
„ „ „ [„ „] M	„ „ „	5	1	0	860 A	55·96	...
Pont Neath Vaughan [Glyn Neath]	W. N. Hogben, Esq. ....	5	1	5	296 T	56·87	214
D Ebbw Vale W.W. .... No. 1	T. J. Thomas, Esq., C.E.	5	1	0	1413 A	55·79	233
† „ „ „ „ No. 3	„ „ „	5	1	0	1468 A	61·64	245
† „ „ „ „ No. 2	„ „ „	5	1	0	1471 A	59·37	243
† „ „ „ „ (Carno, S.) ...	„ „ „	5	1	0	1236 A	53·61	227
† „ „ „ „ ( „ W.) ...	„ „ „	5	1	0	1412 A	58·69	243
† „ „ „ „ ( „ N.) ...	„ „ „	5	1	0	1533 A	49·86	231
† „ „ „ „ (Blaen-y-Cwm) No. 7	„ „ „	5	1	0	1375 A	46·81	224
† „ „ „ „ ( „ „) No. 6	„ „ „	5	1	0	1553 A	43·96	229
† „ „ „ „ ( „ „) No. 5	„ „ „	5	1	0	1544 A	47·12	228
D Taff Fechan (Pentwyn Res.) ...	T. F. Harvey, Esq., C.E.	5	1	0	1120	61·09	233

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
BRECON—(con.)							
Taff Fechan (Pentwyn Res.)...M	T. F. Harvey, Esq., C.E.	5	1	0	1120	61·01	...
†Torpantau Station.....	Mr. C. Mallet	5	1	0	1310	61·58	...
"    Mountain.....	"    "    "	5	1	0	1860	63·25	...
Cardiff W W (Cwm Taff Fawr No 5)	C. H. Priestley, Esq. C.E.	5	1	0	1143 $\nabla$	58·40	...
"    " (Storey Arms, No. 4)	"    "    "	5	1	0	1430	58·49	...
"    " (Cwm Taff Fawr, No. 1)	"    "    "	5	1	0	2350 $\nabla$	60·98	...
"    " (Cantref Res., No. 2)	"    "    "	5	1	0	1120	67·10	234
D "    " (Beacons Res., No. 6)	"    "    "	5	1	0	1340 $\nabla$	73·28	228
"    " (Nant Penig, No. 3) ..	"    "    "	5	1	0	2000	75·21	...
D Taff Fechan (Neuadd Res.) No. 1	T. F. Harvey, Esq., C.E.	5	1	0	1462	62·49	225
"    " (    "    " No. 1 M)	"    "    "	5	1	0	1462	62·23	...
D "    " (    "    " No. 4)	"    "    "	5	1	0	1487	74·26	225
"    " (    "    " No. 2 M)	"    "    "	5	1	0	1993	69·99	...
"    " (    "    " No. 5 M)	"    "    "	5	1	0	1515	76·56	...
"    " (    "    " No. 7 M)	"    "    "	5	1	0	2017	70·23	...
"    " (    "    " No. 8 M)	"    "    "	5	1	0	1723	76·37	...
"    " (    "    " No. 3 M)	"    "    "	5	1	0	1843	51·57	...
"    " (    "    " No. 6 M)	"    "    "	5	1	0	2099	81·07	...
Crickhowell (Glanusk Park).....	Lord Glanusk	5	1	0	290	39·36	207
D "    " (Gwernvale) .....	E. Pirie Gordon, Esq.	5	1	0	393 $\nabla$	35·24	211
"    " (Penmyarth) .....	S. H. Cowper Coles, Esq.	5	1	0	330	34·00	210
†Talybont (Cui) .....	H. Jones Williams, Esq.	5	1	0	490 $\nabla$	42·45	...
"    " (Bryn) .....	Dr. H. R. Mill	5	1	0	1450	53·25	...
Brecon (Pen Milan) .....	"    "    "	5	1	0	1690	88·80	...
† "    " (New Inn) .....	"    "    "	5	1	0	810	64·67	...
†Cray Station .....	Mr. J. Jones	5	1	0	930	54·20	...
†Crickhowell (Cwmdu) .....	Mr. J. P. Edwards	5	1	0	430	33·20	...
† "    " (Pentir) .....	"    "    "	5	1	0	1070	31·90	...
† "    " (Ffordlas Farm) ..	Mr. S. A. Gore	5	1	0	1170	43·00	...
†Cantref Rectory .....	Rev. J. J. Evans	5	1	0	650 $\nabla$	44·70	182
"    " .....	"    "    "	5	1	0	650 $\nabla$	43·10	182
D †Llanfrynach (Tymawr).....	Col. Garnons Williams.	5	1	0	450 $\nabla$	40·58	207
†Crickhowell (Tal-y-maes).....	Dr. H. R. Mill	5	1	0	1250	42·30	...
†Trecastle (Blaenau-hydfer) .....	"    "    "	5	1	0	1070	58·20	...
†Tal-y-llyn .....	"    "    "	5	1	0	570	33·75	...
†Trecastle (Llywel Vicarage).....	Rev. P. W. Green	5	1	0	740	49·15	...
D Brecon (Pont ar Fran) .....	J. Hotchkis, Esq.	5	1	0	550	35·56	222
† "    " (Penoyre) .....	R. D. Cleasby, Esq.	5	1	0	750	38·28	224
† "    " (Llandefaelog-fach) .....	Rev. D. L. Marsden	5	1	0	660 $\nabla$	34·25	...
†Llanfihangel Nant-Bran (Cwm cynog)	Dr. H. R. Mill	5	1	0	790	41·50	...
†Lower Chapel (Nant-y-groes) ..	"    "    "	5	1	0	1080	37·70	...
†Merthyr-Cynog .....	Mr. W. Davies	5	1	0	1050	41·60	...
§Hay (Gwernyfed Park).....	Major T. Wood	5	1	0	375 $\nabla$	25·22	168
Llanfihangel Nant-Bran (Nant-y-garw) ..	Dr. H. R. Mill	5	1	0	1330	41·50	...
†Upper Chapel (Tymawr) .....	Mrs. Probert	5	1	0	945	40·33	...
Llanwrtyd Wells (Llandulas) ..	Mr. W. Price	5	1	0	790	47·40	...
† "    " (Bwlchau) .....	Dr. H. R. Mill	5	1	0	890	56·50	...
D †Llangammarch Wells .....	Dr. W. Black Jones	8	1	0	551 $\nabla$	42·40	232

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
BRECON—( <i>con.</i> )						
D Builth (Tyn-y-berllan).....	Dr. Baldock Fry .....	5	1 0	430 T	31.35	161
† „ (Beulah) .....	Mr. S. Allen .....	5	1 0	650	45.60	...
† Abergwesyn (Caewain).....	Rev. T. Jones .....	5	1 0	1010	63.88	...
† „ (Llanerch-yrfa) .....	Dr. H. R. Mill .....	5	1 0	1430	57.85	...
D Brynwrn Hall [Newbridge] .....	Rev. W. Clifton-Mogg. ...	5	1 6	520 T	33.53	213
Pen-graig [ „ ] .....	Dr. H. R. Mill .....	5	1 0	960	48.40	...
Llys dinam [ „ ] .....	Mrs. Lister Venables... ..	5	1 3	640 T	35.56	223
RADNOR.						
Glasbury (Glanhenwye) .....	E. H. M. Luckock, Esq. ...	5	1 0	280 T	27.66	202
Welfield [Builth] .....	E. A. Thomas, Esq. ...	5	1 10	740 T	32.90	...
New Radnor (Glascwm) .....	Mr. G. Bufton .....	5	1 0	950	37.95	...
D Builth Road (St. John's Vicarage) .....	Rev. J. L. Bryans .....	5	0 11	550 T	32.21	208
Llansaintfrid in Elvel (Hundred Ho.) .....	Mrs. Lerigo .....	5	1 0	810	28.71	...
§ Disserth Rectory .....	Meteorological Council. ...	5	1 0	712	33.12	189
Llandrindod Wells .....	Dr. Bowen Davies .....	5	7 0	711 T	27.29	201
D New Radnor (Ednol) .....	Mr. W. Jones .....	5	1 0	950	35.89	208
Rhayader (Nant-y-car) .....	G. M. Yourdi, Esq., C.E. ...	5	1 0	1545	64.25	...
D „ (Tyrmynydd) .....	„ „ „ .....	5	1 0	832 T	50.95	225
D „ (Nantgwillt) ... <i>old g.</i> .....	„ „ „ .....	5	1 0	768 T	49.57	224
D „ ( „ ) ... <i>new g.</i> .....	„ „ „ .....	5	1 0	764 T	51.49	223
D „ (Bwlchyrhendre) ... M .....	„ „ „ .....	5	1 0	1585	48.90	...
D „ (Claerwen) .....	„ „ „ .....	5	1 0	1250	49.50	192
„ Vicarage .....	Rev. L. H. Evans .....	5	1 0	720 T	39.06	201
„ (Pryddellau) .....	G. M. Yourdi, Esq., C.E. ...	5	1 0	1710	48.30	...
D „ (Abergwyngy) .....	„ „ „ .....	5	1 0	1200	51.45	204
Llanbister (Llananno) .....	Dr. H. R. Mill .....	5	1 0	900	35.70	...
Llanbadarnfynydd (Crochran) .....	„ „ „ .....	5	1 0	1280	38.85	...
MONTGOMERY.						
Llangurig (Dernol) .....	Dr. H. R. Mill .....	5	1 0	850	50.28	...
„ (Esgair Clochfan) ...	„ „ „ .....	5	1 2	1330	42.20	...
„ ( „ „ ) .....	„ „ „ .....	5	1 2	1330	40.90	...
„ (Ystrad-olwyn-fawr) M .....	„ „ „ .....	8	1 0	950	36.30	...
„ ( „ „ ) ... <i>new g.</i> .....	„ „ „ .....	5	1 0	950	35.90	...
„ (Pant-mawr) .....	„ „ „ .....	5	1 0	1080	61.70	...
Llandinam (Plas Dinam) .....	D. Bowen, Esq. ....	5	4 0	504 T	30.47	189
D Newtown (Dolfor) .....	W. B. Pugh, Esq. ....	5	2 6	1027	29.06	208
D „ (Gregynog) .....	Sir J. Joicey, Bart., M.P. ...	5	...	620 ?	31.73	183
D Welshpool (Leighton Hall) .....	Mrs. Naylor .....	5	1 0	400 T	28.68	203
D „ (Pool Quay Vicarage) .....	Rev. R. J. Roberts ...	5	1 0	230 T	22.70	178
D Meifod (Coed-y-maen) .....	A. W. Williams Wynn Esq. ...	5	1 7	280	29.53	198
Garthbibio (Bwlch Tomlyd) ... M .....	Dr. H. R. Mill ...	5	1 0	1370 T	53.10	...
Meifod (Tan-y-fron) .....	A. George, Esq. ....	5	1 0	310	26.81	...
D Lake Vyrnwy .....	E. D. Marten, Esq. C.E. ...	5	0 7	770 T	45.73	221
„ „ (Bryn Gwyn) .....	J. Parry, Esq., C.E. ...	3	...	1311 T	49.31	...
„ „ (Cynon Isaf) .....	„ „ „ .....	3	...	750 T	48.25	200
„ „ (Ty Uchaf) .....	„ „ „ .....	3	...	860 T	48.11	...

## DIVISION XI.—MONMOUTH, WALES AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>MONTGOMERY—(con.)</b>						
Lake Vyrnwy (Heol-y-fridd) No.1	J. Parry, Esq., C.E. ....	3	...	912 $\nabla$	68·71	...
" " " " " No.2	" " " " " ....	3	...	...	63·60	...
" " (Tynyfridd).....	" " " " " ....	3	...	1010 $\nabla$	47·43	...
" " (Lluestwen).....	" " " " " ....	3	...	1667 $\nabla$	68·99	...
" " (Llwynrhiw) .....	" " " " " ....	3	...	1428 $\nabla$	69·32	...
" " (Craig-y-Gribbin)..	" " " " " ....	3	...	1100 $\nabla$	53·07	...
" " (Eunant Bridge)...	" " " " " ....	3	...	830 $\nabla$	62·77	...
" " (Carreg Goch).....	" " " " " ....	3	...	1750 $\nabla$	66·60	...
" " (Fawnog).....	" " " " " ....	3	...	1315 $\nabla$	49·46	...
<b>FLINT.</b>						
Hawarden .....	Great Central Rly. Co..	9	3 6	35	22·06	176
Flint (Soughton Hall, Northop).	John E. Bankes, Esq. ....	5	1 0	418	28·24	178
" (Highfield, " )	Rev. Canon Atkinson...	5	1 0	400	25·06	159
" (Plas Evan, " )	John Astbury, Esq. ....	5	5 3	250 $\nabla$	26·03	...
$\nabla$ Bodfari (Henblas) .....	Mrs. Scott Bankes .....	5	1 0	283 $\nabla$	24·89	188
St. Asaph (Nantlys) .....	P. P. Pennant, Esq. ....	5	1 0	173 $\nabla$	22·22	168
Bagillt Lead Works .....	Ishmael Roberts, Esq. ....	5	1 0	20	23·78	...
$\nabla$ Rhyl (Sewage Works) .....	W. Hughes, Esq., C.E. ....	8	1 0	31 $\nabla$	23·11	203
Prestatyn (Edlestone House) ...	T. J. Scott, Esq. ....	5	1 0	30	23·55	141
<b>DENBIGH.</b>						
Llangedwyn .....	Mr. R. Warren .....	5	2 6	400 ?	27·43	...
$\nabla$ Llangadwaladr (Penygwely Res.)	G. W. Lacey, Esq., C.E. ....	5	1 0	1094	35·73	189
Llangollen (Plas-yn-Vivod) .....	Capt. J. C. Best, R.N..	5	2 6	635	28·14	174
$\nabla$ Cerrig-y-Druidion (Bwlch-y-beudy)	Col. C. S. Mainwaring..	5	1 0	1050 $\nabla$	38·33	187
Wrexham (Pack Saddle Res.) ...	F. Storr, Esq. ....	5	0 9	370 $\nabla$	27·01	170
" (Cae Llwyd Res.) ...	" " " " " .....	5	0 9	918 $\nabla$	33·65	189
$\nabla$ " (Broughton) .....	J. Hall, Esq. ....	5	1 0	500 $\nabla$	29·98	199
Gresford (Trewythen) .....	Miss Howell Evans ...	5	1 0	350	24·88	...
$\nabla$ Gyffylliog (Fachlwyd Hall) .....	Elliott S. Currey, Esq. ....	5	1 0	640 $\nabla$	31·84	208
$\nabla$ Ruthin (Llanbedr Hall).....	Dr. G. A. Crace-Calvert	5	1 0	450 $\nabla$	25·47	182
Nantglyn (Pant-y-maen) .....	W. Barker, Esq. ....	8	1 0	1320 $\nabla$	45·29	...
$\nabla$ Llangerniew (Hafodunos).....	Col. Sandbach .....	5	1 0	512 $\nabla$	47·25	178
Llanefydd (Rhyl W.W., S.)...M	L. G. Hall, Esq., C.E..	5	1 0	600	28·63	...
" ( " " W.)...M	" " " " " .....	5	1 0	580	23·77	...
" ( " " E.)...M	" " " " " .....	5	1 0	570	23·57	...
$\nabla$ " (Plas Uchaf Res.) ...	" " " " " .....	5	1 0	485	30·13	173
$\nabla$ " (Glascoed Reservoir)..	" " " " " .....	5	1 0	360	27·57	191
$\nabla$ Llangyhanfal (Plas Draw) .....	Col. C. J. Bromhead, C.B.	5	1 0	419 $\nabla$	27·91	205
Denbigh (Llyn Bran, Bylchau)..	W. Barker, Esq. ....	8	1 0	1428 $\nabla$	46·34	...
$\nabla$ " (Garn) .....	W. D. W. Griffith, Esq.	5	1 0	447 $\nabla$	29·74	196
Trefnant (Maes Elwy) .....	Major R. F. Birch.....	5	2 0	190 $\nabla$	25·97	147
$\nabla$ Tal-y-cafn (Bodnant Hall) .....	Mr. J. Saunderson .....	8	2 0	120	36·00	185
$\nabla$ Llanddulas (Arnold House) .....	Douglas S. Bird, Esq. ....	5	1 0	200 $\nabla$	26·65	167
$\nabla$ Colwyn Bay (Four Crosses) .....	W. Jones, Esq., C.E. ....	5	1 0	400 $\nabla$	25·70	174
$\nabla$ " " " " " .....	" " " " " .....	5	1 3	65 $\nabla$	23·13	159
" " (Bryn Euryn) .....	Mr. T. E. Hutchings...	5	1 0	125 $\nabla$	26·33	167

# DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>MERIONETH.</b>						
D Towyn (Gothic House) .....	Dr. E. Lewys-Lloyd ...	5	1 0	11 $\nabla$	35.22	190
D „ (Peniarth) .....	W. R. M. Wynne, Esq.	9	1 0	25	44.25	192
D „ „ „ .....	„ „ „	9	1 0	25	44.61	192
Dolgelly (Dolserau Hall) .....	Munro Edwards, Esq. ...	5	1 0	100	53.57	218
D Llanbedr (Minafon) .....	H. G. Hollingworth, Esq.	5	1 2	33 $\nabla$	42.64	206
D Bala (Eryl Aran) .....	Mrs. Burton .....	8	1 0	590 $\nabla$	50.06	212
D Llanderfel (Palé Gardens) .....	Mr. T. Ruddy .....	8	1 0	606 $\nabla$	41.95	212
D Tan-y-bwlch (The Gardens) ...	Mr. J. Roberts .....	5	1 0	50 ?	55.94	225
Rhiwbryddir = Oakley Quarries..	Mr. Owen Jones .....	5	10 0	1100	91.52	225
Corwen (Rug Gardens) .....	Mr. J. S. Higgins .....	5	1 4	500	32.68	186
<b>CARNARVON.</b>						
[Bardsey Island] .....	Hon. F. G. Wynn .....	...	...	...	30.00	...
D Criccieth (Talarvor) .....	Dr. J. Roberts .....	5	2 0	49 $\nabla$	32.92	200
Beddgelert (Moel Hebog) No. 19	J. R. Gethin Jones, Esq.	5	1 0	1500	105.34	...
Dolwyddelan (Tunnel Mouth) No. 20	„ „ „	5	1 0	650	111.54	...
„ (Upper Nhadog) No. 2	„ „ „	5	1 0	1600	129.00	...
„ (Tynddol) ... No. 1	„ „ „	5	1 0	600	96.79	...
Llandwrog (Glynllivon Park) ...	Hon. F. G. Wynn .....	5	1 0	100 $\nabla$	40.17	...
D „ „ (Nursery) .....	„ „ „	5	1 0	200 $\nabla$	44.10	205
D „ „ (Garden) .....	„ „ „	5	1 0	100 $\nabla$	40.79	...
D „ „ (Fort) ...	„ „ „	5	1 0	220 $\nabla$	43.01	192
„ (Bodfean Hall) .....	„ „ „	5	1 0	168 $\nabla$	39.40	...
Snowdon (Llydaw) No. 12 .....	J. R. Gethin Jones, Esq.	5	1 0	1450	152.71	...
„ (Glaslyn) ... No. 13	„ „ „	5	1 0	2500	179.50	...
D Bettws-y-Coed (Tyn-y-bryn) ...	Dr. D. Macdonogh .....	8	2 6	153 $\nabla$	44.26	220
Lake Cowlyd .....	T. B. Farrington Esq. CE	8	1 3	1168 $\nabla$	80.60	...
Carnarvon (Belan Fort) .....	Hon. F. G. Wynn .....	5	1 0	26 $\nabla$	32.30	...
Eigiau, Upper, No. 15 .....	J. R. Gethin Jones, Esq.	5	1 0	2000	111.53	...
„ Lake, No. 3 .....	„ „ „	5	1 0	1650	104.20	...
Lake Cowlyd (Upper Brwynog) No. 16	„ „ „	5	1 0	1100	79.36	...
„ „ (Lower „ ) No. 18	„ „ „	5	1 0	1000	64.04	...
Frith Rhos .....	„ „ „	5	1 0	1100	55.11	...
D Llanbedr-y-Cennin (Plasdulyn) ..	E. P. Stephenson Esq. CE	8	1 0	509 $\nabla$	48.96	170
„ „ (Llyndulyn) .....	„ „ „	8	1 6	1632 $\nabla$	82.56	...
D Bethesda (St. Ann's Vicarage) ..	Rev. W. „ Morgan .....	5	1 6	500	51.65	206
§ „ (Penrhyn Quarry) .....	Meteorological Council.	8	1 0	528	53.83	177
Tal-y-cafn (Bodhyfryd) .....	L. W. Jelf-Petit, Esq. ...	...	...	...	40.33	...
D Bangor (Penrhyn Castle Gdns.) ..	Mr. W. Speed .....	6	1 0	150 $\nabla$	35.55	212
D Llanfairfechan .....	Mr. W. Timmins .....	5	1 0	144	35.12	183
Conway (Glan Morfa) .....	J. Simpson, Esq. ....	5	1 0	30 ?	28.68	...
D „ (Bodlondeb) .....	Mr. J. Tindall .....	...	...	...	36.83	187
Deganwy (Bod Gethin) .....	J. R. Gethin Jones, Esq.	5	1 0	200	28.66	166
„ (Y Berlfa) .....	Willoughby Gardner Esq	8	1 0	30 $\nabla$	29.11	...
D Llandudno .....	Mr. W. Little .....	5	1 0	72 $\nabla$	25.98	189

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1904
		in.	ft.	in.	fet.	inches.	
ANGLESEA.							
D Llangadwaladr (Bodorgan) .....	Mr. W. Pilgrim.....	8	1	0	...	34.98	163
Penmynydd Vicarage .....	Rev. H. D. Owen .....	5	5	0	300 T	32.47	...
§ Holyhead (Sailors' Home) .....	Meteorological Council.	8	1	0	48	32.97	191
D Llanerchymedd Llwydiarth Esgob	T. Prichard, Esq. ....	5	1	0	175 L	38.16	218
D Lligwy .....	Lord Boston .....	5	1	0	170	28.83	147
ISLE OF MAN.							
Castletown (Langness) .....	Bd. of Northern Lights	...	...	...	...	28.77	157
„ (Derbyhaven) .....	A.W.Moore, Esq.C.V.O.	...	...	...	...	31.05	...
Santon Vicarage .....	„ „ „	...	...	...	250	24.13	211
D Douglas (Woodville).....	H. Story, Esq. ....	8	1	0	160 L	36.97	210
„ (Cronkbourne) .....	A.W.Moore, Esq.C.V.O.	8	0	10	138 T	37.76	206
„ (Clypse, Onchan) .....	„ „ „	8	1	0	439 T	37.13	..
„ (Baldwin) .....	„ „ „	...	...	...	...	48.60	...
Bishop's Court .....	„ „ „	...	...	...	80	31.62	...
Ramsey .....	„ „ „	8	1	3	18	36.97	...
Point of Ayre.....	Bd. of Northern Lights	3	4	6	...	24.06	147
ISLES OF SCILLY.							
§ St. Mary's .....	Meteorological Council.	8	1	6	77 L	34.41	217
D Tresco Abbey .....	T.A.DorrienSmith, Esq.	11	3	0	40	37.24	212
JERSEY.							
D St. Helier (St.Louis Observatory)	Rev. M. Dechevrens ...	8	5	0	180	33.88	184
§ St. Aubins .....	Meteorological Council.	8	1	9	25	37.34	218
GUERNSEY.							
D St. Martin's (Les Blanchés) .....	B. T. Rowswell, Esq....	5	1	0	310 T	36.24	212
D St. Peter Port (Fort Road) .....	A. Collenette, Esq. ...	5	1	0	195 L	37.72	211
D § „ „ (Villa Carey).....	Dr. F. Carey .....	8	1	8	180	35.07	199
§ „ „ ( „ „ )... M	„ „ „	5	1	1	180	37.01	...
D Cobo .....	J. J. Carey, Esq., C.E.	5	1	0	60 T	33.64	187
D St. Sampson (Richmond) .....	Mr. F. W. Poat .....	5	1	0	20	36.73	206
D L'Ancrese .....	J. S. Hocart, Esq. ....	5	1	0	33 T	37.36	194

## SCOTLAND.

## DIVISION XII.—SOUTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>WIGTON.</b>						
Mull of Galloway .....	Bd. of Northern Lights	...	...	...	23·02	139
D Whithorn .....	Dr. J. F. Smith	5	2 3	207 A	41·05	200
D „ (Cutroach) .....	J. G. Martin, Esq.	5	0 6	120 T	34·18	207
D Garliestown (Galloway Ho.).....	Mr. J. Day	5	4 6	20 ?	36·40	169
D Stoneykirk (Ardwell House).....	Sir M. J. Stewart, Bt. MP	8	3 9	107 T	36·85	157
Port Patrick (Killantringan) ..	Bd. of Northern Lights	...	...	...	45·07	168
Loch Ryan Lighthouse .....	„ „ „	...	...	...	42·50	174
Corsewall .....	„ „ „	...	3 4	22 ?	35·26	180
<b>KIRKCUDBRIGHT.</b>						
Little Ross .....	Bd. of Northern Lights	...	3 3	130 ?	21·90	163
Kirkcudbright (Balmae) .....	The Countess of Selkirk	5	0 8	150	28·63	...
Auchencairn (Torr House) .....	W. Ovens, Esq.	5	0 8	50	41·62	...
§ Gatehouse (Cally) .....	Dr. Buchan, F.R.S.	5	1 0	120	44·61	208
D Dalbeattie (Kirkennan).....	Wellwood Maxwell, Esq.	5	0 9	30 T	44·77	218
„ (Little Richorn) .....	Mr. W. Kerr	5	0 9	35 A	41·32	181
Creetown (Cassencary) .....	J A Henryson Caird, Esq	5	0 8	40	39·47	179
D Kirkpatrick Durham (Glenlair)..	Major W. Maxwell	5	0 6	250 T	47·13	188
D § Cargen [Dumfries] .....	R. F. Dudgeon, Esq.	5	0 4	80 A	38·91	160
Lincluden House [Dumfries] ..	Miss Young	...	...	...	34·36	...
D New Galloway (Ken Bridge) ...	J. B. Hough, Esq.	5	4 4	150 T	43·46	213
D „ „ (Craigencallie) .....	T. R. Bruce, Esq.	...	...	700	74·73	170
Glenhead of Trool.....	J. McMillan, Esq.	5	0 11	320	74·01	...
Irongray (Drum Park) .....	J. E. Blair, Esq.	5	0 9	250	49·47	...
D Dalry (Glendarroch) .....	Miss M. Barbour	5	0 11	192 A	51·57	226
D „ (Clenerie) .....	T. R. Bruce, Esq.	...	...	800	75·80	230
D „ (The Old Garroch) .....	„ „ „	8	1 0	432 A	60·39	252
D Carsphairn (Shiel) .....	„ „ „	5	1 0	850 T	70·00	247
<b>DUMFRIES.</b>						
D § Dumfries (Ivy Bank) .....	Rev. W. Andson	8	0 10	70 T	31·25	204
D Lockerbie (Castle Milk) .....	Mr. J. Troup	5	0 9	199	40·21	198



DIVISION XII.—SOUTHERN COUNTIES (*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>DUMFRIES—(con.)</b>						
Canonbie (Byreburnfoot) .....	Mr. D. Crabbe .....	3	0 9	...	37.75	...
<sup>D</sup> Lochmaben (Esthwaite) .....	W. J. Halliday, Esq. ....	5	1 0	166 $\nabla$	36.85	225
Langholm (Westwater) .....	J. M. Elliot, Esq. ....	3	1 0	450	48.60	179
<sup>D</sup> „ (Drove Road) .....	Mr. W. Jackson .....	5	0 9	270	53.33	187
Moniaive (Glencrosh) .....	Miss McMillan .....	5	1 2	350	51.60	240
„ (Maxwelton House) ...	Rev. Sir E. Laurie, Bt. ...	8	1 6	400 $\nabla$	45.69	...
Langholm (Ewes, Burnfoot) ...	J. C. Little, Esq. ....	3	1 0	541 $\nabla$	49.17	...
<sup>D</sup> § Durrisdeer (Drumlanrig Gardens)	Mr. D. Inglis .....	5	0 9	187	40.98	228
Moffat (Craigielands) .....	Mr. L. Fraser .....	5	1 0	360 $\nabla$	51.87	...
<sup>D</sup> „ (Auchen Castle) .....	Mr. W. McAdam .....	5	0 6	500	51.11	242
<sup>D</sup> „ (Hope Lodge) .....	Miss Anstruther .....	5	...	...	48.29	234
„ (Ericstane) .....	Mrs. J. J. Welsh .....	5	1 6	580 $\nabla$	48.84	...
„ ( „ ) .....	M „ „ „ .....	3	...	575	50.10	...
<b>ROXBURGH.</b>						
§ Hawick (Wolfelee) .....	Dr. Buchan, F.R.S. ....	5	0 10	587	31.46	180
<sup>D</sup> „ (Branxholme) .....	J. G. Winning, Esq. ....	5	0 6	457 $\nabla$	25.97	192
<sup>D</sup> Jedburgh (Ancrum Bridge) .....	A. Johnston, Esq. ....	5	2 0	229	23.23	186
<sup>D</sup> Lilliesleaf (Riddell House) .....	Lieut.-Gen. J. Sprot ...	5	0 8	550 $\nabla$	27.75	222
<sup>D</sup> „ ( „ Gardens) ...	Mr. J. Williamson .....	5	0 8	500 $\nabla$	26.41	182
St. Boswells (Elliston) .....	Dr. Buchan, F.R.S. ....	5	1 0	352	23.45	...
§ Kelso (Broomlands) .....	„ „ „ .....	8	1 2	205	21.88	192
<sup>D</sup> Melrose (Asylum) .....	old g. Mr. A. C. Pattman ...	5	0 6	480 $\nabla$	26.73	211
<sup>D</sup> „ ( „ ) .....	new g. „ „ „ .....	5	1 0	480 $\nabla$	26.22	211
Wooplaw [Galashiels] .....	J. Murray, Esq. ....	5	1 0	880 $\nabla$	24.49	156

## DIVISION XIII.—SOUTH EASTERN COUNTIES.

**SELKIRK.**

Meggat Head (Edinburgh W.W.) No.1	W. Anderson, Esq. ....	5	1 3	1496 $\nabla$	55.38	...
<sup>D</sup> Selkirk (Philiphagh Gardens) ..	Mr. J. Hunter .....	12	4 6	460	29.62	211
<sup>D</sup> „ (The Hangingshaw) ...	Miss Johnstone .....	6	0 6	670 $\nabla$	27.92	152
Galashiels (Abbotsford Rd.) .....	Dr. R. Somerville .....	5	0 8	416 $\nabla$	26.52	196
„ (Stantling Craigs) ...	Mr. W. Ross .....	12	1 3	800	26.77	...

**PEEBLES.**

Ravenscraig (Edinburgh W.W.) No.3	W. Anderson, Esq. ....	5	1 3	2258 $\nabla$	67.37	...
Gameshope Loch ( „ „ ) No.4	„ „ „ .....	5	1 3	1860 $\nabla$	64.19	...
Loch Craig Head ( „ „ ) No.2	„ „ „ .....	5	1 3	2627 $\nabla$	62.94	...
Gameshope Farm ( „ „ ) No.5a	„ „ „ .....	5	1 3	1538 $\nabla$	71.45	...
„ „ „ ( „ „ ) No. 5	„ „ „ .....	8	1 3	1538 $\nabla$	63.66	...
Talla Linns Foot ( „ „ ) No.6a	„ „ „ .....	5	1 3	966 $\nabla$	57.64	...
„ „ „ ( „ „ ) No. 6	„ „ „ .....	8	1 3	966 $\nabla$	56.28	...
Quarter Hill ( „ „ ) No.7a	„ „ „ .....	5	1 3	1196 $\nabla$	45.02	...
„ „ ( „ „ ) No. 7	„ „ „ .....	8	1 3	1196 $\nabla$	43.04	...

DIVISION XIII.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>PEEBLES—(con.)</b>						
Innerleithen (Leithen Lodge) ...	Mr. D. Clark .....	11	0 0	700 T	32.42	...
§Stobo Castle .....	Dr. Buchan, F.R.S. ...	3	1 0	600	25.80	170
Peebles (Swinton Bank) .....	C. A. Ainslie, Esq. ...	5	0 5	600 B	29.19	...
D " " " (R) .....	" " " .....	8	4 0	600	28.26	194
D West Linton (Rutherford House) .....	E. Cameron, Esq. ....	5	3 9	970 A	37.05	213
Eddlestone (Portmore Res.) .....	W. Anderson, Esq. ....	11	0 6	1000	30.69	202
§N. Esk Reservoir [Penicuik] ...	Mr. W. Tod .....	11	0 6	1150 A	38.35	...
<b>BERWICK.</b>						
D Earlston (Cowdenknowes) .....	Mr. J. Robertson .....	5	0 10	360 A	26.59	221
Coldstream (Lochton) .....	J. Aitchison, Esq. ....	5	1 0	150 B	21.59	...
D " (The Hirsell) .....	Mr. J. Cairns .....	5	1 0	94 A	22.94	182
D§Marchmont House .....	Mr. J. A. Wood .....	5	1 0	500 T	26.06	169
Whitsome Hill .....	John T. Craw, Esq. ....	3	0 6	250 T	21.65	...
D Duns Castle .....	Mr. J. Redpath .....	5	1 0	500	26.63	186
" (Manderston) .....	Mr. J. Hamilton .....	8	2 0	356 A	23.95	...
West Foulden .....	J. Hewat Craw, Esq. ....	5	1 0	250 T	24.62	...
St. Abb's Head .....	Bd. of Northern Lights	8	4 3	200	18.59	...
<b>HADDINGTON.</b>						
Garvald (Donolly Reservoir) ...	H. Blackadder, Esq., CE	11	1 6	560 A	31.35	...
D Drummore [Musselburgh] .....	Mr. J. Robson .....	5	1 0	75 T	23.53	195
D Whittingehame Gardens .....	Mr. J. Garrett .....	5	1 0	348 B	26.21	157
Dunbar (Barnsness) .....	Bd. of Northern Lights	...	...	...	23.91	166
§Prestonkirk (Smeaton) .....	Dr. Buchan, F.R.S. ...	7	7 10	100	23.01	...
§Aberlady Manse .....	Rev. J. Hart .....	5	0 11	15	23.93	...
North Berwick Reservoir ...	H. Blackadder, Esq., CE	11	1 6	150 T	24.17	...
" " (Fidra) .....	Bd. of Northern Lights	3	3 0	...	19.65	149
" " (Bass Rock) .....	" " " .....	...	...	...	19.73	...
<b>MIDLOTHIAN.</b>						
Stow (Burnhouse) .....	W. R. Ovens, Esq. ...	6	0 6	720	30.35	...
Moorfoot Hills (Bowbate) .....	W. Anderson, Esq. ....	11	0 6	2042	44.51	...
" " (Gladhouse Res.) .....	" " " .....	11	0 6	900	32.29	213
" " (Rosebery) .....	" " " .....	11	0 6	750	30.08	160
Pentland Hills (Crosswood) .....	" " " .....	11	0 6	950	37.84	...
Moorfoot Hills (Edgelaw) .....	" " " .....	11	0 6	654	30.12	160
Pentland Hills (Harper rig) .....	" " " .....	11	0 6	900	34.59	...
" " (Harehill) .....	" " " .....	11	0 6	1470	38.71	...
" " (Loganlea) .....	" " " .....	11	0 6	850	36.88	...
West Calder (Addiewell) .....	J. Fyfe, Esq. ....	5	0 6	600	34.81	...
Pentland Hills (Swanston) .....	W. Anderson, Esq. ....	11	0 6	550	27.68	...
" " (Glencorse Res.) .....	" " " .....	11	0 6	787	37.06	211
" " (Harlaw) .....	" " " .....	11	0 6	800	32.00	...
" " (Clubbiedean Res) .....	" " " .....	11	0 6	750	28.30	...
" " (Harbour Hill) ...	" " " .....	11	0 6	1112	44.44	...
Liberton (Alnwick Hill) .....	" " " .....	11	0 6	400	26.96	165
D§Edinburgh (R. Obs., Blackford Hill)	Dr. Copeland .....	8	1 0	442 A	24.06	183

## DIVISION XIII.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with $\cdot 01$ or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.	
MIDLOTHIAN—(con.)							
§ Corstorphine House .....	T.N. Johnston, Esq. M.B.	5	1	0	165	27·76	234
Musselburgh (Levenhall) .....	The Misses Husband...	5	1	0	15 $\nabla$	22·63	...
D Edinburgh (George Square) ...	Surg.-Maj. W. G. Black	6	3	0	261 $\nabla$	23·39	186
D „ (City Observatory) ...	W. Peck, Esq. ....	8	1	0	349	22·19	189
† „ (Charlotte Square) ...	Messrs. Leslie & Reid, CE	11	1	6	190 $\nabla$	25·34	...
† „ ( „ „ ) ...	„ „ „ „	12	63	0	300	19·14	...
§ Leith .....	Meteorological Council.	8	1	8	22	23·42	197
§ „ (Navigation School) .....	Dr. Buchan, F.R.S. ....	5	0	5	76	25·92	211
D Davidson's Mains (Broomfield) ...	Mr. C. Comfort .....	5	0	10	42 $\nabla$	25·34	184
LINLITHGOW.							
Whitburn (Polkemmet) .....	Lady Baillie .....	5	2	0	600 $\nabla$	38·16	...
D Bathgate (Boghead House) .....	J. Robertson Durham Esq	5	2	0	500	36·54	221
Uphall .....	J. Fyfe, Esq. ....	5	0	10	380	30·02	...
Carribber Reservoir .....	M. John P. Lawrie, Esq. ...	5	0	7	340 $\nabla$	31·24	...
Linlithgow (Nether Parkley) ...	Mrs. Henderson ...	5	0	3	300 $\nabla$	32·91	...
D „ (Rockville) .....	Mr. J. Storey .....	5	1	6	...	33·34	162
Bo'ness (Neidpath Cottage) .....	Mr. J. Grant .....	5	3	0	220 $\nabla$	25·26	...
„ (Grange) .....	H. M. Cadell, Esq. ...	5	0	4	14	25·64	174

## DIVISION XIV.—SOUTH WESTERN COUNTIES.

## LANARK.

§ Leadhills .....	Dr. Buchan, F.R.S. ...	5	1	1	1300	56·58	202
D Biggar (Cambus Wallace) .....	F. W. M. Watson, Esq.	6	0	6	748 $\nabla$	23·97	159
Lanark (Rhyber Lodge) .....	R. Swann, Esq. ....	6	3	0	650	26·50?	...
D Cleghorn .....	W. Elliott Lockhart, Esq.	3	0	3	720 $\nabla$	33·66	210
Carluke (Mauldslie Castle) .....	Mr. D. Bryson .....	5	0	6	140	30·06	...
Hamilton Water Works .....	Mr. W. H. Purdie .....	7	1	0	436 $\nabla$	33·20	...
D „ (Laighstone Hall) .....	Rev. T. M. B. Paterson	5	1	9	260 $\nabla$	33·20	181
§ Bothwell .....	Dr. Buchan, F.R.S. ...	5	0	9	150 $\nabla$	28·51	178
„ Castle .....	Mr. W. P. Bell .....	10	18	0	146 $\nabla$	23·37	180
Glasgow (Tollcross Park) .....	J. Whitton, Esq. ....	5	0	6	85	34·86	207
„ Green .....	„ „ „	5	0	6	35	32·24	182
„ (Bellahouston Park) ...	„ „ „	5	0	6	160	31·51	220
† „ (Botanic Gardens) .....	„ „ „	5	0	6	110	30·54	172
„ (Alexandra Park) .....	„ „ „	5	0	6	141	33·25	226
„ (George Square) .....	„ „ „	8	6	0	40	31·17	178
„ (Kelvingrove Park) ...	„ „ „	5	0	6	48	34·19	191
„ (Ruchill Park) .....	„ „ „	5	0	6	220	35·40	212
D § „ (Belvedere Hospital) ...	Dr. J. Brownlee .....	5	1	1	54 $\nabla$	30·99	204
§ „ Observatory .....	Prof. L. Becker .....	11	2	0	182	33·69	208
„ (Springburn Park) .....	J. Whitton, Esq. ....	5	0	6	361	29·46	187
D Airdrie (Hillend Reservoir) .....	Mr. W. A. Ritchie .....	6	4	6	620 $\nabla$	34·59	208

## DIVISION XIV.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
AYR.						
Ballantrae (Glendrisaig).....	P. Murdoch, Esq. ....	5	4 0	42	32·10	189
Barrhill (Dochroyle)..... M	Mr. J. Scott .....	6	0 6	548 †	50·73	...
d Colmonell (Clachanton).....	R. Aitken, Esq. ....	6	0 6	140 †	43·22	214
d§ Girvan (Pinmore) ..	Hugh Hamilton, Esq. ...	5	0 6	207 †	54·35	250
d Barr Manse .....	Rev. G. Dods.....	5	1 0	330	51·10	204
Girvan (Glendoune Gardens) ..	Mr. J. Simons .....	5	1 0	150 †	42·73	161
Ailsa Craig.....	Bd. of Northern Lights	3	5 0	..	44·28	166
Loch Finlas.....	J. Young, Esq. ....	5	1 0	849	52·74	...
Girvan (Turnberry) .....	Bd. of Northern Lights	...	...	...	24·47	166
d§ Dalrymple (Bow Hill) .....	A. Gillespie, Esq. ....	...	...	978	47·61	226
d Maybole (Culzean Gardens) .....	Mr. D. Murray .....	9	3 0	200	34·95	177
„ (Knockdon Farm) .....	A. Cross, Esq. ....	6	1 6	600	32·79	...
Ayr (Doonside) .....	W. H. Dunlop, Esq. ...	5	2 0	90	39·99	...
d „ (Doonholm).....	J. Kennedy, Esq. ....	5	1 0	90	39·27	222
d Mauchline (Catrine) .....	Messrs. J. Finlay & Co.	6	1 0	301 †	33·28	169
Muirkirk (Glenbuck) .....	Mr. W. F. Hamilton...	6	1 0	900	41·90	...
Kilmarnock.....	<i>Reg. General's Returns</i>	...	...	74	38·46	212
„ (North Craig) .....	R. Blackwood, Esq. ...	12	1 0	319 †	42·40	...
d Dalry (Blair).....	Mr. J. Cluckie .....	5	1 3	155 †	50·77	215
Dunlop (Dunlop House) .....	Maj. J. F. Dalrymple Hay	4	2 6	550 †	62·30	...
d Paisley W. W. (Camphill) .....	Gilbert Christie, Esq. CE	12	1 6	640	59·85	203
Shaws W. Works (Kelly Dam)...	D. Macalister, Esq., C.E.	6	1 0	640	64·60	...
„ „ (Knockencorsan) .....	„ „ „	6	1 0	1040	59·00	...
RENFREW.						
Lochwinnoch (Garthland).....	H. Macdowall, Esq. ...	5	0 11	150	63·32	183
„ (Castlesemple).....	Mr. C. Jamieson.....	...	26 0	240	41·20	200
Gorbals Dist. W. W. (Ryat Lynn)	J. R. Sutherland, Esq. CE	8	0 5	310	45·55	...
„ „ „ (Waulk Glen)	„ „ „	12	0 5	280	44·15	...
„ „ „ (Middleton) ..	„ „ „	12	0 5	550	52·25	...
„ „ „ (Nether Cairn)	„ „ „	12	0 5	700	53·10	...
Paisley W. W. (Stanely) .....	James Lee, Esq. ....	12	1 0	190	34·93	...
„ „ (Back Thornleymuir)	„ „ „	12	1 0	646	46·05	...
„ „ (Muirhead).....	„ „ „	12	1 0	482 †	50·03	...
„ „ (Springside) .....	„ „ „	12	1 0	532 †	56·09	...
d Glasgow (Queen's Park) .....	J. Whitton, Esq. ....	8	0 9	144 †	34·65	202
„ (Maxwell Park) .....	„ „ „	5	0 6	69	32·52	187
Paisley (Crookston) .....	Major R. J. Hotchkis...	3	0 5	...	32·23	155
d† „ (The Coats Observatory)	The Convener .....	10	1 8	107	36·49	225
Kilmalcolm (Waterworks) .....	Dr. Buchan, F.R.S. ...	...	...	500 ?	70·71	...
Shaws W. W. (Duchall Moor) ..	D. Macalister, Esq., C.E.	6	1 0	1150	71·30	...
„ „ (Creuch Hill).....	„ „ „	6	1 0	1350	56·00	...
„ „ (Largs Road) .....	„ „ „	5	1 0	910	53·42	...
„ „ (Green Water) .....	„ „ „	6	1 0	788 †	66·00	...
Kilmalcolm (St. Oswald's) .....	Dr. Buchan, F.R.S. ...	...	...	...	40·66	...
Shaws W. W. (Gryfe Reservoir).	D. Macalister, Esq., C.E.	6	1 0	640 †	60·70	188
„ „ (Mansfield) .....	„ „ „	5	1 0	573 †	58·85	254
„ „ (Compensation Res.)	„ „ „	5	1 0	600	65·70	267

## DIVISION XIV.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
RENFREW—(con.)						
Shaws W.W. (Loch Thom).....	D. Macalister, Esq., C.E.	5	1 0	643 $\nabla$	65·79	267
„ „ (Shielhill) .....	„ „ „	6	1 0	962 $\nabla$	64·30	...
„ „ (Darndaff Moor) ..	„ „ „	6	1 0	850	61·70	...
„ „ (Spango Burn) ...	„ „ „	6	0 9	757 $\nabla$	62·80	...
„ „ (Hole Glen) .....	„ „ „	5	1 0	603	59·41	241
„ „ (New Yetts Dam) ..	„ „ „	5	1 0	800	68·20	241
d§ Greenock (Prospect Hill) .....	„ „ „	5	1 0	233	59·98	233
Bishopton (Ingliston) .....	D. Cross, Esq.	5	1 0	195	42·97	...
Langbank (East Bank Gardens).	A. Cross, Esq.	5	1 6	...	45·63	...

## DIVISION XV.—WEST MIDLAND COUNTIES.

## DUMBARTON.

d§ Dumbarton (Leven Shipyard) ...	Messrs W. Denny & Bros.	5	1 0	9 $\nabla$	41·51	216
d Helensburgh (Fernigair House) ..	J. R. Wilson, Esq.	6	0 4	18	48·09	231
d „ „ (Water Works) ...	„ „ „	6	0 6	300	41·64	236
Garelochhead (Aikenshaw) .....	W. S. Turnbull, Esq.	...	...	30	68·00	...
Arrochar (The Manse) .....	Rev. Dugald Macfarlane	5	1 0	14	69·30	...
„ „ House .....	Mr. J. Thomson	6	1 3	50	79·40	...

## STIRLING.

Muiravonside Ho. [Linlithgow].	the late J. Stirling, Esq.	5	6 0	175	32·76	...
Strathblane (Mugdock Reservoir)	J. R. Sutherland, Esq. C.E.	8	0 6	320	36·75	...
„ „ (Craigend Castle) .....	Capt. J. Kerr	5	1 2	533 $\nabla$	55·52	...
Kilsyth (Kirkintilloch W.W.) ..	A. E. Horsburgh, Esq.	...	...	...	56·65	...
„ „ (Currymire) .....	Mr. G. J. Ramsay	5	1 2	200	44·47	194
Strathblane (Blane field) .....	A. E. Horsburgh, Esq.	...	...	175 $\nabla$	51·45	...
d Falkirk (Inglewood, Laurieston)	W. Ballantine, Esq.	5	1 3	133 $\nabla$	33·55	173
„ „ (Hospital) .....	David Ronald, Esq., C.E.	5	1 0	395 $\nabla$	36·68	207
„ „ (Burgh Buildings) .....	„ „ „	5	1 0	106 $\nabla$	29·95	209
„ „ (Kerse) .....	C. Brown, Esq.	8	1 0	18 $\nabla$	29·70	...
„ „ „ .....	„ „ „	5	0 10	18 $\nabla$	30·25	...
d „ „ (Cauldhame) .....	David Ronald, Esq., C.E.	5	1 0	73 $\nabla$	32·58	210
Little Denny Reservoir .....	C. Massie, Esq.	8	1 0	326	42·37	...
„ „ „ Filters .....	„ „ „	8	1 0	243 $\nabla$	41·62	...
Earlsburn Reservoir .....	„ „ „	8	1 0	1202 $\nabla$	55·57	...
St. Ninians (Faughlin) .....	„ „ „	8	1 0	707 $\nabla$	53·34	...
Stirling (Touch Reservoir) .....	C. Stirling, Esq.	...	...	755	42·24	...
„ „ (Polmaise Gardens) .....	Mr. W. W. Ritchie	6	1 0	12	32·30	...
„ „ (Victoria Place) .....	R. Kidston, Esq., F.R.S.	5	2 10	100	38·65	...
d§ Buchlyvie (The Manse) .....	Rev. J. A. Macdonald	5	1 3	118 $\nabla$	53·09	266
Gargunnoch House .....	C. Stirling, Esq.	5	5 8	85 $\nabla$	42·55	...
Kippen (Arngomery) .....	Mr. J. Lowe	5	4 2	150	43·46	...
„ „ (Garden House) .....	C. Stirling, Esq.	...	...	...	49·13	...
Bridge of Allan .....	Laurence Pullar, Esq.	5	0 6	110	33·13	...
Ben Lomond .....	J. R. Sutherland, Esq. C.E.	...	...	1800	106·20	...
Glengyle .....	„ „ „	...	...	380	88·80	...

DIVISION XV.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1904
		in.	ft.	in.	feet.	inches.	
BUTE.							
Arran (Pladda) .....	Bd. of Northern Lights ...	...	...	...	...	54·37	216
Holy Island (Lamlash) .....	" " " " .....	3	0	3	...	44·30	175
d Rothesay (Crichton Road) .....	H. Lauder, Esq.....	5	4	0	97	53·40	236
ARGYLL—(MAINLAND.)							
Kintyre, Mull of .....	Bd. of Northern Lights ...	...	...	...	279 ?	23·37	149
d „ (Campbeltown, Witchburn) .....	Mr. A. Giffen .....	5	1	2	75	43·94	245
„ ( „ Devaar) .....	Bd. of Northern Lights ...	...	3	4	75 ?	46·53	186
d „ (Killean Manse) .....	Rev. D. J. Macdonald ..	5	1	0	30 B	44·74	232
d „ (Largie Castle) .....	J.R.Moreton Macdonald, Esq..	5	1	0	160 T	45·05	167
„ (Skipness Castle) .....	Mr. P. McLean ...	6	1	6	27 L	49·25	...
„ (Stonefield, Tarbert) .....	Dr. Buchan, F.R.S. ...	5	0	9	90	73·06	...
d Tighnabruaich (Craigandaraich) .....	A. S. Cousland, Esq....	6	4	0	30 B	54·64	220
d „							

## DIVISION XV.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
ARGYLL—INSULAR—(con.)						
Mull (Bunessan) .....	Duncan Cameron, Esq.	5	1	4	50	90.09 ...
§ „ (Lochbuie) .....	Dr. Buchan, F.R.S. ...	8	1	2	20	86.30 230
„ (Knock) .....	Duncan Cameron, Esq.	5	1	4	20	112.17 ...
§ „ (Gruline, Aros) .....	Meteorological Council.	8	1	0	101	87.06 250
D „ (Quinish) .....	J. N. Forsyth, Esq. ...	5	1	6	35 B	57.95 248
„ (Glengorm) .....	F. Morgan, Esq. ....	...	...	...	...	51.00 ...
„ Sound of .....	Bd. of Northern Lights	3	1	4	14	65.17 208
D Tiree (Hylipol Manse) .....	Rev. D. Maclean .....	5	1	0	25 B	47.18 241

## DIVISION XVI.—EAST MIDLAND COUNTIES.

## CLACKMANNAN.

Alloa (Mar Street) .....	J. Melville, Esq. ....	5	0	6	70	28.93 ...
Alva House .....	Miss Johnston of Alva..	5	1	6	180	37.96 223
Dollar (Dollarbeg) .....	James Bleloch, Esq. ...	5	0	9	265 T	34.29 211
D § „ (Academy) .....	Mr. A. Blackwood .....	9	1	0	178	37.76 165

## KINROSS.

Blairingone [Dollar] .....	Rev. J. F. Cameron ...	5	1	6	300 T	35.94 206
D Loch Leven Sluice .....	Mr. W. Hay .....	8	0	9	360 L	31.88 164
D Kinross (Gellybank) .....	G. Henderson, Esq. ...	5	0	6	440 T	30.27 202

## FIFE.

D Culross (West Grange) .....	J. J. Dalgleish, Esq. ...	5	0	2	116 T	31.13 194
Dunfermline (Keavil) .....	L. Dalgleish, Esq. ....	5	0	2	150	24.60 ...
Carnock (Luscar House) ...No. 1	A. Mitchell, Esq. ....	5	0	10	430 T	28.88 ...
„ „ „ „ „No. 2	„ „ „ „ „	5	0	10	430 T	28.84 ...
„ (Craigluscar) .....	A. W. Bell, Esq., C.E.	12	0	4	280 T	33.80 ...
Beath (Outh) .....	L. Dalgleish, Esq. ....	5	0	2	890	27.11 ...
Kilconquhar (Balcarres) .....	Mr. E. Tate .....	5	1	0	300 T	29.51 199
D Carnbee (Ovenstone W.W.) .....	A. P. Watson, Esq. ...	5	1	0	168 T	26.75 156
§ Leslie (Lothrie Reservoir) .....	Dr. Buchan, F.R.S. ...	5	0	5	702	31.62 ...
§ Cupar (Clatto Reservoir) .....	„ „ „ „ „	...	...	...	...	26.46 ...
D St. Andrews (Waterworks) .....	W. Watson, Esq. ....	5	1	0	217 T	23.84 170
D „ (South Street) .....	Miss Macadam .....	5	1	0	55 B	25.99 193
Kilmany (Mountquhanie House) .....	D. Gillespie, Esq. ....	3	1	4	...	26.40 ...
D Tayport (Low Light) .....	J. Thompson, Jr. Esq. CE	5	1	0	27	22.78 164

## PERTH.

Aberfoyle .....	J. R. Sutherland, Esq. CE	8	0	6	60	54.60 ...
Ochertyre [Stirling] .....	Capt. J. M. Dundas, R.N.	5	1	0	18	36.79 ...
D Doune (Gartincaber) .....	G. Burn Murdoch, Esq.	5	1	0	200 T	39.88 233
Dunblane (Kippenross) .....	A. H. Anderson, Esq. ...	3	1	3	240	29.15 ...
D Doune .....	Rev. G. S. Mackay .....	5	1	0	125 T	38.95 223
Dunblane (Kippendavie Lodge) ..	A. H. Anderson, Esq. ...	8	2	9	300	47.10 ...
Sheriffmuir (Lynns Farm) .....	„ „ „ „ „	5	1	0	550	36.42 ...
Glendevon (Glensherup) .....	A. W. Bell, Esq., C.E.	12	0	4	745 T	43.11 ...

DIVISION XVI.—EAST MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height above Ground.		Height above Sea Level	1904	
		in.	ft.	in.	feet.	inches.	
PERTH—(con.)							
Loch Dhu .....	J.R.Sutherland, Esq. CE	8	0	6	325	81·60	...
Ledard .....	" " "	...	...	...	1500	61·70	...
d Lanrick Castle .....	Mr. J. Begg .....	3	1	0	...	43·55	171
Loch Drunkie .....	J.R.Sutherland Esq., CE	8	0	6	420	65·30	...
Loch Vennachar .....	" " "	8	0	6	275	54·40	...
Bridge of Turk .....	" " "	8	0	6	275	66·50	...
Doune (Cauldhame) .....	J. Forbes, Esq. ....	...	1	0	830	53·39	233
Loch Katrine (Tunnel Hill Top) .....	J.R.Sutherland, Esq. CE	8	0	6	830	84·20	...
Between Glen Finlas & Ben Ledi. ....	" " "	8	0	6	1800	45·10	...
Callander (Leny House) .....	J. H. Buchanan, Esq. ...	3	0	4	340 T	57·80	...
Braco (Nether Cambushinnie) ...	J. W. Stirling, Esq. ...	5	0	10	350 T	45·61	...
Glenfarg .....	M Rev. J. W. Jack .....	5	1	0	480	34·07	...
Bridge of Earn (Ballendrick) ...	R. Richardson, Esq. ...	3	4	0	50	25·80	...
d\$ Balquhidder (Stronvar) .....	J. Carnegie, Esq. ....	6	1	0	422 T	75·96	256
d Lochearnhead (Ardvorlich) .....	Col. J. Stewart .....	5	1	0	325 T	66·78	215
Comrie (Clathick) .....	Dr. Buchan, F.R.S. ....	...	...	...	300	38·99	200
St. Fillans (Portmore) .....	Miss Mackintosh .....	5	0	4	333 T	57·89	210
† Perth (Pitcullen House) .....	Henry Coates, Esq. ...	5	1	0	133	28·73	...
Killin (Auchmore House) .....	Mr. W. J. Burrell .....	5	1	0	400 T	53·49	...
d Coupar Angus Station .....	Mr. J. Robertson .....	5	1	3	183 T	26·10	209
Dunkeld (Inverbraan) .....	J. Burn Murdoch, Esq. ...	...	...	...	...	38·07	...
d Blairgowrie (Ballintuim House) ..	Miss M. A. McDonald..	5	...	...	600	33·41	210
Rannoch Station .....	Dr. Buchan, F.R.S. ....	...	...	...	950 ?	52·43	230
Pitlochry (Donavoured) .....	W. Maxwell, Esq. ....	5	0	7	400	27·51	...
d Blair-Atholl .....	Mr. A. Cameron .....	5	1	0	420	30·28	174
FORFAR.							
d Buddonness (Low Light) .....	J. Thompson, Jr., Esq. CE	5	1	0	17	19·79	149
d\$ Dundee (Harbour) .....	" " "	5	0	10	14	25·36	184
d Broughty Ferry (Tayside Cottage) ..	Mr. K. Graham .....	5	5	6	25	22·47	156
\$ Dundee (Eastern Necropolis) ...	Mr. J. Carnochan .....	3	0	4	199 T	24·70	...
d\$ " ( " " " ) .....	" " " " .....	5	0	4	199 T	25·31	195
" (Dens Works) .....	Messrs. Baxter Bros. ...	5	...	...	119 T	26·17	182
" (Camperdown Works) .....	Messrs. Cox Bros. ....	5	3	8	290	21·93	...
d\$ " (Balruddery) .....	Mr. R. Cairns .....	5	1	0	266 T	26·52	176
d Craigton .....	G. Baxter, Esq., C.E. ...	8	1	0	410	28·43	165
" .....	M " " " .....	11	3	0	481	27·68	...
" (Hillhead) .....	" " " " .....	11	3	0	570	28·72	...
Crombie Reservoir .....	M " " " .....	11	3	0	522 T	32·30	...
d Arbroath (Waterworks) .....	P. C. Smith, Esq., C.E. .	5	0	11	58 T	19·64	164
" " " " .....	M " " " " .....	5	1	0	58 T	19·81	...
d\$ " (Dishland Hill) .....	Mr. J. Campbell .....	5	0	11	69 T	19·95	167
d Inverarity Manse .....	Rev. P. Stevenson .....	5	1	0	301 T	27·16	184
Glamis Castle .....	Mr. T. Wilson .....	5	1	6	250	27·11	...
d Forfar (Lilyfield) .....	A. L. Fenton, Esq. ....	5	0	5	225 T	25·87	190
Rescobie (Pitscandly) .....	W. T. Farquhar, Esq. .	5	5	10	280	23·37	...
Kirriemuir (Lintrathen) .....	G. Baxter, Esq., C.E. .	8	1	0	700	34·50	...
d " ( " Balnakeilly) .....	" " " " .....	8	1	0	700	31·95	206



## DIVISION XVI.—EAST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.	
FORFAR—(con.)							
Kirriemuir (Lintrathen, Balnakeilly) M	G. Baxter, Esq., C.E...	8	1	0	700	31.50	...
„ ( „, Creich Hill) M	„ „ „ „	8	1	0	1500	31.00	...
„ (Longdrum) .....	„ „ „ „	8	1	0	1142	35.60	...
„ (Glen Dye) .....	„ „ „ „	8	1	0	1409	33.40	...
„ (Barney) .....	„ „ „ „	8	1	0	1145	35.20	...
„ (Glen Damff) .....	„ „ „ „	8	1	0	1480	36.40	...
D§ „ (Lednathie) .....	Mr. W. Morrison .....	5	1	0	705	36.24	211
Montroseness .....	Bd. of Northern Lights	3	1	0	10	20.35?	133
D Montrose (Melville Gardens) ...	S. L. Christie, Esq. ...	5	9	0	23 T	21.62	179
D§ „ (Sunnyside Asylum) ...	J. Masson, Esq. ....	5	0	10	200	22.54	138
D „ (Kinnaber W.W.) .....	S. L. Christie, Esq. ..	5	1	0	38 T	21.74	156
Brechin (Stracathro Gardens) ...	Rt Hon J A Campbell, MP	5	1	0	200 T	26.57	...

## DIVISION XVII.—NORTH EASTERN COUNTIES.

## KINCARDINE.

§ Laurencekirk (Johnstone Lodge)	Dr. Buchan, F.R.S. ....	...	...	...	...	31.10	...
D Fettercairn (The Burn) .....	Col. C. McInroy, C.B...	5	0	11	250	29.94	193
„ Manse .....	Rev. W. Anderson ..	5	0	2	230 T	28.08	...
„ (Fasque Gardens) ...	Sir J.R. Gladstone, Bart.	5	...	...	310 T	31.03	...
Todhead .....	Bd. of Northern Lights	...	...	...	...	23.20	148
Strachan (Bridge of Dye) .....	Sir J.R. Gladstone, Bart.	5	...	...	500 T	36.52	145
Crathes (Cross Roads, Durris) ...	A. Macdonald, Esq. ...	5	1	0	420 T	27.70	204
Durris House [Drumoak] .....	Mr. A. Reid .....	5	0	6	200 ?	29.02	...
D Banchory (Invercannie) .....	W. Dyack, Esq., C.E..	12	0	10	205	28.70	208
D Crathes (Pinewood) .....	J. Smith, Esq. ....	5	1	0	145 T	25.63	178
D „ (Woodbank Cottage) .....	Mr. D. Murchison .....	5	0	6	165 T	26.13	187
Banchory (Hirn) .....	Mr. W. Caird .....	5	1	0	287 T	25.83	181
Girdleness .....	Bd. of Northern Lights	7	4	0	75	22.42	...

## ABERDEEN.

Braemar (Glenclunie Lodge) ...	A. Cross, Esq. ....	5	14	0	1450 T	32.15	...
D§ „ .....	J. Aitken, Esq. ....	8	0	9	1114 T	25.00	192
D Balmoral Castle Gardens .....	J. Michie, Esq., M.V.O.	8	0	10	920 T	23.72	186
D Cromar (Logie Coldstone School) ..	J. B. Anderson, Esq....	5	1	0	608 T	26.78	218
D§ „ ( „ „ „ Loanhead) .....	Mr. A. Farquharson ...	5	1	0	743 T	24.05	192
§ „ (Tillypronie) .....	Mr. R. Littlejohn .....	5	1	0	1120 T	24.11	206
D Aberdeen (Cranford) .....	D. McHardy, Esq. ...	5	1	0	120 T	26.13	204
§ „ (Duthie Park) .....	Dr. Buchan, F.R.S. ....	5	1	0	44	24.30	164
§ „ (King's College) .....	Meteorological Council.	8	2	0	48	23.72	199
Towie (Culquoich) .....	Col. J. Allardyce .....	5	1	0	800	24.01	...
D Strathdon Schoolhouse .....	J. B. Innes, Esq. ....	5	1	0	980 T	25.20	219
D „ (Estate Office) .....	C. Christie, Esq. ....	5	1	2	990	28.28	236
D Alford (Lynturk Manse) .....	Rev. J. B. Duncan .....	5	1	0	615 T	25.61	207
D Monymusk (The Manse) .....	Rev. Dr. Macpherson ..	5	1	0	280 T	26.79	218
Ellon (Mains of Waterton) .....	T. F. Jamieson, Esq....	5	1	0	100	24.78	...
Huntley .....	Alex. Smith, Esq. ....	5	1	0	450 T	27.67	...

## DIVISION XVII.—NORTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
ABERDEEN—(con.)							
▷ New Deer Schoolhouse .....	H. Cowie, Esq. ....	5	1	0	397 $\nabla$	28·35	193
Kinnairdhead .....	Bd. of Northern Lights	3	2	6	54	23·58	175
BANFF.							
▷ Dufftown .....	J. Walker, Esq. ....	5	2	0	579 $\nabla$	28·02	221
Aberlour .....	W. McGowan, Esq. ...	5	0	10	300 $\nabla$	20·72	...
▷ Craigellachie (Cragganspey) .....	J. Shearer, Esq. ....	3	0	1	320	24·39	147
▷ Keith Station .....	Mr. John Lyon .....	6	1	0	364 $\nabla$	28·71	185
▷ Banff (Earl Hill) .....	A. Ramsay, Esq. ....	5	1	0	115 $\nabla$	22·16	148
Cullen House .....	Mr. J. F. Smith .....	5	1	0	100 $\nabla$	29·10	...
ELGIN OR MORAY.							
Grantown .....	Mr. W. Duncan .....	5	1	1	712 $\nabla$	23·64	163
▷ Carron (Bridgend Cottage) .....	Mr. D. Watters .....	5	1	0	366 $\nabla$	26·28	167
Kinloss .....	J. Mackessack, Esq. ...	5	1	3	23 $\nabla$	19·35	...
▷ § Gordon Castle .....	Mr. C. Webster .....	8	1	0	107 $\nabla$	23·09	172
▷ Duffus House .....	Sir A. Dunbar, Bart. ...	5	1	0	55 $\nabla$	19·66	173
NAIRN.							
Ardclach (Glenferness) .....	Earl of Leven and Melville	8	1	6	750	25·42	146
▷ Cawdor (Budgate) .....	J. Joss, Esq. ....	5	1	0	250 $\nabla$	22·68	183
▷ „ Castle .....	The Earl Cawdor .....	8	4	3	225	22·29	144
Nairn (Delnies) .....	Mr. A. Penny .....	8	1	6	82	20·77	216
▷ „ (Achareidh) .....	Miss A. Clarke .....	8	1	0	59 $\nabla$	17·68	179
§ „ (School Ho.) .....	Meteorological Council.	8	1	9	84	20·78	215

## DIVISION XVIII.—NORTH WESTERN COUNTIES.

## WEST INVERNESS.

▷ North Ballachulish (Alltshellach)	B. Chinnery-Haldane Esq.	5	2	1	80	82·34	236
▷ Moidart (Kinloch moidart) .....	R. Stewart, Esq. ....	5	1	3	25	80·70	247
▷ Loch Shiel (Glenfinnan*) .....	Col. J. A. Macdonald ...	5	1	2	50 $\nabla$	111·68	252
▷ Arisaig House .....	Mr. W. Grant .....	5	1	0	20 $\nabla$	61·53	239
▷ Mucomir .....	Rev. D. Sutherland ...	5	1	0	154 $\nabla$	61·42	232
▷ Loch Nevis (Inverie) .....	Mr. J. Huggins .....	5	0	6	10	87·84	251
▷ Glenquoich .....	Mr. D. Grant .....	8	1	2	569 $\nabla$	119·70	255
▷ Glenelg Manse .....	Rev. A. Mactaggart ...	5	1	0	85 $\nabla$	65·11	247
Eigg (Kildonan) .....	Mrs. Glendinning .....	5	1	0	35	54·44	206
Skye (Oronsay) .....	Bd. of Northern Lights	...	0	6	15 $\nabla$	53·67	199
„ (Strathaird) .....	Mr. K. Macdonald .....	5	1	4	160	98·85	202
„ (Kyleakin) .....	Bd. of Northern Lights	5	4	6	45	51·36	229
▷ „ (Scalpay Island) .....	Mr. D. Gunn .....	5	1	0	4	80·78	259
„ (Portree House) .....	A. H. Douglas, Esq. ...	5	1	5	100	64·10	...
Rona .....	Bd. of Northern Lights	3	1	3	180	36·29	229
S. Uist (Ushenish) .....	„ „ „	3	1	0	178 $\nabla$	98·40	226
§ N. Uist (Monach) .....	„ „ „	8	5	6	20	48·51	234

\* Formerly called Glenaladale.

## DIVISION XVIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>WEST INVERNESS—(con.)</b>						
d N. Uist (Lochmaddy) .....	T. D. MacGregor, Esq..	5	0	9	...	45.85 262
Harris (Island Glass) .....	Bd. of Northern Lights	7	4	2	35	59.27 231
d „ (Tarbert) .....	R. Sinclair, Esq.....	5	1	6	33 1	82.56 273
<b>EAST INVERNESS.</b>						
d Invergarry .....	Mrs. Ellice .....	5	0	6	...	63.38 148
§ Kingussie .....	Dr. Buchan, F.R.S. ...	5	1	0	828	25.60 190
d § Fort Augustus (St. Benedict's)...	Rev. C. von Dieckhoff..	5	1	6	68 7	44.30 215
d Alvey Manse .....	Rev. J. Anderson .....	5	1	0	760	26.40 173
Loch Ness (Killin) .....	British Aluminium Co.	5	1	0	1200	39.80 ...
d „ „ (Whitebridge) .....	„ „ „	5	1	0	645	45.71 183
„ „ (Foyers) .....	„ „ „	8	1	6	52	36.83 ...
„ „ (Aberchalder) .....	„ „ „	5	1	0	700 1	31.78 ...
d „ „ (Drumnadrochit) .....	Mr. Angus Grant .....	5	1	0	138 7	30.51 234
§ Inverness (High School) .....	Dr. Buchan, F.R.S. ...	8	1	0	114	25.24 190
<b>WEST ROSS &amp; CROMARTY.</b>						
Glenshiel (Cluanie Forest) .....	A. Cross, Esq.....	5	0	9	800 1	97.15 ...
d Kintail (The Glebe) .....	Rev. R. MacKenzie ...	5	0	10	5 7	65.70 231
Applecross Gardens .....	Mr. D. McCowan .....	5	1	0	70 7	61.48 ...
Strathconan (Dalbreac) .....	Mr. D. MacIver .....	5	1	0	450	45.81 ...
d § Glencarron Lodge .....	Mr. D. D. Munro .....	5	1	0	504	89.55 275
d Loch Torridon (Bendamph) .....	Capt Hon L F King-Noel	5	0	5	20 7	87.58 253
§ Kinlochewe .....	Meteorological Council.	...	...	...	...	78.28 246
Loch Vraon .....	Lady Fowler .....	8	0	7	750	62.20 ...
Loch Drome .....	„ „ .....	8	0	7	850 1	80.38 ...
Braemore House .....	„ „ .....	8	0	7	750	61.83 ...
„ (Foich Lodge) .....	„ „ .....	8	0	7	100 1	48.41 ...
d Ullapool (Drumruinie Lodge) ...	D. A. Lawson, Esq. ...	5	2	6	400	65.23 220
d „ (Inverpollly Lodge) .....	„ „ „	5	4	0	29	51.53 231
Stornoway .....	Bd. of Northern Lights	8	4	9	20	41.05 224
§ „ .....	Meteorological Council.	8	1	0	24	55.72 287
„ (Tiumpanhead) .....	Bd. of Northern Lights	...	...	...	...	55.65 216
„ (Butt of Lewis) .....	„ „ „	8	4	6	65	45.88 200
<b>EAST ROSS &amp; CROMARTY.</b>						
Fortrose (Raddery) .....	E. Gathorne Hill, Esq..	5	0	7	300	21.87 149
Strathpeffer .....	Meteorological Council.	...	...	...	...	25.53? 208
§ Evanton (Swordale House) .....	Dr. Buchan, F.R.S. ...	10	0	8	520	26.40 ...
Cromarty .....	Bd. of Northern Lights	3	1	0	28	20.15 139
Evanton (Novar Gardens) .....	Mr. A. Edmondstone ...	5	0	6	...	35.49 238
Kildary (Tarbat House) .....	Mr. C. Dyer .....	5	1	6	15	20.21 ...
d Alness (Ardross Castle) .....	Mr. W. Minty .....	5	1	0	450 7	34.86 242
d Fearn (Lower Pitkerrie) .....	R. Gordon, Esq., C.E..	5	1	0	95	19.15 141

## DIVISION XIX.—NORTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1904	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
<b>SUTHERLAND.</b>							
▷ Dornoch .....	Rev. Dr. Grant .....	5	1	0	21	21·67	182
▷ Invershin .....	G. Young, Esq. ....	5	4	0	20 7	28·08	184
▷ § Dunrobin Castle.....	Mr. D. Melville . ....	5	1	0	14 7	27·56	163
§ „ „ „ „ „ M	„ „ „ „ „	3	0	5	13 7	27·80	...
§ Lairg .....	Dr. Buchan, F.R.S. ...	...	1	0	390	36·86	241
Stourhead ...	Bd. of Northern Lights	5	1	6	155	28·94	257
▷ Altnaharra .....	Rev. G. Mackay.....	5	1	0	300 7	38·14	179
▷ Bettyhill.....	Mr. Evander Mackay...	5	1	0	100	32·43	148
Cape Wrath .....	Bd. of Northern Lights	7	4	8	330	34·39	223
<b>CAITHNESS.</b>							
§ Wick .....	Meteorological Council.	8	1	9	77	25·29	234
„ (Nosshead) .....	Bd. of Northern Lights	...	...	...	...	22·33	182
▷ Watten Station .....	Mr. J. Phimister .....	5	2	6	75 7	24·59	204
▷ Castletown (The Clett) .....	J. Calder, Esq. ....	5	1	0	100 B	33·44	262
Thurso (Holburn Head) .....	Bd. of Northern Lights	3	0	8	60 ?	39·64	201
Dunnet Head .....	„ „ „	3	1	0	320	31·02	170
Stroma.....	„ „ „	...	...	...	...	25·08	193
Pentland Skerries .....	„ „ „	7	3	9	40	25·78	166
<b>ORKNEY.</b>							
Hoy (Graemsay Sound, East=High)	Bd. of Northern Lights	5	0	4	17	41·19	208
„ „ „ „ West=Low)	„ „ „ „	8	4	3	27	44·61	179
§ Pomona (Deerness) .....	Dr. Buchan, F.R.S. ...	5	1	0	161	32·33	187
„ (Kirkwall) .....	„ „ „ „	3	0	9	20	34·09?	...
Hellyar Holm.....	Bd. of Northern Lights	3	1	0	28	28·21	187
Auskerry .....	„ „ „ „	3	2	6	10	36·30	175
Shapinsay (Balfour Castle) .....	Mr. T. McDonald .....	5	0	6	50	29·31	...
Sanday (Start Point).....	Bd. of Northern Lights	3	1	0	15	28·22	144
Westray (Noup Head) .....	„ „ „	3	1	0	190	24·72	196
North Ronaldshay .....	„ „ „	3	0	4	10	37·14	180
<b>SHETLAND.</b>							
Fair Isle, N. ....	Bd. of Northern Lights	...	...	...	...	43·99	171
Sumburghhead.....	„ „ „ „	...	...	...	...	38·85	168
§ „ „ (Dunroseness) ...	Meteorological Council.	8	1	0	84	38·00	258
Bressay .....	Bd. of Northern Lights	3	1	0	62	51·30	200
§ Lerwick .....	Dr. Buchan, F.R.S. ...	5	1	0	30	41·99	209
Sule Skerry .....	Bd. of Northern Lights	3	0	6	40	25·68	173
▷ Fetlar (The Manse) .....	Rev. J. A. Campbell ...	5	1	0	30 L	37·19	245

## IRELAND.

## DIVISION XX.—MUNSTER.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with .01 or more recorded.
		Diameter	Height above Ground.		Height above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>CORK.</b>						
D Castletownshend (Glen Barrabane)	E. B. Coghill, Esq. ...	5	3	0	25 L	46.99 206
D Bandon (Ardnacarrig) .....	G. A. Armstrong, Esq. ...	5	1	0	126 T	44.15 203
§ Roche's Point .....	Meteorological Council.	8	1	9	32	37.51 247
D Cork (Villa Franca) .....	R. C. Sikes, Esq. ....	5	1	0	49 T	39.12 207
D „ (Queen's College) .....	Prof. A. Jack .....	8	1	0	60	39.03 215
D „ (The Palace) .....	Rt. Rev. Bishop of Cork	5	1	0	40 L	35.48 192
D „ (Wellesley Terrace) .....	W. Miller, Esq. ....	5	1	0	190 B	37.22 214
D Mallow (Summer Hill) .....	J. F. Williamson, Esq. ...	5	1	10	261 T	38.02 217
D „ (Longueville) .....	R. E. Longfield, Esq. ...	5	1	1	310 T	39.83 240
Charleville Park .....	Capt. Arthur Smith ...	...	...	...	...	37.08 210
<b>KERRY.</b>						
D Darrynane Abbey ..	D. O'Connell, Esq. ....	5	1	1	13 N	60.23 262
D Waterville (Iveragh Lodge) .....	R. J. Hughes, Esq. ...	5	1	0	86 N	49.93 226
Kenmare (Derreen) .....	Mr. W. Holbrow .....	5	1	0	74 L	77.24 224
D „ (Dromore Castle) .....	Mr. J. Bloomer .....	5	2	0	100	68.48 209
D „ (Dunkerron) .....	Miss Palmer .....	5	1	6	3	67.48 210
§ Valencia (Glanleam) .....	Meteorological Council	8	1	0	12	70.32 268
§ Cahirciveen .....	„ „ „	8	2	0	32	64.65 272
Mangerton .....	Ven. Archdeacon Wynne	5	1	6	1760	102.00 ...
Gap of Dunloe (Garrymeen) .....	„ „ „	8	3	0	75	100.10 ...
D § Killarney (District Asylum) ...	E. Griffin, Esq., M.D. ...	5	0	10	178 T	51.12 227
<b>WATERFORD.</b>						
Lismore (Ballygally) .....	R. Foley, Esq. ....	5	1	0	160 N	38.50 ...
„ (Mocollop Castle) ... (R)	Dr. H. W. Drew .....	8	4	9	180	38.31 ...
Knockaderry .....	M. J. Fleming, Esq., C.E.	5	4	0	241 T	37.20 177
D Waterford (Whitfield Court) ...	Major H. Chavasse .....	5	0	7	67 N	41.05 203
D „ (Brook Lodge) .....	C. P. Bolton, Esq., C.E.	5	1	0	104 T	41.12 202
D „ (Tycor) .....	M. J. Fleming, Esq., C.E.	5	0	7	171 T	40.63 181

DIVISION XX.—MUNSTER—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.	
<b>WATERFORD—(<i>con.</i>)</b>							
Portlaw (Mayfield).....	J. Anderson, Esq. ....	5	4	0	70	42·69	207
„ (The Gardens, Curraghmore).....	Mr. D. Crombie .....	5	1	0	95	47·50	168
„ (Milfort) .....	C. Morley, Esq. ....	5	2	2	200 T	43·43	195
Glenam [Clonmel].....	Miss Grubb.....	8	1	4	80 T	42·08	214
Sheskin [Carrick-on-Suir] .....	J. Ernest Grubb, Esq... ..	8	1	4	542 T	46·99	223
<b>TIPPERARY.</b>							
Clonmel (Bruce Villa) .....	J. H. Grubb, Esq.....	5	1	3	110 T	36·39	198
§ Cahir (Bengurragh) .....	R. W. Smith, jun., Esq. ....	5	1	0	199	38·87	221
„ Abbey .....	Mrs. W. Rochfort .....	5	0	6	...	40·77	217
Nenagh (Kilboy) .....	The Lady Dunalley ...	8	1	0	326	51·98	201
„ (Castle Lough) .....	A. Parker, Esq.....	5	1	3	120 T	40·51	235
„ (Highlands).....	John Mounsey, Esq. ...	5	1	2	470	32·59	216
Ballingarry (Hazelfort) .....	Mrs. Fraser.....	5	1	0	...	32·84	209
<b>LIMERICK.</b>							
§ Foynes .....	Meteorological Council. ....	5	1	0	104	36·49	187
§ Limerick (Roxborough).....	A. W. Shaw, Esq. ....	8	1	6	108 T	37·14	220
§ „ (Corbally) .....	Meteorological Council. ....	5	1	0	60	36·52	230
„ (Victoria Terrace).....	J. Horan, Esq. ....	5	1	0	60 T	35·95	223
<b>CLARE.</b>							
Carrigaholt Castle.....	W. C. V. Burton, Esq. ....	5	1	0	16	37·08	233
Killadysert (Paradise Hill) .....	F. B. Henn, Esq. ....	5	0	11	105 T	48·38	260
§ Newmarket-on-Fergus (Carrigoran).....	A. Barker, Esq.....	5	1	0	86	43·46	227
Broadford (Hurdlestown).....	Colonel W. Bentley ...	5	1	0	167 T	38·74	239
Killaloe .....	F. Dudley Fletcher Esq. CE	5	2	0	...	46·90	211
Ennis (Roslevan) .....	Mrs. Scott .....	5	1	11	40 T	40·31	214
Miltown Malbay .....	M. Molohan, Esq. ....	5	1	0	400 T	51·53	260
Lahinch (Moy House) .....	Miss Bowes.....	5	1	0	53	45·79	245
Ennistymon House .....	H. V. Macnamara, Esq. ....	5	1	0	37 T	50·98	261
„ Rectory .....	Rev. C. W. McDowell..	5	1	0	132	51·89	227

DIVISION XXI.—LEINSTER.

WEXFORD.

Wexford (Reclaimed Lands) ...	Mr. W. Thomas.....	8	1	3	—3 T	30·16	...
§ New Ross (Longraigue).....	J. W. Deane, Esq.....	5	1	0	210 T	39·53	198
Wexford (Bann-aboo) .....	Col. J. R. Magrath ...	8	4	0	9	35·41	167
Templeudigan (Ballindoney) ...	J. Budgen, Esq. ....	5	1	0	434 B	43·32	210
Enniscorthy (Monart Rectory)...	Rev. W. F. A. Ellison..	5	0	11	150 T	35·23	229
„ (Ballyhyland) .....	Mrs. Moffat.....	5	1	0	365 T	38·47	201
„ (Monksgrange).....	G. H. Orpen, Esq. ....	5	1	0	565 B	46·93	250
§ Oulart (Wells) .....	C. M. Doyme, Esq.....	5	1	0	207 T	36·45	186
Enniscorthy (Woodbrook) .....	Rev. Canon Blaeker ...	5	0	10	320 T	42·66	201
§ Gorey (Courtown House) .....	The Earl of Courtown..	5	3	0	80 T	30·58	173

## DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.	
		Diameter	Height Above Ground	Height Above Sea Level	1904		
		in.	ft.	in.	feet.	inches.	
KILKENNY.							
d Rockenham [Waterford] .....	A. E. Graves, Esq. ....	5	0	6	140 T	38.42	178
d Piltown (Bessborough) .....	Mr. J. G. Weston .....	8	3	6	80	37.62	214
§ Kilkenny Castle .....	Meteorological Council.	8	1	0	208	31.52	194
d " " (Sion Villa) .....	J. O'Connell, Esq., C.E.	5	1	0	198	31.43	210
" " ( " " ) weekly g.	" "	5	1	3	198	31.23	...
" " (Lavistown House) ...	Miss Butler .....	5	2	5	170	29.22	196
d Goresbridge (Barraghcore House)	H. de M. Fleming, Esq.	5	1	0	130 T	30.62	212
WICKLOW.							
d Laragh (Glendalough) .....	Wyndham H Wynne Esq	5	2	9	460 T	53.63	220
Roundwood (Vartry Lodge) .....	Spencer Harty, Esq., CE	5	1	0	720	39.95	...
" " " " " " " " " " " "	" " " " " " " " " " " "	5	1	6	800 T	32.78	...
" " (Knockatemple) .....	" " " " " " " " " " " "	5	1	6	760 T	31.77	...
Newcastle (Killadreenan) .....	B. H. Steede, Esq., M.D.	8	1	2	255 T	30.15	183
Tithewere .....	Spencer Harty, Esq., CE	5	1	6	1000 T	27.99	...
Annacarter .....	" " " " " " " " " " " "	5	1	6	750 T	33.74	...
Greystones (Knockdolian) .....	R. Cathcart Dobbs Esq CE	5	1	2	68 T	25.40	174
d Bray (Fassaroe) ...	R. M. Barrington, Esq.	10	5	0	250	34.06	189
CARLOW.							
d Bagnalstown (Fenagh House) ...	D. R. P. Beresford, Esq	5	1	0	340	31.45	183
" " " " " " " " " " " "	" " " " " " " " " " " "	5	1	0	340	28.66	...
d Carlow " (Browne's Hill) .....	W. Browne Clayton, Esq	5	1	0	291 T	32.06	196
QUEEN'S COUNTY.							
Abbey Leix (Blandsfort) .....	J. L. Bland, Esq. ....	5	5	0	532 T	39.23	240
d Mountrath (Ballyfin) .....	J. McLaren, Esq. ....	8	1	0	600 T	44.01	241
KING'S COUNTY.							
d § Birr Castle .....	Earl of Rosse, K.P., FRS	8	1	0	183	32.31	224
§ " " " " " " " " " " " "	" " " " " " " " " " " "	8	0	10	183	33.68	230
Victoria Lock [Meelick] .....	F. Dudley Fletcher Esq CE	5	2	0	119	28.87	...
Banagher .....	Mr. J. Deegan .....	5	1	0	170	33.48	...
Geashill .....	Mrs. Digby .....	5	1	0	...	31.75	...
Tullamore .....	Rev. R. S. Craig .....	5	1	0	201 T	30.97	...
KILDARE.							
d Castledermot .....	Rev. M. Walsh .....	5	2	8	...	26.56	179
Timolin Vicarage .....	Rev. J. Eldon Ellison..	5	1	0	370 B	33.59	...
d Monasterevan (Moore Abbey) ...	Mr. C. Pilgrim .....	5	1	0	236 T	31.44	227
d Straffan House .....	Mr. F. Bedford .....	5	2	0	240 T	27.39	181
DUBLIN.							
d Glen-na-Smoel (Water Works)...	F. P. Dixon, Esq., C.E.	5	1	0	514 T	40.50	221
Carrickmines (Claremont) .....	John Read, Esq. ....	5	0	11	350	22.37	...
d Ballybrack (Streamville) .....	F. B. Falkiner, Esq....	5	1	5	30 B	23.20	180
Killiney (Clonevin) .....	R. O'B. Furlong, Esq. CB	5	1	0	250 T	22.14	182
d Foxrock (Hillside) .....	G. M. W. Hill, Esq. ...	5	1	0	245	27.13	218

## DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1904	
		in.	ft. in.	feet.	inches.	
<b>DUBLIN—(con.)</b>						
Dundrum (Lynton) .....	Sir J. W. Moore, M.D.	5	...	...	26·21	216
» Kingstown (People's Park) .....	Dr. J. Byrne Power ...	8	1 0	43 $\pi$	20·01	171
Rathmines (Terenure) .....	F. P. Dixon, Esq., C.E.	8	0 6	125 $\pi$	22·51	164
» „ (Leinster Road) .....	E. H. Cannon, Esq. ...	5	0 11	170	23·10	188
» Dublin (Fitz William Square) ...	Sir J. W. Moore, M.D.	8	1 6	54 $\uparrow$	22·18	189
» „ (Trinity College) .....	A. R. Moore, Esq. ....	8	1 0	13 $\pi$	21·74	172
» „ (Phoenix Park) .....	Lt.-Col. Meeres, R.E.	8	1 0	155 $\pi$	22·70	198
» Glasnevin (Botanic Gardens) ...	F. W. Moore, Esq. ...	8	1 0	55	23·95	198
Malahide (The Green) .....	T. Bateman, Esq. ....	5	1 0	25 $\uparrow$	24·82	183
» Balbriggan (Ardgillan) ... No. 1	Capt. E. R. Taylor.....	5	1 0	211 $\uparrow$	27·13	187
§ „ { „ } ... No. 2	„ „ „ .....	8	1 0	211 $\uparrow$	28·76	...
§ „ { „ } ... No. 3	„ „ „ .....	5	1 0	211 $\uparrow$	27·19	...
<b>MEATH.</b>						
» Summerhill House.....	Lord Langford .....	5	1 0	372 $\uparrow$	31·19	216
» Athboy .....	C. P. Coghill, Esq.....	8	1 3	227	32·48	190
» Kells (Headfort).....	The Marquis of Headfort	10	5 0	227	31·14	149
» Oldcastle (Killeagh Rectory) ...	Rev. R. Butler .....	5	1 0	382	32·80	213
» Moynalty (Westland) .....	W. A. Barnes, Esq. ...	5	1 2	260 $\uparrow$	34·50	227
» Drumconrath (Aclare House) (R)	Admiral Singleton, C.B.	10	2 6	170 $\uparrow$	32·40	227
» „ (Corstown Ho.) (R) „ „ „	„ „ „ .....	10	2 6	153 $\uparrow$	26·02	206
<b>WESTMEATH.</b>						
Athlone (The Moorings) .....	Capt. J. Preston.....	5	1 0	178	33·65	...
» „ (Twyford) .....	J. P. Hodson, Esq.....	5	5 0	188 $\pi$	39·28	241
» Moate (Coolatore) .....	H. A. S. Upton, Esq... 5 1 10	5	1 10	300	33·24	231
» Mullingar (Belvedere) .....	Mr. J. Bayliss .....	5	1 0	367 $\uparrow$	33·90	211
Streete (Daramona) .....	W.E. Wilson, Esq., FRS	10	1 0	276	36·27	262
<b>LOUTH.</b>						
» Drogheda (St. James') .....	L. Donegan, Esq. ....	5	1 0	32 $\uparrow$	29·66	213
» Ardee (Lissrenny) .. .....	T. F. Filgate, Esq.....	8	0 10	75 $\uparrow$	31·32	231
Dundalk (Farndreg) .....	J. Barton, Esq., C.E.	5	1 6	90 $\uparrow$	29·10	195
» „ (Mount Pleasant) .. ...	Telford Macneill, Esq..	5	1 0	60	33·69	256
» Greenore .....	T. Chambers, Esq., C.E.	5	1 0	4 $\downarrow$	32·41	207
<b>LONGFORD.</b>						
» Ballymahon (New Castle).....	Lt.-Col. W. H. King-Harman	4	2 5	250 $\uparrow$	36·33	217
» Cloondraha .....	F. Dudley Fletcher Esq. CE	5	2 0	130	34·26	253
Edgeworthstown (Currygrane Ho.)	J. M. Wilson, Esq. ...	5	1 0	275	39·04	231

## DIVISION XXII.—CONNAUGHT.

## GALWAY.

» Woodpark [Scariff] .....	R. F. Hibbert, Esq. ...	5	1 0	170 $\pi$	43·70	259
Galway (Queen's College).....	W. Hare, Esq. ....	16	9 0	30	38·65	...
» Ballinasloe .....	W. H. Kempster, Esq.	5	2 6	160 $\pi$	39·28	259
» Woodlawn .....	Mr. A. Porter.....	5	3 6	300 $\uparrow$	40·86	234



## DIVISION XXII.—CONNAUGHT—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet	inches.	
<b>GALWAY—(con.)</b>						
D Ahascragh (Clonbrock) .....	Lord Clonbrock, K.P. ....	10	5 6	200 T	38·68	162
§ Recess Hotel .....	Mr. A. A. Smith .....	5	0 9	90	67·82	225
D Clifden (Kylemore House) .....	Mr. T. McNab .....	5	1 0	105	79·84	223
D " ( " Castle) .....	Mr. William Comfort .....	5	0 9	170 T	86·27	265
D Tuam (Castle Hacket) .....	P. B. Bernard, Esq. ....	5	1 6	...	45·26	197
" (Gardenfield) .....	M. H. Kirwan, Esq. ....	5	1 0	155 T	50·35	233
" ( " ) .....	" " " .....	5	6 0	160 T	49·54	...
" ( " ) .....	" " " .....	5	1 0	155	49·93	...
<b>ROSCOMMON.</b>						
D [Athlone] .....	F Dudley Fletcher Esq CE	5	2 0	128 N	29·97	196
D Rooskey .....	" " "	5	2 0	139 N	37·53	216
<b>MAYO.</b>						
D Cong (The Glebe) .....	Rev. R. Y. Lynn .....	5	1 11	112 N	55·80	268
Ballinrobe (Cranmore) .....	Miss Knox .....	5	0 9	99	53·00	...
D Westport (Murrisk Abbey) .....	F. C. Garvey, Esq. ....	5	1 1	18	55·25	271
D " (St. Helen's) .....	Miss Kelly .....	6	0 11	35 N	49·67	259
§ " (Mallaranny) .....	Meteorological Council.	5	1 0	120	51·11	204
D Newport (Burrishoole House) ...	H. M. Anketell Jones Esq	5	3 0	30	52·25	255
Doo Castle [Tobercurry] .....	Mr. D. O'Dowd .....	5	4 0	...	44·39	240
§ Blacksod Point .....	Meteorological Council.	8	0 10	37	53·22	289
D Crossmolina (Enniscoe) .....	J. Pratt, Esq. ....	5	0 11	74 T	59·72	270
<b>SLIGO.</b>						
Ballymote (New Park) .....	R. A. Duke, Esq. ....	5	1 2	228	44·96	...
D § Collooney (Markree Observatory)	J. R. Armstrong, Esq. ..	5	1 0	130 N	44·86	260
§ " ( " ) .....	" " " .....	5	16 6	148 N	36·06	262
D Ballysadare Bay (Glen Lodge) ...	Vernon Cochrane, Esq. ...	5	1 0	14	42·52	255
D Sligo (Ardmore) .....	R. S. Pettigrew, Esq. ...	5	1 6	65 B	43·17	256
<b>LEITRIM.</b>						
D Jamestown (Albert Lock) .....	F Dudley Fletcher Esq CE	5	2 0	146 N	36·63	250
§ Carrigallen .....	Meteorological Council.	...	...	...	42·39	221
Drumshanbo (Lough Allen Sluices)	F Dudley Fletcher Esq CE	5	2 0	169 N	37·60	...

## DIVISION XXIII.—ULSTER.

## CAVAN.

D Stradone House .....	Mr. J. Hart .....	5	1 0	280 T	38·41	162
D Killeshandra (Castle Hamilton) ..	Capt. W. J. Hamilton ..	5	1 0	251 T	33·88	190
D Belturbet (Cloverhill) .....	Mrs. Sanderson .....	5	1 0	202 T	35·79	239
D Ballyconnell House .....	Surg.-Gen. S. B. Roe, CB	8	1 2	196	42·00	228

### DIVISION XXIII.—ULSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1904	Days with ul or more recorded.	
		Diameter	Height Above Ground.				Height Above Sea Level
		in.	ft.	in.	feet.	inches.	
FERMANAGH.							
d Enniskillen (Portora) .....	W. N. Tetley, Esq. ....	5	1	0	251 T	39·18	...
d Belleek .....	J. Beacom, Esq.....	5	1	5	...	47·15	250
MONAGHAN.							
d Dartrey [Cootehill] .....	The Earl of Dartrey ...	5	2	6	265	34·85	188
d Monaghan (Rowantree House)...	Dr. J. C. Hall.....	5	5	6	240	32·46	164
ARMAGH.							
d Bridge Street [Newry] .....	J.L.D.Meares, Esq.C.E.	5	0	9	22 T	38·13	211
d Tanderagee.....	J. Taylor, Esq. ....	5	1	6	198 T	34·34	220
d Armagh Observatory.....	Dr. J. L. E. Dreyer ...	8	1	0	210 T	30·88	216
d Loughgall (Manor House) .....	Mrs. Cope .....	5	1	0	205 T	29·81	191
d Portadown (West Street) .....	S. N. Baker, Esq. ....	5	25	0	115 T	25·83	199
d Lurgan (Belle Vue) .....	S. A. Bell, junr., Esq..	5	0	5	200 T	27·79	200
DOWN.							
Warrenpoint (Summer Hill).....	B. M. Kernan, Esq. ....	5	1	0	30 L	32·96	161
d Newcastle (Tullymore Park) ...	Col. Hon. R. J. Jocelyn	5	1	0	276 T	49·83	207
d Rathfryland (Ballynagappoge)...	J. Smyth, Esq., C.E....	5	1	0	300	31·79	163
d Castlewellan (Lough Island) ...	" " " "	5	1	0	440 T	40·97	164
Banbridge (Katesbridge) .....	A. A. Mulligan, Esq...	5	1	0	230 T	29·02	180
d Seaforde .....	Mr. W. Allan.....	8	0	5	180 T	33·97	215
d Banbridge (Corbet Reservoir) ...	J. Smyth, Esq., C.E....	5	1	0	234	26·04	156
d " (Milltown) .....	" " " "	8	0	8	200 T	29·21	202
§Donaghadee .....	Meteorological Council.	8	1	6	30	28·70	215
ANTRIM.							
d Lisburn (UlsterProvincialSchool)	J. Woolman, Esq. ....	5	1	3	208	43·60	210
Stonyford (Belfast W. W.) ...	FWMcCulloughEsq.CE	5	1	6	437 T	31·38	194
d†Belfast (Queen's College) .....	Mr. G. Robinson ....	11	7	4	68 T	31·84	212
d† " (Springfield) .....	T. G. Firth, Esq.....	5	1	0	150 T	36·65	293?
† " (Antrim Road) .....	FWMcCulloughEsq.CE	5	7	0	144 T	37·25	224
Antrim (Ardnaveigh) .....	H. B. Murray, Esq. ...	7	0	9	200 T	32·64	206
Carrickfergus (Dorisland).....	FWMcCulloughEsq.CE	5	1	0	250 T	34·14	215
" (South Woodburn) .....	" " " "	5	1	0	640 T	42·71	231
" (North " ) .....	" " " "	5	1	0	735 T	47·03	234
" (Copeland) .....	" " " "	5	1	0	424 T	34·20	217
" (Lough Mourne)...	" " " "	5	1	0	596 T	42·78	225
Ballynure (Ballyboley).....	Mr. T. H. Craig .....	5	1	2	400	33·30	...
d Ballymena (Harryville) .....	J. R. Williams, Esq....	5	1	5	150 T	39·37	241
d Broughshane (Quolie) .....	H. O'Hara, Esq., C.E..	5	1	4	893	39·21	228
§Glenarm Castle .....	Meteorological Council.	8	1	0	45	40·49	177
Ballymoney (Balnamore) .....	W. H. Lawlor, Esq....	5	1	5	50 T	36·33	241
Stranocum (Gardenvale) .....	A. McNeill, Esq. ....	5	1	0	160	40·16	219
d Bushmills (Dundarave).....	Sir F.E. Macnaghten, Bt	5	1	0	162 T	36·34	218

DIVISION XXIII.—ULSTER—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1904	
		in.	ft.	in.	feet.	inches.	
LONDONDERRY.							
d Garvagh (Moneydig) .....	H. R. Morrison, Esq...	5	1	0	121	38·77	200
d Londonderry (Creggan Res.).....	Mr. J. Hutchison .....	8	1	0	320 †	41·74	249
Limavady (Drenagh) .....	M. M. McCausland, Esq.	5	1	6	80 †	36·73	247
Bellarena.....	Dowager Lady Heygate	5	1	3	7	35·70	230
d Coleraine .....	W. R. Kennedy, Esq...	5	4	0	52	36·97?	206
TYRONE.							
d Stewartstown (The Square) .....	A. Johnston, Esq. ....	5	1	4	300 †	37·85	213
d Omagh (Edenfel) .....	Col.L.M.Buchanan,C.B.	8	1	0	280 †	42·89	239
d Newtown Stewart(Baron's Court)	Mr. R. Bell.....	5	1	0	250 †	43·62	248
DONEGAL.							
d Killybegs .....	A. Brooke, Esq.....	5	1	0	30	45·23?	271
Lough Eask Castle.....	Major-Gen. H.G. White	5	1	0	170 †	61·91	242
d Raphoe (Convoy) .....	Rev. K. H. Thompson..	5	0	9	150 †	45·00	222
d Letterkenny (District Asylum)..	E. E. Moore, Esq., M.D.	5	1	0	183 †	47·28	243
Rathmullan .....	Dr. Loughnan .....	5	1	0	1	40·29	...
Buncrana (Rockfort).....	T. Colquhoun, Esq. ...	5	1	0	55 †	40·38	213
Ardnadrean Rectory.....	Rev. W. S. Griffith ...	5	0	10	39	45·36	...
d Dunfanaghy (St. Helen's).....	J. J. MacGrath, Esq....	8	1	0	30	44·04	235
d Horn Head .....	C. F. Stewart, Esq. ...	5	1	0	163	41·25	247
d Lough Swilly (Carrablagh) .....	H. C. Hart, Esq. ....	5	1	0	130	30·75	240
§Malin Head .....	Meteorological Council.	8	1	0	220	31·90	252

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