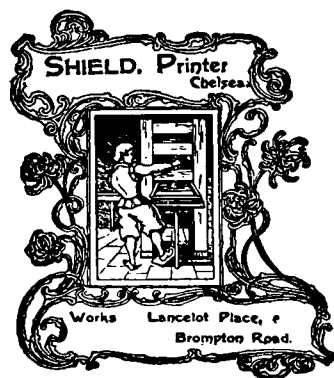


Mr. Crook

BRITISH RAINFALL,
1903.





ABOVE THE FOG ON THE LONG MYND.

Photographed by Rev. R. P. Dansey.]

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BRITISH RAINFALL, 1903.

ON
THE DISTRIBUTION OF RAIN

OVER THE
BRITISH ISLES,

DURING THE YEAR

1903,

AS OBSERVED AT NEARLY 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
Society ; Member of Council of the Aeronautical Society ; Fellow or Honorary
Corresponding Member of the Geographical Societies in London, Edinburgh,
Paris, Berlin, Budapest, Amsterdam, Brisbane and Philadelphia.
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.
1904.

ERRATA IN BRITISH RAINFALL, 1903.

- Page [26]. Lines 18—20. Lea Bridge. *Delete the remark.*
,, [240]. Line 35. *For Hocking read Hockin.*

ERRATA IN BRITISH RAINFALL, 1902.

- Page 76. *Delete* W. G. Mills, Torfrey, Par Station.
,, [8]. Line 26. *For* 6.40 p.m. to 6.45 p.m. *read* 6.40 a.m. to 6.45 a.m..
,, [22]. Line 18. *Delete* H and *before* L.
,, [167]. *Delete* Hampstead (Kidderpore Reservoir).
,, [169]. *Delete* Red Hill (Linkfield Lane).
,, [239]. Dundee (Westgreen House). *For* 26·57 in. *read* 26·16 in.

ERRATA IN PREVIOUS VOLUMES.

Delete Hampstead (Kidderpore Reservoir) *from* 1892 *onwards.*

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PREFACE.

A YEAR of abnormal rainfall always entails exceptionally heavy work in the compilation of the annual volume. This was felt all the more on the present occasion, because the working staff was reduced by the retirement of the most experienced and indefatigable member, and a considerable amount of re-organization was made necessary by the change. The date of completion is consequently somewhat later than last year, but it is earlier than in seven of the previous twelve years, and with the co-operation of the few observers who usually delay the transmission of their returns until spring or summer, I hope in future to be able to get the volume through the press before the latest statistics in it are much more than six months old.

The introduction of several entirely new sections without disturbing the original plan of the work, entailed more labour than can be readily realised by a reader turning over the pages. The new features are described in the "Report" on pp. 10-11, and in putting before the public this summary of the labours of nearly four thousand rainfall observers, I desire to acknowledge the zeal and devotion with which my assistants, Mr. R. Lamport, Mr. J. M. Phillpott, and Mr. C. Salter, have aided me in making the new parts worthy of the old, and maintaining in the familiar features all the safeguards of accuracy which the life-long experience of my predecessors have shown to be required.

HUGH ROBERT MILL.

62, CAMDEN SQUARE, LONDON, N.W.

21st July, 1904.

REPORT.

The King and British Rainfall.—In referring to the work of the Rainfall Organization for the past year, the first place must be given to the gratifying circumstance that HIS MAJESTY THE KING has most graciously interested himself in the collection of observations. The King has given instructions that the rainfall records kept at Windsor, Balmoral and Sandringham, should be sent in regularly for publication, and that a new record should be commenced in the gardens at Buckingham Palace. I had the privilege of selecting a site for this gauge, and seeing it set up in February last. The Windsor record has long appeared in our pages, and those for Balmoral and Sandringham take their place this year for the first time. It is perhaps not too much to hope that the honour done to our work by the participation of the King, may induce some of the owners of estates in remote parts of the country, where observations are badly needed, and especially in the Highlands, to follow so enlightened an example.

The Retirement of Mr. Sowerby Wallis.—As foreshadowed in the preface to *British Rainfall*, 1902, Mr. H. Sowerby Wallis has retired altogether from the work of the British Rainfall Organization. From the year 1872 he had taken an increasing share of the burden which Mr. Symons bore with so light a heart until the end, and since 1890 Mr. Wallis's name has appeared on the title-page of every volume of *British Rainfall*. His knowledge of all matters affecting rainfall, and his skill in the discussion of records, are known to all who consult these pages; but we cannot let the opportunity pass without expressing our regard for his attainments, and the regret shared by all observers that he has been compelled by ill-health to relinquish a work in which he had acquired such mastery, and by which he had served his country so long and well. After three years of intimate association with my former colleague, I have undertaken

the whole responsibility of editorship, and I trust that I shall always profit by the example of ceaseless industry and unimpeachable accuracy which he set. Continuity has so far been secured, and it will be my ambition, as it was that of Mr. Wallis and of Mr. Symons before him, to pass on the torch undimmed when the time comes.

A Dream of British Rainfall.—I am not unmindful of the adage concerning new brooms, and in revising the contents and arrangement of this volume I have endeavoured to sweep nothing away. I have scarcely ventured to weed anything out, but tried to strengthen the general plan by additions which I hope will be considered judicious. I have been rash in one particular only, and that is in largely increasing the bulk and expense of the publications without any immediate prospect of increased circulation; but any bad effects of this temerity will fall on myself.

I must confess that revolutionary visions have flitted before my eyes. I have dreamt of a *British Rainfall* with a quarto or at least an imperial octavo page, which would give room for the latitude and longitude of each station, in a contracted form, and perhaps for the average rainfall as well where an average exists. The stations might be grouped in river-basins within each county, and maps given to show the exact position of every gauge. The dream includes a series of coloured maps on a legible scale, showing the annual and monthly rainfall, a large increase in the number of illustrations, fuller discussion of every department of rainfall work, and it culminates in the idea that the whole might be in the hands of subscribers each year before the feast of St. Swithin. The dream may never be realized, for it would cost time that is difficult to find, and money that is not easily obtained, but it is pleasant to contemplate, and the few little changes now introduced are in the direction toward which it points.

The Plan of this Volume.—Part I. remains practically unchanged, though the section on the Staff of Observers is thrown into a more compact form in order to save space. A new section dealing with the duration of rainfall has been introduced, and I hope that it may grow. Head-lines have been adopted throughout the volume, to guide the reader to the facts of which he is in search.

The special articles this year deal with the three wettest years in the annals of *British Rainfall*, of which 1903 was one; and with the remarkable daily rainfall of June, 1903.

Part II. commences as usual with the remarks of observers on the phenomena of the days, the months and of the year. It must be remembered that the interests of the observers vary; some are mainly concerned with the weather as it affects farming or gardening, others as it influences water-supply or means of communication, and a considerable proportion view it from the standpoint of the general public. But in every case I think there can be no difficulty in seeing how the individual remarks apply. Now and again an illustrative extract from the daily press is introduced.

Heavy Rains in Short Periods are then discussed, and here I can see room for great improvement if only the traces of the numerous self-recording gauges at work in the country could be sent in for discussion, or at least a summary of the heavy rains supplied. Heavy Rains on Rainfall Days are next treated in the usual way, and each remarkable case of a widespread fall is illustrated by a map. No part of the volume shows so little result for the labour expended on it as these small maps, for there are from five to twenty-four hours of my personal work on each of them, as well as a large amount of my assistants' time. I believe, however, that they will ultimately prove of great value in discussing the distribution of heavy rains in relation to thunderstorms and cyclonic movements.

The section on Droughts is short this year, but discussions of Rainy Spells on similar lines, of the Intensity of Daily Rainfall, and of the Number of Rainy Days, add 17 pages of entirely new matter. The full value of these additions cannot appear until they have been continued long enough to enable one year to be compared with another. Monthly Rainfall is then treated in greater detail than heretofore, the maps are on a larger scale than formerly, and are no longer merely diagrams, but accurate summaries of the variation from average conditions in different parts of the country. The figures on which they are founded are also printed in full. The section dealing with the Rainfall of the Year in Relation to the Average is in the old form, and the General Tables only differ by their greater length, the sub-division of some of the large counties, and the rectification of a number of place-names, in most instances at the urgent desire of the observers.

In spite of a constant effort to be concise, Part II. is 50 pp. longer than last year, 60 pp. longer than in 1893, 106 pp. longer than in 1883, and 150 pp. longer than in 1873. Length is no merit, but it is a reason explanatory of the date of completion being three weeks

later than in 1883, and no earlier than in 1893. The price to observers remains the same as it was thirty years ago, though the size of the volume has doubled.

The frontispiece is reproduced from a photograph taken by the Rev. R. P. Dansey, of Church Stretton, from the summit of the Long Mynd, Shropshire, during the prevalence of a dense fog. It shows with beautiful detail the appearance of the upper surface of a cloud.

The Observers.—In everything connected with the volumes the credit lies with the Observers. Their names should properly figure on the title-page; but, as a simple calculation from the General Tables will show, if each name had a line to itself the title-page would require to be nearly 40 feet in length. Except for a few records in remote districts where observers have to be paid, the returns are all sent in voluntarily; and although it is for the general good, I feel unhappy when it is necessary to question the accuracy of any of them. It does not happen often; indeed, it is surprisingly seldom that a record has to be omitted because it is bad; but constant vigilance is necessary to guard against error, even in the case of the most experienced. I should like to thank all observers for the promptitude and kindness with which they respond to every request for information on my part, and to promise them in turn as quick and full an answer to any question they may address to me as time permits and my knowledge allows.

Special thanks are due to several Public Institutions and Societies, including the Meteorological Council, the Board of Northern Lighthouses, the Royal Meteorological Society, the Scottish Meteorological Society, the Croydon Natural History Society (through Mr. F. Campbell Bayard), the Dorset Field Club, and to the representatives of the county organizations for collecting rainfall statistics, including Mr. C. A. Markham, Northamptonshire; Mr. A. W. Preston, Norfolk; Mr. J. Hopkinson, Hertfordshire; Mr. T. Wainwright, North Devon; Mr. H. Warren, Cambridgeshire; in a particular degree, also, to Mr. Gethin-Jones for his heroic exertions to establish the rainfall conditions of Snowdonia; and to Miss Cordelia Marshall for undertaking to continue her late father's valuable records in the Lake District. It would be ungracious to pass by without special recognition the generous co-operation of waterworks' engineers in all parts of the country, without whose aid our knowledge of the great

moorland tracts where the water supply of great cities is collected, would be poor indeed.

Survivors of 1861.—Some of the observers have many years of work to look back upon, and we believe that at least 15 of those whose names appeared in *British Rainfall*, 1861—the first volume to deal with the whole country—are still alive. We should be glad of confirmation, or correction, of the following list of the survivors of 1861 :—

Dr. A. Buchan.	Mr. G. Washington Moon.
Mr. R. Burrell.	Rev. C. B. Mount.
Mr. W. S. Clark.	Mr. A. Peckover.
Mr. D. Doncaster.	Mr. W. B. Pugh.
Mr. H. S. Eaton.	Rev. M. A. Smelt.
Mr. W. D. Howard.	Colonel M. F. Ward.
Dr. W. C. Lake.	Mr. J. G. Wood.
Colonel McInroy.	

Information regarding the following is wanting :—

Mr. W. Horton Ellis	Exeter.
Mr. J. R. Mann	Osborne.
Mr. J. Silver	White Waltham.

A Word of Advice.—When sending in returns of Rainfall, the date, place of observation, and name of observer, should always be given, and given correctly. This year dozens of returns arrived without any of these marks of identification, and hundreds were dated “1904” instead of “1903.” One return has had to be excluded from the volume because the postmark joined the conspiracy and was illegible, so that no clue remained. The Rules for Rainfall Observers, as recently revised, are printed at the end of this volume. A separate copy will be sent to any observer on application. I am endeavouring to visit and inspect a certain number of rain gauges on Saturdays in districts within easy reach of London ; and in planning these visits it would be a convenience if observers who wish my opinion as to the placing or surroundings of their gauges would let me know as early as possible.

Finance.—It is quite natural for subscribers, whose interest in the work was mainly personal, to take advantage of a change such as that in the editorship of *British Rainfall* to stop or reduce their subscriptions, and some have done so ; the total amount received to date being considerably less than last year. I am, however, much gratified by the great majority of the subscribers continuing their support, and by a few increasing the help they formerly offered. I

have accepted as a personal responsibility the task of collecting, checking, discussing and publishing all records of rainfall in the British Isles which can be obtained. If everyone interested in rainfall could purchase the annual volume and the monthly magazine (which retains its old title *Symons's Meteorological Magazine*), I should be indemnified against loss, and they would receive full value for their money. The publications, however, are only bought by a minority, even of observers, and unless a considerable proportion of that minority contributed towards the expenses, it would be impossible to continue to publish. This year the expense has been permanently added to, for it has been necessary to acquire the leasehold of the historic rainfall house in Camden Square, the instruments that have been so long in use at that place, and the old records accumulated by my predecessors, without which it would be impossible to discuss adequately those which come in year by year. The Rainfall Organization is so happily constituted that its Director is responsible only to the body of observers to whose facts he gives form and publicity; but this freedom, inestimable to a scientific worker, is weighted by anxiety caused by the absence of any fixed financial support from societies or the State; and the risk of this work of national moment being interrupted because of its dependence on a single life is always present.

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EXPENSES OF RAINFALL INVESTIGATIONS IN 1904.

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Ellis, H., Esq.	1	1	0	Horner, D. W., Esq.	1	1	0

	£	s.	d.		£	s.	d.
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Hurnard, S. F., Esq.	4	6	0	Marten, E. B., Esq., C.E.	1	18	6
Hurt, Albert F., Esq.	2	17	0	Marten, E. D., Esq., C.E.	1	5	0
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				Preston, Rev. T. A.	2	2	0

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Robson, J. W., Esq.	1	5	0	Todd, Rev. J. Utten	1	0	0
Roe, Surgeon-General S. B., C.B.	1	1	0	Trevelyan, Lady.....	1	0	0
Rogers, H. K. G., Esq.....	1	0	0	Tritton, J. H., Esq.	2	16	6
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Rosling, H., Esq.	1	1	0	Tyndall, The late W. H., Esq. ..	1	1	0
Ross, Rev. J. C.	1	6	6	Vane, Hon. and Rev. G. H. F. ..	1	1	0
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Schuster, Rev. W. P.	1	1	0	Venables, Mrs. Lister	1	5	0
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Scott, The Lady Mary	1	0	0	Waldegrave, Rt. Hon. Earl.....	1	18	6
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Slade, F., Esq., C.E.	1	1	0	Welch, J., Esq.	1	1	0
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Southall, J. T. Esq.	2	2	0	Wilkinson, W. King, Esq.	1	1	0
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Spilsbury, Rev. B. W.	1	0	0	Williams, Morgan B., Esq.....	1	0	0
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Staines, A. J., Esq.	1	1	0	Wilson, A. M., Esq.	1	0	0
Stanton, Miss R. E.	1	0	0	Wood, J. G., Esq.	1	10	0
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THE DAILY RAINFALL OF JUNE, 1903.

THE distribution of rainfall during June was so remarkable, both in time and space, as to merit more detailed consideration than is possible in the general treatment of the months in Part II. of this volume. A preliminary account, with a map of the total fall for the month (reproduced here), was published* immediately after the records were received from stations reporting monthly. Although fuller information suggests some minor alterations in the run of the isohyets, the map correctly expresses the distribution of rainfall for the month; the relation to the averages may be understood more clearly in the small map facing p. [185] and the accompanying letterpress. It will be noticed that the north-west of Ireland was remarkably dry, the fall over a large area being less than one inch for the whole month, and the whole of Ireland, except the extreme south, had a very low rainfall.

In Great Britain there were four districts where the fall was less than 2 inches, viz.: (1) the north-east of Scotland; (2) the south of Scotland and north of England; (3) the centre of England from the Mersey to the Humber and the Wash; and (4) Cornwall.

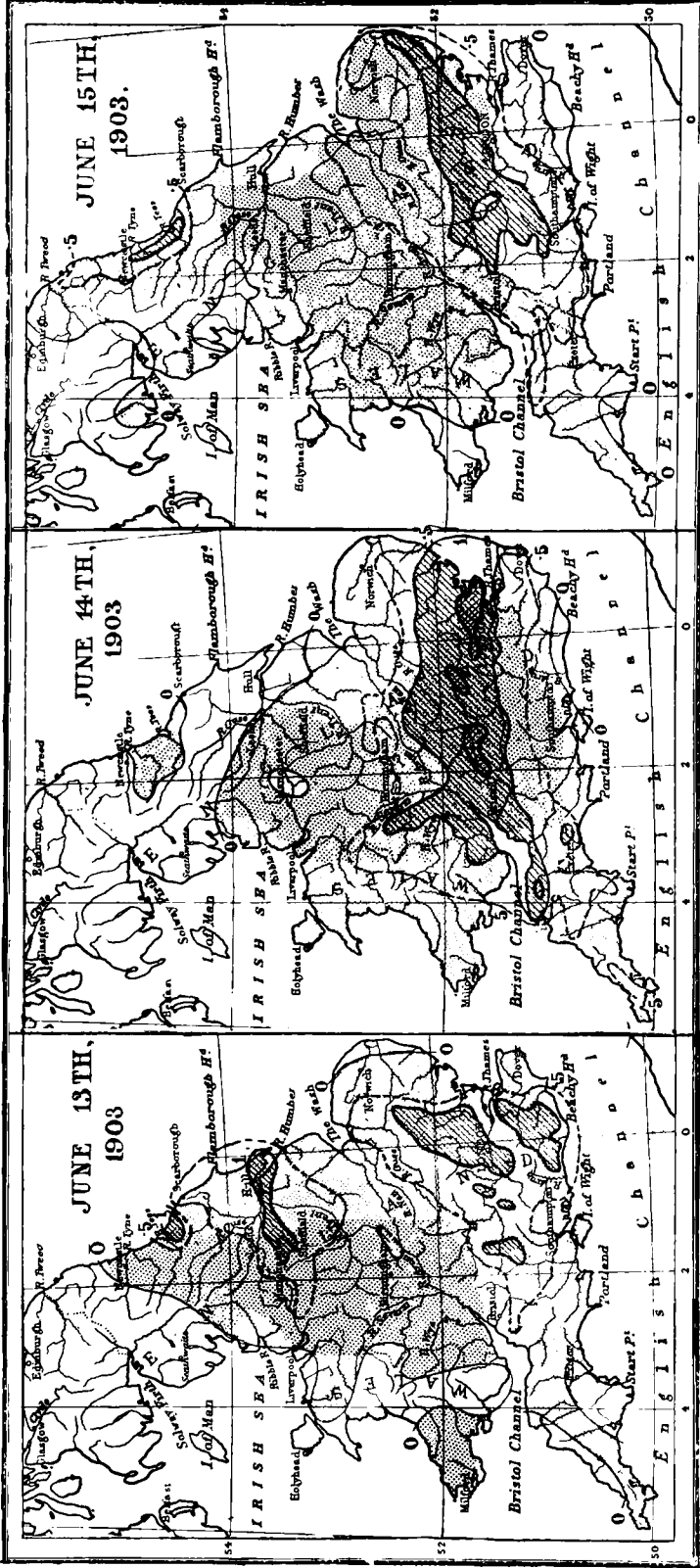
Along the south coast of Ireland and across the south of England, from the Bristol Channel to the Thames, the rainfall was very high, and in parts unprecedentedly great. More than 9,000 square miles of the south of England received above 4 inches of rain, and of that more than 2,000 square miles had 6 inches and upwards.

The meteorological conditions which led to this extraordinary excess of precipitation on the low ground of the Thames valley are worth referring to, though we cannot treat them in detail. The first point to notice is that there were fewer rainy days than the average in all parts of the country. Over England the number averaged 10, for Scotland about 13, and in Ireland 12. The table of daily rainfall which concludes this article has been carefully corrected for entries to wrong day, and is believed to show accurately the fall for each day

**Met. Mag.*, July, 1903, pp. 93—99.



RAINFALL OF ENGLAND AND WALES, JUNE 13-15, 1903.



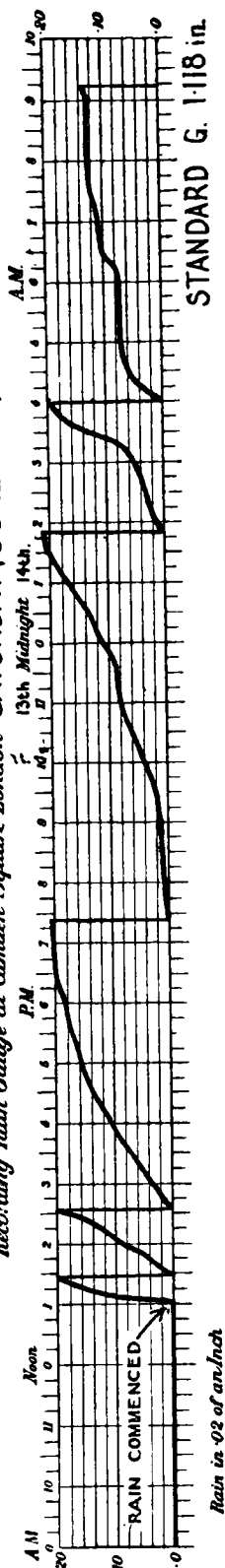
The unshaded land received no rain. The dotted area had less than an inch of rain, the broken line separating it into portions with less and more than half-an-inch. The line shaded areas had more than an inch of rain, and the cross-shaded part (on the 15th only) had falls exceeding two inches.

as measured at 9 o'clock on the morning following the date to which the amount is entered. The stations are those which were selected for the tables of droughts and rainy spells, and were chosen on account of their uniform distribution over the country, and the care with which we believe the records are kept. It will be noticed that except on the 4th, in Wales, there was no rain worth mentioning from the 1st to the 7th inclusive in any part of the British Isles. An exceedingly wet period lasted from the 8th to the 19th in the south of England, but the 12th and 18th were dry in most places, and there was a general tendency for the rainfall to be concentrated into the three days, 13th, 14th and 15th. At almost all the stations, except along the south coast and in the Cornwall-Devon peninsula, the three days contributed more than half the rainfall of the month. In the north of England, Scotland, and Ireland, these days were not particularly wet, but while practically no rain fell in the south of England after the 19th, a second series of wet days commenced in the Midlands on the 23rd, and lasted about four days. In the north of England and throughout Scotland there was rain every day from the 24th to the 30th, and in most parts of Ireland it was wet from the 22nd to the 30th, the earlier part of the month having been phenomenally dry.

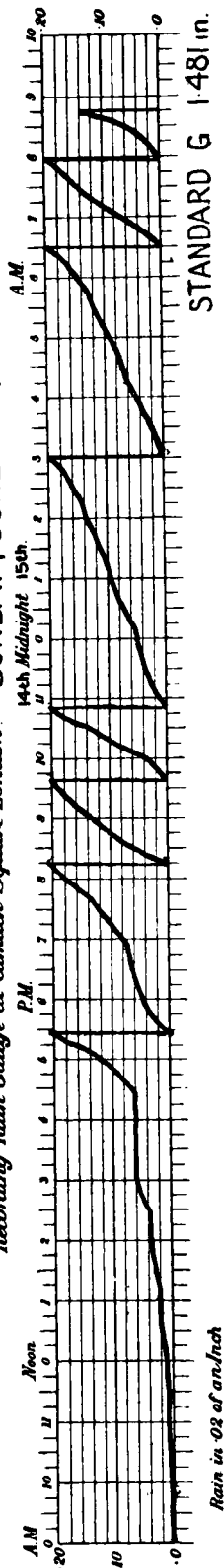
The main interest lies in the three remarkable days from the 13th to the 15th. Camden Square may be taken as representative of the very wet patch in the lower Thames valley, and from the curve drawn by the recording gauge, it is found that rain began at 1 p.m. on the 13th and continued without a moment's intermission until 11.30 p.m. on the 15th, a total duration of $58\frac{1}{2}$ hours, yielding a total fall of 3.44 in. The rest of the month had six days on which rain fell, and the total duration of all these amounted to $51\frac{1}{2}$ hours, while the corresponding rainfall was 2.99 in. So we find that the one long-drawn-out shower of nearly three days' duration accounted for 53 per cent. of the duration and 53 per cent. of the amount of the month's rain. The remarkable feature of the three days' rain is, that it was practically continuous at the average rate of .001 in. *per minute* for the whole time, although, in order to compare the records of observers who have not got automatic gauges, it is necessary to treat it in three parts. Several observers recorded 60 hours of continuous rain; at Islip 70, and at Cookham 72 hours were reported.

RECORD OF CASELLA AUTOMATIC GAUGE AT CAMDEN SQUARE.

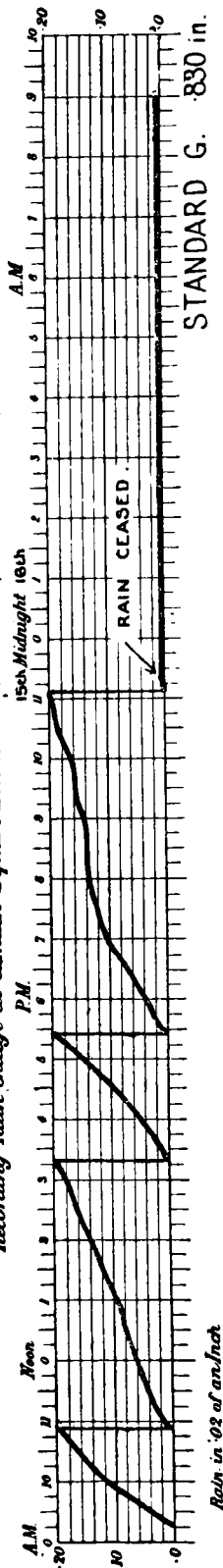
Recording Rain Gauge at Camden Square London SATURDAY, JUNE 13th, 1903.



Recording Rain Gauge at Camden Square London SUNDAY, JUNE 14th, 1903.



Recording Rain Gauge at Camden Square London MONDAY, JUNE 15th, 1903.



The trace of the gauge is thickened in order to make it more prominent. The ascending sloping line is drawn by the pen of the rain gauge on the strip of paper, which is placed upon the circumference of a drum rotating once in 24 hours. When the pen reaches the line of .20 in., the receiver of the gauge automatically empties and the pen returns in a straight line to zero. The pen is also brought back to zero when the paper is changed each morning about 9 o'clock.

The three little maps facing p. 21 are compiled from the daily readings at all the stations in England, Wales and the South of Scotland for which particulars are available, so that, small as they are, each map has been reduced from a large sheet on which the rainfall at about 1,500 stations is separately shown. The portion of the land left white shows those parts where no rain at all fell during the 24 hours. The part which is shaded in a light dotted tint had less than one inch of rain, and the dotted line separates the area with less than half-an-inch, which lies on the coastward side, from that with over half-an-inch, which lies on the inland side. The more darkly shaded portions had over one inch of rain in the 24 hours, and the darkest shade, which appears on the map for the 14th only, indicates falls exceeding two inches. We are not aware that the distribution of rainfall on three consecutive days has ever been so minutely represented before; and, indeed, the only previous instance in which it was attempted was, we believe, Mr. Symons's discussion of the heavy rains of October and November, 1894.

On the 13th there was a large area in Yorkshire with more than half-an-inch of rain, including a strip along the Humber and Don with more than an inch; but on the other two days that district had very little rain, and it apparently lay outside the great three-day shower of the south. Between the Tyne and the Tees some heavy falls occurred on the 13th and 15th, but these also were isolated.

In the south it will be observed that no rain fell in mid-Wales, parts of Cornwall and Devon and the extreme east of Norfolk and Suffolk on the 13th; but a great triangle, with its apex south of Bristol and its base stretching from Dungeness due north to the Wash, had more than half-an-inch of rain at every point, and within it lay five patches where more than an inch of rain fell. The two largest patches lay respectively to the north and to the south of the North Downs, the former including London. On the 14th, a broad wet belt stretched due east and west from about the meridian of 4° W. to the east coast of England. It closely resembled in distribution the rain of September 10th (see p. [141]), and, speaking generally, we may describe it as a strip of country with more than half-an-inch of rain, about 100 miles wide and 250 miles long, south of Birmingham and north of Dover, enclosing a strip with more than an inch of rain running along the centre, and about 60 miles wide by 200 miles long. In the heart of that strip a row of isolated patches in which the rainfall exceeded two inches ran from west to east. It will be noticed

on comparing the maps that the greater part of the country which had falls exceeding an inch on the 13th lay within the great continuous belt where the rainfall exceeded an inch on the 14th.

The 15th was, on the whole, less wet, and the distribution of the rain resembled that on the 13th. The area with more than half-an-inch of rain stretched unbroken from coast to coast, from the Bristol Channel to the Wash on the north, from Southampton Water to the Thames on the south. Within this almost the whole of the upper Thames valley, and a strip, 160 miles long and averaging 30 miles wide, running thence through Suffolk, received more than an inch of rain. The greater part of this wet area had also more than an inch of rain on the 14th, and some of it, including part of Berkshire, nearly the whole of Hertfordshire and a strip of Essex, had more than an inch on the 13th also. Table II. gives a list of all the stations recording 1·00 in. or more on three consecutive days, and it is one of the most remarkable cases of prolonged heavy rain that has been placed on record in these pages.

We have measured the areas between different lines of rainfall on the large-scale map of England and Wales, and calculated the mean fall as follows:—

Areas of England and Wales with various degrees of rainfall.

Date.	Over 2·00 in. sq. miles.	1·50-2·00 in. sq. miles.	1·00-1·50 in. sq. miles.	·50-1·00 in. sq. miles.	·00-·50 in. sq. miles.	No rain, sq. miles.	Total sq. miles.
June 13th..	—	—	4352	12,621	29,740	11,597	58,310
June 14th...	970	3021	7411	12,303	24,422	10,570	58,697
June 15th...	—	289	4669	15,496	33,759	4,042	58,255

The total differs a little on each day, because in making the measurements sometimes a little more, sometimes a little less of the adjoining sea was included, where an area of heavy rain lay upon an estuary like the Thames or Bristol Channel.

It will be noticed that on the 13th over 4000, on the 14th over 11,000, and on the 15th nearly 5000 square miles had more than one inch of rain, and the following sum may show the volume of water which fell:—

Date.	Volume on areas with over 1·00 of R. sq. mi. x in.	Volume on areas with ·50-1·00 in. sq. mi. x in.	Total volume.		
			sq. mi. x in.	Million gals.	Million tons
June 13th.....	5,308	9,695	22,438	324,902	1450
June 14th.....	16,721	9,332	32,259	467,110	2085
June 15th.....	6,018	11,902	28,048	406,135	1813
Total.....	28,047	30,929	82,745	1,198,147	5348
Per cent. of total vol. }	34	37	100		

Taking the three days together, 34 per cent., or one-third of the whole precipitation, is seen to have fallen on the area with over one inch of rain ; 37 per cent., or considerably more than a third on the area with between half-an-inch and an inch of rain, and by difference 29 per cent., or considerably less than a third, on the very much larger area, where the rain fell in less amount. The average rainfall on the area with more than one inch was 1·22 on the 13th ; 1·48 on the 14th, and 1·21 on the 15th ; while over the whole surface of England and Wales it was ·38 in. on the 13th, ·55 in. on the 14th, and ·48 in. on the 15th,—an average of ·47 in. per day for the three days. This corresponds to a total amount of nearly 1,200,000 million gallons, or 5,348 million tons of water precipitated from the atmosphere on the land in three days : enough water if it could all have been stored to supply the whole population of England and Wales with 25 gallons per head for more than three years.

The amount of water precipitated in the form of rain has thus been determined accurately, and we regret that time fails us to discuss the matter in relation to the distribution and changes of atmospheric pressure.

In the monthly summary of the *Weekly Weather Report* published by the Meteorological Office, there is an interesting diagram showing the path of the barometric depression which accompanied the bad weather of the middle of June. Such cyclones as a rule pass rapidly across the country and disappear ; but this one moved remarkably slowly. The path of the centre entered the Bristol Channel on the 13th, crossed the South of England, and passed into the English Channel south of the Isle of Wight. Here the centre remained almost stationary for 24 hours during the 14th, and then passed into the North Sea close along the East Anglian coast. The heavy rainfall of all three days was, as is usually the case, on the left of the track of the centre

TABLE I.—Daily Rainfall during the Month of June, 1903.

	St. Pancras, Camden Square.	Hythe, Hillcrest Road.	Brighton, Old Steine.	Basingstoke, Sher- borne St. John.	Oxford, Magdalen College.	Blisworth, Cuff House.	Stamford, Easton.	Colchester, Lexden.	Saffron Walden.	Geldeston [Beccles].	Hillington.	Calne, High Street.	Swanage, Royal Victoria Hotel.	Torquay, Cary Green.	Bideford, Northam Vicariate.	St. Austell, Trevanna.	Ilminster, Ilton Vicariate.	Ross, The Graig.
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Total	6.43	3.04	2.34	5.01	5.66	4.21	1.98	3.16	5.27	2.54	2.51	4.45	1.91	1.88	1.15	1.63	3.25	2.81

TABLE I.—Daily Rainfall during the Month of June, 1903.—(continued.)

	Weston Park [Shiftal].	Gaistor, Hundon Manor.	Workop, Hodsock Priory.	Chellaston.	Macclesfield, The Park.	St. Michael's-on- Wyre Vicarage.	Knarsborough, Farnham.	Sedburgh, Akay.	Lowthorpe, The Elms.	Darlington, Hur- worth Grange.	Morpeth, Bothalhaugh.	Brampton, Denton House.	Dungeon Ghyll.	Llantrisant, Talygarth.	Llandoverey, Tonn.	Haverfordwest, High Street.	New Radnor, Ednol.	Lake Vyrnwy.
1	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
2	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
3	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
4	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
5	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
6	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
7	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
8	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
9	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
10	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
11	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
12	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
13	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
14	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
15	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
16	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
17	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
18	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
19	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
20	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
21	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
22	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
23	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
24	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
25	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
26	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
27	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
28	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
29	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
30	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
Total	95	2·12	1·29	1·53	1·28	1·53	1·82	1·89	1·72	1·97	2·55	1·68	3·35	1·84	1·52	2·13	3·69	1·30

DAILY RAINFALL OF JUNE.

27

TABLE I.—Daily Rainfall during the Month of June, 1903.—(continued.)

	Denbigh, Garm.	Garliestown, Galloway House.	Dumfries, Ivy Bank.	Hawick, Brank- holme.	Edinburgh, Royal Observatory.	Girvan, Plimmore.	Dalry, Blair.	Buchlyvie, The Manse	Inveraray, Newtown.	Stronhan, Laudale.	Islay, Ardbeg.	Blair-Atholl.	Dundee, Bal- ruddery.	Aberdeen, Cran- ford.	Keith Station.	Fort Augustus, St. Benedict's.	Alvey Manse.	Loch Torridon, Bendamp.
1	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
Total	1.29	2.28	1.71	1.16	1.09	3.09	3.21	3.30	2.96	2.75	.59	2.25	2.39	1.59	1.89	2.85	2.10	2.86

TABLE I.—Daily Rainfall during the Month of June, 1903.—(continued.)

DAILY RAINFALL OF JUNE.																			65
Alness, Ardross Castle.	Almaharra.	Castletown, The Clett.	Cork, The Palace.	Darrynane Abbey.	Clonmel, Bruce Villa.	Limerick, Roxborough.	Miltown Malbay.	Ennisceorthy, Ballyhyland.	Bray, Fassaroe.	Mountsrath, Ballyhn.	Oldcastle, Killisheagh Rectory.	Ballinasloe.	Westport, Murrisk Abbey.	Collooney, Markree Observatory.	Banbridge, Mill- town.	Bushmills, Dundarave.	Newtown Stewart, Baron's Court.	Horn Head.	
in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
.02	.03	.09					.01												

TABLE II.—*Stations reporting 1·00 in. or more of Rain on each of three consecutive days in June, 1903.*

County.	Station.	JUNE.			Total.
		13th.	14th.	15th.	
Berkshire	Newbury (Welford Park)	1·23	1·42	1·15	3·80
"	" (Weston)	1·00	1·35	1·00	3·35
"	Maidenhead (Heywood Park)	1·15	1·35	1·12	3·62
"	Cookham Vicarage	1·07	1·54	1·08	3·69
"	Wantage (Letcombe Regis)	1·00	2·00	1·10	4·10
Middlesex	Potters Bar (Little Heath)	1·28	1·90	1·06	4·24
Hertfordshire ...	Watford (St. Albans Road)	1·03	1·66	1·17	3·86
"	" (Weetwood)	1·00	1·86	1·14	4·00
"	Broxbourne (Stafford House)	1·36	2·24	1·20	4·80
"	St. Albans (County Museum)	1·01	1·85	1·16	4·02
"	Gilston Park	1·20	1·50	1·42	4·12
"	Hatfield (Holwell House)	1·20	1·70	1·07	3·97
"	Hertford (Bayfordbury)	1·03	1·66	1·02	3·71
"	" (Sewage Works)	1·05	1·48	1·04	3·57
"	Ware (Red House)	1·00	1·40	1·12	3·52
"	" (Fanham's Hall)	1·05	1·35	1·32	3·72
"	Welwyn (Bridge House)	1·10	1·64	1·55	4·29
"	Much Hadham	1·15	1·39	1·33	3·87
"	Bennington House	1·02	1·31	1·40	3·73
"	"	1·04	1·50	1·45	3·99
"	Buntingford (Hamels Park)	1·15	1·32	1·44	3·91
"	Hitchin (Wratten)	1·12	1·75	1·50	4·37
"	" (The Chilterns)	1·11	1·64	1·51	4·26
"	Buntingford (Hillside)	1·15	1·28	1·55	3·98
"	" (Throcking Rectory)	1·08	1·20	1·76	4·04
"	Royston (Therfield Rectory)	1·04	1·71	1·66	4·41
Buckinghamshire.	Wooburn (The Chestnuts)	1·09	1·36	1·18	3·63
"	Chalfont St. Giles (The Stone)	1·10	1·81	1·12	4·03
Bedfordshire	Holwell Bury [Hitchin]	1·55	1·44	1·05	4·04
"	Stotfold [Baldock]	1·04	1·77	1·71	4·52
Essex	Epping (The Hemnalls)	1·58	2·00	1·04	4·62
"	Dunmow (Bigods Hall)	1·25	1·25	1·04	3·54
"	Saffron Walden (Debden Rectory)	1·00	1·26	1·58	3·84
"	" " (Newport)	1·11	1·28	1·72	4·11
"	" "	1·06	1·01	1·78	3·85
"	" " (Audley End)	1·02	1·03	1·67	3·72

THE ANNUAL RAINFALL OF 1872.



THE THREE WETTEST YEARS OF BRITISH RAINFALL.

THROUGHOUT the volumes of *British Rainfall* one year has been compared with another by a variety of methods, based on averaging the results of individual stations. All of these are useful but necessarily defective on account of the irregular distribution of the stations employed, or their varying number. The best means of comparison is the fifth column of Table V. in the section on Maximum Falls (p. [152]), which gives the ratio to an assumed average of the mean of all the stations sending in daily records. Its defect is that it gives undue prominence to stations of low rainfall, which are the most numerous in proportion to the area they represent. Another good index is the Abstract in the section on the Relation of the Rainfall of the Year to the Average; but the distribution of stations in the earlier years was so unsatisfactory that it requires correction before it can be used. Last year an attempt was made to correct the table in one way (*British Rainfall*, 1902, p. [154]); this year an attempt has been made to correct it in another (see p. [201]); and both methods give some help towards a general comparison, the figures for England, at least, being very accurate in the later effort. All comparisons unite in pointing out three years, and three only, since *British Rainfall* was founded, as being very wet indeed; these are 1872, 1877 and 1903. Only one other year earlier in the nineteenth century can compare with them, and that is 1852.

In a paper read at a recent meeting of the Institution of Civil Engineers,* we explained in detail the method of studying the distribution of rainfall by means of maps, and showed that only in this way was it possible with the data at our disposal to compare the relative wetness of different years over a large area of country.

The only basis of comparison is the total amount of rain which falls on the selected area, and it is merely a question of arithmetic to convert that amount expressed in the average number of inches of rain over the whole surface into tons, or gallons, or any other unit. We have adopted the method of preparing and measuring rainfall maps in the case of all the very wet years to which it was applicable. A map for 1852 was prepared amongst the others, but although England and parts of Scotland were fairly represented, the huge blank

* "On the Distribution of Mean and Extreme Annual Rainfall on the British Isles." By Hugh Robert Mill. Min. Proc. Inst. C.E., vol. 155, Session 1903-04. Part I. With Tables and Maps.

spaces in Wales, Ireland and the Highlands made it quite impossible to deduce an average value for the rainfall in the manner attempted, so that year must be left out of account. In all probability 1852 was less wet than 1872, and very likely it was no wetter than 1877 or 1903; but we may return to the subject when the next wet year arrives, possibly in 1906. Had time permitted we would have gone fully into the condition of 1882, the only other year that approaches the group with which we are dealing; but although very wet in England, that year was dry in both Scotland and Ireland.

The chief novelty in the cartometric mode of treatment is that attention is concentrated on the area affected by falls of rain of particular amount rather than on the rainfall at individual stations. The average fall on each measured area is estimated from the map, on which all the figures are placed, the volumes of total rain are added up, and divided by the total area to give the average depth of rain.

Table I. deals in this way with the British Isles as a single unit. The figure for the total area differs slightly in the case of each year, because sometimes a larger sometimes a smaller portion of the water-surface along the coast was included; and in the case of the Average and 1872 the Outer Hebrides were omitted. The mean fall deduced is not affected by this fact, and as it is only calculated to the nearest half-inch there is an ample limit for contingencies.

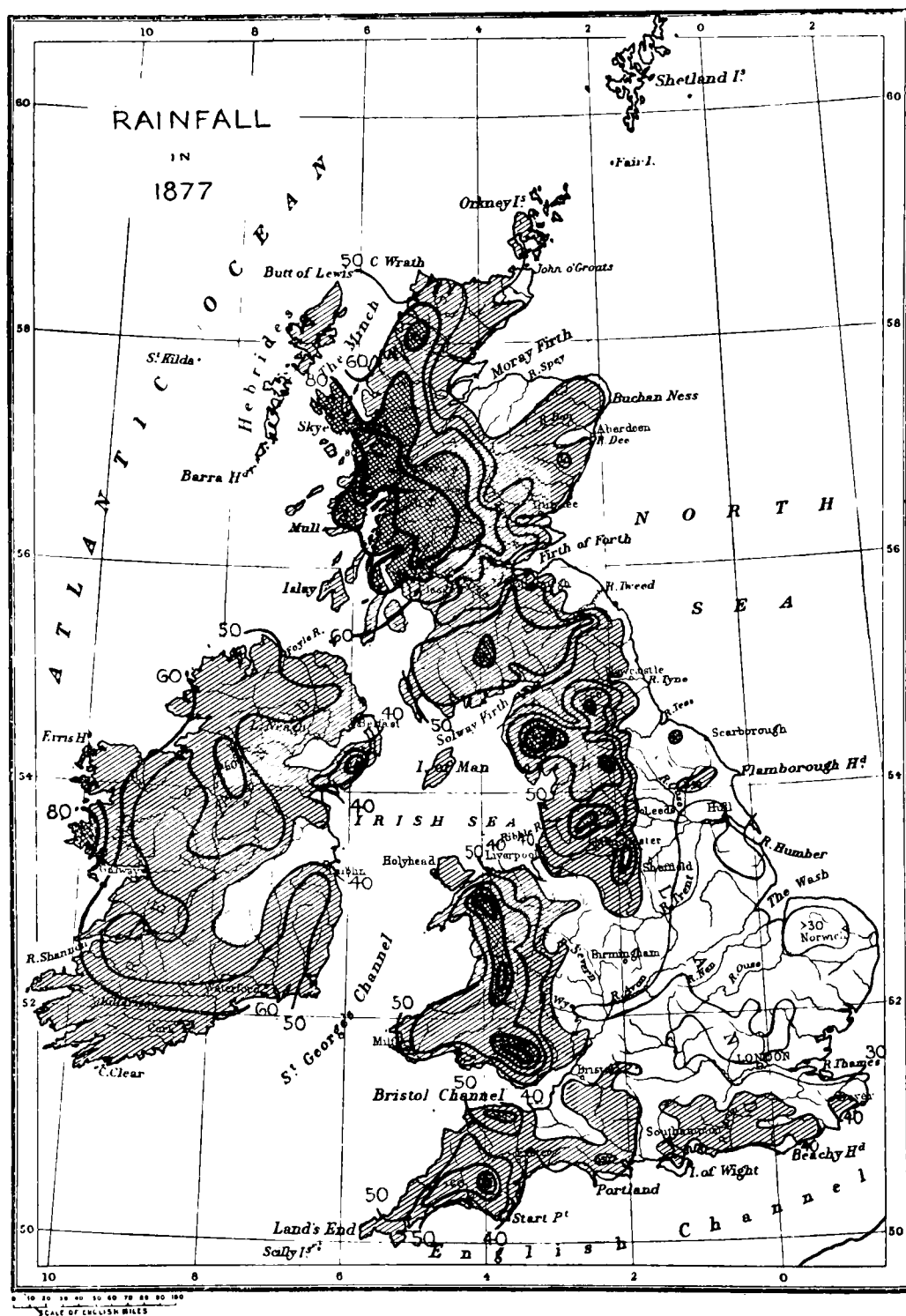
TABLE I.—*Areas of Rainfall in British Isles.*

Zone of Rainfall. inches.	1870-99. Average.		1872.		1877.		1903.	
	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.
Less than 25...	10,000*	9	—	—	—	—	—	—
25—30...	21,816	19	1,884*	2	12,003*	10	5,913*	5
30—35...	22,189	19	8,944*	8	13,477	11	15,232	13
35—40...	18,060	15	14,372	12	13,116	11	15,700	13
40—50...	25,864	22	34,620	29	30,208	25	30,697	26
50—60...	11,117	9	29,426	25	22,924	19	23,806	20
60—80...	6,858	6	20,298	17	20,032	16	17,576	15
80—100...	1,528	1	5,846	5	5,661	5	6,611	5
More than 100...	328	—	2,449	2	3,254	3	4,229	3
Total	117,760	100	117,839	100	120,675	100	119,764	100
Mean Fall ...	39·5 in.		53·0 in.		51·0 in.		52·0 in.	

* Practically all in England.

The first column gives the limits of rainfall in the different zones adopted; the next gives the area in square miles of each zone for the

THE ANNUAL RAINFALL OF 1877.



average of the 30 years 1870-99, together with the percentage of the whole area. Then follow the figures for the three years in question.

The net result is that whereas the average rainfall of the British Isles is 39·5 inches per annum, in 1872 there fell 53·0 inches, or 34 per cent. in excess; in 1877, 51·0 inches, or 29 per cent. in excess; and in 1903, 52·0 inches, or 32 per cent. in excess. From a line of argument developed in the paper to which reference has been made, it would appear that if any one year was the wettest over the whole country simultaneously, the British Isles would show an excess of 43 per cent., or an actual fall of 56·5 inches. But since it is very unlikely that this will ever happen, we may say that an excess of one-third of the average annual fall is the utmost that may be expected on the average of the whole country.

Fortunately, Wales, Scotland and Ireland are distinct geographical units, possessed of characteristic climates and well adapted for separate study. Although parts of England, like the Lake District, the Pennines and Dartmoor, resemble Wales or Scotland in their character, their area is small, and the low flat lands predominate so greatly that in default of distinguishing each group we may take England as a single unit also. The Table on p. [201] shows that the rainfall of England in 1882 had an excess of 24 per cent. as compared with 29 per cent. in 1903; but that neither Scotland, Ireland or the British Isles as a whole had in any year between 1880 and 1903 an excess of as much as 15 per cent.

TABLE II.—*Areas of Rainfall in England.*

Zone of Rainfall. inches.	1870-99. Average.		1872.		1877.		1903.	
	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.
Less than 25...	9,776	20	—	—	—	—	—	—
25—30...	18,552	37	1,884	4	12,003	23	5,788	11
30—35...	10,885	22	8,944	18	12,481	24	13,568	27
35—40...	4,448	9	10,178	20	7,479	15	9,450	19
40—50...	4,240	8	16,532	33	10,686	21	12,120	24
50—60...	1,384	3	7,936	16	4,202	8	5,355	10
60—80...	576	1	3,606	7	3,340	7	2,975	6
80—100...	128	—	730	2	604	1	938	2
More than 100...	64	—	232	—	322	1	288	1
Total	50,053	100	50,042	100	51,117	100	50,482	100
Mean Fall ...	31·5 in.		45·0 in.		40·0 in.		42·5 in.	

Tables II., III., IV. and V. give the data for England, Wales, Scotland and Ireland in the same form as Table I. for the British Isles.

TABLE III.—*Areas of Rainfall in Wales.*

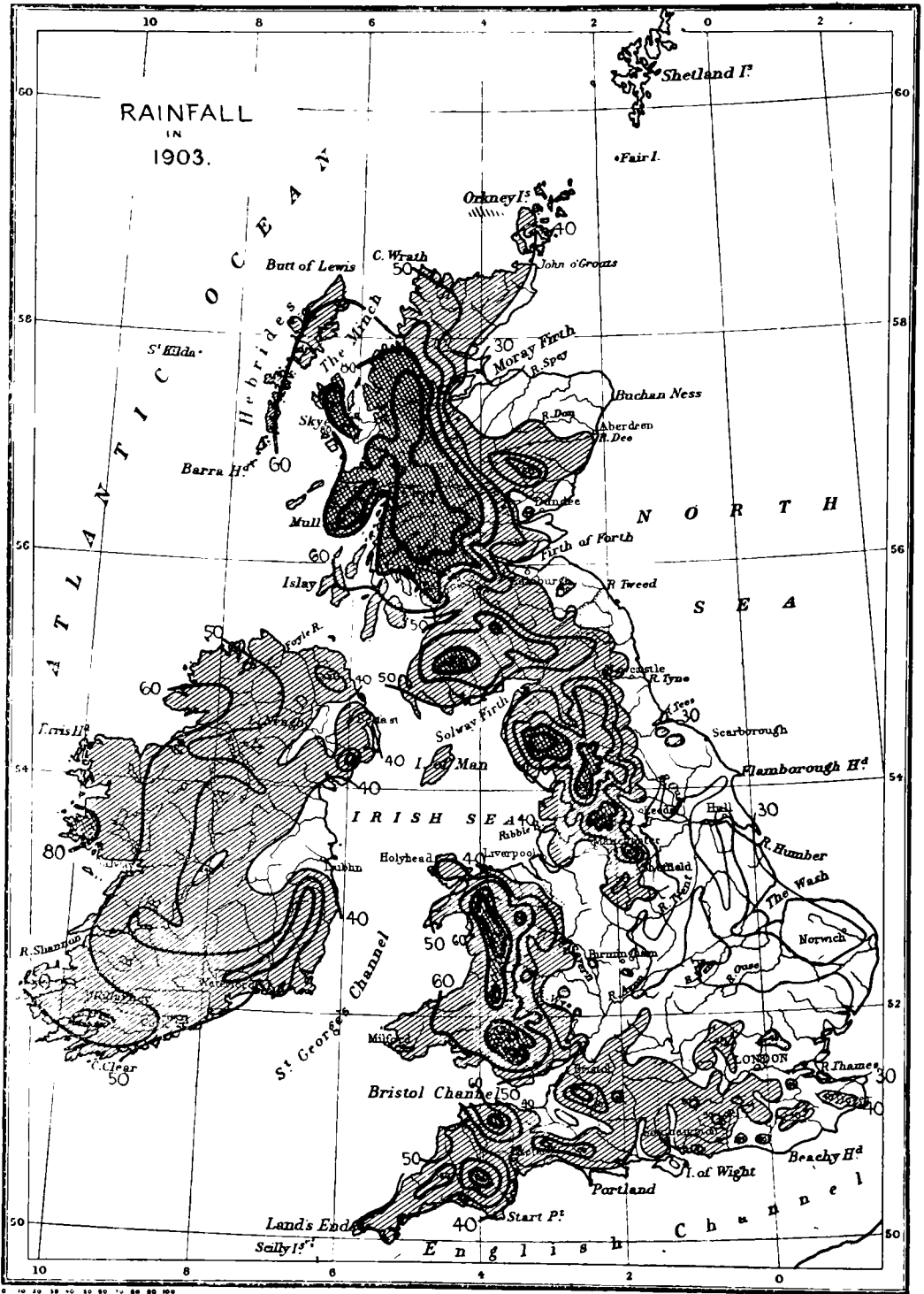
Zone of Rainfall. inches.	1870-99. Average.		1872.		1877.		1903.	
	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.
Less than 25 ..	—	—	—	—	—	—	—	—
25—30...	128	2	—	—	—	—	—	—
30—35...	528	7	—	—	—	—	88	1
35—40...	1,328	18	—	—	133	2	150	2
40—50..	2,592	35	432	6	588	8	525	7
50—60...	1,296	18	756	10	2,454	32	1,988	28
60—80...	1,280	17	3,900	54	3,199	42	3,225	44
80—100...	152	2	1,828	25	784	10	775	11
More than 100...	72	1	361	5	502	6	538	7
Total	7,376	100	7,277	100	7,660	100	7,289	100
Mean Fall ...	49·5 in.		74·0 in.		68·0 in.		68·0 in.	

TABLE IV.—*Areas of Rainfall in Scotland.*

Zone of Rainfall. inches.	1870-99. Average.		1872.		1877.		1903.	
	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.
Less than 25...	224	—	—	—	—	—	—	—
25—30...	2,368	9	—	—	—	—	125	—
30—35...	5,280	19	—	—	996	3	1,288	4
35—40...	4,576	17	1,266	5	2,274	8	4,125	14
40—50...	5,440	20	7,720	28	7,197	25	5,300	18
50—60..	4,565	17	6,766	24	4,092	14	5,963	20
60—80...	3,520	13	7,240	26	7,417	26	4,813	17
80—100...	1,248	5	2,904	10	4,273	15	4,410	15
More than 100..	192	—	1,856	7	2,430	9	3,403	12
Total	27,413	100	27,752	100	28,679	100	29,427	100
Mean Fall ...	47·0 in.		62·5 in.		64·5 in.		64·5 in.	

Table VI. sets forth the average rainfall of the great divisions for the Average and the three very wet years. There it is seen that England and Wales were wettest in 1872, Scotland in 1877 and 1903 and Ireland in 1903. The greatest excess was found in Wales in 1872; but there is reason to suspect that the number of gauges in

THE ANNUAL RAINFALL OF 1903.



Wales is insufficient to yield perfectly satisfactory figures. It is quite clear, however, that in England there was a maximum excess of 43 per cent. in 1872, in Scotland a maximum of 37 per cent. in 1903, and in Ireland a maximum of 26 per cent. in the same year.

TABLE V.—*Areas of Rainfall in Ireland.*

Zone of Rainfall. inches.	1870-99. Average.		1872.		1877.		1903.	
	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.	sq. miles.	p.c. of area.
Less than 25...	—	—	—	—	—	—	—	—
25—30...	704	2	—	—	—	—	—	—
30—35...	5,440	17	—	—	—	—	288	1
35—40...	7,660	23	2,928	9	3,230	10	1,975	6
40—50...	13,536	41	9,904	30	11,517	35	12,525	39
50—60...	3,872	12	13,856	43	12,176	37	10,500	32
60—80...	1,482	5	5,472	17	6,076	18	6,563	20
80—100...	—	—	384	1	—	—	488	2
More than 100...	—	—	—	—	—	—	—	—
Total	32,694	100	32,544	100	32,999	100	32,339	100
Mean Fall ...	42·0 in.		52·0 in.		52·0 in.		53·0 in.	

TABLE VI.—*Average Rainfall in Different Years.*

COUNTRIES.	1870-99. Average. in.	1872.		1877.		1903.	
		in.	p.c. of average	in.	p.c. of average	in.	p.c. of average.
England.....	31·5	45·0	143	40·0	127	42·5	135
Wales.....	49·5	74·0	148	68·0	137	68·0	137
Scotland.....	47·0	62·5	133	64·5	137	64·5	137
Ireland	42·0	52·0	124	52·0	124	53·0	126
British Isles	39·5	53·0	134	51·0	129	52·0	132

This confirms the conclusion already arrived at, that the insular position and Atlantic exposure of Ireland give to it a moderation in rainfall extremes not shared by the adjoining island.

Three maps are given showing the distribution of rainfall in the three wettest years. Lines are drawn for every 10 inches of rain, the lines representing the higher values being the thicker. The area with rainfall less than 40 inches is left unshaded, and that with rainfall exceeding 80 inches has a darker tint.

The section pp. [197]-[205] should be read with this, and the general outcome of the whole discussion is that 1903 came very near to being the wettest year ever known in the British Isles.

RECORDS OF EVAPORATION.

WE print two additional records of evaporation this year, making eleven altogether. The standard tank set up at Stanley Grange, Wakefield, early in 1902, has now a complete year's record; and we are able also to cross the border on this occasion and include the results of an 8 inch floating evaporator at Falkirk. Comparisons carried out between the floating evaporator at Croydon and the standard tank have proved that form to give excellent results in careful hands, and we have no reason to doubt the comparability of the Falkirk figures.

As in previous years, the individual observations are found to vary so much that we are unable to draw any definite conclusions as to the distribution of the amount or rate of evaporation. More stations for observation are required before this can be done, and we should particularly like to see experiments carried out on the effect of different exposures to sun and wind on the evaporation from two precisely similar tanks at the same place.

The five records which are kept south of $52^{\circ} 30' N.$ gave results for the year varying from 15·88 in. at Croydon to 21·49 in. at Southwold. Croydon was slightly below and Southwold slightly above the average of the last six years; Camden Square came very close to that average; and the two western stations, Otterbourne and Kenrick, gave values very considerably below.

The six records which were kept north of $53^{\circ} N.$ varied from 13·42 in. at Wakefield to 21·91 in. at Downholland, and of the two which could be compared with an average, one showed a marked excess while the other was nearly normal.

The average amount of evaporation at the eleven stations was 17·70 in., and although this figure has not necessarily any great significance as an approximation to a true mean, we can use it for purposes of comparison. At Wakefield the amount of evaporation was more than 4 inches less, at Downholland more than 4 inches greater, than the mean fall at all stations. Downholland and Southwold, lying on opposite sides of England, are alike in both being situated in flat country within 50 feet of sea level and presumably well exposed to the wind ; they are the only two stations which have more than 19 inches of evaporation. If proximity to sea level favours evaporation, we should expect considerable elevation to retard it ; but this suggestion is contradicted by Kennick, which is 842 feet above the sea. Still that evaporator is in an exposed situation and may well catch the wind unduly. The Wakefield, Croydon, and Camden Square evaporators are much sheltered from wind and they give the lowest values in the list. The degree of exposure would thus appear to be the most reasonable explanation of the great differences in the readings of individual tanks, and it seems quite probable that something like 18 inches was the normal evaporation from a free water surface in the British Isles for 1903.

At Camden Square the evaporation exceeded the average of 18 years in every month except May and June, and for the year it was 10 per cent. in excess of the average. The following table gives the monthly values for Camden Square since the standard tank was brought into use in 1885. The letter C indicates an excess of condensation over evaporation, and the figures to which it is affixed have to be subtracted from the sum of the others before the average is taken.

Mr. Baldwin Latham's Table of Evaporation at Croydon compares the loss from a 12 inch evaporator floating on a large water surface and that from a 5 inch metal vessel freely exposed to the air and liable to be greatly heated by the sun. It is curious to note, however, that the small exposed vessel evaporates twice as much water as the larger vessel floating in water during the winter and spring months and only about one-and-a-half times as much in the summer months. Mr. Latham's second table shows the amount of percolation at several stations, and, by difference, the amount of evaporation from a surface of chalk or gravel.

Evaporation at Camden Square, 1885-1903.

	Jan. in.	Feb. in.	March. in.	April. in.	May. in.	June. in.	July. in.	Aug. in.	Sept. in.	Oct. in.	Nov. in.	Dec. in.	Total. 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
Mean	·09	·24	·65	1·51	2·36	2·92	3·07	2·31	1·30	·60	·23	·08	15·36
1903.	·26	·39	·97	1·57	2·24	2·79	3·35	2·53	1·51	·86	·29	·12	16·88
Diff.	+·17	+·15	+·32	+·06	—·12	—·13	+·28	+·22	+·21	+·26	+·06	+·04	+1·52

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

1903	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.	5 in. Evaporator fully exposed in Air. Evaporation.	Average daily Temperature of Water at 9 a.m. in 5 in. Evaporator fully ex- posed in Air.	Temperature of the Dew Point at 9 a.m.
	in.	in.	Deg. F.	in.	Deg. F.	Deg. F.
Jan.	·425	·010	37·29	·995	39·21	37·28
Feb. ...	·430	·020	41·60	1·020	41·79	40·10
March...	1·010	·020	44·67	2·260	45·38	41·04
April ...	1·650	—	45·20	2·570	44·61	36·59
May ...	2·170	·010	56·10	3·840	58·65	47·62
June ...	2·770	—	59·33	4·280	61·54	49·52
July ...	2·640	—	65·66	4·130	67·40	54·79
August..	2·000	—	63·34	3·160	65·65	54·56
Sept. ...	1·380	·010	58·74	2·260	60·53	53·91
Oct.	·855	—	53·21	1·345	52·92	49·50
Nov. ...	·485	—	43·89	·705	42·52	41·57
Dec... ..	·205	·075	37·60	·395	37·86	35·34
Total ...	16·020	·145	606·63	26·960	618·06	541·82
Mean ...	...	...	50·55	...	51·51	45·15

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.

1903	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.....	2·155	2·1286	1·9276	2·64	2·1749	2·90	2·2320
Feb. ...	1·510	1·1495	·9528	1·83	1·3292	2·03	1·7188
March...	2·310	1·7905	1·6601	4·14	3·4200	3·62	2·7820
April ...	1·740	·4854	·3302	2·73	·7995	2·53	·9119
May.....	3·890	1·8723	1·4834	3·44	2·6554	3·49	3·0372
June ...	7·200	5·9531	5·2500	3·08	·3867	3·09	·6452
July.....	4·290	1·3009	1·3186	2·61	·0088	2·80	·0180
Aug. ...	3·830	2·1119	1·7101	4·15	·2653	4·27	1·0974
Sept. ...	2·010	·4663	·0481	2·03	·0140	2·43	·3285
Oct.	5·275	4·3434	3·4761	8·79	7·3508	11·48	9·7098
Nov. ...	2·365	2·3123	2·2734	1·62	1·5200	1·83	1·6585
Dec.....	2·160	2·5885	2·4108	3·33	3·9062	3·83	4·3258
Total ...	38·735	26·5027	22·8412	40·39	23·8308	44·30	28·4651

EVAPORATION IN 1903.

County Station	London, Camden Sq.	Surrey, Croydon, Duppas Ho.	Hampshire, Otterbourne	Suffolk, Southwold	Devon, Christow, Kennick	Lincoln, Revesby Water Works
Latitude	51° 32' 30" N.	51° 22' 5" N.	51° 0' 28" N.	52° 20' N.	50° 38' 30" N.	53° 9' N.
Longitude	0 8 0 W.	0 6 13 W.	1 19 55 W.	1 41 E.	3 41 20 W.	0 3 W.
Altitude	111 ft.	158 ft.	112 ft.	44 ft.	842 ft.	130 ft.
Observer	H. R. Mill	Baldwin Latham, C.E.	W. Matthews, C.E.	A. C. Herbert	S. C. Chapman, C.E.	J. Shaw
Size of tank	6 ft. × 6 ft.	1 ft. diameter	6 ft. × 6 ft.	4 ft. × 4 ft.	6 ft. × 6 ft.	4 ft. × 4 ft.
Capacity (galls.) ...	450	5	450	200	450	200
Height of lip above ground	3 inches	4 in. above water	3 inches	3 inches	3 inches	3 inches.
January	in. .26	in. .42	in. .29	in. 1.12	in. 0.33	in. .18
February .....	.39	.41	.46	.71	.10	.38
March .....	.97	.99	1.16	1.54	.70	1.05
April	1.57	1.65	1.98	1.53	2.06	1.23
May	2.24	2.16	2.74	2.71	2.77	1.97
June	2.79	2.77	3.17	3.13	3.66	2.59
July	3.35	2.64	3.58	3.26	3.64	2.60
August	2.53	2.00	2.34	2.55	2.73	3.05
September	1.51	1.37	1.69	2.02	1.71	2.67
October .....	.86	.85	.30	1.57	.74	1.04
November .....	.29	.49	.38	.84	.31	.30
December .....	.12	.13	0.18	.51	.08	.43
Year, 1903.....	16.88	15.88	17.91	21.49	18.17	17.49
Mean, 1898-1903 }	16.77	16.26	19.55	20.97	20.20	16.16
Difference	+ .11	— .38	—1.64	+ .52	—2.03	+ 1.33
Year, 1903.....	38.10	38.74	39.06	27.22	52.18	30.50
Mean, 1898-1903 }	24.10	25.06	27.77	21.71	40.98	24.19
Difference	+ 14.00	+ 13.68	+ 11.29	+ 5.51	+ 11.20	+ 6.31

Note. — C indicates condensation.

EVAPORATION IN 1903—(continued).

County	Lancashire, Downholland	Lancashire, Bolton, Heaton	Yorkshire, Wakefield, Stanley Grange.	Yorkshire, Ardsley Reservoir	Stirling, Falkirk, Cauldhame.	Mean of Eleven Stations,
Station	53° 34' 38" N. 3 1 12 W. 14 ft. J. Baxendell.	53° 34' 55" N. 2 28 21 W. 52 ft. R.H. Swindenhurst, C.E.	53° 45' N. 1 28 W. 234 ft. H. Stanley Haworth	53° 43' 10" N. 1 33 20 W. 390 ft. C.C. Smith, C.E.	56° 0' 37" N. 3 48 3 W. 73 ft. David Ronald, C.E.	
Latitude						
Longitude						
Altitude	6 ft. x 6 ft. 450	6 ft. x 6 ft. 450	6 ft. x 6 ft. 450	6 ft. x 6 ft. 450	8 in. diameter. 1½	
Observer	3 inches	3 inches	3 inches	3 inches	2 in. above water	
Size of tank						
Capacity (galls.) ...						
Height of lip above ground						
January	in. .41	in. .12	in. .21	in. .39	in. .66	in. .34
February .....	.94	.83	.44	.38	1.47	.59
March	1.66	1.18	1.10	1.33	1.13	1.17
April	1.95	1.41	1.29	1.83	1.62	1.65
May	2.64	1.97	1.49	2.02	1.92	2.24
June	3.64	3.01	2.23	2.98	2.56	2.96
July	3.09	2.91	2.42	3.05	2.51	3.00
August	3.18	2.36	2.12	2.42	2.56	2.53
September	2.20	1.78	.98	1.50	1.42	1.71
October	1.46	1.04	.63	.83	.49	.89
November .....	.64	.37	.39	.51	.16	.43
December .....	.10	.46	.12	.12	.22	.19
Year, 1903.....	21.91	17.44	13.42	17.36	16.72	17.70
Mean, 1898-1903 }	21.82	...	...	...	...
Difference	+ .09	...	...	...	...
Year, 1903.....	37.99	51.67	29.23	30.58	52.33	
Mean, 1898-1903 }	28.80	41.98	24.03	...	...
Difference	+ 9.19	+ 9.69	+ 5.20	...	...

THE DURATION OF RAINFALL.

IN introducing a section on the Duration of Rainfall we hope to be able to secure the co-operation of all Observers who possess self-recording rain gauges. This year records are given of five stations, and there are no averages with which to compare them. We hope to be able to complete a thorough discussion of the Duration of Rainfall during twenty years at Camden Square in time for publication next year, and this will doubtless supply hints for the more systematic arrangement of the annual tables.

Duration of Rainfall at Camden Square in 1903.

1903.	Rainfall.	Duration.	Rate per hour.	Number of rainy days.	Rate per rainy day.	Duration per rainy day.
	in.	hours.	in.		in.	hours.
January	2·15	66·7	·032	17	·13	3·9
February	·83	28·2	·029	10	·08	2·8
March	2·30	67·0	·034	18	·13	3·7
April	2·14	61·4	·035	13	·16	4·7
May	2·99	51·8	·058	17	·18	3·0
June	6·43	102·2	·063	10	·64	10·2
July	5·19	50·5	·103	13	·40	3·9
August	4·24	49·1	·086	18	·24	2·7
September	2·64	33·2	·080	13	·20	2·6
October	6·03	90·9	·066	26	·23	3·5
November	1·86	52·3	·036	12	·16	4·4
December	1·30	35·2	·037	12	·11	2·9
Year	38·10	688·5	·055	179	·21	3·8

Duration of Rainfall at Duppas House, Croydon.

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

Level of Gauge, 162·00 ft. O.D.

1903.	Rainfall in inches.	No. of days .01 or more fell.	Duration of rainfall in hours.	Maximum Rate.		
				Amount in inches.	Duration in hours.	Rate per hour in inches.
January	2·155	17	65·06	·090	·47	·192
February	1·510	11	43·86	·075	·33	·227
March	2·310	18	72·94	·130	·25	·520
April	1·740	13	62·16	·077	·37	·208
May	3·890	14	53·44	1·560	·97	1·610
June	7·200	12	119·50	·300	·58	·518
July	4·290	14	53·32	·229	·22	1·041
August	3·830	19	58·33	·119	·15	·794
September	2·010	14	30·79	·288	·37	·779
October	5·275	23	94·16	·115	·17	·677
November	2·365	18	56·53	·235	·95	·247
December	2·160	11	46·48	·142	·17	·836
Total	38·735	184	756·57			

Duration of Rainfall at the South Hants Water Company's Pumping Station, Twyford, Hants.

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

Level of Gauge, 138·72 ft. O.D.

1903.	Rainfall in inches.	No. of days .01 or more fell.	Duration of rainfall in hours.	Maximum Rate.		
				Amount in inches.	Duration in hours.	Rate per hour in inches.
January	2·90	17	71·40	·030	·07	·429
February	2·03	10	37·16	·060	·20	·300
March	3·62	21	82·25	·067	·20	·335
April	2·53	9	43·78	·094	·20	·470
May	3·49	13	42·63	·115	·15	·767
June	3·09	10	42·15	·178	·17	1·047
July	2·80	9	28·36	·146	·16	·913
August	4·27	16	60·30	·103	·08	1·288
September	2·43	12	36·63	·238	·22	1·090
October	11·48	26	102·50	·648	·22	2·946
November	1·83	11	38·21	·178	1·42	·126
December	3·83	13	53·49	·074	·15	·494
Total	44·30	167	638·86			

*Duration of Rainfall at the South Hants Water Company's
Pumping Station, Timsbury, Hants.*

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

Level of Gauge, 96·39 ft. O.D.

1903.	Rainfall in inches.	No. of days ·01 or more fell.	Duration of rainfall in hours.	Maximum Rate.		
				Amount in inches.	Duration in hours.	Rate per hour in inches.
January	2·64	16	54·87	·155	·90	·172
February	1·83	13	33·27	·094	·23	·409
March	4·14	23	85·16	·078	·09	·867
April ..	2·73	11	62·58	·053	·10	·530
May	3·44	17	47·92	·150	·10	1·500
June	3·08	11	86·00	·040	·18	·450
July	2·61	14	74·81	·072	·12	·600
August	4·15	19	76·13	·126	·08	1·575
September	2·03	15	37·93	·058	·03	1·940
October	8·79	30	151·88	·210	·10	2·100
November	1·62	13	66·32	·054	·39	·139
December	3·33	17	67·53	·045	·10	·450
Total	40·39	199	844·40			

*Duration of Rainfall at Melbury Reservoir, Parkham,
near Bideford, Devon.*

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

Level of Gauge, 515·78 ft. O.D.

1903.	Rainfall in inches.	No. of days ·01 or more fell.	Duration of rainfall in hours.	Maximum Rate.		
				Amount in inches.	Duration in hours.	Rate per hour in inches.
January ..	7·740	24	141·52	·162	·24	·675
February	3·445	24	97·52	·118	·20	·590
March	8·295	29	183·82	·082	·20	·410
April	2·275	16	74·26	·055	·16	·344
May	3·935	20	67·09	·147	·06	2·450
June	1·540	12	41·03	·060	·13	·462
July	4·785	18	97·18	·220	·14	1·570
August	5·660	26	134·18	·030	·04	·750
September	5·455	22	127·81	·150	·20	·750
October	14·725	31	268·87	·350	·48	·730
November	4·615	25	151·42	·068	·20	·340
December	5·280	21	176·34	·124	·14	·890
Total	67·750	268	1561·04			

RAINFALL AT THE ROYAL OBSERVATORY, GREENWICH.

Lat., 51° 28' 38" N.

Long., 0° 0' 0"

Communicated by W. H. M. CHRISTIE, Esq., C.B., M.A., F.R.S.,
Astronomer Royal.

1903	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	18	in. 1·380	in. 1·374	in. 1·713	in. 1·917	in. 2·060	in. 2·128	in. 2·107	in. 2·089
February	10	·527	·578	·869	1·055	1·272	1·366	1·317	1·306
March	18	·911	·794	1·329	1·761	2·092	2·200	2·161	2·177
April	11	1·071	1·243	1·561	1·786	1·826	1·855	1·823	1·889
May	15	1·145	1·329	1·668	1·952	1·965	1·946	1·976	2·029
June	10	4·510	4·883	5·374	6·045	6·131	6·073	6·068	6·037
July	13	3·805	3·664	4·282	4·896	5·012	5·271	5·079	5·089
August	17	3·382	3·772	4·272	4·682	4·850	4·822	4·850	4·877
September	15	1·444	1·481	1·837	2·116	2·243	2·238	2·287	2·269
October	24	2·896	2·920	3·649	4·103	4·531	4·441	4·618	4·634
November	16	·942	·926	1·243	1·643	1·902	1·928	1·901	1·936
December	12	·761	·723	·951	1·043	1·269	1·275	1·310	1·286
Yearly Sums. ...	179	22·774	23·687	28·748	32·999	35·153	35·543	35·502	35·618
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.

W. H. M. CHRISTIE.

1904, January 2.

THE STAFF OF OBSERVERS.

HIS MAJESTY THE KING has been graciously pleased to give instructions that the rainfall observations made at all the Royal Gardens where there are rain gauges shall be communicated for publication in *British Rainfall*. We are thus enabled to print records for 1903 from Sandringham and Balmoral, in addition to that from Windsor. A rain gauge has also been set up at Buckingham Palace, which should prove an important addition to the somewhat inadequate representation of the metropolis. Such an example cannot fail to be an incentive to observers in all parts of the King's dominions.

We have much satisfaction in again having to call attention to a large increase in the number of records contained in the volume. On this occasion the number of insertions has never been exceeded though it was once equalled, in the year 1882; but that was in response to a letter asking for new observers, published in about 200 newspapers. The increase amounts to about 5 per cent. of the total number. It means the lengthening of the General Tables by four pages, and a corresponding increase in every department of the work.

The question is frequently asked—Why do you want more records of rainfall when you have so many? The more the better for two reasons, is our reply. The first reason is, that in those parts of the country where there are few records every additional one helps to fill up the blank and makes it easier to draw a rainfall map. This is easily understood. The second reason requires more explanation. It is that in those parts of the country where records are numerous the accuracy of a new observer is readily tested by comparison with his neighbours, and the closer the net of good records is spread the less likely is a remarkable phenomenon, such as a great thunder-storm rain, to escape notice. The more stations there are close together, also, the easier it becomes to compute the rainfall of a day or month when observations may have been omitted, and so a

valuable record may be preserved without a break in circumstances in which it would have been lost had the station been isolated. A time may come when the multiplication of rain gauges will exceed our power of dealing with the returns ; but at present there seems no probability of such being the case in the near future, and so we continue to welcome every record which we can obtain.

The increase in the number of records makes it more urgent than ever to arrange them conveniently for reference, and with this object we have increased the number of sub-divisions. The County of London (following the Registrar-General) is recognised as Division I., Middlesex being removed to Division III. ; and some of the larger counties have been sub-divided. This course has been urged for many years, and we have had many appeals, to the reasonableness of which we are fully alive, to classify the rain gauges in relation to the physical features of the country. In this volume we have at length taken a step which will not satisfy those friends who advocate wholesale redistribution, but we believe it is a step in the right direction. Where an accepted sub-division of a county exists, as in the case of London and Lincoln, we have followed it. No doubt the names of the Metropolitan Boroughs are still strange to many readers and their boundaries are known to but few Londoners ; but they will become familiar in time, and we have adopted them. They do not all appear, because some of the Metropolitan Boroughs apparently do not yet contain a rain gauge. This, we hope, will be remedied. In cases where there is no obvious political division, we have invariably selected a line of watershed, even although the two divisions of a county so made may be unequal. The advantage is that in Gloucestershire (to take one example) the drainage area of the upper Thames is kept by itself and separated from the drainage area of the lower Severn. In the list of gains and losses account is taken of the number of rain-records sent in 1902 and 1903 from each named area, even when it was not separately entered in the former year.

It is not necessary to refer to each county in detail ; but we must congratulate the observers in general on their constancy and perseverance in a voluntary and occasionally irksome task. A record is sometimes spoiled for a year by temporary causes, and where we know that this is the case the name in the column of losses is printed in italics ; similarly, in the column of gains, the return of such a record after a temporary absence is indicated by italics.

The most serious losses near London are due to the removal from Acrise, in East Kent, of an old and enthusiastic observer, Mr. G. C. Woollett, and the collapse of two of his records, though he did everything possible to enlist the interest of his old neighbours. The loss is the more felt this year, because in 1903 that part of the country lay between the extraordinarily dry patch in mid-Kent and the wet area near Dover. We are, in consequence, unable to say how large that abnormally dry area was. Another serious loss is in the west of Oxfordshire, three records disappearing from a very thinly represented piece of country where new observers are now urgently wanted. Although Huntingdonshire has gained two records, it has lost one, and remains the most poorly represented county in the south of England,

In South Somerset we cordially welcome the reappearance of Exmoor Vicarage, Simonsbath, a most important station in a remote and interesting district, of the rainfall of which we know too little.

We much regret the termination of several records in the East and North Ridings of Yorkshire, where more observations are seriously required if we are to obtain any knowledge of the rainfall of the Wolds and the Cleveland Hills.

While individual observers by sending in their separate readings have gradually built up a system of records of national importance, it is only great corporations which can advance our knowledge of localities by leaps and bounds. We are fortunate this year in receiving for the first time several important groups of water-works gauges. To Mr. J. Parry, C.E., the Liverpool Waterworks Engineer, we owe the fine series of records on the gathering ground of the Rivington reservoirs in Lancashire, and on that of the Vyrnwy reservoir in Montgomery. Some of these gauges are placed at great altitudes and they fill important gaps. No less interesting are the new water-works gauges near the Cheviots, where observations are more wanted than in any other part of England, and the new gauges at the Ebbw Vale Waterworks, in Breconshire.

It is difficult to understand how the county of Cardigan is so poorly represented. It is one of the larger counties of Wales and by no means the least densely peopled, yet we are only able to publish returns from three stations, and the whole south of the county in its full breadth for thirty-five miles is totally unrepresented. A dozen new gauges would not be too many to patch this gap in the rainfall maps of Wales.

In Scotland we are happy to be able to print a good number of the records so perseveringly kept up by the Board of Northern Lighthouses. As has been frequently pointed out, the conditions of observing at lighthouse stations are peculiarly difficult and the observers deserve every encouragement in their efforts. Possibly systematic inspection of the gauges and some friendly conversation with the observers, who are men trained to punctuality and responsibility, might help in this way. One of the worst gaps in the map of Sutherland is partly filled by the return of the Altnaharra record, but much is still required before the fascinating problem of the rainfall of the Highlands can be properly attacked.

The Southern Uplands are scarcely better known than the Highlands, and here there have been serious losses, notably the records at Carsphairn, in Kirkeudbright, and Cambus Wallace, in Lanark. But we owe to the good offices of Mr. W. A. Tait, C.E., the returns from the gauges of the new Edinburgh Waterworks on Talla Water. They form a splendid addition to our pages, for Talla is a classic land of rain. In his recent "Scottish Reminiscences" Sir Archibald Geikie refers to it thus:—

"The Talla valley is narrow and deep, the hills rising steeply from 1000 to 1400 feet above the flat alluvial haugh at the bottom, which is about 900 feet above the sea. It must be sadly changed now, when it has become the site of one of the great Edinburgh water reservoirs. But in the days of which I am speaking it was a lonely sequestered glen, silent save for the bleat of the sheep or the bark of the dogs. In wet weather the wind drove up or down the defile, separating the rain into long vertical shafts, which chased each other like pale spectres. In the narrower tributary gorge of the Gameshope, these ghost-like forms are even more marked, hence they are known in the district as the 'White Men of Gameshope.'"

We are glad to welcome the White Men of Gameshope as recruits to *British Rainfall*.

In Ireland we find almost as good a proportional increase as in England or Scotland, but the number of records is still very small. We are glad, however, to find few serious losses, and in the matter of constancy and long continuance the Irish observers are an example to those of the larger island. It is curious to note that in 15 out of the 32 Irish counties there was neither a gain nor a loss. This can also be said of 8 of the 36 counties or sub-divisions in Scotland and of 4 of the 69 in England and Wales.

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
Difference from 1902—						
Increase	135 ...	17 ...	30 ...	11 ...	193	—
Decrease	— ...	— ...	— ...	— ...	—	—

Rainfall Records, Losses and Gains.

COUNTY.	RECORDS TERMINATED, OR ABSENT.	NEW RECORDS, OR OLD ONES RE-APPEARING.
<i>London</i> (58)	<i>Hampstead</i> (<i>Kidderpore Reserv.</i>)	Hampstead (Burrard Road). St. Pancras (Camden Square) 2 g. Hackney (Clapton Pond). Poplar (Old Ford). <i>City of London</i> (<i>Guildhall</i>) 2 g. Greenwich, Blackheath (Ingleside Grove)
<i>West Surrey</i> (72)	Haslemere (Hazelhurst) o.g.	Haslemere (Jesses) 2 gauges. Chiddingfold (Pickhurst). Farnham (Crooksbury Ridges). Guildford (Piccards Rough). ,, (Briarfield). ,, (Hillside). ,, (Burpham). Horsell (Kettlewell Hill). <i>Okebrook Vicarage.</i>

<i>East Surrey</i> (87)	Red Hill (Linkfield Lane). Banstead (The Larches). Croydon (Heathfield Road). " (The Whitgift). South Norwood (Apsley Road).	Earlswood (Hooley Lane). Reigate (Holmfels). Banstead (The Hall). Beddington Corner (Millgreen Road). South Norwood (Woodvale). Kingston (County Hall). Anerley (Town Hall). Richmond (The Old Palace). <i>Worcester Park</i> (Parkside).
<i>West Kent</i> (97)	Maidstone (Mount House). Halstead Rectory. Farnborough (Feniton). <i>Aylesford</i> (<i>Preston Park</i>).	Tunbridge Wells (Ivy Chimneys). Speldhurst (Harwarton). Tonbridge (Colebrooke) <i>Snowd.g.</i> " (Mabledon Park). Maidstone. Sevenoaks (Plaxtol). " (Bitchet Wood). Ightham (Belmont Lodge). Hayes (Hayes Place). Greenhithe (H.M.S. Worcester). <i>Knockholt</i> (<i>Kent W.W.</i>) <i>Tower</i> .
<i>East Kent</i> (41)	Acrise (Great Shuttlesfield). " (School House). Margate (Grosvenor Place). <i>Acrise Place</i> .	Folkestone (Limes Road). Sandwich (St. George's Golf Club). Broadstairs. Margate (Westlands).
<i>West Sussex</i> (43)	Tillington (River House).	Littlehampton (Dorset House). Tortington. Horsham (Richmond Road).
<i>East Sussex</i> (83)	Iford. Haywards Heath (Braydell Lge.) <i>Hastings</i> (<i>St. Helen's Crescent</i>)	Hailsham (Magham Down). Udimore (The Hammonds). Cuckfield (Bolney Vicarage). Bodiam (South Park). Crowborough (Beechcroft). Balcombe (Stockcroft).
<i>Hampshire</i> (111)	Otterbourne Hill Reservoir.	Cowes (Royal Yacht Squadron). Southampton Common Res. Colmer Rectory. Liphook (Bordon Camp). Alton (Holybourne). <i>Havant</i> (<i>Farlington</i>). <i>Lyndhurst</i> (<i>Cuffnells</i>). <i>Southampton</i> (<i>Totton</i>).
<i>Berkshire</i> (47)	Hungerford (Kintbury). Maidenhead (Lowood). Faringdon (Coxwell Lodge). Abingdon (Draycott Moor). <i>Abingdon</i> (<i>Caldecott House</i>).	Old Windsor (The Friary). Farnborough Rectory. Didcot (Upton). Abingdon (Park Road). <i>Maidenhead</i> (<i>Heywood Park</i>).

<i>Middlesex</i> (43)	Crouch End (Aubrey Road). Uxbridge (Harefield Park). <i>Enfield</i> (<i>Chace Court</i>).	Teddington (Hampton Road). Ealing (Grange Park). Willesden (Stonebridge Farm). Ponders End (Bylock Hall). Enfield (The Ridgeway). New Barnet (Camlot).
<i>Hertfordshire</i> (61)	Tring (Offside Cotge. Cowroast). <i>Tring</i> (<i>Elm House</i>).	Barnet (Summerhill). St. Albans (Hill End). Buntingford (Hillside). <i>Watford</i> (<i>Colne Valley, W.W.</i>)
<i>Buckinghamshire</i> (29)	Slough (Upton Park). Winslow (Botolph House).	Oving House. <i>Olney</i> (<i>Filgrave Rectory</i>).
<i>Oxfordshire</i> (42)	Henley-on-Thames (Northfield House). Holton Park. Chipping Norton (Kingham). <i>Chipping Norton</i> (<i>Heythrop</i>).	Bicester (National School).
<i>Northamptonshire</i> (52)	Grimsbury [Banbury]. Northampton (St. George's Plee). Earl's Barton Vicarage.	Towcester (Stoke Bruern Park). Northampton (Dallington Aven). Thrapston (Islip). Oundle (Hemington Vicarage). Oundle. <i>Thorpe Mandeville</i> .
<i>Huntingdonshire</i> (10)	Yaxley (Norman Cross).	Hemingford Grey Vicarage. Huntingdon.
<i>Bedfordshire</i> (16)	Amphill (Wrest Park). Biggleswade (Langford). Bedford (Milton Ernest).	Goldington (Castle Mills). Great Barford House.
<i>Cambridgeshire</i> (45)	Cambridge (Benet Place). Croxtan [St. Neots]. Newmarket (Cheveley Park). <i>Cambridge Observatory, 5 in. g.</i>	Cambridge, West. Chatteris (Holwood Farm).
<i>Essex</i> (85)	Fingringhoe (Ballast Quay Farm). M Colchester (Surrey Villa). <i>Stow Maries</i> (<i>Wellingditch</i>).	Southend (Corporation Obs.) Havering-atte-Bower (Fernside). Buckhurst (Ardmore). Ingatestone (Fryerning Furze Hall). Clacton-on-Sea (Jay Wick). Great Leighs (Hole Farm). Dunmow (Bigods Hall). Ardleigh. Harwich (Hill House, Ramsay).
<i>Suffolk</i> (54)	Southwold. Weybread [Harleston].	East Bergholt (Ackworth House) Cockfield Rectory. Bury St. Edmunds (The Acacias). Brandon (North Court Lodge). <i>Framlingham College</i> . <i>Lowestoft</i> (<i>Belle Vue Park</i>) M.

<i>Norfolk</i> (56)	Pulham St. Mary. Wymondham (Hethersett). Tilney St. Lawrence (Aylmer Hall).	Thetford (King's Road). " (" House). Hethersett (Thickthorn). Grimston (Manor House). Sandringham House. <i>Salhouse.</i> <i>Cromer.</i>
<i>Wiltshire</i> (55)	Market Lavington.	Downton College. Shaftesbury (Ferne). Longford Castle. Salisbury (Ardath). Orcheston (Elston Hill). Warminster (Rock Villa). Devizes (Chirton). Bradford (Bearfield House). Malmesbury. <i>Trowbridge (Wingfield).</i>
<i>Dorsetshire</i> (48)	Swanage. Sherborne (Coombe Farm).	Corfe Castle (Smedmore). Bere Regis (Longthorns). Wimborne (Park Homer). Chetnole. Bourton (Chaffeymoor).
<i>South Devon</i> (97)	<i>Salcombe (Shadycombe).</i> <i>Totnes (Fernleigh).</i> <i>Bovey Tracey (Colehays).</i> <i>Budleigh Salterton (Raven Shaw)</i>	Kingskerswell (Barton Hall). Newton Abbot (The Chestnuts). Teignmouth (Bank Street). " (Coombe Bank). Princetown. Dartmoor (Black Dunghill) No. 5. " (Beardown Tor) No. 3. " (White Tor) No. 1. " (Devil's Tor) No. 2. " (Cowsic Head) No. 4. Budleigh Salterton (Squabmoor) Ottery St. Mary. Tiverton (Highfield).
<i>North Devon</i> (39)	South Molton (East Street).	Chittlehamholt Vicarage. South Molton. Bideford (Webbery). " Rectory. Westward Ho! (Bellevue). Marwood (Muddiford House). Ilfracombe. <i>Northam (St. Helens).</i>
<i>Cornwall</i> (56)	Bodmin (Lanhydrock). <i>Newquay (Island House).</i>	St. Keverne (Lanarth). Helston (Tenderah). Liskeard (Oak Park). St. Mellion Rectory. Bodmin (Springfield). Callington (Pencrebar). Launceston (Landue). Stratton (Poughill).

<i>South Somerset</i> (34)	Yeovil (Barwick House). Taunton (Linden Grove).	Milverton (Olands). Langport (Huish Episcopi). Bridgwater (Pawlett) <i>Snowdon</i> <i>Exmoor (Simonsbath).</i>
<i>North Somerset</i> (59)	<i>Glastonbury (Ynyswytryn).</i>	Cranmore (Southill House). Pensford Vicarage.
<i>West Gloucestershire</i> (65)	<i>Gloucester (Cotswold Sanatorium).</i>	Clifton (Harley Place). ,, (Stoke Bishop) Avonmouth (Bristol Docks). Amberley (Glen View). Stonehouse (Parklands). Gloucester (Gloucester Park). ,, (Denmark Road). Cheltenham (Hewletts). Cheltenham.
<i>East Gloucestershire</i> (18) <i>Herefordshire</i> (34)	<i>Great Barrington.</i> Ross (Croome Hall). Canon Frome Vicarage.	Fairford (The Croft House). Walford-on-Wye Vicarage. Ross. Allensmore (Whitfield). Hereford (Hinton Court). Huntington Court. Bromyard (Rowden Abbey).
<i>Shropshire</i> (42)	Bishops Castle (Cabin). Wem (The Clive Vicarage).	Bishops Castle (More Rectory). Church Stretton (Caradoc Ldge.) Newport (Agricultural College). ,, (Edgmond) <i>weekly.</i>
<i>Staffordshire</i> (43)	Dennis [Stourbridge]. <i>Leek (Rudyard).</i>	Patshull Park. Lichfield (Walsall Road). Burton (Hamilton Road). Eccleshall (Walton Hall).
<i>Worcestershire</i> (40)	Leigh Lodge. Redditch (Prospect Hill). <i>Bewdley (Winterdyne Gardens)</i>	Shipston (Tidmington House). Upton-on-Severn (Earl's Croome) Worcester (Boughton Park). Martley. Redditch (Oakenshaw).
<i>Warwickshire</i> (33)	Birmingham (Edgbaston).	Leamington (Binswood Avenue). Nuneaton (Chilvers Coton Vic.)
<i>Leicestershire</i> (26)	Gumley Rectory Loughborough (Forest Road).	Horninghold House, <i>float gauge</i> Glen Parva (S. Wigston Sew. Fm.)
<i>Rutland</i> (5)	Burley-on-the-Hill.	Tinwell (Glebe Farm).
<i>South Lincolnshire</i> (25)	—	—

<i>North Lincolnshire</i> (46)	Gate Burton. Louth (Gospelgate). Grimsby (Waltham). Crowle (Keadby).	Horncastle. Willingham-by-Stow. Grimsby (Abbey Road). Thornton Curtis. <i>Skegness.</i> <i>Scampton House.</i> <i>Market Rasen (Tealby).</i>
<i>Nottinghamshire</i> (45)	Newark (Averham Rectory). <i>Nottingham (Ropewalk, The Park).</i>	Nottingham (Talbot Street).
<i>Derbyshire</i> (64)	Tideswell (Sterndale Ho., Litton).	Bamford. " (The Dympus). Hayfield (Edale Cross). " (Upper House). <i>Grassmoor Colliery.</i>
<i>Cheshire</i> (66)	Cheadle (Harthill). Hoylake (The Chase, East). <i>Aldford (Woodhouse).</i> <i>Thurstaston (Dawpool).</i> <i>Birkenhead (Oxton).</i>	<i>Eaton Hall Gardens.</i> <i>Chester (Hawarden Bridge).</i> <i>Bollington (Sponds Hill).</i>
<i>South Lancashire</i> (156)	Milnrow (Piethorne, Coldgreave). Southport (Park Crescent). Beaton Fell (Barnsfold Res.) M. <i>Eccles (Worsley Old Hall).</i>	Liverpool (Knotty Ash). St. Helens (Eccleston Hill). Manchester (Whitworth Park). Horwich (Wallsuches). " (Montcliffe). " (Lower Rivington). " (Lower Knoll). " (Wildersmoor). Rivington (Brown Hill). " (Stoneshouse) No. 1. " (") No. 2. " (Hurst Hill). " (Great Hill). " (Coppice Stile). " (Gamekeeper's). " (Higher Hill). Walsden (Broadhead). <i>Worthdale (Watersheddles).</i>
<i>North Lancashire</i> (54)	Silverdale.	Ulverston (Urswick School Ho.) <i>Cartmel (Aynsome).</i>
<i>Yorkshire.</i> <i>West Riding,</i> <i>Southern</i> (56)	Sheffield (Brincliffe Edge). Penistone (Carlcotes).	Swinton (Council Offices).
<i>West Riding.</i> <i>Central</i> (122)	Saddleworth (Dobcross). Weeton (Huby) <i>Skipton (Counter Hill).</i>	Garforth. <i>Oakworth (Oldfield).</i> <i>Skipton (Silsden Gull Grange).</i>

<i>West Riding, Northern (120)</i>	Pateley Bridge (Castle Stead).	Masham Moor (Roundhill's Fm.)
<i>East Riding (21)</i>	Hedon (The Vicarage). Driffield (Highfield).	Driffield (Lockwood Street).
<i>North Riding (49)</i>	Guisborough (Hutton Hall). <i>Thirsk (Sowerby).</i>	Ampleforth Abbey. Thirsk (The Hall). Leyburn (Thornburgh House). <i>Malton.</i> <i>Bedale (Thorpe Perrow).</i> <i>Fylingdales Vicarage.</i>
<i>Durham (42)</i>	Heighington (Walworth Castle) <i>Barnard Castle (Raby Castle).</i>	—
<i>Northumberland (47)</i>	Newcastle (Clifton Road) 8 in. g. ,, W.W. Swinburn (Woodford) ,, W.W. North Tyne Vly. Morpeth.	Whittington (Newcastle W.W.) Burnside (,,) Hallington (Cheviot ,,) Colt Crag. Font Res. (Tynemouth W.W.) <i>Newcastle (Claremont Road).</i> <i>Bamburgh.</i>
<i>Cumberland (68)</i>	Winder. Keswick (Portinscale). Penrith (Newton Reigny). <i>Aspatria (Brayton Hall).</i>	Gosforth (Bolton Hall). Keswick (Crosthwaite School). Silloth. <i>The Styte B and C (2 gauges).</i> <i>Cleaton Moor Water Works.</i> <i>Penrith (Enninn).</i>
<i>Westmorland (40)</i>	Grasmere (Pavement End). Appleby (Ormshead).	Windermere (Holehird). Grasmere (The Wray).

MONMOUTH, WALES AND THE ISLANDS.

<i>Monmouth (27).</i>	Portskewett (Caldicott Hall). Llanvihangel Court.	Pandy (Trewyn).
<i>Glamorgan (53)</i>	Barry (Park Road). Cardiff Castle. <i>Cwmaman.</i>	Llandaff (Howell's School). Porthcawl. Neath (Ynys-y-gerwn). <i>Pontypridd (The Reservoir).</i>
<i>Cardmarthen (9)</i>	Llandovery.	Llandilo (Cae-glas).
<i>Pembroke (8)</i>	—	—
<i>Cardigan (3)</i>	<i>Aberystwith (Castle Grounds).</i>	—

<i>Brecon</i> (41)	<i>Taff Fechan</i> (<i>Neuadd Rs.</i>) No. 9M	Ebbw Vale W.W. No. 3. " " No. 2. " (Blaen-y-cwm) No. 7. " (") No. 6. Crickhowell (Glannoney). Brecon (Penoyre). <i>Abergwesyn Vicarage.</i>
<i>Radnor</i> (15)	—	Knighton (Ystrad House).
<i>Montgomery</i> (21)	Churchstoke (Mellington Hall) 2g. <i>Llangurig</i> (<i>Esgair Clochfan</i>) M. " (<i>Yytrad-olwyn-fawr</i>). New gauge.	Meifod (Coed-y-maen). Lake Vyrnwy (Bryn Gwyn). " " (Cynonysaf). " " (Tynchaf). " " (Heol-y-ffridd) No. 1 " " (") No. 2 " " (Tynyfridd). " " (Lluestwen). " " (Llwynrhiw). " " (Craig-y-Gribbin). " " (Eunant Bridge). " " (Careg Goch). " " (Fawnog).
<i>Flint</i> (10)	<i>Hawarden Bridge.</i>	—
<i>Denbigh</i> (21)	—	Llangollen (Plas-yn-vivod). Cerig-y-Druidion (Bwlch-y-beudy).
<i>Merioneth</i> (8)	—	<i>Corwen (Rug Gardens).</i>
<i>Carnarvon</i> (25)	—	Bardsey Island. <i>Dolwyddelan</i> (<i>Upper Nhadog</i>) N. 2 <i>Snowdon</i> (<i>Llydaw</i>) No. 12.
<i>Anglesea</i> (6)	Llanfachreth.	—
<i>Isle of Man</i> (9)	Douglas (Woodside).	<i>Castletown (Langness).</i>
<i>Isles of Scilly</i> (2)	—	—
<i>Jersey</i> (2)	—	—
<i>Guernsey</i> (5)	L'Erise (Claire Mare). St. Peter Port (Castel St. George)	St. Peter Port (Fort Road).

SCOTLAND.

<i>Wigton</i> (8)	—	—
<i>Kirkcudbright</i> (14)	Dalry (The Old Garroch) 6 ft. g. Carsphairn (Holm of Dalquhairn)	Dalbeattie (Kirkennan). New Galloway (Kenn Bridge).

<i>Dumfries</i> (14)	Dumfries (Dalawoodie House). Moffat (Ericstane). 3 in. gauge.	Lockerbie (Castle Milk). Lochmaben (Esthwaite).
<i>Roxburgh</i> (9)	St. Boswells (Elliston). Kelso (Holefield). Kelso (<i>Springwood Park</i>).	—
<i>Selkirk</i> (5)	—	Meggat Hd. (Edinr. W. W.) No. 1 Selkirk (Philiphaugh Gardens).
<i>Peebles</i> (15)	<i>Innerleithen (The Glen)</i> .	Ravensraig (Edinr. W. W.) No. 3 Gameshope Loch („) No. 4 Loch Craig Head („) No. 2 Gameshope Farm („) No. 5A „ „ („) No. 5 Talla Linns Foot („) No. 6A „ „ („) No. 6 Quarter Hill („) No. 7A „ „ („) No. 7
<i>Berwick</i> (8)	—	—
<i>Haddington</i> (9)	—	North Berwick (Bass Rock).
<i>Midlothian or Edinburgh</i> (27)	Dalmahoy.	<i>Edinburgh (Charlotte Square)</i> roof gauge
<i>Linlithgow</i> (8)	—	Bo'ness (Grange). <i>Linlithgow (Nether Parkley)</i> .
<i>Lanark</i> (19)	<i>Biggar (Cambus Wallace)</i> . <i>Dalzell House</i> . <i>Bothwell Castle</i> . <i>Glasgow (Springburn Park)</i> .	Hamilton (Laighstone Hall). Glasgow (Botanic Gardens). „ (Ruchill Park). Airdrie (Roughrigg Reservoir).
<i>Ayr</i> (23)	Ayr ² (Newark Castle).	Maybole (Knockdon, Glenhead). Ayr (Doonside). <i>Ailsa Craig</i> .
<i>Renfrew</i> (30)	—	—
<i>Dumbarton</i> (5)	—	Arrochar House. <i>Helensburgh (Fernigair House)</i> .
<i>Stirling</i> (24)	<i>Kippen (Arngomery)</i> .	Falkirk (Hospital). „ (Burgh Buildings). <i>Strathblane (Craigend Castle)</i> .
<i>Bute</i> (4)	Kingarth (Plann).	—

<i>Argyll Mainland</i> (29)	Kintyre (Stonefield, Tarbert).	Kintyre (Largie Castle). Dunoon. ,, (Redhurst). Minard Castle. Oban (Kilninver, Bragleenbeg).
<i>Argyll Insular</i> (18)	<i>Jura (Feoline).</i>	Mull (Glengorm). <i>Islay (McArthurshead).</i> ,, (<i>Gruinart</i>).
<i>Clackmannan</i> (4)	—	—
<i>Kinross</i> (4)	—	—
<i>Fife</i> (18)	—	<i>Balmerino.</i>
<i>Perth</i> (32)	<i>Callander (The Gart).</i>	Glenfarg. Bridge of Earn (Ballendrick). Comrie (Clathick). St. Fillans (Portmore). <i>Perth (Kinfauns Castle Gardens)</i>
<i>Forfar</i> (38)	—	Liff (Gray Cottage).
<i>Kincardine</i> (12)	Crathes (Spyhill).	Todhead.
<i>Aberdeen</i> (18)	<i>Peterhead (Buchanness).</i>	Balmoral Castle Gardens. Strathdon (Estate Office).
<i>Banff</i> (6).	—	—
<i>Elgin or Moray</i> (6)	—	—
<i>Nairn</i> (6)	—	Cawdor Castle. Nairn (Delnies).
<i>West Inverness</i> (25)	Eigg.	<i>S. Uist (Askernish).</i>
<i>East Inverness</i> (10)	—	—
<i>West Ross and Cromarty</i> (14)	<i>Ullapool (Drumruinie Lodge).</i>	—
<i>East Ross and Cromarty</i> (7)	Strathpeffer Spa (Ambatovory). Fearn (Geanies Mains). <i>Tarbetness.</i>	Strathpeffer Spa (Eaglestone).
<i>Sutherland</i> (9)	—	<i>Lairg.</i> <i>Altnaharra.</i>
<i>Caithness</i> (7)	—	Castletown (The Clett). <i>Stroma.</i>

<i>Orkney</i> (11)	South Ronaldshay (Roeberry).	—
<i>Shetland</i> (6)	<i>Fair Isle, N.</i>	<i>Sumburghead.</i>

IRELAND.

<i>Cork</i> (11)	<i>Cork (St. Ann's Hill).</i>	—
<i>Kerry</i> (8)	—	<i>Mangerton.</i>
<i>Waterford</i> (11)	—	Waterford (Whitfield Court).
<i>Tipperary</i> (8)	—	Cahir (Bengurragh).
<i>Limerick</i> (4)	—	—
<i>Clare</i> (11)	—	—
<i>Wexford</i> (10)	—	Enniscorthy (Monart Rectory).
<i>Kilkenny</i> (8)	—	—
<i>Wicklow</i> (10)	—	<i>Bray (San Remo).</i>
<i>Carlow</i> (3)	—	—
<i>Queen's Co.</i> (2)	—	—
<i>King's Co.</i> (4)	—	—
<i>Kildare</i> (3)	<i>Monasterevin (Moore Abbey).</i>	—
<i>Dublin</i> (15)	Killiney (Winterslow). Donnybrook (Seaview Terrace).	Balbriggan (Ardgillan) No. 3. <i>Dundrum (Lynton).</i>
<i>Meath</i> (6)	—	—
<i>Westmeath</i> (4)	—	—
<i>Louth</i> (5)	—	Dundalk (Mount Pleasant).
<i>Longford</i> (2)	—	—
<i>Galway</i> (10)	Tuam (Castle Hacket).	<i>Recess Hotel.</i>
<i>Roscommon</i> (2)	—	—
<i>Mayo</i> (10)	—	Westport (St. Helens).
<i>Sligo</i> (4)	—	—

<i>Leitrim</i> (3)	—	—
<i>Cavan</i> (5)	—	<i>Killeshandra</i> (<i>Castle Hamilton</i>).
<i>Fermanagh</i> (2)	Enniskillen (Model School).	Enniskillen (Portora). Belleek.
<i>Monaghan</i> (2)	—	—
<i>Armagh</i> (6)	—	Tanderagee. Portadown (West Street).
<i>Down</i> (9)	—	—
<i>Antrim</i> (19)	—	Lisburn (Ulster Provincial Sc.) <i>Belfast</i> (<i>Queen's College</i>).
<i>Londonderry</i> (4)	Limavady (Bellarena). <i>Londonderry</i> (<i>The Asylum</i>).	
<i>Tyrone</i> (3)	—	—
<i>Donegal</i> (11)	—	Lough Esk Castle. Dunfanaghy (St. Helen's).

OBITUARY.

IT is a grateful task to place on record the services rendered to our science by the workers whose last return has been sent in, and we endeavour to include in this tribute the name of every departed observer. As many of our correspondents live quietly, in remote villages aloof from public affairs, it too frequently happens that the London newspapers do not contain a notice of their death, so that we may remain for years in ignorance of the fact. We ask the co-operation of all observers in letting us know of any gap in our ranks, and at the same time we hope that they will endeavour to interest survivors in the work and preserve the continuity of old records.

The following list of 54 names contains no fewer than 16 who had kept up their records for thirty years or more. These are:—

Records of Thirty Years and upwards.

Mr. J. Davidson.....	Holkham, Norfolk.....	49 years.
Captain W. Noble.....	Maresfield, Sussex.....	48 "
Mr. J. M. Gale, C.E. ...	Glasgow	45 "
Mr. W. Clinton Baker...	Bayfordbury, Hertford...	44 "
Rev. H. D. Blanchard...	Middleton-on-the-Wolds	38 "
Dr. Franklen G. Evans...	Llwynarthan, Mon.	38 "
Rev. Canon Burn Murdoch	Riverhead, Sevenoaks ...	38 "
Mr. T. W. Wallis	Louth	38 "
Mr. J. Watkins	Southport.....	37 "
Mr. H. P. Senhouse	Maryport	36 "
Mr. W. H. Tyndall	Red Hill	36 "
Mr. J. Gray.....	South Ronaldshay.....	35 "
Rev. J. Wardale	Cambridge	35 "
Dr. N. C. Hatherley.....	South Molton.....	33 "
Mr. W. Sturdy	Thornton	33 "
Mr. E. E. Dymond	Aspley Guise	30 "

Two of these veterans of the rainfall army—observers before Mr. Symons—had almost completed half-a-century of continuous work.

The ages in the Obituary, so far as we can ascertain them, are not on the whole so remarkable as usual; there are only two nonagenarians in the list, and but three others who had passed the four-score years. We are happy that it is so, for it shows that many hale and hearty observers, who were born before 1820, are continuing

to visit their rain gauges daily. One who recently called at Camden Square remembers the coronation of four British Sovereigns.

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

Mr. W. Vicary	93 years.
Mr. W. H. Tyndall	91 „
Rev. W. H. Purchas	81 „
Major-General J. S. Davies ...	80 „
Rev. J. Wardale	80 „

We should like to refer to interesting facts in the biographies of our late friends and helpers, for many of them lived remarkable lives and have left names that are not writ in water. Fear that we should omit to do deserved honour to all might serve as an excuse for singling out none for special mention, but we take the risk, confident that our readers will recognise that although all are eminently worthy, facts are available only concerning a few.

MR. W. CLINTON BAKER, of Bayfordbury, a country gentleman of wide attainments and the possessor of some interesting literary relics, including an original MS. of Milton's "Paradise Lost," kept up a rainfall record at his ancestral home for 44 years, and we are happy to know that it is being continued by his heir.

MR. B. BARROW, though only an observer for 4 years, deserves mention for the fact that his last year's record appeared in the first of Mr. Symons's publications, "English Rainfall, 1860."

MR. W. BERRIDGE was an enthusiastic meteorologist, whose careful observations at Loughborough communicated daily for many years to the Meteorological Office made his native town famous as a type of the most nearly "continental" climate in England. Probably no one in the Obituary List this year was more keenly devoted to his hobby than Mr. Berridge.

DR. R. BIGGS, the head master of the Royal School in Enniskillen, had only recently become an observer, and his melancholy death by drowning has removed a prominent educationalist who fully understood the importance of teaching the study of nature. The record appears in this volume under the name of his coadjutor, Mr. Tetley.

ADMIRAL SIR CECIL DOMVILLE, BART., C.B., kept up a record for many years, and although he latterly considered it scarcely systematic enough to forward for publication, he quite recently sent some interesting figures regarding heavy falls of rain.

MR. E. E. DYMOND belonged to one of the "rainfall families," and himself contributed to our records and very generously to our funds for a generation.

MR. J. M. GALE, C.E., the Waterworks Engineer to the Corporation of Glasgow, was intimately associated with the splendid enterprise of bringing the water of Loch Katrine into that city. The rain gauges established to determine the amount of available supply from the beautiful and unspoiled natural reservoir greatly increased our knowledge of the rainfall of the Highlands.

REV. J. HAWELL, Vicar of Ingleby Greenhow, in the Cleveland Hills, kept up a continuous record for twenty years in one of the most interesting and, from the rainfall point of view, least known parts of Yorkshire. His gauge was one of the thirty supplied by Mr. Symons out of a bequest left by Miss Nunes in 1882, every one of these gauges being situated more than five miles from any previously existing rainfall station. We believe this was the only legacy ever received for the work of British Rainfall, and the good it did was great and far-reaching.

MRS. HUGHES, a humble worker, was the faithful and valued recorder of rainfall at the historic site of Seathwaite for many years, although as a paid observer her name did not appear in the pages.

MR. S. A. MARSHALL, after some years of observations near Leeds, set up a rain gauge at Skelwith Fold, Ambleside, in 1890, and, becoming interested in the rainfall of the Lake District, he devoted an increasing amount of attention to it as the years went on. He was influential in establishing a large number of rain gauges, often in almost inaccessible situations, and he published a valuable monthly report in post-card form of the records at about 25 stations in the district. Amongst these was Dungeon Ghyll, the remarkable records of which for 1903 are dwelt upon in the articles on Rainy Spells and Rainy Days in Part II. of this volume. Deeply as we regret the removal of Mr. Marshall, it is a satisfaction that his rainfall work will be continued by his daughter; there could be no more appropriate memorial.

CANON BURN MURDOCH had a more eventful career than most rainfall observers or clergymen. After studying at the Universities of Edinburgh and Cambridge he entered the army, served as an officer of Hussars in India and the Crimea, exchanged into the Dragoons, and ultimately retired from the army in 1856. He entered the

Church five years later and became Incumbent of Riverhead, near Sevenoaks, in 1863. Two years afterwards he commenced a record of rainfall there, which he continued until his death ; and a second record was kept up by him at his Highland residence, near Dunkeld.

DR. ISAAC ROBERTS, F.R.S., was distinguished as a highly successful photographer of celestial objects, but although the nebulae received most of his attention, he was a regular observer of rainfall for several years and an occasional correspondent of *Symons's Meteorological Magazine*.

MR. W. VICARY was an observer forty years ago and one of the contributors to "English Rainfall, 1860." Although interested in meteorology to the end, his work lay rather in the field of geology, where he made a name for his collection of Devonian fossils.

It will be observed that the Obituary List contains the names of no fewer than eleven clergymen, and we cannot let the occasion pass without a word of gratitude for the great service which the clergy, and in particular those of the Church of England, are rendering to observational meteorology. Without their intelligent and conscientious co-operation we should know comparatively little of the rainfall conditions of vast tracts of England.

Observers Deceased to July, 1904.

NAMES AND STATIONS.	PERIOD OF OBSERVATION.	
	DATE.	Complete Yearly Records.
Baker, W. Clinton, Bayfordbury, Hertford	C 1859-1902 c	44
Barnes, R. Hawksworth, Heatherlands, Parkstone.	1882 imp-1903	21
Barrow, B., Clifton House, Ryde, Isle of Wight ...	C 1853 imp-55 imp, } 1857-59 imp & 1860 T }	4
Bell, J., Park Road, Barry, South Wales	C 1895-1902 ..	8
Bentley, E. J., { Cazenove Rd., Stoke Newington, N.	C 1896 imp-98 imp, }	5
	1899-1900 imp T }	
Berridge, W. { Thyra Villas, Ramsgate	C 1900 imp-1903 T ..	23
	C 1878 imp-91 imp T }	
Biggs, Dr. R., Portora, Enniskillen, Co. Fermanagh	C 1891 imp-1902 T ..	1
Blanchard, Rev. H. D., Middleton on the Wolds, Yorks, E. R.	1902 imp -1903 c ...	38
*Boddington, Rev. T. F., Salhouse. Norfolk	1864-92 imp, 1893-94 imp }	22
	1895-1903	11
Carnegie, W. C., Sarsden, Chipping Norton	1874-75 imp, 1880-81 imp }	25
Charlton, J., { Allenheads, Northumberland	1882 imp-1902 imp, 1903 }	49
Davidson, J., { Denton House, Brampton	1892-1902 c	
	1878-1885 T	23
Davies, Maj.-Gen. J. S., Lowood, Maidenhead	1886-1902 c	9
Dix, J. H., Hampton Lodge, Durdham Down, Bristol	C 1848 imp-86 imp }	3
Domville, Admiral Sir W. Cecil, Bart., Stede Hill, Harrietsham	1887-96, 1898-99 ... }	
Dymond, E. E., { Highworth, Wilts	1879 imp -1902 T ..	30
	1892-99 imp, }	
	1901 imp-03	29
Elliot, Rev. Preb. W. { Cardington, Church Stretton	1894-96 T	38
	C 1865 T	
Evans, Franklen G. { Brinsop, Herefordshire	C 1871 imp -1900 T ...	45
	1869 imp, 1872 imp -82 T }	
Gale, J. M., Glasgow (<i>Numerous gauges</i>)	C 1883-93 T	5
	C 1894-98 imp T	
Gatty, Dr. C. H., Felbridge Place, East Grinstead	C 1899-1902 imp. T ...	35
Gray, J., Roeberry, South Ronaldshay	1903	18
Hancock, W. E., Croome Hall, Ross	C 1866-84 T ..	16
Harrison, Gen., West Hay, Wrington	C 1885-1903 ..	9
Hastings, H., The Plann, Kingarth, Bute	C 1859-1903 c	33
Hatherley, Dr. N. C., South Molton	C 1895 imp-1900 T ...	20
Hawell, Rev. J., Ingleby Greenhow, Yorks, N.R.	1868-1902 T	17
Hopwood, J. C., Surrey Villa, Colchester	1885-1902	15
Hughes, Mrs., Seathwaite	1888-1903 c	

* Returns usually obtained through *Norfolk Chronicle*.

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

Observers Deceased to July, 1904—(continued).

NAMES AND STATIONS.		PERIOD OF OBSERVATION.	
		DATE.	Complete Yearly Records
Joy, Rev. Canon,	Low Nook, Ambleside	C 1869 imp -1872 T...	23
	Long Lane Vicarage, Derby.....	1873-74 T	
	Bororage House, Ripon	C 1876-79 imp 1880, 1883-84 imp T ...	
	Birstwith, Ripley, Yorks	1884 imp.....	
	Benenden, Kent	1888-1895 T	
Kelly, Dr. C.,	The Vicarage, Maidstone.....	C 1899-1903 T	16
	Broadwater Road, Worthing	1881-86 imp T	
	Ellesmere, Worthing.. ..	1893-1903	
Lockwood, E.,	Kingham, Chipping Norton	1882-84 imp, 1885- 1902 T	20
McAndrew, J. C.,	Grafham Grange, Bramley	C 1896 imp -1903....	7
Marshall, S. A.,	Weetwood Hall, Leeds.....	1884-86 T	17
	Skelwith Fold, Ambleside	C 1890-1903 c	
Maude, L. E.,	Broad Ford House, Horsmonden ...	1900 & 1901 c	2
Murdoch, Rev.	Riverhead Vicarage, Sevenoaks	1865 imp -1903 T ..	38
	Canon Burn (Inverbraan, Dunkeld	1873 imp, 1875 imp	
		1876 imp, -1892 imp, 1893-1903 c	
Newbery, F.,	Milton Ernest, Bedford.....	1878-1902 T	25
Noble, Capt. W.,	Forest Lodge, Maresfield	C 1856-1903	48
Overton, Rev. Canon,	Gumley Rectory, Market		4
	Harborough	1899-1902 T	
Poland, Rev. F. W.,	Northacre, Northaw.. ..	1899-1903 c	5
Purchas, Rev. W. H.,	Alstonfield Vicarage, Staffs.	1872-84 imp, 1885-86 imp 1887-94 imp, 1895-1902 c	28
Puxley, Rev. E. L.,	Kessingland, Suffolk.....	C 1890 imp -1894 imp T	
	Steep Vicarage, Petersfield...	C 1894 imp -1900 T	9
Roberts, Dr. Isaac, F.R.S.,	Maghull	C 1881-89 T	9
Senhouse, H. P.,	Netherhall, Maryport.....	C 1868-1903	36
Smith, J.,	The Gardens, Mentmore, Bucks	C 1875 imp. -78 imp, 1879-84 imp, 1885-86 imp	24
		1887-1902 c	
		C 1868 imp -1901 imp T	
Sturdy, W.,	Thornton, Stony Stratford	1902	33
	Earlswood, Surrey	C 1890-1903	
Turner, E. R.,	Clare Lodge, Ipswich	1866 imp, 1867 imp	36
Tyndall, W. H.,	Oxford Road, Red Hill	-1903 T	
Vicary, W.,	Albert Terrace, Exeter	1860 imp -1864 T...	4
Wallis, T. W.,	Louth, Lincolnshire.....	1865-1902	38
Wardale, Rev. John,	Orcheston St. Mary, Wilts	C 1865 imp. -76 imp T	35
	Datchworth Rectory, Stevenage	C 1877-97 c	
	Benet Place, Cambridge	C 1899-1903 imp T ...	
Watkins, J.	Vale Bank, Bolton	C 1863 imp -71 imp...	37
	Hurst Bank, Heaton, Bolton	1871 imp -96 imp T	
	Park Crescent, Southport	C 1896 imp -1902 T...	
Wilmot, T. J.,	Iveragh Lodge, Waterville, Co. Kerry	C 1893-1903 T	11
Wright, Miss Judith,	Yeldersley Hall, Derbyshire	C 1901 imp -1902 c ...	1
Wright, T. H.,	Marlow Mills, Bucks	1894-1902 c	9

1903.

The year now totters to his long repose,
And shakes his dripping garments as he goes.
Farewell, old King ! Though sovereign glories wane
We could not if we would, forget your rain.

Punch.

RAINFALL AND METEOROLOGY
OF
1903.

EXPLANATION.

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. It is understood that the Notes refer to extreme or exceptional rather than to normal phenomena. In a few cases the Notes are supplemented by short extracts from the newspaper press. The completeness or incompleteness of the picture of the weather of the year presented in these Notes 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 form suitable for concise reproduction. 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 1903,

With Notes on some of the Principal Phenomena.

OBSERVERS' NOTES ON THE DAYS OF 1903.

These Notes should be read in conjunction with those on Heavy Rains in 1903.

JANUARY.

2nd.—*Grimsby, Irby-on-Humber* (VII). TSS.—*Templeudigan, Ballindoney* (XXI). T, L and .87 in. of R.—*Tuam, Gardenfield* (XXII). T and L.

2nd and 3rd.—*Wellington, The Avenue* (V). Sharp TSS and heavy H.—*Coventry, Priory Row* (VI). TSS at 6 p.m. on 2nd and 10 a.m. on 3rd.—*Treherbert, Tyn-y-waun* (XI). Heavy R, with H, T and L.—*Broadford, Hurdlestown* (XX). TSS and H.

3rd.*—*Fulham, Edith Road* (I). Slight TS about noon.—*St. Pancras, Camden Square* (I). TS and heavy H, noon to 0.15 p.m.—*Highgate* (I). TS, during which the spire of St. Michael's Church was struck.—*Rochester, Hoo St. Mary* (II). Storm from N.W. at 0.30 p.m., lasting nearly half-an-hour., accompanied by T and very vivid L, the wind blowing a hurricane, with cold R and H.—*Tottingworth Park* (II). T, L and H.—*Watford, Weetwood* (III). TS.—*Barnet, Hudley* (III). Sharp TS at noon.—*Farnham Royal* (III). Rather severe TS, during which .22 in. of R fell in 22 minutes.—*Highmore Vicarage* (III). TS and H.—*Kingham* (III). Heavy T and L.—*Swerford* (III). T and L.—*Lea Bridge* (IV). Severe H storm, with T and L, about 0.15 p.m., coming from N.N.W. at a great rate.—*Epping, The Hemnalls* (IV). H, T and L.—*Colchester, Lexden* (IV). Brief but intense TS, doing some damage. A woman was struck by L at Colchester and seriously injured.—*Cirencester, Further Barton* (VI). T, L and H,

* See also *Met. Mag.*, January, 1903, p. 195.

to N.W.—*Stroud, Upfield* (VI). T and L. A cottage was struck not far from here.—*Stroud, Harescombe Grange* (VI). Two TSS.—*Tenbury, Rochford* (VI). T and L from 8 to 9 a.m.—*Horncastle, Bucknall* (VII). T and much L.—*Nottingham, Talbot Street* (VII). Violent TS shortly before 8 a.m.—*Chellaston* (VII). TS.—*Abergavenny, Dyne House* (XI). TS.—*Darrynane Abbey* (XX). H showers, T and L.

4th.—*Liskeard* (V). T, L and 1.50 in. of R.

5th.—*Winslow, Addington* (III). Large flood ; meadows all covered with water.—*Cork, Wellesley Terrace* (XX). Heavy H shower.

5th and 6th.—*Blisworth, Grafton House* (III). Large floods.

6th.—*Stroud, Upfield* (VI). T, L and S.W. gale.

7th.—*Wrexham* (XI). Serious floods in neighbourhood.

7th—10th.—*Londonderry, Creggan Reservoir* (XXIII). S daily.

8th.—*Cargen [Dumfries]* (XII). S, two inches deep.—*Moniaive, Marwellton House* (XII). Three inches of S in the night.—*Musselburgh, Levenhall* (XIII). S, yielding .50 in.—*Glasgow, Queen's Park* (XIV). Five inches of S. Tramway service greatly hampered.—*Tuam, Gardenfield* (XXII). S an inch deep.

8th—10th.—*Crathes, Pinewood* (XVII). S daily.

9th.—*Montrose, Sunnyside Asylum* (XVI). S, about one and a-half inches deep.

9th—11th.—*Alford, Lynturk Manse* (XVII). S.

10th.—*E. Harptree, Harptree Court* (V). One inch of S.—*Kilkenny, Sion Villa* (XXI). Strong N.E. gale.

12th.—*Newcastle* (X). Very heavy S.

13th.—*Oxford* (III). Keen frost, resulting in excellent skating on the flooded meadows.—*Thixendale* (IX). Temp. 4° F. at 10 a.m.—*Sunderland, West Hendon House* (X). S four inches deep, the max. depth for the winter 1902-3.—*Crathes, Pinewood* (XVII). S four and a-half inches deep.

14th.—*Maidenhead* (II). Keen frost and excellent skating.—*Spalding* (VII). Many miles of splendid ice on Cowbit Wash. A sad accident occurred at one point resulting in the drowning of a young lady.

15th—16th.—*Christchurch, Winkton Lodge* (II). The Avon, one of the few rivers in England having ground ice, presented a beautiful appearance, the brilliant white lumps as they rose to the surface shining brightly in the sunshine. The skies were brilliant.

17th.—*St. Pancras, Camden Square* (I). Remarkable silver thaw in the evening, causing many street accidents. At St. Thomas's Hospital 30 cases of broken bones were treated, at St. Bartholomew's 20, and

at the West London Hospital 21, all due to this cause. At the various coroners' courts in London the verdict of "Death due to syncope accelerated by the cold" was returned in five cases of sudden death.—*Haslemere, Hazelhurst* (II). Bad *verglas*.—*Barnet, Hadley* (III). Silver thaw, making the roads very dangerous.—*Oxford, Banbury Road* (III). Silver thaw.—*Cirencester, Further Barton* (VI). Silver thaw in evening.—*Southport, Hesketh Park* (VIII). Ice 3·2 in. thick on the lake.

18th—20th.—*Stoke Bishop, Blagdon House* (VI). Fog daily.—*Tenbury, Rochford* (VI). Heavy fog.

18th—21st.—*Lambourn, East Garston* (II). Fog; dense on 19th.—*Slough, Upton* (III). Fog daily.—*Swerford* (III). Thick fog.—*Blandford, Longthorns* (V). Thick fog.—*Cirencester, Further Barton* (VI). Thick fog daily.

19th.—*Sheffield* (IX). Dense fog.

19th—21st.—*Oxford, Magdalen College* (III). Thick fog.

19th—22nd.—*Oxford, Banbury Road* (III). Very foggy.

21st.—*St. Pancras, Camden Square* (I). Great gloom, and at times thick fog.

24th.—*Sheffield* (IX). Severe gale, doing much damage.—*Greenock* (XIV). Severe gale over the west and centre of Scotland.

25th and 26th.—*Ballachulish, Ardsheal* (XV). T and L.

27th.—*Hampson-in-Ellel* (VIII). On the morning of 27th the Lune overflowed its banks and flooded the country to a greater extent than had been known for 12 years. This pointed to heavy R in the upper part of the valley, as in the lower country the fall had not been excessive. The R at different points in the valley was as follows :—

	Jan. 26th. in.		Five days, 22nd—26th. in.
Hampson	·57	.....	1·33
Yealand Conyers..	·74	.....	1·48
Wray	2·20	.....	3·63
High Casterton ...	2·83	... ..	4·26
Sedbergh	3·40	.....	5·57

Carlisle (X). Serious floods in the Eden and Petteril valleys.—*Castletown, The Clett* (XIX). T, L, H and S.

30th.—*Dunblane* (XV). Heavy R and strong gale for the previous 36 hours resulted in much flooding and the destruction of several bridges in Stirlingshire.

31st.—*Emsworth, Redlands* (II). Severe S. to S.W. gale.—*Barnet, Hadley* (III). Severe S.S.E. gale at night.—*Musselburgh, Levenhall*

(XIII). S, yielding .36 in.—*Templeudigan, Ballindoney* (XXI). Severe H storm at 8 p.m.

31st—Feb. 1st.—*Hitchin, Wratten* (III). Max. temp. 59°, min. 51°, readings without precedent in a record from 1849. This was accompanied by a series of gales, although the bar. reached 30.60 in.

FEBRUARY.

7th—9th.—*Glasgow* (XIV). The heavy R almost all over Scotland on February 7th and 8th was attended with disastrous consequences in the lower reaches of the Clyde, where it was the cause of destructive flooding in the Glasgow district. The point most affected was near Rutherglen, where, between 4 and 8 a.m. on the 9th, the river burst its banks in four places in spite of vigorous efforts to strengthen the banks. Thousands of acres of land were submerged, and the low-lying districts were under water for nearly two miles to an average depth of 10 feet. By noon the height was about a foot lower, and a further subsidence occurred during the afternoon. About Dalmarnock Bridge many factories and mills were completely flooded out, and between 5000 and 6000 persons were thrown out of employment temporarily. All traffic by road, rail and underground was suspended for a considerable time. The highest point reached was 2 ft. 6 in. above that of the flood of March, 1886, and 3 ft. 6 in. higher than March, 1832, the worst flood in memory. The present flood, however, far surpassed both 1832 and 1886 in amount of damage, owing to the enormous increase in recent years of buildings for industrial purposes along the river.

8th.—*Worksop, Hodsock Priory* (VII). Max. temp. 60°·7, min. 51°·1, giving a mean of 55°·9, or 17°·3 above the average, and just the normal value for June 8th. Since 1876 there has only been one higher max. in February, viz., 63°·5 in 1891, but the previously highest min. was 49°·1 in 1883. As a contrast, compare February 8th, 1895, max. 26°·1, min. — 4°·0, mean 11°·0.—*Alford, Lynturk Manse* (XVII). Six and a-half inches of wet S.

8th and 9th.—*Nether Parkley* (XIII). Two days of extraordinary R, during which 3.46 in. fell in 36 hours.—*Lochwinnoch, Garthland* (XIV). R 2.62 in. and 3.08 in. respectively, making 5.70 in. in 2 days.

9th.—*Crathes, Pinewood* (XVII). S four and a-half inches deep.

21st.*—*Sheppey, Leysdown* (II). Terrific S.W. gale. A peculiar,

* See also *Met. Mag.*, March, 1903, p. 21 ; January, 1904, p. 212 ; and *Quarterly J. R. Met. Soc.*, Jan., 1904, Vol. 30, p. 57.

coloured dust was noticeable on the S.W. side of trees, and ever-greens showed it even more distinctly. The rain-water was discoloured and contained a sandy sediment.—*Lewes, Saxonbury* (II). Curious deposit of orange-coloured dust in the evening after a gale, with mist. Sky very dark and lurid.—*Winslow, Addington* (III). A dense haze, similar to what in summer-time is called a blight.—*Rochdale, Fieldhead* (VIII). In 6 minutes ·11 in. of R fell.

21st—23rd.—*Ashburton, Druid House* (V). R contained a red sediment, and windows and roofs were coated with yellow mud.

21st—26th.—*Emsworth, Redlands* (II). Gales from W. and S.W. ; violent on 24th and 26th.

21st—27th.—*Kensington, Edith Road* (I). Practically one unbroken gale from S.W. ; very violent from 24th to 26th, mostly at night.

22nd.—*Emsworth, Redlands* (II). Remarkable fall of red dust, with wet mist, between 11.30 a.m. and noon.—*Bournemouth, Kempsey* (II). The R measured at 9 a.m. was of a pale reddish colour. It was foggy at the time, with drizzling R. At 9.45 a.m. it became more gloomy, with a yellowish tinge in the fog, and for a few moments a reddish glow on the gravel, reflected from a tinted cloud, was noticed.—*Tavistock, Whitchurch* (V). Reddish dust in R.—*Torrington, Enfield* (V).—R very much discoloured.—*Lynmouth, Rock House* (V). Coloured R with sediment.—*Liskeard* (V). The R was found to be cloudy, and looked as though milk or flour were mixed with it.—*Stroud, Upfield* (VI). The R between 9 a.m. and noon was the colour of ditch-water.—*Llanfrechfa Grange* (XI). The R looked thick as if it contained lime. This was the case in all rain-water casks and tanks, and the cottagers in the village observed the same, and said they never saw such a thing before.—*Llwynypia* (XI). R water much discoloured.—*Haverfordwest, High Street* (XI). R fell of a yellowish colour with a thick sediment, the sky at the time being the colour of brass.—*Pembroke Dock, County School* (XI). R discoloured to a yellowish tinge by dust.—*Builth* (XI). Coloured R.—*Markree Observatory* (XXII). T, L and H.

22nd and 23rd.—*Crowborough* (II). The R was of a remarkable colour and consistency, being thick, and of a dirty reddish-yellow tint. Windows were obscured, and there was a deposit on hedges and trees.—*Swarraton Rectory* (II). R chalky in colour.

23rd.—*Emsworth, Redlands* (II). T, S, H and R.—*Aylesbury, Oving House* (III). Rather heavy H storm at mid-day.—*Oxford, Banbury Road* (III). Heavy storm, with H and S, at night.—*Lynmouth, Rock*

House (V.) Very heavy H showers.—*Llanvihangel Court* (XI). The R was of a milky colour, like lime-water.—*Carmarthen, The Friary* (XI). Coloured R.—*Rathmines, Leinster Road* (XXI). T and L with S and H.

23rd—25th.—*Miltown Malbay* (XX). L, H, S and R.

24th.—*Truro* (V). TS in evening. The post-office was struck by L, which entered by telephone wires and set fire to telephone room.—*Rochdale, Fieldhead* (VIII). In 15 minutes .13 in. of R fell.—*Crathes, Pinewood* (XVII). From 9 a.m. to 4.30 p.m. 1.02 in. of R fell.

24th—26th.—*Barnet, Hadley* (III). Very strong gales from S. and S.W., being especially violent on the night of the 26th.—*Cirencester, Further Barton* (VI). Severe gales; T, L and H.—*Llandudno* (XI). T and L.—*Llwydiarth Esgob* (XI). Hurricane.

25th.—*Farnham Royal* (III). Heavy S.W. gale.—*Penzance, St. Clare* (V). T, L and H.—*Chelford, Astle Hall* (VIII). Great gale all night from S.W.—*Rochdale, Fieldhead* (VIII). In 7 min. 30 sec. .08 in. of R fell.—*Waterford, Brook Lodge* (XX). T, L and H.—*Templeudigan, Ballindoney* (XXI). TSS at 6.30 a.m. and 7 p.m., the latter lasting an hour.

25th and 26th.—*Bromfield, Oakly Park* (VI). T and L.—*Bromfield Vicarage* (VI). T, L and heavy R.

25th—27th.—*Llanfrechfa Grange* (XI). T and L; sharp H storm on 26th.

26th.—*Sevenoaks, St. John's Hill* (II). Red dust storm.—*Milverton* (V). Yellow R.—*Stroud, Harescombe Grange* (VI). Gale from S.W., succeeded by a TS in the night.—*Tenbury, Rochford* (VI). Exceptionally heavy gale at night.—*Broughton-in-Furness* (VIII). Violent storm at night doing considerable damage. No such storm since that of December 23rd, 1894. There was a little L, but no T.—*Goldsborough Hall* (IX). Heavy S.W. gale during the night.—*Tighnabruaich* (XV). At 9 a.m. the bar. indicated 28.30 in. The sea was calm here, the storm being to southward.—*Glencarron Lodge* (XVIII). S five inches deep.—*Cork, Wellesley Terrace* (XX). T and L.—*Mallow, Longueville* (XX). Great S.W. gale, which blew down nearly all the elms in Phoenix Park, Dublin. Here it stripped part of a roof and blew down some trees.—*Waterford, Brook Lodge* (XX). Hurricane at night, and much damage done.—*Glenam [Clonmel]* (XX). Terrific storm, considered to have been the worst in this country since January 6th, 1839.—*Nenagh, Highlands* (XX). Strong wind, which broke off or uprooted many old trees in all directions; something like the great storm on January 7th, 1839.—*Templeudigan, Ballin-*

doney (XXI). The severest gale remembered for years. Hundreds of trees were uprooted in this district and many houses unroofed. The storm began at 7 p.m. and lasted all night, but was at its worst from 11 p.m. to 2 a.m.—*Rockenham* (XXI). Great storm, doing much damage to trees.—*Kilkenny, Sion Villa* (XXI). Hurricane, which brought down thousands of trees throughout the country. Seven fell at Sion Villa. Much injury was done to houses, roofs, &c.—*Kilkenny, Lavistown House* (XXI). Violent storm and a great number of trees blown down.—*Carlow, Browne's Hill* (XXI). Storm of unparalleled severity at night.—*Rathmines, Leinster Road* (XXI). The most violent storm since 1839. The wind at times reached hurricane force, and great damage was done.—*Tuam, Gardenfield* (XXII). The great storm blew down an immense number of trees throughout Ireland, and a large number about 10 miles from this place, but very few on this estate were blown down, though there are over 80 acres of planting. This was very strange, as they suffered greatly in several former storms.—*Murrisk Abbey* (XXII). Very little injury was done by the storm just here. Surrounded by old timber, we lost only one branch, and no damage was done to a pile of slated stores.

26th—27th.*—*Tavistock, Whitchurch* (V). Severe gale from S. during the night, doing much damage.—*Melmerby, Baldersby* (IX). Violent S.W. gale from 11 p.m. on 26th to mid-day on 27th. Many trees were uprooted, houses unroofed, &c.—*W. Hartlepool, Bradgate* (X). During the heavy gale the bar. fell from 29·725 in. at 9 p.m. to 28·750 in. at 8 a.m.—*Dundee, Balruddery* (XVI). A most extraordinary fall of bar., from 29·120 in. at 9 p.m. to 28·192 in. at 9 a.m., the lowest reading for many years.—*Derry Castle [Killaloe]* (XX). From 10 p.m. to 2.30 a.m. a terrific storm from S.W. to W.S.W., the most destructive known since that of January 6th, 1839, devastated the whole country. In this locality trees were uprooted in hundreds, and very few farmhouses escaped without some injury. Many iron-roofed outhouses were completely stripped, and hay and straw-ricks were blown down and scattered far and wide. There was no loss of human life, and but little injury to cattle. Had the hurricane continued a few hours longer the destruction would have been appalling, and many shattered roofs would have been completely wrecked.—*Nenagh, Castle Lough* (XX). The worst storm here

* See also *Met. Mag.*, March, 1903, pp. 26, 28 ; April, 1903, pp. 49–50 ; and *Quart. J. R. Met. Soc.*, Vol. 29, p. 233.

since the big wind of 1839. It started from S., and after midnight blew with terrific force from the W. till towards 4 a.m., when it somewhat abated in violence. It seemed to sweep up the centre of Ireland, from the S.W., to Dublin. The extreme east, west and north seem to have been affected in a lesser degree. Hundreds of thousands of trees, even in the most sheltered positions, were blown down.—*Timolin* (XXI). Violent hurricane, doing great damage everywhere.—*Ballybrack, Streamville* (XXI). A hurricane began about 9 p.m., and reached its height at 4 a.m. on 27th. At midnight it came from the E., afterwards shifting to W. It was only exceeded by the storm of January, 1839. Great havoc to trees.—*Drumconrath, Aclare House* (XXI). Storm, doing great damage. Thousands of trees were blown down all over the country.—*Carrablagh* (XXIII). On the night of the 26th there was a sudden storm, and the bar. fell from 29·28 in. at 5 p.m. on 26th to 28·35 in. at 3 a.m. on 27th, rising again to 29·05 in. at noon. All telegraphic communication with England was cut off.

27th.—*Blisworth, Grafton House* (III). Terrific S.W. gale.—*Chelford, Astle Hall* (VIII). Violent S.W. gale all night, the most severe for a long time.—*Southport, Hesketh Park* (VIII). Severe storm from S.W. to W.S.W., when the greatest hourly velocity was 67·5 miles at 7.0 a.m., and during the strongest gust 92 miles per hour, the max. pressure being 28·8 lbs. per square foot.—*Thixendale* (IX). Violent gale from W. all day.—*New Malton* (IX). Violent W. gale, which did great damage to buildings.—*Carlisle, Newby Grange* (X). Violent S.W. gale, doing much damage ; one of the worst remembered.

The following epitome of the damage done is from *The Times* of Saturday, February 28th :—

The gale of Thursday night and Friday morning followed closely upon those of Tuesday and Wednesday, and appears to have been much more generally violent than either of its predecessors, and especially so over England. Yesterday morning there were so many of the telegraph wires disconnected by the wind that the daily weather report did not contain the reports from any station lying to the northward of a straight line drawn from Pembroke to Spurn Head. To the southward of that line, however, the wind blew with a force varying from 9 to 11 (Beaufort scale), and in direction it varied from south-south-west to west-south-west. . . .

BARROW.—The Furness Railway Company's mail train which left Carnforth at 4.20 yesterday morning met the full force of the gale at Leven Viaduct, Ulverston, and was blown off the rails. Ten of the carriages turned over on their sides, and several of the passengers received injuries. Both lines were

blocked. Trains to Barrow could only be worked to Cark, and many were held back at Carnforth.

BLACKPOOL.—A tram-car shed at South Shore was completely wrecked, and 12 cars were buried beneath the débris. A saw mill was also destroyed.

DARLINGTON.—A portion of a steeple at the Presbyterian Church was blown down, falling through the roof and doing damage to the extent of several hundreds of pounds. A large chimney stack fell through a house near the railway station and injured a boy. The wind subsequently unroofed the house.

FLEETWOOD.—The steamer Duke of Cornwall arrived from Belfast several hours late. All her boats were washed away and nearly all the cattle killed.

HOLYHEAD.—The newly-erected St. Elbon's Church was lifted from its foundations, and became a mass of ruins. The church was an iron one. Serious damage was done to the breakwater, which was opened by the present King when Prince of Wales over 30 years ago. Many of the large coping-stones were carried away, and the railings near the lighthouse were washed into the sea.

LANCASHIRE (NORTH-EAST).—Two lives were lost and great damage was done at Burnley. A boy aged eight, named Percy Wilson, having gone to look at some hoardings which had been blown down, another hoarding was blown on to him and killed him. At Darwen five houses were wrecked and £600 damage done. At Blackburn several mills were wrecked, and a mill was also wrecked at Leyland. At Accrington the steeple of St. Paul's Church was blown down, and a house destroyed.

LANCASHIRE (NORTH-WEST).—In this district numerous cases of roofs falling in are reported, a woman in Preston being killed in bed.

LIVERPOOL.— . . . The postal officials cannot recall a previous instance where a wind storm did such extensive damage or continued for so many hours. All yesterday the city was practically cut off from telegraphic communication with the outside world except with Manchester, the wires to which town are laid underground. The damage done to business premises in the city is very extensive. Scores of shop windows were blown in, the stock being scattered about the streets.

LOWESTOFT.—Further damage was done to the defence works at the foot of the south slopes at Kirkley. A large portion of the cliffs was also eaten away.

MANCHESTER.—About 6 o'clock yesterday morning a cottage in Juno Street, inhabited by Mrs. Walsh, a furrier, was wrecked, by the roofs being blown in. Two beds in the upper storey fell with the floor beneath, and a boy of 13 was found dead in the ruins. Thirteen persons were treated at the Manchester Infirmary during the early hours of yesterday for injuries caused by the gale.

MENAI SUSPENSION BRIDGE.—The Menai Suspension Bridge buckled under the force of the wind, and 20 of the telegraph wires snapped, thereby disconnecting telegraph communication with Ireland. The middle portion of the structure moved, but the damage is not serious. Yesterday pedestrians were allowed to cross, but drivers of vehicles were warned that they would do so at their own risk.

MIDDLESBROUGH.—A workman who was employed on the river side was blown from a truck into the Tees and drowned.

NEWCASTLE-ON-TYNE.—St. Matthew's Church was much damaged by the gale. It is one of the new churches of the city, and had been left unfinished, the ends of the aisles being temporarily bricked up. The wind carried away the temporary walls and drove two porches into the church, the destruction being serious. . . . At Hetton-le-Hole, near Newcastle, the chimney of a house occupied by the Rev. W. R. De Winton, Primitive Methodist minister, fell upon the bed in which Mr. and Mrs. De Winton were sleeping, burying them in the débris. Mr. De Winton was killed immediately, and his wife was seriously injured.

STOCKTON.—A wall was blown down upon an aged woman, and she was so much injured that she died almost immediately.

SUNDERLAND.—There were many cases of personal injury here. An old lady named Charity Boundary, being blown under a horse's feet while she was crossing the road, was seriously injured.

WEST HARTLEPOOL.—A sailor who was proceeding along the quay to join his ship, was blown into the sea and drowned.

BELFAST.—In Belfast very extensive damage to property occurred during the gale. Two tall chimneys were blown down and two men seriously injured. During yesterday morning 15 persons were treated at the Royal Hospital for injuries caused by falling slates. The cross-channel steamers had very rough passages, and two steamers are reported ashore near the entrance to Belfast Lough. Much damage was done generally over the north-west of Ireland. The Northern Counties Railway was washed away at two places, and the embankment on the Donegal Railway was also destroyed near Londonderry. Fabar Pier, on Lough Swilly, was blown down.

CORK.—At Cork the gale raged with great violence from 7 o'clock on Thursday night till 3 o'clock yesterday morning. A tenement house, in which about 12 people lived, collapsed, and two girls named O'Connell were buried in the ruins. One of them was dead when taken out, and the other is in a dangerous condition.

DUBLIN.—In Dublin many houses were unroofed and large factory chimneys demolished. The roof of a house in Richmond Place collapsed and crashed through two floors into the basement, carrying with it a young girl, who was taken to the hospital in an unconscious condition. A woman died yesterday morning from shock and injuries inflicted by falling bricks. The roof of the Privy Council Chamber, Dublin Castle, has suffered severely, and the police barrack in the Lower Castle-yard is damaged.

MARCH.

1st.—*Maiden Newton, Cattistock Lodge* (V). Between 11 a.m. and 0.30 p.m. .50 in. of R fell.

1st—6th.—*Milton Malbay* (XX). H daily, with TS on 6th.

2nd.—*Cirencester, Furthur Barton* (VI). Heavy S.W. gale all day.

4th—7th.—*Blair Atholl* (XVI). S daily.

5th and 6th.—*Maidstone, Barming* (II). Some muddy R fell, showing itself on windows.

8th—9th.—*Ballachulish House* (XV). Between 4 p.m. on 8th and 9 a.m. on 9th 1·55 in. of R fell.

14th.—*Bedford* (III). Brilliant flash of L and tremendous simultaneous crash of T at 4.30 p.m.

16th and 17th.—*Ballachulish House* (XV). Between 4 p.m. on 16th and 9 a.m. on 17th 1·70 in. of R fell.

17th.—*Lligwy* (XI). S yielding ·51 in.

17th—25th.—*Haverfordwest* (XI). Fresh to strong gales blew nightly.

18th.—*Ashburton, Druid House* (V). Heavy S and H.—*Chelford, Astle Hall* (VIII). Three inches of S in the night.

19th and 20th.—*Cirencester, Further Barton* (VI). Hard S.W. gale.

24th.*—*Pyrford Croft* (II). Severe H storm.—*Cheadle, The Heath House* (VI). Earthquake shock at 1·30 p.m.—*Market Overton* (VII). Earthquake vibration felt and heard by several people at 1.35 p.m.—*Chellaston* (VII). Earthquake.—*Findern, The Longlands* (VII). Shock of earthquake at about 1.30 p.m.—*Darley Dale, Whitworth Institute* (VII). Earthquake shocks.—*Chelford, Astle Hall* (VIII). Decided shock of earthquake at 1.30 p.m., with a rumbling noise underground seeming to go from S. to N. Chairs, shutters, &c., shook. It lasted nearly a minute.—*Knaresborough, Farnham* (IX). Earthquake.

25th.†—*Fulham, Edith Road* (I). Temp. at 8 p.m. 68°·3, the highest ever recorded in March.—*St. Pancras, Camden Square* (I). Mean temp. 58°·3, the highest recorded for March.—*Wandsworth, New Park Road* (I). Temp. at 8 p.m. 64°·8 ; at 9 p.m. 63°·2, and at 10 p.m. 59°·4.—*Selbourne* (II). TS at night, setting fire to and burning down an old house mentioned by Gilbert White.—*Barnet, Hadley* (III). T and much L at night.—*Farnham Royal* (III). TS at night.—*Highmore Vicarage* (III). TS.—*Luton* (III). TS, during which two houses in Elizabeth Street were struck.—*Dunmow, Bigods Hall* (IV). T all day, ending in a heavy storm at 6.30 p.m., lasting only a few minutes. Abnormal difference between dry and wet bulb temperatures in the afternoon.

26th.—*Ashburton, Druid* (V). T, L and H.—*Polapit Tamar* (V). Heavy H storm and T.—*Church Stretton, Woolstaston* (VI). Violent H storm and heavy T at 11.30 a.m.—*Shifnal, Hatton Grange* (VI). TS and H.—*Horncastle, Hemingby* (VII). Gale ; T and H in afternoon.—

* See also *Met. Mag.*, June, 1903, p. 87.

† See also *Met. Mag.* for April, 1903, pp. 43–44.

Chelford, Astle Hall (VIII). Sharp TS at about 11.45 a.m.—*Knaresborough, Farnham* (IX). T and L.—*Abergavenny, Dyne House* (XI). TS.

27th.—*Pyrford Croft* (II). T and H.—*Meltham, Harewood Lodge* (IX). Sharp TS from 0.10 to 0.25 p.m.

27th and 28th.—*Ballachulish House* (XV). Between 3 p.m. on 27th and 9 a.m. on 28th 2.00 in. of R fell.

28th and 29th.—*Cirencester, Further Barton* (VI). H.—*Castletown, The Clett* (XIX). Heavy S.W. gale, the strongest part of which began at about 2 p.m. on 28th ; it continued at gale force until about 5 a.m. on 29th.

29th.—*Alderbury* (V). Heavy H and L.—*Meltham, Harewood Lodge* T and L from 4.30 to 6.30 p.m.

29th and 30th.—*Pyrford Croft* (II). H.

30th.—*West Dean* (II). W. gale and H showers.—*Barnet, Hadley* (III). TS with R, H and S between 0.30 and 1 p.m.—*Ipswich, Copdock* (IV). T and H.—*Cirencester, Further Barton* (VI). Sharp T, L and H storm at 11 a.m., and severe W. gale in afternoon and all night.—*Southport, Hesketh Park* (VIII). Whole gale from W.S.W. in the early afternoon.

APRIL.

2nd.—*Nutley Vicarage* (II). The R was much discoloured, and left a blackish deposit. Wind about N.W.—*Chelford, Astle Hall* (VIII). Heavy H storm.

8th.—*Castletown, The Clett* (XIX). Finely marked six-rayed lunar halo in the evening.

11th—14th.—*Llangyhanfal, Plas Draw* (XI). H and S.

11th—21st.—*Alford, Lynturk Manse* (XVII). S daily, except on 19th. This is very unusual.

12th.—*Abingdon, Culham College* (III). S and H.—*Chelford, Astle Hall* (VIII). Heavy S storm all morning from N.N.W.—*Thixendale* (IX). S and H storms.

12th and 13th.—*Oxford, Banbury Road* (III). H and S.—*Kington, Huntington Court* (VI). S and H storms.

12th—14th.—*Treherbert, Tyn-y-waun* (XI). H and S.

12th—18th.—*Dunrobin Castle* (XIX). S daily.

13th.—*Lower Penarth* (XI). N.W. gale, H and S storms.

In all parts of the country Easter Monday was memorable for cold, inclement weather, with heavy falls of S.

13th and 14th.—*Glencarron Lodge* (XVIII). Four inches of S.—*Miltown Malbay* (XX). H and S.

13th—18th.—*Brundall* (IV). S daily.

13th—21st.—*Crathes, Pinewood* (XVII). S on the ground; greatest depth two inches on 16th.

14th.—*Broughton-in-Furness* (VIII.) Heavy S storm, melting as it fell.—*Beltingham Vicarage* (X). S yielding .54 in.—*Dalry, The Old Garroch* (XII). Four inches of S.

14th and 15th.—*Aberdeen, Cranford* (XVII). Heavy fall of S.

14th—18th.—*W. Hartlepool, Bradgate* (X). S daily.

15th.—*Bamburgh* (X). S and H.

17th—19th.—*Abinger Hall* (II). Min. temp. 14°, 15° and 17° respectively.

24th—25th.—*Rousdon* (V). Continuous R from 9 p.m. on 24th to 9 p.m. on 25th.

25th—26th.—*North Cadbury Rectory* (V). From 9 p.m. on 25th to 6 p.m. on 26th 1.00 in. of R fell.—*Abbots Leigh* (V). In 24 hours 2.00 in. of R fell.—*Clifton, Pembroke Road* (VI). About 34 hours' continuous R.—*Stoke Bishop, Blagdon House* (VI). Continuous R for 36 hours.

27th—28th.—*Eskdale Vicarage* (X). The last remnants of S disappearing from Sca Fell.

29th.—*Chelford, Astle Hall* (VIII). Heavy TS at about 5 p.m.—*Meltham, Harewood Lodge* (IX). TS from 6 to 6.15 p.m.

30th.—*Knaresborough, Farnham* (IX). T and L.—*Paisley, Coats Observatory* (XIV). At 1.43 p.m. there was a remarkable storm of T and L, with a phenomenal fall of exceptionally large H, lasting for about 15 minutes.—*Cork, Wellesley Terrace* (XX). T and L.—*Mountrath, Ballyfin* (XXI). Heavy TS between 6 and 9 p.m.

MAY.

1st.—*Bishops Castle, Castle Street* (VI). TS and H.—*Southport, Hesketh Park* (VIII). T and L.—*Knaresborough, Farnham* (IX). T and L.

2nd.—*Thixendale* (IX). H storm, T and L.

3rd.—*Haslemere, Jesses* (II). R commenced at 2.30 a.m. and continued for 14 hours, amounting to 1.41 in. Very extensive floods in Godalming and other low-lying districts of the river Wey. The roads were under water at Chiddingfold, Dunsfold and neighbourhood in the evening.

4th.—*Didcot, Upton* (II). TS and heavy H.—*Swerford* (III). Very heavy T with vivid L from 6.15 to 6.50 p.m. in S. and S.E. At 7 p.m. the storm died away, and another appeared in the W. with a good deal of distant T until about 8 p.m.—*Combe Martin* (V). TS from 3.15 to 3.30 p.m., during which time .37 in. of R fell.—*Worcester, Boughton Park* (VI). Between 6.30 and 7 p.m. .40 in. of R fell in 20 minutes.—*Chelford, Astle Hall* (VIII). Floods out.

4th and 5th.—*Oxford, Banbury Road* (III). TSS.—*Stroud, Upfield* (VI). TSS.

4th—6th.—*Tenbury, Rochford* (VI). T and L.

4th—7th.—*Swerford* (III). T and L daily, with H on 7th.

5th.—*Swerford* (III). Very heavy TS with heavy R from 1.0 to 1.20 p.m., the claps being loud, frequent, and at times overhead. A good deal of distant T during the day.—*Pitsford, Sedgebrook* (III). Severe TS.—*Mears Ashby* (III). TS lasting between 2 and 3 hours, with 1.35 in. of R.—*Liskeard, Trevillis* (V). Between 11 a.m. and 2 p.m. .66 in. of R fell.—*Ross, Perrystone Court* (VI). In about 45 minutes 1.12 in. of R fell.—*Hereford, Burghill Court* (VI). In 10 minutes .15 in. of R was collected.—*Bishops Castle, Castle Street* (VI). TS and H.—*Oswestry, The Mount Res.* (VI). The heaviest R yet recorded, 2.00 in. falling and causing much flooding and damage. The storm commenced with R about mid-day, and from 2 to 4 p.m. it hailed heavily, raining again afterwards.—*Chelford, Astle Hall* (VIII). TS all the afternoon.—*Rochdale, Fieldhead* (VIII). In 15 minutes .40 in. of R fell.—*Oystermouth, Newton* (XI). TS.

6th.—*Cork, Wellesley Terrace* (XX.) T and L.—*Templeudigan, Ballindoney* (XXI). About half-a-mile away on the White Mountain a terrific rainstorm broke at 4 p.m., flooding houses and tearing up the roads, but no R fell at that hour here. No T was heard at the time.

7th.—*Maidenhead* (II). River in flood, overflowing the banks in some places.

8th.—*St. Pancras, Camden Square* (I). TSS.—*Stroud, Upfield* (VI). T and L all day, heavy 4 to 6 p.m.—*Haverfordwest, High Street* (XI). T and 1.15 in. of R.—*Welshpool, Leighton Hall* (XI). TS, and 1.00 in. of R; a tree was struck about 200 or 300 yards from the gauge.

8th and 9th.—*Clifton, Pembroke Road* (VI). TSS and H.—*Bristol, Fishponds* (VI). Tremendous but fortunately very local H storms. On 9th the fall, which only lasted slightly over 30 minutes, produced over an inch.—*Stoke Bishop, Blagdon House* (VI). Heavy TSS and much H.

9th.—*St. Pancras, Camden Square* (I). Heavy T and vivid L 3 to 4 p.m., during which time great darkness prevailed. Heavy R commenced about 4 p.m., .78 in. falling in about two hours. Temporary flooding was reported on several local railways.—*Sheppey, Leysdown* (II). TS and terrific H, .54 in., chiefly H, falling in about half-an-hour. For a time the fields and meadows were quite white.—*West Dean* (II). Heavy TS with H.—*Barnet, Hadley* (III). Sharp TS from 3.30 to 5 p.m.—*Winslow, Addington* (III). T and 1.01 in. of R.—*Swerford* (III). Heavy T and L from 3.15 to 4.30 p.m., and steady R from 5.30 to 8 p.m. measuring .42 in.—*Colchester, Lexden* (IV). TS about 6 miles away; this was very severe, with six inches of H.—*Bristol, Fishponds* (VI). TS, with practically an inch of R in 75 minutes from 9.30 to 10.45 a.m. The H fell with such force that traces will remain till autumn winds clear the trees of their leaves.—*Camden, Hidcote* (VI). TS and 1.29 in. of R.—*Worcester, Diglis Lock* (VI). Heavy TSS.

10th.—*Sturminster Marshall, Bailie House* (V). Heavy storm of H and R at 6 p.m., lasting half-an-hour, with .19 in. of R.

10th and 11th.—*Colchester, Lexden* (IV). In 26 hours 1.96 in. of R fell, causing the highest floods since 1894.

11th—12th.—*Fingringhoe* (IV). Continuous R for 22 hours, giving 2.51 in. This was of a local character, and largely confined to the valley of the Colne, which was in flood on 12th, whilst the Chelmer was not flooded.

12th.—*Abinger Hall* (II). Twelve degrees of frost; most disastrous to gooseberry crop.—*Sudbury, Friars Street* (IV). High floods on low-lying meadows.—*Spalding* (VII). As the result of the heavy R, a sheet of water extended from Spalding to Peakirk, a distance of 15 miles, with a width of from half to three-quarters of a mile. Cattle were grazing on this land a few days before, and such a flood had not occurred for 25 years.

14th and 15th.—*Castletown, The Clett* (XIX). Strong W.S.W. gale, with showers of H.

17th.—*St. Pancras, Camden Square* (I). TS.—*Pyrford Croft* (II). Violent TS.—*Ulcombe Place* (II). T, L and H at 0.45 p.m.—*Barnet, Hadley* (III). TSS at 11 a.m., and from 3.30 to 4.10 p.m.—*Broxbourne* (III). T, L and H.—*Highmore Vicarage* (III). TS and H.—*Pulham St. Mary* (IV). H storm of unprecedented violence.

27th and 28th.—*Ashburton, Druid* (V). TSS and H.

28th.—*Fulham, Edith Road* (I). Sharp TS at about 11.30 a.m.—*St. Pancras, Camden Square* (I). Heavy TS at midday.—*Richmond*

(II). Severe TS ; several trees struck in Richmond Park, and at Putney the hall attached to a church was struck and set on fire.—*Pyrford Croft* (II). Sharp TS.—*Windsor* (II). An elm on the Prince Consort's Farm near Frogmore was struck by L, which also killed three of the King's pedigree shorthorn cows.—*Ealing, Castle Bar Road* (III). In 30 minutes .38 in. of R fell.—*Farnham Royal* (III). Very severe TS, with .22 in. of R in 10 minutes. An oak tree was struck about 100 feet above this house, and all the bark was stripped off. In Burnham Beeches, two miles away, two trees were struck.—*Highmore Vicarage* (III). TS, H and heavy R.—*Culham* (III). In 20 minutes .63 in. of R fell.—*Culham College* (III). TS.—*Oxford, Magdalen College* (III). Heavy TS, 1.15 to 2 p.m.—*Oxford, Banbury Road* (III). TS ; .43 in. of R fell in half-an-hour.—*Swerford* (III). H, T and L.—*Banbury, Bloxham Grove* (III). T, H and 1.42 in. of R.—*Winterbourne Steepleton* (V). TS with H and R, total 1.06 in.—*Dorchester Water Works* (V). TS and 1.52 in. of R, of which 1.03 in. fell in less than an hour.—*Sturminster Marshall, Bailie House* (V). Heavy TS at 3 p.m. with .50 in. of R and some H in half-an-hour.—*Chedington Court* (V). Severe TS, lasting an hour-and-a-half, during which time .44 in. of R fell.—*Combe Raleigh* (V). Between 4.15 and 6.15 p.m. 1.28 in. of H and R fell in a TS.—*Redruth, Trewirgie* (V). In 20 minutes .23 in. of R fell.—*Landue* (V). Between 5.30 and 6.30 p.m. .55 in. of R fell in 40 minutes.—*Crewkerne, Merefield House* (V). Very severe TS between 3 and 5 p.m., during which 1.13 in. of R fell in an hour-and-a-half.—*Wellington, The Avenue* (V). Very violent TS and 1.09 in. of R.—*Campden, Hidcote* (VI). TS and 1.17 in. of R.—*Worcester, Diglis Lock* (VI). TS and 1.85 in. of R, 1.80 in. of which fell from 5.0 to 6.45 p.m.

28th and 29th.—*Clifton, Pembroke Road* (VI.) TSS.—*Kington, Huntington Court* (VI). TSS.—*Abergavenny, Dyne House* (XI). TS.

28th—30th.—*Cookham Vicarage* (II). T daily.

28th—31st.—*Stroud, Upfield* (VI). TSS.

29th.—*Tottingworth Park* (II). Terrific TS from 11.30 p.m. to 1.30 a.m. It appeared to centre in this locality, and an oak was split and two trees scorched.—*Swerford* (III). T and L all round from 1.30 to 5.30 p.m., with a tremendous clap right overhead at 3.40 p.m. R with a little H fell from 3.30 to about 4.30 p.m.—*Llanfrechfa Grange* (XI). Sharp TS at 10.30 p.m., and .95 in. of R.—*Broadford, Hurdles-town* (XX). Fine and cloudy till 5 p.m. It then became very dark to the S.E., from which point a low rumbling roar appeared to come, somewhat like what one hears from the traffic in a large city. Then

T, L and great R. The R began at 5.25 p.m. and ended at 5.45 p.m., during which time .80 in. fell. It ran down the sides of the hills in torrents. Every hollow in the ground was converted into a lake. All the drains were filled up at once, and were quite unable to take the water. The lower part of every house about here was flooded, and in one cottage a baby was nearly drowned in a cradle. The roads were all washed quite clean, and were torn up in some places. This storm was very local, since $2\frac{1}{2}$ miles southward from here on the road to Limerick the road was quite dry, with dust on it, and a man who was working a mile-and-a-half to the N.E. reported only a little mist there. A cow was killed near here by the L.

30th.*—*Fulham, Edith Road* (I). Tremendous TS. Much T from 2 p.m. Very heavy R from 4 to 5.30 p.m., with simultaneous L and T.—*Guildford, Newlands Corner* (II). Heavy TS.—*Wallington* (II). Heavy TS, during which 2.77 in. of R fell between 4.10 and 5.15 p.m.; .25 in. from 5.15 to 6.20 p.m., and .11 in. from 2 to 3 a.m. on 31st. The storm did an immense amount of damage, many cellars being filled and roads practically washed away.—*Croydon* (II). George Proctor, aged 27, and Henry Charles Ebsworth, aged 16, were killed by L while sheltering in an empty house. Ebsworth had just remarked how beautiful the L was, and asked if it killed people.—*Crowborough* (II). Severe TS.—*Barnet, Hadley* (III). Much heavy T and intense L from 2 to 6 p.m., and from 10 p.m. to 4 a.m. on 31st, but no measurable R.—*Slough, Upton* (III). "A ponderous steamy day." Violent TS with very passionate R from 1 to 2 p.m.; heavy R to 3 p.m., .37 in. falling in the two hours. The storm recurred more distantly from midnight to 3 a.m. on 31st, and .25 in. more was measured.—*Farnham Royal* (III). Severe TS, lasting till about midnight, with heavy R.—*Highmore Vicarage* (III). TS.—*Oxford, Magdalen College* (III). Terrific TS from 2.30 to 3.30 p.m.—*Oxford, Banbury Road* (III). Heavy TS, and .69 in. of R in an hour-and-three-quarters.—*Swerford* (III). H, T and L.—*Cork, Wellesley Terrace* (XX). In 45 minutes during the afternoon half-an-inch of R fell.

30th and 31st.—*St. Pancras, Camden Square* (I). TSS.—*Abinger Hall* (II). One of the most severe TSS of recent years began just after 11 p.m. on 30th and lasted without any break till 3 a.m. on 31st. Happily no damage was done in the immediate neighbourhood.—*Crowborough, Beechcroft* (II). Incessant T and L from 11 p.m. on 30th to 3 a.m. on 31st.

* See also *Met. Mag.* for June, 1903, pp. 78-80.

31st.—*Fullham, Edith Road* (I). Sharp TS at 2 a.m.—*Pyrford Croft* (II). Severe TS in the night.—*Wearhead* (X). TS ; .70 in. of R fell between 1.50 and 3.15 p.m.

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3rd.—*Maidstone, Linton Park* (II). Mean temp. 48°, or 1° lower than that of December 17th, 1902.

8th—15th.—*Henley, Greys* (III). Extraordinary R, measuring 5.20 in. in 8 days.

9th.—*Polapit Tamar* (V). Heavy TS with H.—*Truro, Killiow* (V). TS and 1.15 in. of R, of which .94 in. fell between 2.15 and 6.30 p.m.—*Crewkerne, Merefield House* (V). Heavy TS with H, 3 to 4 p.m.

9th and 10th.—*Campden, Hidcote* (VI). TSS.—*Kington, Gravel Hill* (VI). R 1.95 in. R commenced at about 5 a.m. on 10th and lasted about 20 hours, during which time it rained without any cessation, at times very heavily.

9th—11th.—*Cirencester, Further Barton* (VI). Incessant R for 36 hours.

10th.—*Barnet, Hadley* (III). T and L in N.E. from 2.45 to 4.30 p.m.—*Slough, Upton* (III). From noon to 1 p.m. .32 in. of R fell, and from 1 to 2 p.m. .26 in.—*Swerford* (III). Between 2 and 8.30 p.m. 1.04 in. of R fell. Distant T and L at about 4.30 p.m.—*Oulart, Wells* (XXI). Black R.

11th.—*Bedford, Milton Ernest* (III). In about an hour-and-a-half 2.77 in. of R were registered.

12th—17th.—*Datchworth Rectory* (III). R 5.10 in.

13th.—*Glen Andred [Groombridge]* (II). Fifteen hours of steady R, measuring 1.39 in.—*Ealing, Gordon Road* (III). In half-an-hour half-an-inch of R fell.—*Ealing, Castle Bar Road* (III). In 1 hour .47 in. of R fell.—*Slough, Upton* (III). TS and .37 in. of R from noon to 2 p.m.—*Islip* (III). R commenced at about noon, and continued steadily without cessation for 70 hours. The floods were most disastrous to hay and corn crops.—*Danbury Rectory* (IV). Beginning at 1 p.m. R fell continuously for 56 hours, when 3.89 in. were recorded.

13th—14th.—*Abingdon, Park Road* (II). Between 5 p.m. on 13th and 9 a.m. on 14th 1.55 in. of R fell.

13th—15th.—*Fullham, Edith Road* (I). R for 59½ consecutive hours, from noon on 13th to 11.30 p.m. on 15th. Total 3.09 in.—*St. Pancras, Camden Square* (I). R without ceasing from 1 p.m. on

13th till 11.30 p.m. on 15th, 58 hours, during which time 3.44 in. fell.—*Horsley, Woodcote Lodge* (II). R more or less for over 60 hours, 2.38 in. being registered.—*Hartley Wintney* (II). R began at about noon on 13th and ceased at about 6 a.m. on 15th, 1.74 in. falling in 66 hours.—*Cookham Vicarage* (II). In 72 hours 3.69 in. of R fell.—*Barnet, Hadley* (III). Extraordinary R. Between 11.30 a.m. on 13th and 11.30 p.m. on 15th 4.32 in. fell, of which 1.20 in. fell from 11.30 a.m. on 13th to 8 a.m. on 14th; 2.25 in. from 8 a.m. on 14th to 8 a.m. on 15th, and .87 in. from 8 a.m. to 11.30 p.m. on 15th. Very cold, and mostly N.E. wind.—*Farnham Royal, Broomlands* (III). R started at about 0.30 p.m. on 13th and did not leave off till 11.30 p.m. on 15th. Several roads in the neighbourhood were flooded, and the lawn here was covered with water.—*Amersham, The Plantation* (III). Steady and incessant R for 60 hours, measuring 3.35 in.—*Wendover, Halton Gardens* (III). Incessant R for 61 hours.—*Aylesbury, Oving House* (III). R commenced about noon on 13th and continued incessantly till midnight on 15th. From 9 a.m. on 14th to 6 a.m. on 15th 1.18 in. fell, and from 6 a.m. to 6 p.m. on 15th 1.20 in. The total for the 60 hours was 3.07 in.—*Luton* (III). Continuous R for about 60 hours, measuring 4.35 in.—*Cirencester, Further Barton* (VI). R hardly ceased.

13th—16th.—*Buckhurst Hill, Ardmore* (IV). Sixty hours' R, measuring 4.24 in.

13th—18th.—*Lea Bridge* (IV). On 13th, 14th and 15th there was about 52 hours' ceaseless R, and on 15th the Lea commenced to overflow, reached its maximum on 17th, and on 18th commenced to subside.

14th.—*Horncastle, Hemingby* (VII). Temp. $53^{\circ} \cdot 5$ or $2^{\circ} \cdot 7$ lower than on December 16th, 1902.

14th—16th.—*Goring, Elmcroft* (III). R 3.01 in. falling in 60 consecutive hours.—*East Ham* (IV). River Roding overflowed.

14th—20th.—*Wolverton, St. George's Vicarage* (III). Floods out.

15th.—*Oxford, Radcliffe Observatory* (III). During the 24 hours ending at 9 a.m. 2.01 in. of R fell, being equal to the average of the whole month of June for the 50 years 1841-90.

16th.—*St. Pancras, Camden Square* (I). T, L and H.—*Abingdon, Park Road* (II). During a TS .47 in. of R fell in 20 minutes.—*Lea Bridge* (IV). Extensive floods in the Lea Valley.—*Sudbury, Friars Street* (IV). Low-lying meadows and part of the town flooded.—*Harptree Court* (V). Heavy T and H storm.—*Bath* (V). Serious floods. TS, with very severe H.

16th—25th.—*Cookham Vicarage* (III). Floods on the Thames.

17th.—*Slough, Upton* (III). TS at 5 p.m., and .30 in. of R in 26 minutes.—*Waltham Abbey* (IV). Serious floods, swamping the Royal Gunpowder Factory and the Royal Small Arms Factory at Enfield, and causing all work to be suspended. At New Waltham letters had to be delivered by boat.

19th.—*Fulham, Edith Road* (I). Max. temp. $49^{\circ}7$, the only max. below 50° ever recorded in June.—*St. Pancras, Camden Square* (I). Shade max. $50^{\circ}8$ or $2^{\circ}7$ lower than the previous lowest value in June in 46 years.—*Maidstone, Linton Park* (II). Mean temp. 48° , or 1° lower than that of December 17th, 1902.—*Rhiwbryfdir* (XI). Earthquake at 10.10 a.m.—*Llanystumdwy, Talarvor* (XI). Earthquake from S.E. to N.W. at 10.10 a.m.—*Greystones, Knockdolian* (XXI). Slight shock of earthquake.

19th—20th.—*St. Pancras, Camden Square* (I.) Incessant R from 9.15 a.m. on 19th to 5.15 a.m. on the 20th, 20 hours, during which time 1.14 in. fell.

20th.—*Windsor* (II). The Thames rose to 4 ft. 2 in. above head-water level, producing a serious inundation of the low-lying ground.

21st.—*Witley, Fernside* (II). Colder by five or six degrees than Christmas Day, 1902.—*Eccleston* (VIII). Min. temp. 30° .—*Chester, Christleton Hall* (VIII). Destructive frost.—*Kirkby Lonsdale, Custerton* (X). Min. temp. 29° . Many potatoes and vegetables frozen.

24th.—*Kilkenny, Lavistown House* (XXI). TS and heavy R.—*Rathmines, Leinster Road* (XXI). In a TS .88 in. of R fell in 40 minutes.—*Ballinasloe* (XXII). During a TS .90 in. of R fell in one hour.

24th and 25th.—*Knaresborough, Farnham* (IX). TSS.

25th.—*Drumnadrochit* (XVIII). Two sharp TSS between 1 and 10 p.m.

26th—28th.—*Timolin* (XXI). R 2.15 in., 1.74 in. and 1.05 in.

28th.—*Colmonell* (XIV). T and L.

29th.—*Perth* (XVI). Severe TS, two buildings were struck and set on fire.—*Dundee* (XVI). TS.—*Aberdeen* (XVII). Sharp TS, beginning about 4 a.m.

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2nd.—*Penzance, St. Clare* (V). L and T.—*Dumfries* (XII). Severe TS at 7 p.m.—*Edinburgh* (XIII). TS at 8 p.m.—*Colmonell* (XIV).

T and L.—*Aberdeen* (XVII). Short and sharp TS at 10 p.m.—*Tuam, Gardenfield* (XXII). Great TS, during which a man and some sheep were killed. Extraordinary darkness for a quarter of an hour about 3 p.m. with very strong wind. Lamps had to be lighted.—*Burris-hoole House* (XXII). During a TS $\cdot 71$ in. of R fell in 40 minutes.—*Killybegs* (XXIII). TS, and $1\cdot 27$ in. of R.

3rd.—*Newcastle* (X). Terrific TS, doing some damage and destroying the electric light wires at the harbour.—*Miltown Malbay* (XX). TS, and $\cdot 93$ in. of R in one hour.

4th.—*Ryde, Beldornie Tower* (II). Absolute drought for 15 days ended.

5th.—*Emsworth, Redlands* (II). Absolute drought for 15 days ended.—*Altnaharra* (XIX). R $2\cdot 80$ in., falling mostly during the daytime. This seems to have been felt to the full extent at least all over the N. of Sutherland.

6th.—*Bolton, The Park* (VIII). Half gale from N.W., having a most disastrous effect on the foliage of trees. This was not due to frost, but to the saline matter carried in the air and deposited on the windward side of the trees, covering over the stomates of the leaves so that their function was destroyed. Such a phenomenon, with even more serious results, occurred in this district a little more than 50 years ago.—*Southport, Hesketh Park* (VIII). Whole gale from W.N.W.—*Liverpool* (VIII). Severe gale, causing considerable damage to property.

10th.—*Oxford, Banbury Road* (III). Absolute drought for 21 days ended.

11th.—*Rugby, Bilton Grange* (VI). Very violent storm, mostly of H, some of the stones approximating to the size of pigeons' eggs. In 12 minutes $\cdot 40$ in. of R fell.—*Leicester* (VII). TS after a very hot day.—*Leadenham Rectory* (VII). Very severe H storm, causing great damage.—*Horncastle, Hemingby* (VII). Sharp TS. A tree in the churchyard was struck.—*Newark* (VII). Severe H storm; in whole streets not one house escaped broken windows.—*Darley Hall* (VII). The storm only just touched this place. In half-an-hour $\cdot 45$ in. of R fell, with H stones three-quarters of an inch in diameter. It was very bad in Matlock and Bonsall.—*Southport, Hesketh Park* (VIII). Slight TS.—*Swinton* (IX). During a TS $\cdot 39$ in. of R fell between 4.39 and 4.45 p.m.—*Batley* (IX). A volunteer, while running to shelter after firing his round at the Howden Clough Rifle Butts, was struck by L and killed.

14th.—*Silloth* (X). R 2·88 in., all falling after 9 p.m.—*Timolin* (XXI). Two TSS, during one of which ·72 in. of R fell in 10 minutes. and in the other ·65 in. in 15 minutes. Very frequent T and vivid L.

14th—16th.—*Douglas, Woodville* (XI). R 2·30 in. in 50 hours.—*Riddell* (XII). Continuous R, measuring 2·24 in.

17th.—*Alton, Holybourne* (II). In about 2 hours ·95 in. of R fell.—*Oxford, Banbury Road* (III). Sharp TS with ·22 in. of R, nearly all of which fell between 2.10 and 2.40 p.m.—*Woburn, Milton Bryan* (III). In less than an hour ·51 in. of R fell.—*Ross, The Graig* (VI). In less than 30 minutes ·42 in. of R fell.—*Rugby, Bilton Grange* (VI). In 25 minutes ·50 in. of R fell.—*Rochdale, Fieldhead* (VIII). In 15 minutes ·21 in. of R fell.—*Cardiff* (XI). Severe TS. Two telephone linesmen, sheltering under a tree at Llanishen, were struck by L and seriously injured.

18th.—*Fulham, Edith Road* (I). TS and heavy R.—*St. Pancras, Camden Square* (I). Sharp TS at 3.45 a.m., during which ·87 in. of R fell in 17 minutes. Torrential R began again at 3.19 p.m.; the storm was practically over and there was dead calm at 3.45 p.m.—*Bisham Vicarage* (II). R to the amount of 2·24 in. fell mainly between 5.45 and 8.30 a.m. It was of tropical intensity, standing on the lawns, etc., in sheets. TS later in the day.—*Barnet, Hadley* (III). T and L from 2.15 to 4 p.m.—*Henley, Greys* (III). Remarkably heavy local R, when 1·02 in. fell in 40 minutes, whilst a mile away only ·15 in. fell.—*Highmore Vicarage* (III). TS.—*Leyton, Lea Bridge Road* (IV). In $28\frac{1}{2}$ minutes ·58 in. of R fell. The drains could not carry the water and roads and gardens were flooded and trains were stopped.—*Darsham, Sibton* (IV). Very heavy R from 9 a.m. till noon, during which time 1·10 in. of R fell, of which over 1·00 in. fell in 2 hours 30 mins.—*Verwood Manor* (V). No R before 5 p.m., but “damping” with some T. It then became quite black overhead and at 5 p.m. the storm began. At first there were a few big H stones, then R such as was never seen before. It lasted 30 minutes, during which time 1·25 in. fell. Bright sunshine 15 minutes after.—*Shroton* (V). Between 4.20 and 4.40 p.m. ·62 in. of R fell with T.—*Temple Combe Rectory*. (V). Violent storm of R and H, yielding ·79 in. in an hour and a half.—*Chipping Sodbury, Stanshaves Court* (VI). At 1 p.m. 1·55 in. of R was measured, of which it was estimated 1·50 in. fell in 45 minutes. The house and stable were flooded.—*Cirencester, Further Barton* (VI). Severe T, H, R and L. A tree was struck at an

adjoining house. From 0.20 to 1 p.m. .72 in. of **R** fell.—*Betley Hall* [*Creve*] (VI). Between 2.20 and 3.10 p.m. 2.53 in. of **R** were registered out of a fall of 2.92 in.—*Tenbury, Rochford* (VI). Exceptionally heavy and very local **TS** with **H** and 1.36 in. of **R**, of which 1.15 in. fell between 1.40 and 2.40 p.m.—*Welshpool, Leighton Hall* (XI). A very heavy **TS**, with much **H**, crossed the valley between here and Pool Quay. There was a great deal of damage by **L**, several cattle, sheep and trees were struck, but not within three miles of here.—*Llungyhanful, Plas Draw* (XI). **R** commenced at 9 a.m., increasing steadily until 11 a.m., when a heavy fall ensued for half an hour followed by a less violent fall at 2 p.m., both accompanied by distant **T**. **R** gradually lessened until 5 p.m., when 1.84 in. was measured.—*Templeudigon, Ballindoney* (XXI). Heavy **TS**. **R** began at 2.25 p.m., and at 4.15 p.m. .44 in. had fallen.

19th.*—*Farnham, Short Heath Lodge* (II). Severe **TS** between 4 and 6 p.m. with .64 in. of **R**, though over 3 inches fell within 4 or 5 miles of here. At Isington, about 5 miles distant, a party of seven people standing under a tree were all thrown down by **L** and one killed.—*Nutfield Priory* (II). Over an inch of **R** fell in an hour.—*Betchworth, The Holmes* (II). In 15 minutes .50 in. of **R** fell.—*Tonbridge, Primrose Hill* (II). During a heavy **TS** 2.80 in. of **R** fell between 1 and 4.30 p.m., of which 2.50 in. fell between 1 and 3 p.m. Nothing approaching this has occurred since July 11th, 1874, when 3 inches fell in 2 hours.—*Maidstone, St. Michael's Road* (II). **R** commenced at about 11.45 a.m., and from noon it rained in torrents. At 0.10 p.m. .38 in. was measured, of which .28 in., or probably more, fell in 10 minutes.—*Lynchmere, Shottermill* (II). **TS**, during which 1.20 in. of **R** fell in 35 minutes. A cottage not 200 yards distant was struck, and the chimneys thrown down and windows broken, but the people were not injured.—*Colmer Rectory* (II). **TS** yielding only .16 in. of **R**, whereas 4 miles away more than 3 inches fell.—*Alton, Holybourne* (II). **TS**, began at 3.45 p.m., and at 4.30 p.m. was over this village. Half-a-mile from here 8 sheep were struck. **R** began at about 4.45 p.m. and continued for a little over half-an-hour in torrents, equal to anything seen in the tropics. At one time heavy **H**. The **R** measured 1.27 in., of which quite 1.20 in. fell in less than 45 minutes.—*Shalden Manor* (II). In about an hour-and-a-half 3.21 in. of **R** fell, during which period for about 15 minutes it was quite fine. Very severe **T** and **L**; some cattle and many trees struck.—*Farnham*

* See also *Met. Mag.*, August, 1903, p. 113.

Royal (III). Slight TS.—*Swerford* (III). From 2 to 2.30 p.m. .47 in. of R fell.—*Combe Raleigh* (V). In a TS 1.72 in. of R fell between 3 and 5.20 p.m.—*Helston, Tenderah* (V). Between 2.20 and 2.45 p.m. .55 in. of R fell.—*Ilton Vicarage* (V). Between 1.30 and 2 p.m. .53 in. of R fell.

20th.—*Glen Andred [Groombridge]* (II). From noon to 0.30 p.m. .62 in. of R fell.

23rd.*—*Erith, Crossness* (II). Marshes flooded.—*Crowborough, Beechcroft* (II). R 2.64 in., of which .35 in. fell between 10.45 a.m. and noon, and 2.29 in. after 4.45 p.m.—*Crowborough, Renby Grange* (II). Phenomenal R of 3.14 in., without T.—*Glen Andred [Groombridge]* (II). Heavy showers in the morning, and R from 4.30 p.m. to 7.30 a.m. on 24th, the total amounting to 2.85 in.—*Broxbourne, Stafford House* (III). R 2.30 in., the heaviest fall recorded in 32 years' observations.—*Cambridge, Sidney Street* (III). Between 9 p.m. and 10 p.m. over an inch of R fell, and in 3 hours more than the average of a whole month. Total fall 2.45 in.—*Grays* (IV). Within 15 hours 2.93 in. of R fell.—*Lea Bridge* (IV). Extraordinary R. The total fall was 4.25 in., of which about 4 inches fell in 9 hours 55 mins., the maximum in one hour being 1.57 in.—*Epping, The Hemnalls* (IV). In 18 hours 3.08 in. of R fell.—*Dunmow, Bigods Hall* (IV). TS at 0.30 p.m. and 1.71 in. of R.—*Meltham, Harewood Lodge* (IX). In 9 min. 30 sec. from 5.45 to 5.54½ p.m., .23 in. of R fell.—*Forfar, Lilyfield* (XVI). In 10 minutes .36 in. of R fell.

23rd—24th.—*Tunbridge Wells, Etherton Hill* (II). In 14 hours, from 6 p.m. on 23rd to 8 a.m. on 24th, 2.58 in. of R fell.—*Maidstone, Barming* (II). From 5.30 p.m. on 23rd to 9 a.m. on 24th 2.15 in. of R fell.—*Lower Cousley Wood* (II). R measuring 2.89 in. fell between 6 p.m. and 8.30 a.m. Tropical fall from 7.30 to 9.30 p.m.—*Buntingford, Hamels Park* (III). Between 7 p.m. on 23rd and 9 a.m. on 24th 2.05 in. of R fell.—*Buckhurst Hill* (IV). Between 7 p.m. on 23rd and 7 a.m. on 24th 4.35 in. of R fell.—*Walsham-le-Willows* (IV). About 21 hours of almost continuous R.

24th—*Thixendale* (IX). Northern Lights seen.

25th.—*London* (I). Continuous rain, from 11 p.m. on 25th to noon on 26th, flooded the newspaper printing offices in Tudor Street, and prevented the publication of some of the Sunday papers.—*Watford, Weetwood* (III). TS with .75 in. of R.—*Maiden Newton, Cattistock*

* See also *Met. Mag.*, August, 1903, p. 114 ; and September, pp. 137, 138.

Lodge (V). TS during the night and 1·70 in. of R.—*Stroud, Upfield* (VI). TS and 1·25 in. of R, most of which fell between 3 and 4 p.m.

25th—26th.—*Emsworth, Redlands* (II). From 8 p.m. on 25th to 7 a.m. on 26th 1·05 in. of R fell.—*Stroud, Harescombe Grange* (VI). Very rough wind, followed by a tremendous TS between 2 and 2.30 a.m. on 26th.

26th.—*Barnet, Hadley* (III). Slight TS with ·30 in. of R between 4·45 and 5 p.m.—*Glastonbury, Wells Road* (V). In 20 minutes ·36 in. of R fell in a severe storm.—*King's Heath, Cambridge Road* (VI). In 1 min. 15 sec. ·11 in. of R fell.

27th.—*Alford, Lynturk Manse* (XVII). R began at 11 a.m., and was exceptionally heavy from about 11.35 a.m. to 0.40 p.m., during which time 1·50 in. is estimated to have fallen. This exceptionally heavy R was confined to the Vale of Alford, and between this place and the village of Alford roads were flooded. There was no T, but H fell.

29th.—*Fulham, Edith Road* (I). TS in the afternoon.—*Redhill, Oxford Road* (II). Heavy H with T and L at 6 p.m. House struck.—*Barnet, Hadley* (III). T and L.—*Highmore Vicarage* (III). TS and H.—*Swerford* (III). T, L and H.—*Burgh Castle Rectory* (IV). In one hour ·47 in. of R fell.—*Maiden Newton, Cattistock Lodge* (V). TS in the morning.—*Harptree Court* (V). Very heavy T and 1·20 in. of R.—*Cirencester, Further Barton* (VI). A succession of TSS from W. to E., from 11 a.m. till midnight.—*Silloth* (X). In 45 minutes ·34 in. of R fell.—*Oldcastle, Killeagh Rectory* (XXI). In an hour and a half 1·10 in. of R fell.

30th.—*Farnham Royal* (III). At noon ·46 in. of R fell in 20 minutes.

AUGUST.

1st.—*Swaffham* (IV). In about 15 minutes ·33 in. of R fell.

10th.—*Dover* (II). Severe TS about 3 a.m., in the course of which a terrific blast of wind struck the town, causing great destruction to property along a track of 2 miles in length, but only from 60 to 70 feet wide. Roofs were wrecked, scores of windows blown in, chimney pots hurled to the ground, and many large trees destroyed.—*Rochester, Hoo St. Mary* (II). Sharp TS at about 3 o'clock, lasting about 15 minutes and coming from the N.W. The L struck a fine oak tree about a mile and a half from here, stripping all the bark off

and splitting the tree. — *Barnet, Hadley* (III). Sharp TS in the afternoon. — *Farnham Royal* (III). In 10 minutes ·18 in. of R fell.

11th—12th. — *Burgh Castle Rectory* (IV). From 4 p.m. on 11th to 9 a.m. on 12th 1·33 in. of R fell.

12th. — *Keith, Grange* (XVII). Violent H storm from 4 to 4.15 p.m., many of the hailstones being lumps of ice an inch in length and as thick as one's finger.

13th. — *Forfar, Lilyfield* (XVI). In 15 minutes ·44 in. of R fell.

14th. — *Hope-under-Dinmore, Hampton Court* (VI). H fell for about 3 minutes, the stones being as large as filberts. — *Bromfield Vicarage* (VI). In less than 15 minutes ·30 in. of R fell. — *Northwich* (VIII). Two Irish labourers took shelter under a tree at Plumbley during a TS. The tree was struck by L and one of the men killed. — *Manchester* (VIII). Three men were working on the roof of a new house at Failsworth when it was struck by L; two of the men were killed and the third seriously injured. — *Rochdale, Fieldhead* (VIII). In 15 minutes ·12 in. of R fell, and in 24 minutes ·46 in. — *Meltham, Harwood Lodge* (IX). TS from 4 to 4.30 p.m. — *Knaresborough, Farnham* (IX). T and L; constant L at night. — *Thixendale* (IX). T and L. — *Abergavenny, Dyne House* (XI). TS. — *Burrishoole House* (XXII). During a TS ·57 in. of R fell in 25 minutes. — *Killybegs* (XXIII). TS.

15th. — *Oystermouth, Newton* (XI). Almost a hurricane, doing much damage to trees and houses. — *Glencarron Lodge* (XVIII). T, L and H. — *Altnaharra* (XIX). An exceptional downpour of R was experienced in a narrow strip running for 10 miles along Loch and River Naver, in the neighbourhood and within 200 yards of the gauge. Nothing like it has been seen within 20 years in the locality. — *Kirkwall* (XIX). Severe TS, during which the cross on the Episcopal Church was struck and some damage done to the building.

17th. — *Rochdale, Fieldhead* (VIII). — In 10 minutes ·12 in. of R fell.

18th. — *Rousdon* (V). About 5 p.m. ·50 in. of R fell in 30 minutes. — *Chester, Christleton Hall* (VIII). In 40 minutes ·64 in. of R fell. — *Templeudigan, Ballindoney* (XXI). In 25 minutes ·28 in. of R fell. — *Kilkenny, Sion Villa* (XXI). T and H. — *Bagnalstown, Fenagh House* (XXI). In one hour ·77 in. of R fell. — *Rathmines, Leinster Road* (XXI). TS. — *Ballybrack, Streamville* (XXI). From 2.30 to 4.30 p.m. 1·60 in. of R fell out of a total of 1·67 in., the greatest in 25 years. It was quite local; there was one brilliant flash of L, followed instantaneously by loud T.

19th. — *Rochford* (VI). Severe TS. A farmer was killed by L

while sheltering under a tree.—*Templeudigan, Ballindoney* (XXI). In 8 minutes at 11.30 a.m. .10 in. of R fell.

20th.—*Dundee, Balruddery* (XVI). Heavy TS with H stones the size of marbles, which cut plants to pieces and did great damage to all vegetation.

24th.*—*Cranleigh Common, Homefield Cottage* (II). R 2.24 in., the heaviest fall in 24 hours during 14 years' observations. The heaviest portion fell between 2 and 5 p.m. and flooded the village roads.—*Ewhurst, Coneyhurst* (II). Between noon and 5 p.m. 1.71 in. of R fell.—*Abinger Hall* (II). From 9 a.m. to 5 p.m. 1.62 in. of R fell out of a total of 1.98 in.—*Newlands Corner* (II). R 1.69 in., of which .50 in. fell between 6.30 and 7.30 p.m.—*Horsley, Woodcote Lodge* (II). Of 2.20 in. of R 2.00 in. fell in 12 hours.—*Chilgrove* (II). Between 1 and 3 p.m. .84 in. of R fell.—*Emsworth, Redlands* (II). R 1.32 in., of which 1.02 in. fell from 1.25 to 2.20 p.m.—*Wooton, Fernhill* (II). In one hour and a quarter 1.25 in. of R fell, the heaviest R ever recorded here.—*Watford, Weetwood* (III). TS with .55 in. of R.—*Nottingham, Talbot Street* (VII). Long and violent storm with remarkable R, commencing at about 6.30 p.m.—*Rathmines, Leinster Road* (XXI). TS.

24th—25th.—*Kington, Gravel Hill* (VI). The heaviest R yet recorded in 24 hours. From 9 a.m. to 7 p.m. on 24th 1.09 in. fell, and from 7 p.m. on 24th to 9 a.m. on 25th 1.04 in.—*Horncastle, Bucknall* (VII). R from noon on 24th to 10 a.m. on 25th, during which time 1.11 in. fell.

25th.—*Chippenham* (V). Slaughterford, a village lying in a deep valley, was struck by a whirlwind about 0.30 p.m.; large trees were uprooted, houses stripped of their tiles, windows broken and sheaves of corn carried high in the air.

SEPTEMBER.

1st and 2nd.—*Combe Martin* (V). Between 9 p.m. on 1st and 9 a.m. on 2nd 1.01 in. of R fell.

2nd.—*Blisworth, Grafton House* (III). From 2.25 to 2.35 p.m. .16 in. of R fell, and from 6.50 to 7.10 p.m. .30 in.—*Meltham, Harewood Lodge* (IX). TS from 10 to 11 p.m.—*Knaresborough, Farnham* (IX). T and L.

4th.*—*Fulham, Edith Road* (I). Very heavy TS with vivid L and

* See also *Met. Mag.*, September, 1903, p. 138.

torrents of R from about 6.45 to 10 p.m. Trains on the District Railway were much retarded by the flooding of parts of the line.—*St. Pancras, Camden Square* (I). TS of considerable severity, lasting from 6.45 to 10 p.m., with violent T and L, and 1.06 in. of R.—*Witley, Fernside* (II). Severe TS, lasting from 5 to 8.30 p.m., with 1.80 in. of R.—*Ewhurst, Coneyhurst* (II). Between 5.45 and 9.40 p.m. 1.85 in. of R fell.—*Redhill, Oxford Road* (II). T and L from 6.20 to 8.30 p.m.—*Wallington* (II). TS between 6 and 8 p.m., and 1.25 in. of R.—*Ulcombe Place* (II). In about 45 minutes between 8 and 9 p.m. 1.00 in. of R fell.—*Sheppey, Leysdown* (II). During a TS .92 in. of R fell in about an hour.—*West Bournemouth* (II). TS, during which 2.37 in. of R fell, the largest amount in 24 hours during 20 years.—*Funtington* (II). Tremendous TS, when 2.60 in. of R fell between 5 p.m. and 9 p.m.—*Chilgrove* (II). Between 5 and 9 p.m. 2.85 in. of R fell.—*Midhurst, Borden Wood* (II). Vivid L and T with 2.08 in. of R beginning at 5.45 p.m.—*Portsmouth, Milton* (II). H and heavy TS at 6 p.m.—*Ealing, Gordon Road* (III). R 1.61 in. in an hour-and-a-half, with flooding.—*Watford, Weetwood* (III). TS, with .48 in. of R.—*Barnet, Hadley* (III). Sharp TS at night with 1.47 in. of R, all falling between 6.40 and 9.50 p.m.—*Furnham Royal* (III). TS at night with heavy R.—*Newmarket* (III). Severe TS. A hurdlemaker at Statchworth was killed by L while walking with a friend.—*Colchester, Lexden* (IV). Very severe gale, and many trees and branches blown down.—*Little Saxham* (IV). TS.

4th—5th.—*Midhurst, Borden Wood* (II). From 5 p.m. on 4th to 9 a.m. on 5th 2.08 in. of R fell. The fall was quite tropical in character between 7.45 and 8.30 p.m. after the thundercloud had passed. From 6 to 7.30 p.m. this place appeared to be near the centre of a TS, and the display of sheet L was one of the most magnificent ever seen in or out of England.

5th.—*Chelford, Astle Hall* (VIII). In 15 minutes .17 in. of R fell.

9th.—*Broxbourne, Stafford House* (III). R 1.85 in., of which 1.75 in. fell between 7 and 10 p.m.

10th.*—*Fulham, Edith Road* (I). Very destructive and violent S.W. gale at night. Bar. fell 1 inch in 12 hours.—*Chiddingfold, Beaconsroft* (II). A furious sudden gale did much damage.—*Witley, Fernside* (II). A hurricane uprooted many trees and did other damage.—*Beigate, Holmfels* (II). Between 9 a.m. and 10.30 p.m. the bar. fell 1.175 in.—*Wimbledon, Park View* (II). Great gale, which from

* See also *Met. Mag.*, October, 1903, p. 159.

ordinary gale force from S.W. veered to N.W. and blew a hurricane, in which damage occurred; all the trees uprooted falling from the N.W.—*Lewes, Saxonbury* (II). S. gale. Bar. fell 1·03 in. in 24 hours.—*Hastings, Guestling Rectory* (II). A severe storm did much damage both by the sea and inland. At Hastings about forty bathing machines were destroyed, and other damage was done, while inland the hops were much injured by the very high wind.—*Christchurch, Winkton Lodge* (II). Heavy gale from S.W., when the bar. fell ·80 in. during the day.—*Barnet, Hadley* (III). Severe gale from S.S.W. to N.W.—*Winslow, Addington* (III). Destructive gale, the wind being very high all night, uprooting some large trees and tearing off branches. The bar. fell more than an inch between 9 a.m. and 10 p.m.—*Swerford* (III). The bar. fell from 29·931 in. at 9 a.m. to 28·933 in. at 9.30 p.m.—*Blisworth, Grafton House* (III). Extraordinarily strong W. gales, and many trees blown down.—*Brundall* (IV). Violent gale and torrential R. in evening and night, measuring 1·95 in.—*Broadchalke Vicarage* (V). Great gale and much damage done.—*Salisbury, Alderbury* (V). The bar. fell from 29·80 in. to 28·77 in. Great storm from 5 p.m.; many trees blown down, but it was chiefly remarkable for the large number of branches twisted off.—*Poole, Parkstone* (V). Terrible gale; much damage done.—*Chedington Court* (V). Terrific gale from S.W. lasting over 12 hours.—*Wimborne Minster, Chalbury* (V). A hurricane did considerable damage.—*Shroton* (V). Heavy S.W. gale. The bar. fell ·80 in. between 1 p.m. and 7 p.m.—*Tavistock, Whitchurch* (V). Heavy gale from W.N.W., doing much damage and scorching vegetation.—*Crewkerne, Merefield House* (V). Severe gale at night doing much damage to crops and trees. In 12 hours the bar. fell from 30·01 in. to 29·00 in.—*Wellington, The Avenue* (V). Violent gale, doing considerable damage.—*Frome, Orchardleigh* (V). Sudden and severe gale.—*Harptree Court* (V). Very rough winds did a considerable amount of damage in this district.—*Combe Martin* (V). Strong gale, with peculiar blighting effects from salt-laden wind, extending 10 miles inland.—*Chester, Rutland Cottage* (VIII). At 9 a.m. the bar. reading was 29·879 in. and at 9 p.m. 28·843 in. The wind was from W. and very light, and at 9 p.m. there was a perfect calm, and not a leaf moved. At 9.30 p.m. the bar. began to rise, and at 10 p.m. the wind blew in heavy gusts from S. for a couple of hours and then died down.—*Southport* (VIII.) Strong gale and torrential R. coinciding with the meetings of the International Meteorological Committee and the British Association for

the Advancement of Science.—*Broughton-in-Furness* (VIII). Floods out in low-lying places, to a depth rarely seen.—*Caldecot Level, Porton* (XI). A gale from S.W. exerted a pressure of 45 lbs. on the square foot, equal to a velocity of 96 miles per hour.—*Carmarthen, The Friary* (XI). Great storm of wind and R commenced at 2 p.m.—*Pembroke Dock, County School* (XI). About 6 p.m. a terrific gale sprang up, doing much damage to boats in the Haven. The trees and foliage were blasted by the salt in the wind, and the leaves turned brown in a day or two, spoiling the autumn tints.—*Miltown Malbay* (XX). Hurricane, lasting with damaging force for 15 minutes.—*Templeudigan, Ballindoney* (XXI). At 5.30 p.m. a terrific cyclone from N. sprang up, tearing up large trees and damaging others by breaking off huge boughs in all directions. It lasted about $1\frac{1}{2}$ hours.—*Timolin* (XXI). Violent storm and great destruction. Many trees and much hay lost.—*Rathmines, Leinster Road* (XXI). Sudden fall of bar. from 30.10 in. to 28.88 in. during a short but severe N. gale.—*Ballinasloe* (XXII). R all day, amounting to 1.69 in., of which 1.49 in. fell in 5 hours.—*Westport, Murrisk Abbey* (XXII). R 1.42 in., of which 1.27 in. fell between 9 a.m. and 2 p.m., causing floods in the mountain streams.—*Westport, St. Helens* (XXII). R 1.43 in., of which 1.17 in. fell between 9 a.m. and 3 p.m.

10th—11th.—*Burgh Castle Rectory* (IV). From 4 p.m. on 10th to 8 a.m. on 11th 1.06 in. of R fell.—*Altarnon* (V). A shrivelling gale laid the standing corn, and machine cutting was impossible.—*Westonsuper-Mare, Beaufort Road* (V). Very severe gale, which did much damage to the pier, esplanade and private houses.—*Cirencester, Further Barton* (VI). S.W. wind, rising to a heavy gale in the evening. Lull at 11 p.m., and then a furious gale from N. for 2 hours.—*Stroud, Upfield* (VI). Great gale from S.E., S. and S.W. from 5 p.m. on 10th till 1 a.m. on 11th. Great elm trees were blown down and the ground strewn with branches.—*Hereford, Burghill Court* (VI). Great storm from N.W., when the bar. fell from 29.60 in. at noon on 10th to 28.50 in. at midnight, and then rose rapidly. At 11 p.m. there was no wind; at 11.30 the storm was at its worst. Trees were blown down all over the county.—*Church Stretton, Woolstaston* (VI). Severe gale, rising to a hurricane.

11th.—*Chelford, Astle Hall* (VIII). TS and heavy R.

12th.—*Barnet, Hadley* (III). T and L in N.W. at 5.30 p.m.—*Eskdale* (X). Northern lights seen about 9 p.m.

13th.—*Chipping Sodbury, The Ridge* (VI). At 2 p.m. .21 in. of H and R fell in 13 minutes.

14th and 15th.—*Wester Elchies School* (XVII). Frost blackened potatoes and injured grain in some districts.

24th.*—*Rousdon* (V). In half-an-hour $\cdot 30$ in. of R fell.—*Cirencester, Further Barton* (VI). Terrific T, L, R and H from 3.30 to 6 p.m., $\cdot 82$ in. of R falling in 19 minutes. The centre of the storm was one mile E., and it travelled from S.E. to N.N.W.—*Chelford, Astle Hall* (VIII). TS from 9 to 11 p.m.—*Crickhowell, Gwernvale* (XI). In 2 hours 10 mins. $2\cdot 17$ in. of R fell, and in 24 hours $3\cdot 00$ in.

25th.—*Liskeard, Oak Park* (V). TS at night. The rain-water was found to be cloudy, and appeared as if milk or flour was mixed with it.

27th.—*Rochdale, Fieldhead* (VIII). In 10 minutes $\cdot 10$ in. of R fell.

29th.—*Waterford, Brook Lodge* (XX). Common primroses were seen in bloom.

OCTOBER.

2nd.—*Farnham Royal* (III). In 15 minutes $\cdot 16$ in. of R fell.—*Crathes, Pinewood* (XVII). TS and H.

4th.—*Lymmouth, Rock House* (V). Between 9 a.m. and 5 p.m. $1\cdot 30$ in. of R fell.

5th.—*London* (I). H storm about noon doing some damage in the parks and southern suburbs.—*Abingdon, Culham College* (III). Heavy H storm at about 2 p.m.

6th.—*Stroud, Upfield* (VI). Great S.W. gale from 5 p.m. to 6 p.m.—*Worcester* (VI). Severe gale. At Kempsey a woman was killed by a tree being blown down.—*Southport, Hesketh Park* (VIII). Whole gale, veering from S.W. to W., at night.

6th—8th.—*Middlesbrough, Ormesby* (IX). Gales from S. to S.S.E. on 6th, S. on 7th and S.E. to E. on 8th, accompanied by $2\cdot 81$ in. of R.—*Newcastle* (X). Severe gales, causing the interruption of telegraphic communication, and intense R giving rise to floods. The total fall for 24 hours measured at 9 a.m. on 9th was $3\cdot 66$ in.

8th.—*Tottingworth Park* (II). TS, lasting an hour and doing much damage to roads and paths. R $\cdot 72$ in.—*Botley Hill* (II). Between 6.30 and 7.30 p.m. there fell about $1\cdot 05$ in. of R. All the drain-pipes overflowed and many houses were flooded.—*Wolsingham* (X). R $2\cdot 28$ in., falling very rapidly during the night. A great deal of damage was done in the county of Durham.—*Stonykirk, Ardwell*

* See also *Met. Mag.*, October, 1903, p. 161.

House (XII). R 3·17 in. in 13 hours, the heaviest fall since the erection of the gauge in January, 1879.

8th—9th.—*Middlesbrough, Ormesby* (IX). In 12 hours on the 8th 1·95 in. fell, and from 9 a.m. on 8th to 9 p.m. on 9th 2·43 in.—*Sunderland, W. Hendon House* (X). Incessant R for about 35 hours up to 4.30 p.m. on 9th, during which time 3·47 in. fell.

8th—10th.—*Whitby, Royal Crescent* (IX). Remarkably heavy R. Commencing early on the morning of the 8th it continued incessantly for 36 hours, though with varying intensity.—*Newcastle* (X). Long-continued rain led to serious flooding.

11th.—*Droxford* (II). Between 9 a.m. and 1 p.m. 1·20 in. of R fell.—*Grayscott* (II). R 2·18 in., of which 1·52 in. fell between 9 a.m. and 5 p.m.—*Colchester, Lexden* (IV). R 1·01 in. falling in 12 hours.—*Liskeard, Trevillis* (V). From 3.30 p.m. ·45 in. of R fell in 40 minutes.

12th.—*Lea Bridge* (IV). Leyton Marsh flooded.—*Knaresborough, Farnham* (IX). T and L.

13th.—*Maidenhead* (II). The river overflowed its banks, and many acres of land were flooded. Swans were swimming amongst the flower-beds on the riverside lawns.—*Middlesbrough, Ormesby* (IX). H and T.—*Eskdale* (X). T, L and H storm.—*Risca* (XI). Weakened by the heavy R, twelve arches of a massive stone viaduct 40 feet high, no longer in use, collapsed.

13th—15th.—*Hitchin, The Chilterns* (III). R 4·26 in. in 3 days.

14th.—*Harptree Court* (V). Between 9.14 and 9.17 a.m. ·11 in. of R fell.—*Stoke Bishop, Blaydon House* (VI). Much L and H.—*King's Heath, Cambridge Road* (VI). In 3 minutes ·22 in. of R fell, and in 1 hour ·50 in.—*Swansea, Glanmor Crescent* (XI). TS and 1·14 in. of R.—*Balquhidder, Stronvar* (XVI). R 1·68 in. falling in 13 hours.

15th.—*Maiden Newton, Cattistock Lodge* (V). TS between 1 and 2 p.m.—*Penzance, St. Clare* (V). L, T and H.—*Southport, Hesketh Park* (VIII). TS.

16th.—*Emsworth, Redlands* (II). T, L, H and R.

21st.—*Tottingworth Park* (II). In an hour ·48 in. of R fell.

22nd.—*Botley Hill* (II). Violent H shower, the stones of which were of most curious shapes and more than half-an-inch in diameter.

25th.—*Christchurch, Winkton Lodge* (II). Very sudden TS lasting only a few minutes. The storm seemed to be overhead, but no damage was done in the neighbourhood.—*Wendover, Halton Gardens* (III). Heavy TS at night accompanied by terrific L and R.—*Abingdon, Culham College* (III). TS and very vivid L at night.—*Banbury, Adder-*

bury (III). Curious hurricane at 8.20 p.m., after some T and L in the afternoon. The full force only lasted 4 or 5 minutes, during which 15 large timber trees were uprooted in one field. The track of the gust of wind seems to have been only 300 or 400 yards wide, and in this immediate neighbourhood only about a mile in length.—*Blisworth, Grafton House* (III). Two great storms, from 1.45 to 2.45 p.m., with .60 in. of R, and from 8 to 9.30 p.m., each accompanied by strong wind, T and vivid L.—*Maiden Newton, Cattistock Lodge* (V). TS between 6 and 6.30 p.m.—*Sturminster Marshall, Bailie House* (V). Heavy storm at 7 p.m., with brilliant sheet L and some T.—*Wimborne Minster, Chalbury* (V). About 7.25 p.m. there was a strong whirlwind, which travelled from Wareham by way of Kingston Lacey, Stour, Stanbridge, Uppington and the edge of the parish, going on to Horton, Woodlands, &c. In Gaunts Park the devastation was estimated at nearly £1000. It broke off the top of the finest oak on the Glebe, ripped out of the ground 50 yards of hedge, and at Horton overthrew 8 handsome elms. Nowhere did the breadth of the path of the storm exceed 100 yards.—*Bristol, Coronation Road* (V). In the morning .40 in. of R fell in 45 minutes, and at its maximum the fall must have exceeded .02 in. per minute.—*Hoyland, King Street* (IX). Earthquake shock at 11 p.m.

26th.—*Dunmow, Bigods Hall* (IV). Storm of wind and R during the night and river Chelmer in flood. TS in afternoon.

27th.—*Eastbury* (III). Most terrific downpour during the night, measuring .92 in.—*Farnham Royal* (III). R 1.06 in., falling in 17 hours. The lawn was flooded for the second time.—*Hartland Abbey* (V). R 1.95 in. Heavy floods, greater than known before in this district.—*Abbotsham, Riccard's Down* (V). After the R, which measured 1.55 in. between 9 a.m. and 1 p.m., it was estimated that the damage to the roads in the Bideford district alone was £4000, an average of £1000 per hour.—*St. Austell, Trevarna* (V). Between 9 a.m. and 11.30 a.m. 2 in. of R fell. Great damage was done by floods and many bridges were washed away.—*Liskeard, Oak Park* (V). Between 9 a.m. and 2 p.m. 1.52 in. of R fell.—*Liskeard, Trevillis* (V). From 8 a.m. to 2 p.m. 1.64 in. of R fell.—*Bude* (V). The R, 1.96 in. in a few hours, caused the heaviest flood ever known at Bude, and the damage to property was estimated at over £1000.—*Oswestry, The Mount Reservoir* (VI). R 1.92 in., causing flooding of watercourses.—*Chelford, Astle Hall* (VIII). R 1.46 in., causing floods.—*Briton Ferry* (XI). In 5 hours 1.14 in. of R fell.—*Knighton, Ystrud House*

(XI). Extensive flooding in the Teme Valley after the heavy R of this day.—*Wrexham* (XI). R 2·60 in., nearly the whole of which fell in 4 hours in a veritable cloud-burst, which scoured out brooks and streams, lowering the beds in many places from 4 to 5 feet.—*Aberdeen, Cranford* (XVII). Low-lying grounds both on the Dee and Don were covered with water 12 to 14 inches deep, and corn-sheaves were washed out to sea.—*Templeudigan, Ballindoney* (XXI). In 21 minutes, from 9.20 to 9.41 a.m., ·27 in. of R fell.

27th and 28th.—*Alford, Lynturk Manse* (XVII). R began at 7 a.m. on 27th and continued about 24 hours, 2·08 in. falling in that time.

31st.—*Maidenhead* (II). Great floods. Bridge Road was under water, and all roads leading to the river were impassable. The Thames Side post office, being inaccessible, was closed.

NOVEMBER.

4th.—*Kilkenny, Sion Villa* (XXI). Very dense fog from 5 p.m. till night.

6th—7th.—*Liverpool* (VIII). Thick fog on the Mersey, giving rise to several accidents.

7th.—*Leeds* (IX). Dense fog, impeding traffic.—*Newcastle* (X). Thick fog, interrupting traffic on the river.

12th.—*Kilkenny, Sion Villa* (XXI). Torrents of R. In two-and-a-half hours ending at 0.30 p.m. ·37 in. fell.

21st.—*London* (I). Severe gale.—*Blisworth, Grafton House* (III). Terrific W. gale.—*Birmingham* (VI). Strong gale, doing much damage to property. Nearly 30 people received hospital treatment for injuries due to falling masonry.—*Coventry* (VI). Severe gale. A boy was killed by a falling chimney pot.—*Thixendale* (IX). Strong gale, blowing down trees.—*Sheffield* (IX). Great gale, doing much damage to property in the town and neighbourhood.

24th—30th.—*Alford, Lynturk Manse* (XVII). S daily, about 3 inches falling on 26th. Depth on 30th 5 inches.—*Altnaharra* (XIX). S falling daily.

27th.—*Reigate, Holmfels* (II). The bar. fell 1·350 in. during the day, with 1·71 in. of R.—*Lewes, Saxonbury* (II). Bar. fell 1·00 in. in 24 hours, with heavy R.—*Chelford, Astle Hall* (VIII). The country flooded.

27th—28th.—*Reigate, Northcote* (II). From 7 a.m. on 27th to 7 a.m. on 28th 1·68 in. of R fell.

28th.—*Dollar, Academy* (XVI). Three inches of S.

29th.—*Marlow* (III). More than an inch of rain in 24 hours caused a renewal of the floods.

30th.—*Tenterden* (II). Heavy fall of S.—*Horncastle, Bucknall* (VII). One inch of S.

DECEMBER.

2nd.—*Princetown* (V). A man who had lost his way on Dartmoor was found frozen to death.

3rd.—*Meltham, Harewood Lodge* (IX). Severe gale with heavy R till 9 p.m. ; .97 in. fell between 1 p.m. and 7 p.m.

4th.—*Polapit Tamar* (V). Heavy H at 9 p.m. —*Southport, Hesketh Park* (VIII). Slight TS.

5th.—*Wimbledon, Park View* (II). Fog. From 1 p.m. to 8 p.m. the house was invisible at 8 yards.—*Southampton* (II). Thick fog caused much delay to shipping.

5th and 6th.—*Dunmow, Bigods Hall* (IV). Silver thaw, lasting two days ; the ground under trees being covered with large ice-flakes.

7th —*Perth* (XVI). Severe S storm over central and western Perthshire ; S lying 5 to 6 inches deep in places.

12th and 13th.—*Combe Raleigh* (V). Between 9 a.m. on 12th and 6 p.m. on 13th 2.93 in. of R fell.

19th.—*Kilkenny, Sion Villa* (XXI). Dense fog from 4 p.m. till night.

22nd.—*Templeudigan, Ballindoney* (XXI). R till 7 p.m., at which time it had rained without ceasing for 38 hours.

24th.—*Greenock* (XIV). Dense fog on the Clyde, putting a stop to traffic.

31st.—*Southport, Hesketh Park* (VIII). Ice on the lake 1.1 in. thick.

OBSERVERS' NOTES ON THE MONTHS.

JANUARY.*

ENGLAND.

I. LONDON.—*St. Pancras, Camden Square.* In spite of a week of severe frost ending on the 17th, it was as a whole remarkably mild. Mean temp. $40^{\circ}\cdot8$, or $2^{\circ}\cdot7$ above the average. Unsettled weather, and, except during the frost, R was fairly frequent. Thick fog with great darkness at times on 18th, 20th and 21st.

II. SOUTH EASTERN COUNTIES.—*Nutfield Priory.* Warm and wet. Very mild till 15th, when there was a cold snap. Slight S on 11th, 12th and 13th.—*Wallington.* From 1st to 10th was warm; from 11th to 18th cold, and from 19th to 31st again warm. It was wet with the exception of the cold week. R $\cdot41$ in. above the average. Mean temp. $40^{\circ}\cdot8$, or $3^{\circ}\cdot0$ above the average. Duration of sunshine $54\cdot3$ hours, being $12\cdot1$ above the average, and 21 per cent. of the possible amount.—*Lewes, Saxonbury.* Mild, with fog, mist and R. Frost from 11th to 17th, and S on 11th and 12th. S.W. gale on 5th.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill.* R $\cdot12$ in. below the average of 29 years.—*Farnham Royal.* Rather high temp., the mean being 42° . R about the average. Prevailing wind S.W.—*Winslow, Addington.* From 1st to 10th the max. temp. was rather high; from 11th to 17th very low, with sharp frost.—*Pitsford, Sedgebrook.* R $\cdot33$ in. above the average. Mean temp. $37^{\circ}\cdot9$.

IV. EASTERN COUNTIES.—*Ipswich, Copdock.* Featureless, excepting the TS on 3rd. Mild, except from 11th to 17th, but very little sun. Mean temp. $39^{\circ}\cdot9$.—*Rendlesham Hall.* Strong S.W. winds generally. Hard frost from 11th to 18th, with N.E. to S.E. winds.—*Bury St. Edmunds, Westley.* Mild and windy. Southerly winds on 27 days.

V. SOUTH WESTERN COUNTIES.—*Tavistock, Whitchurch.* Warm, windy and wet. R or S fell on every day except 12th and 14th. The

* See also *Met. Mag.*, February, 1903, p. 18.

mean daily temp. ranged from $50^{\circ}\cdot8$ on 5th to $26^{\circ}\cdot0$ on 14th, the latter being the lowest since February, 1895. S.E. and W. winds prevailed.—*Okehampton, Oaklands*. Mild but very wet.—*Harptree Court*. R 1·93 in. above the average of 20 years.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop, Blagdon House*. A month of abnormal extremes of temp. The R was excessive.—*Cirencester, Further Barton*. Rough and wet, though with no severe gales. An exceptionally cold, dry week with E. winds from 11th to 17th.—*Church Stretton, Woolstaston*. Exceptionally windy, with heavy fogs. The last fortnight was very mild.—*Tenbury, Rochford*. Mild, except from 10th to 18th, when there were sharp frosts. Great lack of sunshine.

VII. NORTH MIDLAND COUNTIES.—*Worksop, Hodsock Priory*. Rather wet at first, then frosty. The rest of the month was mild and dry.

VIII. NORTH WESTERN COUNTIES.—*Southport, Hesketh Park*. A normal month. Mean temp. $0^{\circ}\cdot6$ above the average. A cold period from the 11th to the 18th; warm during the last week. Frost in screen on 8 days, and on grass on 17 days. Sunshine 7 hours above the average, and R 1·15 in. above the average. Underground water, however, unprecedentedly low.—*Chatburn, Middlewood*. R 1·36 in. above the average of 14 years.—*Broughton-in-Furness*. About ten days of fine frosty weather, without S, in the middle, and the remainder comparatively mild, with strong W. and S.W. winds.—*Seathwaite Vicarage*. Except for the central week's sharp frost, it was very mild, with considerable R and but two slight S falls.

IX. YORKSHIRE.—*Upper Midhope*. Very wet from 1st to 9th, when 3·04 in. of R fell. Mild and very windy for the last 9 days. Ground frosts from 10th to 17th.—*Goldsborough Hall*. Unsettled and stormy. S on 4 days, and the min. shade temp. fell to 10° on 14th. Very foggy from 18th to 22nd; afterwards much warmer, with strong S.W. winds till the end.

X. NORTHERN COUNTIES.—*West Hartlepool, Bradgate*. Mild to 13th. The bar. rose from 29·1 in. on 10th to 30·6 in. on 14th, with a fall of temp. Rise of temp. at the end and heavy winds.—*Beltingham Vicarage*. First ten days mild, 5th and 6th very wet. Sharp frost and bright sunshine from 10th to 20th, when it became much milder. S.W. gales from 23rd to the end.—*Keswick, Shu-le-Crow*. R 4·38 in. above the average of 31 years.

SCOTLAND.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh, Levenhall*. Changeable, with R every day till 7th. Frost from 8th to 20th except on 9th; the temp. not rising above 32° from 12th to 16th inclusive. From 23rd mainly bright, with showers and strong wind from 25th, mostly S. and S.W.

XV. WEST MIDLAND COUNTIES.—*Tighnabruaich*. A meteorological epitome of the coming year. Heavy gales, sleet, S, H, T, hard frost and calms. Fortunately there was no fog, although it was prevalent 20 miles off in the Firth of Clyde.—*Ballachulish, Ardsheal*. R 2·20 in. above the average.—*Ballachulish House*. R 16·50 in.; the wettest month since December, 1900, when 19·09 in. fell on 29 days.

XVI. EAST MIDLAND COUNTIES.—*Stronvar*. Very wet and stormy most of the month, with a heavy S storm, and a great amount of flooding near the end.—*Dundee, Balruddery*. Notable for violent gales from S.W. Duration of sunshine 37·5 hours.

XVII. NORTH EASTERN COUNTIES.—*Alford, Lynturk Manse*. S in the second week, thaw in third and fourth weeks, and then high winds and high temp. to 30th. Min. temp. 2°·5 on 13th and 1°·5 on 14th. Abnormally high temp. from 24th to 31st.

XIX. NORTHERN COUNTIES.—*Castletown, The Clett*. The first part was wet, with some S and moderate winds; the middle dry with fresh gales, and the latter part wet and changeable with high winds—*S. Ronaldshay, Roeberry*. The first part was wet and cold; the middle dry and cold, and the latter wet and mild. Mean temp. 37°·5, or 0°·9 below the average of 13 years.

IRELAND.

XX. MUNSTER.—*Waterford, Brook Lodge*. The wettest January since 1877.—*Derry Castle*. Very severe. The first nine days were cold and wet with frequent stormy nights. Dry but very harsh from 10th to 22nd, with blizzards from E. and frost throughout. Heavy R, sleet and S with high W. winds to the close. R 29 per cent. above, but rainy days 14 per cent. below, the average of 10 years.

XXI. LEINSTER.—*Kilkenny, Sion Villa*. The first week and 15th and 16th, 24th, 26th and 31st were very stormy. Heavy frost in the week ending 15th, and skating for 5 days.—*Ballybrack, Streamville*. The first half was damp, windy and severe, and the latter mild and

dry. R $\cdot 57$ in. below the average of 20 years.—*Rathmines, Leinster Road*. Except 1895 the wettest January since the record commenced in 1882. Except during the week ending 16th, mild, open and rough, with no fewer than 9 gales. Mean temp. $40^{\circ} \cdot 3$, or $0^{\circ} \cdot 2$ below the average.

XXII. CONNAUGHT.—*Markree Observatory*. The first part was fine and bright, with frost and some slight S; the latter part was broken, with S, H and sleet, frequent gales and some T and L.

FEBRUARY.*

ENGLAND.

I. LONDON.—*Fulham, Edith Road*. Much the warmest in 20 years. Mean temp. $46^{\circ} \cdot 0$, or $6^{\circ} \cdot 3$ above the average. Excessively stormy in the last week, but dry throughout.—*St. Pancras, Camden Square*. A remarkably warm month. The first three weeks were practically rainless, but usually dull. Frequent R and squalls in the last week. Mean temp. $45^{\circ} \cdot 1$, or $5^{\circ} \cdot 3$ above the average.

II. SOUTH EASTERN COUNTIES.—*Abinger Hall*. The first three weeks were remarkable, with no R to speak of, and very equable temperature. The last week was stormy and wet.—*Nutfield Priory*. Very mild and dry till the last week, when heavy floods and gales were experienced.—*Wallington*. Extraordinarily warm. The shade max., min. and mean temp. were by far the highest in the record. The latter part was exceedingly stormy. R $\cdot 10$ in. above the average. Mean temp. $44^{\circ} \cdot 7$, or $6^{\circ} \cdot 3$ above the average. Duration of sunshine 92·1 hours, being 30 hours above the average and 33 per cent. of the possible amount.—*Lewes, Saxonbury*. Calm, with mist and fog to 17th, and high wind and gales after, with R storms. Frost on 2nd, 13th and 18th.—*Christchurch, Winkton Lodge*. Cold and dull; stormy at the close. A characteristic feature was sharp frost at the beginning of the night, changing to thaw and R by morning.—*Lambourn, East Garston*. Beautiful, mild, still and fine weather for three weeks, and then very rough and wet until the end. Temp. high throughout.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R $1 \cdot 15$ in. below the average of 29 years.—*Kensworth [Dunstable]*. The springs did not rise as they are expected to do in February, and the scarcity of water was serious.—*Farnham Royal*. Mean temp. slightly above the average.

* See also *Met. Mag.*, March, 1903, pp. 29, 30, 38.

Only 18 days with sunshine. Prevailing winds S.W. and W.—*Wendover, Halton Gardens*. Very mild till the 19th, but about 20th and throughout the remainder it was exceedingly rough and stormy, with S and E. Duration of sunshine 54·5 hours.—*Abingdon, Culham*. Dry and mild till the last week, when it was very rough and rainy. The springs were never known to be so low as they were at the end of 1902. Of the past five winter months the R of three was below the average, and of two above. It always requires 10 inches from October to February under such conditions to affect the deeper wells, and just 10 inches fell in that period.—*Oxford, Banbury Road*. Warm and rather dry. The latter half was very windy. Primroses, periwinkles and almond trees were in bloom by 21st.—*Swerford*. The first 20 days were mild and dry with only ·07 in. of R. During a gale in the last week several large squares of glass were blown off the houses in Swerford Park gardens and carried into a ploughed field.—*Pitsford, Sedgbrook*. R 1·03 in. below the average of 10 years. Mean temp. 43°·9.

IV. EASTERN COUNTIES.—*Ipswich, Copdock*. A wonderful month ; very dry and warm, though without much sunshine. Very strong winds and gales during the last 9 days. All vegetation was extremely forward, some flowers being a month earlier than usual. Mean temp. 44°, being nearly 10° above that of February, 1902.—*Burgh Castle Rectory*. A very unusual month. Probably the smallest R for many years. Constantly changing temp. ; sometimes “close” and hot, with intervals of cold. Not least unusual were the fierce winds, rising to gales and even hurricanes.

V. SOUTH WESTERN COUNTIES. — *Bishops Cannings*. R ·31 in. below, and rainy days 3 above, the average.—*Tavistock, Whitchurch*. Warm, damp, showery and very cloudy, with rather less R than usual. The last week was very stormy. The mean temp. varied from 37°·8 on 2nd to 49°·5 on 20th. The prevailing wind was S.W.—*Polapit Tumar*. Decidedly warm for the time of year. The last ten days were more or less stormy and the last week very wet.—*Okehampton, Oaklands*. Mild, the latter part having much R and high winds.—*Crewkerne, Merefield House*. Remarkable for mildness. The last week was very stormy, with heavy gales and R. Vegetation generally was a fortnight earlier than usual.

VI. WEST MIDLAND COUNTIES.—*Clifton, Pembroke Road*. Mild, with slight drizzle on many days till 21st. The last week was very wet and stormy with a succession of westerly gales. Westerly winds

prevailed throughout, except on 2 days. R nearly half an inch below the average, but rainy days 5 above.—*Stoke Bishop, Blagdon House*. The early part was unusually warm and dry, followed by a succession of heavy gales and L. Mean temp. $44^{\circ}3$.—*Cirencester, Further Barton*. Mild and very windy throughout, except for a few fine days in the middle. The last week was particularly rough, with a constant succession of S.W. gales.—*Chipping Campden, Hidcote*. The first half was like summer, and the last six days cold and wet.—*Tenbury, Rochford*. Fine and unusually mild for the first three weeks, but much strong wind. The latter part was colder and very stormy. Very little frost.—*Coventry, Priory Row*. Mild and dry. Vegetation was very forward, and the hedges were green in patches at the end. It was windy and blustering to the close.—*Coventry, Kingswood*. R $\cdot 83$ in. below the average of 37 years.

VII. NORTH MIDLAND COUNTIES.—*Grimsby, Abbey Road*. Remarkable for bright sunshine and springlike temp. Light W. to S.W. breezes with spells of fresh to strong winds; very stormy in the last few days.—*Worksop, Hodsock Priory*. Dry and unusually warm, with very high winds; mean temp. $45^{\circ}0$, being $6^{\circ}4$ above the average and the highest for February for at least 27 years. The previous highest was $42^{\circ}5$ in 1882.

VIII. NORTH WESTERN COUNTIES.—*Southport, Hesketh Park*. Somewhat dull, and abnormally stormy, S.W. and W. winds greatly preponderating. Mean temp. $6^{\circ}2$ above the average, and higher than in the mildest previous February (1872) since 1871. Frost in screen on 2 days, and on grass on 8 days. Sunshine 13 hours below the average, and R $\cdot 19$ in. in excess of the average. Mean daily movement of the wind 181 miles above the average. Underground water level lower than in any previous February.—*Chatburn, Middlewood*. R $2\cdot 24$ in. above the average of 14 years.—*Broughton-in-Furness*. Very mild on the whole, but with a great deal of sunless weather and high wind. Very stormy from 20th to 27th, considerable damage being done by wind on 26th. No S at all, except on the neighbouring fells.—*Seathwaite Vicarage*. Another very mild month, with a large number of rainy days, but no excessive falls.

IX. YORKSHIRE.—*Upper Midhope*. Mild and open but very windy indeed. Heavy R from 20th to 25th, when $3\cdot 76$ in. fell.—*Goldsborough Hall*. Dry during the first three weeks, less than half an inch of R falling up to 20th. Strong S.W. winds during the greater part of the month, and stormy from 21st to the end. Very little frost.

X. NORTHERN COUNTIES.—*West Hartlepool, Bradgate.* Beyond the dryness and warmth of the first half there was very little to remark.—*Bamburgh.* The prevailing winds were W. and S.W. Most of the R fell during the dark hours. There was no fog and little frost was experienced.—*Keswick, Shu-le-crow.* R 7·66 in. above the average of 31 years.

XI. WALES.—*Llanfrechfa Grange.* The first half was very mild, which is not unusual, and the latter part wet with heavy gales.

SCOTLAND.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh, Levenhall.* The first three weeks were mild, the last colder with frost on four nights. During the whole month there was an almost continuous high wind, blowing a gale on six occasions.

XV. WEST MIDLAND COUNTIES.—*Tighnabruaich.* R 8·41 in., which is excessive for so short a month. Mean temp. 41°·1.—*Inveraray, Newtown.* Very stormy and unsettled throughout, but mild.—*Ballachulish, Ardsheal.* R 5·88 in. above the average of 10 years, and only four times exceeded in any month since observations commenced.

XVI. EAST MIDLAND COUNTIES.—*St. Andrews.* Very windy and unusually mild.—*Dundee, Balruddery.* Very windy, with a few frosty mornings and only 27½ hours of sunshine.

XVII. NORTH EASTERN COUNTIES.—*Alford, Lynturk Manse.* Mild, with strong winds nearly every day.

XVIII. NORTH WESTERN COUNTIES.—*Eigg.* The R was accompanied by violent storms, and on three occasions by T and L.—*Lochmaddy.* Exceptionally stormy. During the whole month one gale followed another in quick succession, principally from the S.W.—*Drumnadrochit.* R 3·89 in. above the average. The fall for January and February was 14·45 in., or 8·24 in. above the average.

XIX. NORTHERN COUNTIES.—*Bettyhill.* Frequent and violent gales, and few days without R.—*S. Ronaldshay, Roeberry.* Very rough and windy, with several gales from W. and S.W. Mean temp. 40°·0, or 1°·5 above the average.

IRELAND.

XX. MUNSTER.—*Waterford, Brook Lodge.* Very mild, and the latter part stormy. R ·25 in. below the average.—*Derry Castle.* The opening week was wet and stormy but mild, then nine days of

harsh dry weather. From 19th to the close was excessively severe, with high winds and heavy falls of R, sleet and S.

XXI. LEINSTER.—*Ballybrack, Streamville*. Fine and mild until 20th, when it became squally and cold with high winds to the end.—*Rathmines, Leinster Road*. The warmest since 1882, the mean temp. being $45^{\circ}7$. The first three weeks were mild, dry and springlike, flowers being in bloom almost a month before their usual time. Gales were frequent.

XXII. CONNAUGHT.—*Tuam, Gardenfield*. Except 1894 the wettest in 38 years' record. R $2\cdot73$ in. above the average of 20 years.

MARCH.*

ENGLAND.

I. LONDON.—*Fulham, Edith Road*. A most stormy month; high winds on every day. Mean temp. $47^{\circ}2$, or $4^{\circ}6$ above the average, and the warmest recorded.—*St. Pancras, Camden Square*. Generally unsettled and showery with fine intervals. Remarkably mild, the mean temp. being $46^{\circ}4$, or $4^{\circ}5$ above the average.

II. SOUTH EASTERN COUNTIES.—*Abinger Hall*. Mild and genial. Vegetation somewhat advanced.—*Nutfield Priory*. Wet in the first and last weeks, with several not very severe TSS.—*Wallington*. Extremely warm and sunny and rather wet, with a large number of rainy days and a notable absence of E. winds. Everything out of doors was in a most flourishing condition, and quite three weeks earlier than usual. R $\cdot51$ in. above the average. Mean temp. $46^{\circ}3$, or $4^{\circ}5$ above the average. Duration of sunshine $165\cdot2$ hours, being $50\cdot2$ hours above the average and 45 per cent. of the possible amount.—*Lewes, Saxonbury*. Soft and showery with fog and high winds. S.W. gale on 1st.—*Bournemouth, Kempsey*. Rainy, windy and mild, the nights remarkably so. Frost only once recorded in the screen, on 11th. S.W. winds prevailed. Only twice was the wind observed in the E. half of the compass. Windy weather, chiefly from S.W., was a feature of the past three months.—*Christchurch, Winkton Lodge*. A bright month, with strong winds and only 5 cloudy days; altogether one of the pleasantest months in the year, the strong winds being the only drawback. R above the average, but falling at night it was not much noticed.—*Lambourn, East Garston*. A month of high temp. and frequent R, but more than anything a month of wind.

* See also *Met. Mag.*, April, 1903, pp. 43, 58.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R $\cdot 71$ in. above the average of 29 years.—*Farnham Royal*. Mean temp. 51° , or about the average. R slightly above the average. Only 6 days without sunshine. Prevailing wind S.W.

IV. EASTERN COUNTIES.—*Colchester, Lexden*. Prevailing wind westerly, often strong in the latter half, with much cloud and warmth.—*Ipswich, Copdock*. Incessant S.W. and W. gales during the latter half spoilt much of the enjoyment of the very mild weather. Vegetation was from 14 to 28 days earlier than usual. Mean temp. $45^{\circ}\cdot 5$.—*Bury St. Edmunds, Westley*. Very mild and windy with frost on only 5 days. Vegetation a month in advance.

V. SOUTH WESTERN COUNTIES.—*Alderbury*. Remarkable absence of E. winds for several weeks. There were cold, strong and long-continued gales from S.W. and W.—*Bishops Cunnings*. R $1\cdot 91$ in., and rainy days 7, above the average. There was a considerable rise in springs, but still some ditches which used to run for several weeks or months were not running.—*Tavistock, Whitchurch*. Cloudy, damp and rather warm, and very stormy and wet. The R was double the average and fell every day except 10th and 22nd. The mean temp. varied from $38^{\circ}\cdot 8$ on 11th to $51^{\circ}\cdot 4$ on 22nd. Gales on 12 days, S on 5, H on 11 and fog on 5.—*Okehampton, Oaklands*. Very wet, delaying all agricultural spring work.—*Barnstaple, N. Devon Athenæum*. In evidence of the forwardness of the season, 75 species of wild plants were observed in flower at the end, the number up to March 31st, 1902, having been 46, and the average for the preceding ten years over the district 50.—*Crewkerne, Merefield House*. Frost and E. wind were conspicuous by their absence, the prevailing direction being S. to W. Very stormy generally. Mean temp. $45^{\circ}\cdot 9$.—*Wellington, The Avenue*. One of the stormiest and wettest Marches for many years, R falling on no fewer than 25 days, the total being almost double the average. The gales at times were exceedingly violent, and blew almost daily in the last fortnight. Few frosts and many mild days.—*Harptree Court*. R $3\cdot 25$ in. above the average of 21 years.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop, Blagdon House*. Extreme R and heavy gales. Temp. much above the average, in one instance exceeding the mean by $13^{\circ}\cdot 2$. Mean temp. $47^{\circ}\cdot 4$.—*Cirencester, Further Barton*. Exceedingly wild and stormy throughout. Very few days on which there was not at least a high wind. Very mild, with R double the average.—*Chipping Campden, Hidcote*. Very mild, with only three frosty days. R about double the average.—*Tenbury, Roch-*

ford. Strong winds almost every day, at times approaching a gale. Very little easterly wind or frost. R 2·42 in. above the average.—*Coventry, Priory Row.* Very mild, with early spring. High winds and gales throughout and R almost every day, which greatly hindered the sowing of barley and spring corn.

VII. NORTH MIDLAND COUNTIES.—*Market Overton.* Very boisterous winds almost every day, often quite tempestuous.—*Worksop, Hodsock Priory.* Mild and windy, with an unusual absence of frost. Mean temp. only exceeded once in the last 27 years.

VIII. NORTH WESTERN COUNTIES.—*Southport, Hesketh Park.* Exceptionally mild, stormy and sunless, S. and S.W. winds being remarkably predominant. Mean temp. 3°·9 above the average. Frost on grass on 10 days, but none in screen. Sunshine 37 hours below the average, and R ·85 in. in excess of the average. Bar. oscillations unusually extensive. Mean daily wind movement 161 miles above the average.—*Chatburn, Middlewood.* R 2·56 in. above the average of 14 years.—*Broughton-in-Furness.* Stormy; wild winds off the coast recurring with perhaps an interval of a very fine day. Temp. on the whole high, especially at night.—*Hawkshead, Sawrey.* There was not a day without R. Such a thing has not occurred before in 16 years' observations. In the quarter ending March 31st 24·00 in. of R fell, or 38 per cent. above the average, and there were 76 wet days.—*Seathwaite Vicarage.* R recorded on 30 days, but no really heavy falls. Exceptionally mild throughout.

IX. YORKSHIRE.—*Goldsborough Hall.* Very stormy and wet. Little frost, but very strong winds throughout, mainly S. and S.W. Heavy S on 2nd and 17th.—*East Layton Hall.* Very boisterous and stormy, but little S or frost.

X. NORTHERN COUNTIES.—*Beltingham Vicarage.* Mild, but continuous S.W. and W. gales, with heavy squalls of R, especially from 17th to 30th.—*Bamburgh.* Remarkable for mildness and constant slight showers. The wind was from S. to N.W., and very little from the sea.—*Keswick, Barrow House.* R fell on every day in the month, for the first time since the record was commenced in 1867. The wet weather and high winds made it a trying winter for invalids, and farmers were much hindered.—*Keswick, Shu-le-crow.* R 8·78 in. above the average of 31 years. R on 31 days.—*Rydal, The Stepping Stones.* Abnormally wet. From 16th to 23rd 8·16 in. of R fell on 8 days.

XI. WALES.—*Aberystwith, Gogerddan.* Wet and stormy, with very little frost and scarcely any sunshine. The wind was chiefly S. and S.W.—*Lligwy.* Continuous westerly wind and R throughout.

SCOTLAND.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh, Levenhall*. During the first two weeks there was little wind, but from 16th to 23rd it blew almost constantly, rising to a gale on the night of the 21st. From the middle of the month the day temp. was mostly above 50°, and after the 15th the night temp. did not once fall to 32°.

XV. WEST MIDLAND COUNTIES.—*Inveraray, Newtown*. Heavy R in showers continuously, and frequent L at night.—*Ballachulish House*. The R of the first three months of the year was 52·15 in., or 4 inches more than that of the first nine months of 1902.—*Mull, Quinish*. Wind from S. to W., frequently increasing to a hard gale, and constant R throughout.

XVI. EAST MIDLAND COUNTIES.—*St. Andrews*. Very windy and wet. Much milder than usual, with an almost total absence of the E. winds usually prevalent in this month.—*Dundee, Balruddery*. Nearly a whole month of showery weather with only 86½ hours of sunshine. All farm and garden work much behind, and no seeds could be sown nor potatoes planted.

XVII. NORTH EASTERN COUNTIES.—*Aberdeen, Cranford*. Wet and cold, with gales of wind from S. and S.W.—*Alford, Lynturk Manse*. High winds throughout, with little S.

XVIII. NORTH WESTERN COUNTIES.—*North Ballachulish, Alltshel-lach*. Terrific !

XIX. NORTHERN COUNTIES. — *Bettyhill*. Cold, wet and stormy, delaying garden and field work generally.—*Watten*. The first three weeks were cloudy and cold, with storms of wind, occasionally accompanied by R. The last week was dry and fine.—*Castletown*. Commenced with low bar. and fresh S.W. to N.W. winds. Slight S on 14th, S.W. winds from 16th to 28th, with more or less cloudy weather. Heavy R on 17th and 19th, and at other times showers with drying winds between.

IRELAND.

XX. MUNSTER.—*Darrynane Abbey*.—Very wet, the R having been exceeded only once in 24 years.—*Glenam [Clonmel]*. Frequent severe storms. R considerably in excess of any March during 38 years' record.—*Nenagh, Castle Lough*. R on every day of what is usually a dry month. At the end more R had fallen in three months than for the first six months of 1902.—*Ballingarry, Hazelfort*. Very wet, with an unusual amount of wind, blowing almost a hurricane on 30th.

XXI. LEINSTER.—*Templeudigan, Ballindoney*. R fell on every day but the 13th and 30th, and on many days in torrents, stopping almost all farm work. S fell on only one day, the 18th. The total R was over twice the average.—*Ballybrack, Streamville*. A succession of storms. R 1·22 in. over the average. — *Rathmines, Leinster Road*. Very abnormal in almost every respect. The R and number of rainy days were unprecedented. Strong winds prevailed throughout. Although it was very warm, with mean temp. $44^{\circ}1$, vegetation did not make much progress. Frost on one night only. There were only two really fine days.

XXII. CONNAUGHT.—*Tuam, Gardenfield*. R 4·61 in. above the average, and the greatest in 38 years, causing the highest spring floods remembered.—*Murrisk Abbey*. A month of storm and R, but the acute storm on the E. coast and midland counties did not prevail here.—*Markree Observatory*. Very broken and cold, with showers of H and S, and frequent gales and L.

XXIII. ULSTER. — *Banbridge, Milltown*. — R 1·77 in. above the average.—*Belfast, Springfield*. Most disappointing for agriculture, wet weather prevailing daily.—*Omagh, Edenfel*. Continuously wet and unsettled weather. The total R, 7·03 in., was by far the heaviest in March for 38 years. The fall since January 1st, 17·22 in., had never been approached in 38 years nearer than by 14·90 in. in 1894. There was a complete absence of drying E. winds, and farm work was practically impossible.—*Buncrana, Rockfort*. Very changeable, R and strong winds prevailing.

APRIL.*

ENGLAND.

I. LONDON.—*St. Pancras, Camden Square*. Changeable and unsettled, with a period of dry but cold weather in the middle. S on 4 days. Relatively the coldest month of the year. Mean temp. $45^{\circ}2$, or $2^{\circ}9$ below the average. This was $1^{\circ}2$ below the mean temp. of March, 1903, and only $0^{\circ}1$ above that of February.

II. SOUTH EASTERN COUNTIES.—*Abinger Hall*. Very cold and dry to 25th, then showery. The coldest April remembered; plums and pears were ruined for the year by the severe frosts.—*Caterham Valley, Bradenhurst*. From 12th to 25th there was frost every night. The

* See also *Met. Mag.*, May, 1903, pp. 63, 74.

foliage of plants was injured considerably and plum blooms were killed.—*Wallington*. The most extraordinary April on record. The cold spell from 16th to 20th was unprecedented. The mean temp. was $44^{\circ}0$, or $3^{\circ}3$ below the average, and, with the exception of 1888, the lowest on record. R $\cdot 23$ in. above the average. Duration of sunshine 153·2 hours, being 6·7 hours below the average and 37 per cent. of the possible amount.—*Sheppey, Leysdown*. Exceptionally cold until the last week, when it became more genial, with refreshing showers.—*Lewes, Saxonbury*. Cold, dry and windy till 25th; showery and mild later. Frost from 13th to 23rd. All summer birds were late in arriving.—*Ryde, Beldornie Tower*. Cold but dry up to 25th, when it became warmer.—*Bournemouth, Kempsey*. Unusually cold and dry to 25th, then heavy R, 2·80 in. falling in six days. Frosts in shade on 6 nights and on grass on 18 nights. Mean temp. $45^{\circ}4$, or $1^{\circ}3$ below that of March, and $0^{\circ}3$ below that of February.—*Christchurch, Winkton Lodge*. Cold and stormy but very bright, with only 5 cloudy days. The frosts at the end of the month did great damage to fruit blossom. A remarkable season for daffodils, which were in splendid bloom.—*Emsworth, Redlands*. Cold, strong winds and hard frosts. Vegetation was at a standstill from 1st to 26th.—*Lambourn, East Garston*. Bitterly cold “March” weather for the first three weeks, followed by heavy R and much higher temp.

III. SOUTH MIDLAND COUNTIES.—*Hitchin, Wratten*. Only two colder Aprils on record, the mean temp., $42^{\circ}4$, being lower than either March or February.—*Slough, Upton*. Mild until 10th and vegetation very forward. Then a fortnight of cold and drought, with very frosty nights, causing great damage to fruit, vegetables and shrubs, and withering young foliage of elms and willows. From 24th warmer, but very wet to the end.—*Wendover, Halton Gardens*. From 12th to 25th frost was prevalent, doing considerable damage to fruit crops and foliage.—*Winslow, Addington*. Very little R until 25th. Sharp frost from 16th to 20th, doing an immense amount of damage to fruit crops.—*Oxford, Banbury Road*. Very low temp. and, thanks to the last five days, more R than usual. In the first part of the month blossoms were well on, and plums and pears in full bloom by 4th or 5th. Frost on 12 occasions.

IV. EASTERN COUNTIES.—*Ipswich, Copdock*. As cold as March was warm, the mean temp. being $43^{\circ}7$, or $1^{\circ}8$ below that of March; this, moreover, in spite of a very fair amount of bright sunshine, the total being 132 hours. The forward vegetation was dreadfully cut by the

continuous frosts about the middle.—*Bury St. Edmunds, Westley*. Very cold ; max. temp. only 60°. Great damage to fruit by frost and cutting winds. Migratory birds were late and few.—*Burgh Castle Rectory*. A marvellous month. Like winter from 4th to 25th. The first April remembered practically without cuckoos, nightingales, swallows or martins.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R 1·45 in. above, and rainy days 3 below, the average.—*Tavistock, Whitchurch*. Cold, rather dry, and fine. The long wet period, which began on February 19th, ended on April 6th. On these 47 days R fell on every day but three. The mean temp. varied from 37°·4 on 17th to 49°·6 on 29th. N.W. winds most prevalent.—*Okehampton, Oaklands*. Cold, but comparatively dry ; vegetation backward.—*Crewkerne, Merefield House*. Dry and cold until the last week, during which 2·53 in. of R fell. Very sharp frosts from 12th to 14th and 22nd to 24th. Mean temp. in shade 44°·9, or 1°·0 below that of March.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop, Blagdon House*. Very cold, with almost entire absence of R until the last week. Much damage was done to fruit by the unusual number of frosts. Some S. Mean temp. 45°·0.—*Cirencester, Further Barton*. The first week was the last of the long sequence of S.W. gales. From 12th to 25th was extremely cold, with biting N. to E. winds, frequent S, and intense frost at night. The last six days were warm and very wet, four-fifths of the month's R falling in that period.—*Church Stretton, Woolstaston*. Dry, with severe frost from 12th to 26th. Milder later, with nice showers.—*Tenbury, Rockford*. Fine but cold. Sharp frosts almost every night from 15th to 24th. Fruit blossom was very much injured.—*Coventry, Priory Row*. Warm and genial till 11th ; very cold, with much wind, from 11th to 27th, and afterwards milder, with showers.

VII. NORTH MIDLAND COUNTIES.—*Worksop, Hodsock Priory*. The coldest April since 1891, and colder than either February or March. Very little R till quite the end.—*Chellaston*. Mild and rainy at first and then very cold. Vegetation greatly damaged by frost.

VIII. NORTH WESTERN COUNTIES.—*Southport, Hesketh Park*. Notable as witnessing the transition from the remarkably protracted period of mild, stormy weather of the westerly type, to calm, easterly conditions, the period of change being marked by keen northerly airs, during which unusually severe frosts occurred between the 16th and 22nd. Mean temp. 2°·8 below the average. Frost in screen on 6 days, and on grass on 15. Sunshine 7 hours below the average.—*Hampson-*

in-Ellel. Frost every night from 11th to 19th, with bitter wind from N. and E., doing great damage to fruit trees and young shoots. No R from 15th to 26th.—*Broughton-in-Furness*. Remarkably fine from 8th to 27th, except for S on 14th, and very cold, with frosty nights. Prevailing wind W. and N.W. up to 12th, then E. and N.E. to the end.—*Seathwaite Vicarage*. Unusually cold throughout, with a succession of prolonged strong winds.

IX. YORKSHIRE.—*Goldsborough Hall*. The first week was dull, with light showers, followed by a few fine bright days to 11th; then a spell of N.W. winds, with cold frosty nights till 25th, when it became much warmer, and continued so with showers until the end.—*New Malton*. Frost prevailed for 18 consecutive days, destroying the fruit crop and doing great damage to grain and other farm produce.

X. NORTHERN COUNTIES.—*Bamburgh*. Wonderfully dry; frost after the middle of the month.—*Eskdale Vicarage*. Bitterly cold; the most bitter winds being from S.E. Hard frosts destroyed young crops, especially the pasture grass.

XI. WALES.—*Llanfrechfa Grange*. Very variable, and high, cold winds. March and April seemed to have changed places, and this weather would have been welcome in March.—*Aberystwith, Gogerddan*. Some severe frost in the middle which did a great deal of damage, but the last week brought plenty of R which was welcome after the frost and drying winds.

SCOTLAND.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh, Levenhall*. The first ten and last five days were very mild, but separated by a spell of sharp frost.

XVI. EAST MIDLAND COUNTIES.—*Dundee, Balruddery*. Very cold winds from N.E., and sharp morning frosts, doing great harm to border plants. Duration of sunshine 151 hours.

XVII. NORTH EASTERN COUNTIES.—*Aberdeen, Cranford*. Wretched weather; wet and cold, with little sunshine. S from 13th to 22nd.

XIX. NORTHERN COUNTIES.—*Bettyhill*. The first three weeks were somewhat wet and stormy, with S and frost from 15th to 19th.—*Watten*. Wet and cold. Several frosty nights, and a S storm in the middle such as is rare in April.—*Castletown, The Clett*. In the first week low temp. and fresh N.W. gales with showers of R, H and sleet. Moderate N.W. winds and fine weather from 7th to 10th, and from

10th to 21st N.W. to N.E. winds, often blowing with moderate gale force, accompanied by heavy showers of S, H and sleet, with low temp.

IRELAND.

XX. MUNSTER.—*Darrynane Abbey*. Dry and cold, with frost at night in the middle. The last few days were warm.—*Cahir, Begguragh*. Vegetation and farms backward. Ground stubborn owing to the heavy R of March and the caking of the soil.—*Miltown Malbay*. Cold and, in the first half, wet. Frosty, with occasional H and S to the end. Vegetation commenced to make progress with a change of temp. on 29th.

XXI. LEINSTER.—*Ballybrack, Streamville*. Dry, cold and windy. Colder than February.—*Rathmines, Leinster Road*. The coldest April since 1887, the mean temp., $43^{\circ}8$, being lower than that of March and much lower than that of February. A good deal of bright sunshine occurred, and winds were light and variable.

XXII. CONNAUGHT.—*Markree Observatory*. Rather dry and at times very cold, with H and sleet showers and some night frost. H on five days and S on one.

MAY.*

ENGLAND.

I. LONDON.—*Fulham, Edith Road*. Warm and very wet; R 1.41 in. above the average and the greatest since 1886.—*St. Pancras, Camden Square*. A good deal of R in the early part, .78 in. falling in TSS on 8th. Finer weather from 12th to 15th. TSS and H on 17th, then fine till 27th. Heavy TS on 28th and TSS on 30th and 31st. Mean temp. $55^{\circ}0$, or $1^{\circ}0$ above the average.

II. SOUTH EASTERN COUNTIES.—*Abinger Hall*. Showery and variable, with storm, frost and sunshine.—*Nutfield Priory*. Cold and miserable, frost doing much damage among crops.—*Wallington*. The wettest May ever registered, but most of the R fell on 30th. The hay crop looked well. Mean temp. $53^{\circ}6$, or $0^{\circ}3$ above the average. R 3.59 in. above the average. Duration of sunshine 189.5 hours, being 11.1 hours below the average and 39 per cent. of the possible amount.—*Lewes, Saxonbury*. Showery and cool to 17th, bright and sunny after; calm as a whole. Frost on 13th and 19th. Very hot on the

* See also *Met. Mag.*, June, 1903, p. 90.

last three days, and TS on 30th.—*Bournemouth, Kempsey*. Cold days up to the 20th, when a temp. of 60° was reached and exceeded for the first time in the year, afterwards rising quickly to 72° on 26th and reaching $75^{\circ}\cdot4$ on the 31st.—*Christchurch, Winkton Lodge*. Wet in the beginning, but very bright and fine towards the end. Great dust and high winds from S. and W. Distant T and frequent L at the close.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R $\cdot78$ in. above the average of 29 years.—*Winslow, Addington*. R much above the average. The heavy R in the early part caused the brooks to overflow the meadows to a great extent.—*Abingdon, Culham*. Wet and cold for the first half, warm and thundery at the end.—*Oxford, Banbury Road*. The flood was said to be the biggest summer flood for 40 years.—*Pitsford, Sedgebrook*. R $\cdot84$ in. above the average. Mean temp. $52^{\circ}\cdot3$.

IV. EASTERN COUNTIES.—*Dunmow, Bigods Hall*. The first week was showery, with overcast skies and little sun, the average duration for the 7 days being about $3\cdot2$ hours. The remainder was fairly bright, with T at intervals and haze almost every morning.—*Ipswich, Copdock*. Opened cold, dull and wet, but a wonderful change occurred about the 18th to fine warm weather, and after that date scarcely a cloud was seen, but the temp. only rose above 70° on four days. The month was free from wind. Mean temp. $53^{\circ}\cdot4$. Duration of sunshine 202 hours, of which 139 were in the last 14 days.—*Bury St. Edmunds, Westley*. Wet and cold till the 18th, then fine and warm to the end. No frost.—*Burgh Castle Rectory*. The last part of the month was delightful, with 14 consecutive days without R, but often with a chilliness in the air.—*Blakeney*. Severe, cold weather generally, with wind chiefly from N. and E., and slight frosts at night. All fruit trees and vegetation generally suffered much from the blighting winds and want of R and sun.

V. SOUTH WESTERN COUNTIES.—*Bishops Cunnings*. R $2\cdot51$ in., and rainy days 5, above the average. From April 25th to May 9th $5\cdot10$ in. of R fell.—*Tavistock, Whitchurch*. Variable, with about average temp. and rather less R than usual. The mean temp. ranged from $43^{\circ}\cdot8$ to $63^{\circ}\cdot7$, and the shade max. rose to or exceeded 70° on three days.—*Polapit Tumar*. The first three weeks were wet and cold, but the remainder was decidedly more seasonable.—*Okehampton, Oaklands*. The first half was cold and wet, and the latter dry and warm, with a TS on 28th.—*Lynmouth, Rock House*. Cold all the early part, especially from 16th to 18th. The latter part was warm, with very

light easterly airs. A great deal of fog and mist and a thundery appearance on many days.—*Wellington, The Avenue*. The first part was cool, dull and rainy, the latter fine and bright, and at times very warm. The R was more than double the average, largely owing to the heavy T rains of the 28th and 29th.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop, Blagdon House*. Wet and stormy, with much L and H; the reverse of May, 1902. Mean temp. $53^{\circ} \cdot 1$.—*Cirencester, Further Barton*. Remarkably heavy R, especially in the first 9 and last 5 days. An unusual number of heavy TSS from May 4th to 9th and from 28th to the end, the intervening period being cold.—*Chipping Campden, Hidcote*. The R was twice the average of the last 15 years, the first part being very wet, though the latter was dry. Wind N. to E. after 22nd.—*Bishops Castle, Castle Street*. A cold month, with very damaging frost on 12th.—*Tenbury, Rochford*. Unsettled, except from 18th to 28th, with a good deal of cloud and haze, and heavy TSS on 6 days. E. winds and cold at night. R 1·62 in. above the average, and from January 1st 4·03 in. above the average.

VII. NORTH MIDLAND COUNTIES.—*Worksop, Hodsock Priory*. Rather wet at first; afterwards dry. Temp. about normal; sunshine deficient.

VIII. NORTH WESTERN COUNTIES.—*Southport, Hesketh Park*. On the whole cloudy, with weather of an essentially easterly type. Very wet during the earlier part, but dry and sunny throughout the later portion. Mean temp. $0^{\circ} \cdot 9$ above the average. Frost, on grass only, on three nights. Sunshine 58 hours below the average, and R ·27 in. above the average. Easterly winds were unusually prevalent.—*Chatburn, Middlewood*. R 1·44 in. above the average of 14 years.—*Broughton-in-Furness*. Up to 20th it was rather cold, showery and sunless, with an odd day or two now and then very fine. After the 20th it was particularly fine and warm.—*Seathwaite Vicarage*. Cold and windy till 23rd, when it became warm till the end, with strong N.E. winds.

IX. YORKSHIRE.—*Upper Midhope*. Very wet and cool to 16th, with 4·18 in. of R. Fine and dry from 17th to the end.—*Goldsborough Hall*. The first three weeks were very dull, wet and cold, with R every day up to 17th, measuring 4·62 in. Very little sunshine up to 21st, the max. shade temp. to that time being 57° on 1st. From 21st to the end it was bright and warm during the day and cold at night.—*Hull, Pearson Park*. Dismal in the early part, with heavy R and cold nights. Mild and pleasant later on.—*Northallerton, The Lodge*. Wet and cold at the beginning. In the middle there was a cold spell with two frosty nights; warmer weather set in on 22nd.

X. NORTHERN COUNTIES.—*West Hartlepool, Bradgate.* From April 26th to May 10th there were 15 consecutive rainy days, with a total of 3·05 in., and in the following 21 days only ·14 in. fell. The end was misty, with “dry” fogs on several days.

XI. WALES.—*Llanfrechfa Grange.* Much milder than usual, with less E. wind. The latter part was warm. The night temp. was very equable throughout.—*Haverfordwest, High Street.* Ungenial, with considerable R, and generally low temp., with frost on several nights. The last four days were much warmer, with TS on 28th. Hay crops were somewhat short, fruit poor and everything backward. Duration of sunshine 166·3 hours.

SCOTLAND.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh, Levenhall.* Dull and hazy to the 6th, then gradually clearer. There was high wind on the night of the 9th and from 13th more or less for 10 days, with a steady rise of temp. After the 24th there was a great deal of bright sunshine with some haze. Mean temp. 50°·5.

XIV. SOUTH WESTERN COUNTIES.—*Maybole, Knockdon Farm.* Very wet till 16th and unusually warm in the last ten days, forcing growth. A very late spring.—*Dalry, Blair.* Cold, wet and sunless up to 22nd, when beautiful warm sunny weather set in. Garden crops, which were about a fortnight behind, began to pull up fast.

XVI. EAST MIDLAND COUNTIES.—*Dundee, Balruddery.* Generally dry, with an absence of frost. Duration of sunshine 171 hours.

XVII. NORTH EASTERN COUNTIES.—*Crathes, Pinewood.* The first part was dull and wet, but in the latter there was ideal May weather.—*Aberdeen, Cranford.* The first part was cold and wet, the latter fine and clear.—*Alford, Lynturk Manse.* A succession of dry days with great heat during the latter part.

XIX. NORTHERN COUNTIES.—*Castletown, The Clett.* The first part was damp, with easterly winds and moderate showers. From 12th to 22nd was drier, with W. winds, and from 22nd to the end dry and sultry.

IRELAND.

XX. MUNSTER.—*Broadford, Hurdlestown.* Wet and cold, except the six days from 23rd, which were very hot.

XXI. LEINSTER.—*Ballybrack, Streamville.* Cold and wet to the 17th, then summer-like to the end.—*Rathmines, Leinster Road.* The first

three weeks were cold, dull and showery, with persistent N. and E. winds, but the last week was brilliant.

XXII. CONNAUGHT.—*Markree Observatory*. The early part was showery and cold, with cloudy and gloomy nights. Frequent sleet and H on 16th and 21st. From the 21st it was fine, and warmer than for a long time, especially during the last week.

XXIII. ULSTER.—*Belfast, Springfield*. A charming and genial month, most beneficial to agriculture. The opening days were dull and foggy, but sunshine arrived early and stayed till the end.

JUNE.*

ENGLAND.

I. LONDON.—*Fulham, Edith Road*. Remarkable for low temp. and unexampled R, 6·13 in., which all fell on ten days in the middle of the month. Mean temp. 3°·3 below the average, and the lowest recorded.—*St. Pancras, Camden Square*. After a brilliant day on 1st the temp. fell, and there was no further warm weather until almost the end. A period of extraordinary wetness set in on 9th, lasting till 19th, during which time 6·43 in. (the whole of the month's R) fell. This total was only exceeded in June in 1878 when 6·71 in. fell, and only on one other occasion in any month, in August, 1878, with 6·72 in. On 13th, 14th and 19th the fall exceeded 1·00 in. in 24 hours. The mean temp., 57°·6, was 2°·8 below the average, and the lowest in June for 46 years, except 56°·4 in 1880, and 56°·5 in 1871.

II. SOUTH EASTERN COUNTIES.—*Abingdon, Park Road*. R fell on 10 days only, 6·27 in. falling between 8th and 19th, and 3·80 in. from 13th to 16th. Absolute drought from June 20th to July 10th inclusive.—*Nutfield Priory*. Cold and wet, with frequent TSS. The rains were remarkably cold, like winter R.—*Wallington*. Extraordinarily wet and cold. The R, with the exception of that of September, 1896, was the highest monthly value in the record, and the mean temp. was the lowest June value. Everything suffered, and there were very few roses and little fruit. R 5·43 in. above the average. Mean temp. 55°·7, or 4°·1 below the average. Duration of sunshine 174·1 hours, being 31·9 hours below the average, and 35 per cent. of the possible amount.—*Croydon, Duppas House*. R 7·20 in., the heaviest June R yet recorded. Mean temp. 56°·7, or nearly 3° below the

* See also *Met. Mag.*, July, 1903, pp. 93, 110.

average.—*Croydon, Ashburton Road*. In one week, from 8th to 15th, 6·15 in. of R fell.—*Lewes, Saxonbury*. Showery and cool, with heavy R in the second and third weeks. TSS on 1st and 2nd. The last three days were hot and bright.—*Bournemouth, Kempsey*. Days generally cold, particularly from the 9th to the 23rd. Max. temp. was exceptionally high on the 1st, viz., 79°·8, and remarkably low on the 19th, the max. being 48°·0.—*Christchurch, Winkton Lodge*. Wet in the middle, but bright at the beginning and end. Temp. low till the close, necessitating fires. Hay was abundant, and fine warm weather during the last 10 days enabled it to be got in well.—*Lambourn, East Garston*. Low temp. generally in the first three weeks, with frost on several nights. Much more seasonable at the end.—*Cookham Vicarage*. R 6·69 in., the greatest amount in any one month since January, 1865, except 6·80 in. in October, 1891.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R 4·29 in. above the average of 29 years, and the greatest fall in June since observations commenced in 1872. On 14th 2·05 in. fell, the greatest daily fall in the same period except 2·14 in. on June 14th, 1890.—*Watford, Weetwood*. R 5·94 in., all falling in 10 days from 8th to 19th. Best crop of hay for 20 years; cutting commenced on 23rd and stacking finished on 27th.—*Great Gaddesden*. R 6·29 in. This was most acceptable as springs and wells were getting very low indeed.—*Farnham Royal*. Mean temp. very low for the time of year. R nearly three times the average. Very fine and warm for the last 11 days, with no R. In spite of the R there were only 9 days without sun. Prevailing wind N.E.—*Hedsor*. From 8th to 19th 6·60 in. of R fell, with N.E. wind. Cold generally, the max. temp. on 14th being 49° and on 19th 47°, and the min. 34° on 12th.—*Abingdon, Culham*. Dry at the beginning and end, with low temp. generally, except a few days at the beginning and the last week, which was fine and warm. Very high floods in the middle, unprecedented for the summer, and only about 2 ft. 2 in. below the great flood of November, 1894. Great damage was done.—*Blisworth, Crieff House*. Very wet, the R being 2·47 in. above the average of 18 years, but all falling on 9 days. Exceptionally heavy R commenced at 10 a.m. on 13th and lasted till midnight on 15th, 2·38 in. falling in 60 hours.—*Pitsford, Sedgebrook*. From 3rd until 22nd it was cold, and from 9th to 19th very wet. R 1·11 in. above the average. Mean temp. 55°·2.

IV. EASTERN COUNTIES.—*Lea Bridge*. The flood on the marsh opposite rose 13½ inches higher than in the 1897 flood, and higher than

the floods of 1894 and 1900.—*Colchester, Lexden*. Remarkable weather. At the beginning there was a fine dry week, but at times bitterly cold. Copious R every day from 8th to 19th except 12th. In these 11 days 4·75 in. of R fell, and caused floods. From 20th to the end was fine and dry, and the last three days were very hot.—*Dunmow, Bigods Hall*. Continuous fine R, with few heavy showers, but great R from 13th to 17th and on 19th. The Chelmer was in flood on 15th, 16th and 19th, and roads in low-lying districts were under 6 or 7 feet of water.—*Ipswich, Copdock*. A truly wonderful month; bitterly cold and sunless until 22nd, fires being necessary in the middle, when 3·69 in. of R fell in one week. The mean temp. of the month was 56°·3, and the mean max. only 64°·7. The wind was southerly on only four days. Duration of sunshine 170·5 hours, of which over 90 hours occurred in the last 9 days.—*Bury St. Edmunds, Westley*. Cold, except on 1st and 10th, and 5 days at the end. Only six wet days, when R fell in large quantities. Much damage was done by frost on low ground on 13th.—*Burgh Castle Rectory*. Disastrous for market gardeners, especially in the low lands. There were very singular differences in damage done in adjoining lands, probably owing to hedge protection. There was frost on 12th, which is very unusual.—*Blakeney*. Remarkable for the drought till 12th. Heavy R from 13th to 19th, then drought again. During the 55 days ending on July 4th only 10 were wet, and R was much wanted.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R 2·84 in. above, and rainy days 4 below, the average.—*Tavistock, Whitchurch*. Dry and cold, with less than half the average R, and the smallest in June for at least 11 years. The mean temp. ranged from 47°·7 on 15th to 64°·9 on 27th. The max. temp. rose to or above 70° on 4 days, but on 19th only reached 47°·5. N.E. winds prevailed.—*Okehampton, Oaklands*. A variable month, and cold and wet for the time of year. The last few days were warm and bright.

VI. WEST MIDLAND COUNTIES.—*Cirencester, Further Barton*. Cold and wet till 21st, with E. and N.E. winds. Exceptional R from 8th to 18th, during which period 4·86 in. fell. After that, fine summer weather, but only two hot days. All garden produce was very backward, and much hay remained out at the end.—*Chipping Campden, Hidcote*. The heaviest R for eight years. The weather was cold, with some frost at night in the first part.—*Ross, The Graig*. The R, though fully one-third above the average, was only about one-half of that for June, 1860, and June, 1879. The rainy days were fewer than usual.

Nearly the whole amount of R fell on three days, 9th, 10th and 14th. The week ending on 2nd was somewhat warmer than usual, but from that date to the 20th was exceedingly cold, especially the 14th, when the mean temp. was only $45^{\circ}5$.—*Tenbury, Rochford*. Cold and unsettled until after the middle, and very stormy from 12th to 18th. R $\cdot 67$ in. above the average. Of the total $2\cdot 68$ in., $1\cdot 72$ in. fell from 13th to 17th.—*Coventry, Priory Row*. The R was welcome and abundant, but not too much.

VII. NORTH MIDLAND COUNTIES.—*Lincoln*. Practically rainless, except from 13th to 17th, and the total fall did not reach an inch.—*Worksop, Hodsock Priory*. Cold and dry, with some very welcome R about the middle.

VIII. NORTH WESTERN COUNTIES.—*Mottram, Hill End*. The hay crop was very short and the ground much burnt up.—*Southport, Hesketh Park*. Remarkable prevalence of easterly winds, thus resembling the exceptional June of 1902. Mean temp. $2^{\circ}0$ below the average, owing to a cold period from 12th to 21st, during which N.N.E. winds prevailed. Frost on grass on 4 nights, the absolute min. being $24^{\circ}0$ on 21st. Sunshine 11 hours above the average, and R equal to the average, but days with rain 5 fewer.—*Garstang, Bruna Hill*. A dry month, the R being $1\cdot 32$ in. below the average of 31 years.—*Chatburn, Middlewood*. R $\cdot 25$ in. below the average of 14 years.—*Broughton-in-Furness*. Dry until 24th and showery afterwards. Very hot in the first and third weeks. No T, except in the distance. The ground was parched before the R came, and vegetation suffered considerably.—*Seathwaite Vicarage*. A dry month, with persistently low night temp. and bright, sunny days.

IX. YORKSHIRE.—*Upper Midhope*. Very dry, except from 13th to 15th, when $1\cdot 51$ in. of R fell. Severe grass frost on 20th.—*Bamburgh*. The first half was unsettled and cold; the second was, however, summer-like.—*Goldsborough Hall*. Dull and cold. There was a spell of very dull cold weather from 11th to 20th, the temp. rising to 60° on only one day. From the 20th to the close it was a little warmer.

X. NORTHERN COUNTIES.—*Cockermouth, Broughton Grange*. R only $1\cdot 29$ in. The country was badly parched until the 27th, and crops suffered severely from drought.

XI. WALES AND THE ISLANDS.—*Douglas, Woodville*. Cold and generally dry till 25th, with much burning sun and harsh parching winds, bringing no relief to farmer or gardener, but rather intensifying

the disastrous spring. Temp. below the average throughout. From 25th to 27th 2·34 in. of R fell out of a total of 2·58 in.

SCOTLAND.

XII. SOUTHERN COUNTIES.—*Cargen [Dumfries]*. The dry weather of the first three weeks most adversely affected the hay, corn and turnip crops.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh, Levenhall*. Warm, with a good deal of sunshine up to 7th; then came a cold spell to 20th, followed by heat to the end. From 9th to 20th there was almost constantly a high wind, frequently from E. or N.E.

XV. WEST MIDLAND COUNTIES.—*Tighnabruaich*. The first three weeks were dry, succeeded by a period of much-needed R.—*Inveraray, Newtown*. Very fine and dry for the greater part, but not warm except for a few days at the beginning.—*Ballachulish, Ardsheal*. R 20 in. above the average, but the heat and dry weather from May 22nd caused a practical drought.

XVI. EAST MIDLAND COUNTIES.—*Dundee, Balruddery*. Generally cold at night, and in some low-lying parts very sharp frosts. Duration of sunshine 163 hours.

XVII. NORTH EASTERN COUNTIES.—*Alford, Lynturk Manse*. Notable for continuance of drought, the R being little felt till 19th, and the ground fairly moistened only on 27th.

XVIII. NORTH WESTERN COUNTIES.—*Lochmaddy*. About three weeks with little or no R, but heavy falls in the last few days.

XIX. NORTHERN COUNTIES.—*Bettyhill*. Bright and dry till 21st, after which there was some much-needed R, accompanied by one slight TS.—*Watten*. Dry, with cold northerly winds and slight frost on two nights. The damage was less than elsewhere.—*Castletown, The Clett*. Until the last two days it was almost rainless, the prevailing winds being N.E., N. and N.W. The first part was colder than the last week of May, but the middle and latter parts were warm and cloudy. Owing to the want of R the ground became parched, wells got dry, and grass ceased to grow and began to look withered. These conditions were relieved on 29th by a TS and ample R.

IRELAND.

XX. MUNSTER.—*Miltown Malbay*. Cold and dry. From May 22nd until June 21st only 11 in. of R fell. All crag and stony lands were burned brown and water was running scarce.

XXI. LEINSTER.—*Templeudigan, Ballindoney*. A remarkable month, having the fewest wet days, and also three separate falls of over an inch and two other falls over half-an-inch. Very cold, the temp. only reaching 70° on 5 days and falling below 40° on several nights.—*Ballybrack, Streamville*. R $\cdot 42$ in. less than the average of 20 years.—*Rathmines, Leinster Road*. Resembling October rather than June, except for a few days at the beginning and end. The mean temp., $54^{\circ}\cdot 1$, was the lowest ever recorded in June, and the persistence of N. and N.E. winds was remarkable.

XXII. CONNAUGHT.—*Tuam, Gardenfield*. Very dry, only $\cdot 02$ in. of R falling in the first 21 days. The rest of the month was mostly rainy; but the total was $1\cdot 60$ in. below the average.—*Markree Observatory*. Very fine and dry almost throughout. TS on 24th.

XXIII. ULSTER.—*Belfast, Springfield*. A very fine summer month, and the driest June since 1893. The spell of fine weather at the beginning of the month was the longest of the year, and was most beneficial to the farmer.

JULY.*

ENGLAND.

I. LONDON.—*Fulham, Edith Road*. Cold and very wet; R $2\cdot 09$ in. above the average, and the heaviest since 1888.—*St. Pancras, Camden Square*. The wettest July in 46 years. The first half was fine, dry, and generally warm; an absolute drought of 22 days' duration terminating on 12th. A TS on the 18th with heavy R commenced an exceedingly wet period, with lower temp., which lasted till 29th, $5\cdot 07$ in. of R falling. Mean temp. $63^{\circ}\cdot 2$, or $0^{\circ}\cdot 1$ below the average.

II. SOUTH EASTERN COUNTIES.—*Farnham, Short Heath Lodge*. The heavy falls of R appeared usually of the character of TSS, though T and L were not often conspicuous. A great deal of the R fell at night.—*Wallington*. Rather sunless and cold. R $1\cdot 94$ in. above the average, and the highest on record except 1888 and 1890. Mean temp. $61^{\circ}\cdot 1$, or $1^{\circ}\cdot 4$ below the average, and the lowest on record with four exceptions. Garden and field crops suffered greatly from R and want of sun, and there was practically no fruit. Duration of sunshine $194\cdot 1$ hours, being $16\cdot 0$ hours below the average and 39 per cent. of the possible amount.—*Sheppey, Leysdown*. Exceptionally fine and bright for the

* See also *Met. Mag.*, August, 1903, pp. 113, 126.

first fortnight, then continuous R from 15th to 30th.—*Tilmanstone, Danefield*. On the whole cold and unseasonable, especially during the latter half.—*Lewes, Saxonbury*. Hot and dry to 16th, then wet, with low temp. TSS on 20th and 29th.—*Christchurch, Winkton Lodge*. Cool and showery, but with only four cloudy days. The R fell principally at the close. Temp. very low at the end, only twice touching 70°, but the beginning of the month was bright, and on the 9th the max. reached 80°. R fell much at night. Occasional T, but no storm.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R 1·47 in. above the average of 29 years.—*Abingdon, Culham*. The first half was very dry and warm, the latter wet and thundery.—*Pitsford, Sedgbrook*. R ·51 in. below the average of 10 years. Mean temp. 58°·7.

IV. EASTERN COUNTIES.—*Manor Park, Albany Road*. R 7·84 in. With the exception of a smart shower on 12th, the rainy period was confined to the last fortnight, starting with a heavy storm on 18th.—*Ipswich, Copdock*. An absolute drought for 23 days ended on 14th, and then a period of most disastrous R and cold, sunless weather set in, the early part having given plenty of sun. Duration of sunshine 183·5 hours.—*Burgh Castle Rectory*. An extraordinary month, not only for great R but for marvellous changes of temp., which were very trying. Market gardeners and others suffered heavy losses on account of the failure of the early potatoes and strawberries, which were abundant, but spoiled from want of sunshine and from wet.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R ·46 in., and rainy days 2, above the average. Springs were higher than in February.—*Tavistock, Whitchurch*. A wet, cold and cloudy month. In the 9 days from 21st to 29th 3·57 in. of R fell. The mean temp. varied from 68°·9 on 9th to 53°·5 on 14th. The max. temp. rose to or exceeded 70° on 6 days, all before the 12th. S.W. and N.W. winds were most prevalent. Most of a good hay crop was saved by the 14th; the rest was damaged by the wet.—*Polapit Tamar*. The second half was very wet, with winds of a light character.—*Okehampton, Oaklands*. The earlier half was fine, and the latter cold and wet.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop, Blagdon House*. Unseasonable, with many changes. R 1·54 in. below the average. Mean temp. 63°·5.—*Cirencester, Further Barton*. Fine and warm in the first half, and from the 16th cold, unsettled and wet, with frequent severe TSS.—*Ross, The Graig*. The fine weather which set in on June 16th continued to July 16th, only ·29 in. of R falling in the 30 days. Much T and L from 17th to 19th. It was generally warm

till 11th and cold afterwards. The hay was mostly heavy and well gathered, and crops promised well, but the fruit crop was one of the worst remembered. R slightly below the average.—*Tenbury, Rochford*. The first half was fine, warm and bright, and the remainder unsettled, stormy and cold.—*Coventry, Priory Row*. The early part was fine, dry and warm, and the latter cloudy with frequent R.

VII. NORTH MIDLAND COUNTIES.—*Worksop, Hodsock Priory*. The first ten days were fine and warm, the rest of the month showery and cool, without much sun.

VIII. NORTH WESTERN COUNTIES. — *Southport, Hesketh Park*. Windy, rather cool and dull, N.W. winds being unusually prevalent. Mean temp. $1^{\circ}\cdot 1$ below the average. Sunshine 27 hours below the average, and R $\cdot 66$ in. below the average.—*Chatburn, Middlewood*. R $1\cdot 45$ in. above the average of 14 years.—*Broughton-in-Furness*. Very mixed weather, some beautiful days being interspersed with wild, stormy ones. A good deal of apparent thunder rain, but no T or L.

IX. YORKSHIRE.—*Upper Midhope*. Changeable, with heavy TSS on 11th and 17th. High wind on 5th, 6th and 31st.—*Goldsborough Hall*. The weather throughout was very unsettled. The range of temp. was from 35° to 79° , and only on 5 days did the temp. rise to 70° or above.

X. NORTHERN COUNTIES.—*Bamburgh*. Very unsettled, with much R and strong wind.

SCOTLAND.

XVI. EAST MIDLAND COUNTIES.—*Dundee, Balruddery*. Very heavy R, with continuous low temp. throughout.

XVII. NORTH EASTERN COUNTIES.—*Aberdeen, Cranford*. Wet, with little sunshine. The wettest July for 16 years.

XVIII. NORTH WESTERN COUNTIES.—*Drumnadrochit*. R $1\cdot 38$ in. above the average of 17 years. On account of the copious R and want of sun, all vegetation was much behind.

XIX. NORTHERN COUNTIES.—*Altnaharra*. Very little sunshine and, during the first part, cold evenings with some frost. During the latter part there was less wind and greater warmth.—*Castletown, The Clett*. From 1st to 12th there was daily R, and between 9 a.m. on 5th and 9 a.m. on 6th continuous R with moderate E. wind. From 12th to 21st was fairly dry, and from then to the end there was daily R and often misty drizzle and fog.

IRELAND.

XX. MUNSTER.—*Cork, Wellesley Terrace*.—The greatest R for at least 39 years. Mean temp. $3^{\circ}7$ below the average.—*Glenam [Clonmel]*. The wettest July since 1865, when the record commenced.

XXI. LEINSTER.—*Kilkenny, Sion Villa*. Wretchedly cold and very wet.—*Ballybrack, Streamville*. Chilly, heavy and broken weather. R $\cdot 65$ in. above the average of 20 years.—*Rathmines, Leinster Road*. Cold and extremely cloudy, with the greatest R since 1896.

XXII. CONNAUGHT.—*Tuam, Gardenfield*. R $2\cdot 31$ in. above the average, and the greatest in 38 years except 1871 and 1882.

AUGUST.*

ENGLAND.

I. LONDON.—*Fulham, Edith Road*. Singularly stormy for summer, cold and wet. R $1\cdot 83$ in. above the average and the heaviest since 1891.—*St. Pancras, Camden Square*. Another wet and cool month, for the greater part stormy and inclement. T on 9th and 10th, and exceptionally heavy R on 11th and 24th. Mean temp. $60^{\circ}7$, or $1^{\circ}4$ below the average.

II. SOUTH EASTERN COUNTIES.—*Nutfield Priory*. Another wet month, sunless and cold, without a redeeming feature.—*Wallington*. Cold and wet, but with an average amount of sunshine. There was practically no fruit, and the harvest where not destroyed was very late. Mean temp. $59^{\circ}6$, or $2^{\circ}3$ below the average. R $1\cdot 81$ in. above the average. Duration of sunshine 201·8 hours, being $3\cdot 5$ hours above the average and 45 per cent. of the possible amount.—*Tilmanstone, Danefield*. Cold, stormy and rainy, with a great deal of high wind.—*Lewes, Saxonbury*. Wet, with low temp. and high winds. Corn was much damaged by R and wind, and there was a late and bad harvest.—*Christchurch, Winkton Lodge*. Cool, breezy and damp, with several bright days, only 4 being absolutely cloudy. R fell mostly at night.—*Lambourn, East Garston*. Generally speaking, dull, gloomy and sunless, with low temp.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R $1\cdot 85$ in. above the average of 29 years.—*Abingdon, Culham*. Wet and unsettled, though there were no very heavy falls of R in the district.—*Oxford, Banbury Road*. Wet and cold. The most noticeable feature was the

* See also *Met. Mag.*, September, 1903, pp. 138, 139, 146.

heaviness of the R, as the number of rainy days was very little above the average.—*Swerford*. There was no day without some bright sunshine, but very little harvest work was done owing to the wet weather.—*Pitsford, Sedgebrook*. Very wet, cold and ungenial, and bad for harvest. R 1·69 in. above the average. Mean temp. 57°·8.

IV. EASTERN COUNTIES.—*Colchester, Lexden*. Cool, with much westerly wind and excessive R. In places crops were much damaged. Harvest late.—*Ipswich, Copdock*. A memorable August, but crops were not so bad as had been feared. Westerly winds throughout, with many dismally cold days. Duration of sunshine 179·10 hours, in spite of all the wet weather. Mean temp. 59°·3.—*Burgh Castle Rectory*. A singular month in regard to absence of sunshine, severity of winds, quantity of R and fierceness of the falls.—*Blakeney*. Remarkable for the amount of R, and also for the heavy gales from W. to N.E. Much damage was done to standing corn and fruit trees, the harvest being greatly retarded and very little corn had been stacked at the end.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R ·02 in., and rainy days 3, above the average. Harvesting began on 12th, and some wheat was carried on 26th.—*Tavistock, Whitchurch*. Cold, wet, damp and cloudy, with very equable temp. Showers fell on every day except 6th and 7th, and 3·00 in. of R fell from 13th to 20th. The mean temp. varied from 61°·4 on 8th to 52°·6 on 22nd, and the max. was below 60° on 7 days. W. winds were most prevalent. The harvest was much interfered with by R, and some grass cut in the middle of July was still lying unsaved at the end of August.—*Polapit Tamar*. A wet, cold, sunless and unseasonable month.—*Lynmouth, Rock House*. Although the month was wet the air was warm, and foliage looked almost as fresh as in June.—*Harptree Court*. R 3·74 in. above the average of 21 years.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop, Blagdon House*. Cold and unseasonable, with much R and wind, and temp. greatly below the average. Mean temp. 61°·6. R ·20 in. above the average.—*Cirencester, Further Barton*. Remarkably rough and inclement and of a very autumnal type. R much above and temp. much below the average, the latter only once reaching 70°.—*Clifton, Pembroke Road*. Very unsettled, with low temp. Very wet and stormy from 14th to 16th, with unusually low bar., under the influence of a deep cyclone from the Atlantic.—*Tenbury, Rochford*. Very unsettled and stormy. Cold for the time of year, with little sunshine and heavy winds.—*Coventry, Priory Row*. Dull and gloomy with constant R and little warmth

or sunshine. Very difficult for farmers ; much of the later-mown hay was spoiled by wet, and little harvest was got in.

VII. NORTH MIDLAND COUNTIES.—*Nottingham, Beeston Fields.* R 3·16 in. above the average, this being the wettest August in the record commencing in 1881. In August, 1881, 5·15 in. fell.—*Worksop, Hodsock Priory.* Stormy and wet, with R twice the average and greater than that of any of the last 28 Augusts. Velocity of wind considerably above the average.—*Chellaston.* Very stormy, cold and rough. Bad for the harvest.

VIII. NORTH WESTERN COUNTIES.—*Southport, Hesketh Park.* Exceptionally stormy and rather cool, with a low and unsteady bar. Mean temp. 1°·7 below the average. Sunshine 9 hours below the average, and R ·43 in. above the average.—*Chatburn, Middlewood.* R 1·27 in. above the average of 14 years.—*Broughton-in-Furness.* Temp. below the average. Although R fell on 26 days there was more than the average amount of sunshine, as a great deal of the R fell during the night or early morning.

IX. YORKSHIRE.—*Upper Midhope.* Fine from 1st to 13th, but very heavy R from 14th to 20th, when 3·42 in. fell, and on 24th. Strong winds on the last six days.—*Goldsborough Hall.* Dull and unsettled throughout, with few fine days. Very strong wind from N.W. on 3rd and gale from S.W. on 4th. The max. shade temp. reached 70° on only one day.

XI. WALES.—*Llanfrechfa Grange.* A warm month with warm nights. Harvest was very late and consequently much injured. No wheat had been housed at the end, and much of it was soft and beginning to grow.

SCOTLAND.

XII. SOUTHERN COUNTIES.—*Moniaive, Maxwellton House.* A very wet month. R 2·85 in. above the average of 16 years, and the wettest in that period except 7·88 in. in 1892.—*Lilliesleaf, Riddell.* The month resembled July. Farm produce was looking well, but hay was short and not well got in in many instances.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh, Levenhall.* For the first 15 days there was almost constant high wind, chiefly from S. and S.E. Then followed some quiet days with slight haze and T on 19th and 20th. Mean temp. 55°.

XV. WEST MIDLAND COUNTIES.—*Rothsay, Crichton Road.* R 10·02 in., the greatest in August since 1861, when 10·50 in. fell.—

Mull, Quinish. R 8·08 in. The wettest August ever recorded here, 1875 with 7·79 in. being the nearest approach.

XVII. NORTH EASTERN COUNTIES.—*Alford, Lynturk Manse.* Wet and cold, with a very backward effect on crops. Hay gathering was much delayed.

XVIII. NORTH WESTERN COUNTIES.—*Lochmaddy.* The whole month was exceptionally wet, having the heaviest August R since observations were started 19 years ago.

XIX. NORTHERN COUNTIES.—*Altnaharra.* Low temp. and little sunshine, especially in the first part.

IRELAND.

XX. MUNSTER.—*Nenagh, Castle Lough.* Another month of R, wind and TSS.—*Broadford, Hurdlestown.* Very wet. Fine weather was much wanted, as the hay and corn crops were in a bad way.

XXI. LEINSTER.—*Kilkenny, Sion Villa.* Fine but cold to 10th, followed by cold, wet, unsettled weather to close of month.—*Ballybrack, Streamville.* Dull, damp and cold. R ·51 in. above the average of 25 years.—*Rathmines, Leinster Road.* Wet, cold, windy and generally unpleasant. Mean temp. 55°·8, the lowest ever recorded in August; the max. did not reach 70°. Little sunshine.

XXII. CONNAUGHT.—*Tuam, Gardenfield.* Excessively wet, with R 3·99 in. above the average. Many places were flooded, and hay, turf and potatoes were greatly damaged.

XXIII. ULSTER.—*Belfast, Springfield.* The wettest month since June, 1897. Most disastrous for farm work.

SEPTEMBER.*

ENGLAND.

I. LONDON.—*St. Pancras, Camden Square.* On the whole finer than any of the summer months, and there was no persistently wet or cold weather. A little fog in the last week. Mean temp. 58°·4, or 0°·7 above the average.

II. SOUTH EASTERN COUNTIES.—*Farnham, Short Heath Lodge.* Unsettled, except between 12th and 21st. R ·15 in. above the average.—*Wallington.* Cool and wet. The day temp. was low, only once

* See also *Met. Mag.*, October, 1903, p. 166.

touching 80° , but the night temp. was relatively high. The month was unfavourable for crops. Mean temp. $57^{\circ}6$, or $0^{\circ}2$ below the average. Rainfall 1.05 in. above the average. Duration of sunshine 183.3 hours, being 23.1 hours above the average, or 48 per cent. of the possible amount.—*Tilmanstone, Danefield*. On the whole finer and much warmer than the preceding months.—*Lewes, Saxonbury*. Showery and mild to 13th; fine and cold to 21st, with frost on 17th, and mild with fog and R after. TSS on 2nd and 4th.—*Crowborough, Beechcroft*. Fine on the whole. Much fog in the latter part and very close air.—*Christchurch, Winkton Lodge*. Cold and bright with four cloudy days. Very cold in the middle. The superiority of the climate on the southern coast was very apparent this month, when in the Midlands there were 10 dull, misty days, and at Christchurch bright, fine weather with sun shining almost all day.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R .60 in. above the average of 29 years.—*Farnham Royal*. R slightly below the average. Only two days without sun. Prevailing wind N.E. and N.W.—*Abingdon, Culham*. Fairly dry. Cold in the middle and warm in the latter part.—*Pitsford, Sedgebrook*. The first 10 days were rather wet and squally, but from the 11th until the end the weather was perfect. Mean temp. $55^{\circ}7$. R .13 in. above the average of 10 years.

IV. EASTERN COUNTIES.—*Dunmow, Bigods Hall*. Heavy mists were prevalent both in morning and evening during the last week. Little sunshine, the duration being 148.5 hours out of a possible 374 hours.—*Ipswich, Copdock*. The month opened with two very hot days, after which it was cool, but warmer again at the close. There was still plenty of R, but over 180 hours of sunshine, or more than in June or August, and within 3 hours of the amount in July. This, coupled with a certain amount of drying wind, made the harvest much better than might have been anticipated. Mean temp. $57^{\circ}8$.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R .31 in. above, and rainy days 1 below, the average.—*Winterbourne Steepleton*. R .93 in. above the average of 10 years. The mean temp. was slightly under the average of 10 years, but the mean min. was rather in excess, the nights being warm and the days cold.—*Tavistock, Whitchurch*. Wet and rather cold. It was showery every day except from 14th to 18th. The mean temp. varied from $62^{\circ}9$ on 1st to $47^{\circ}9$ on 15th. The prevalent wind was S.E. A good corn harvest generally.—*Polapit Tamar*. Again unseasonably cold and wet.—*Okehampton, Oaklands*. Wet and cold, with a few days in the middle bright and warm.

VI. WEST MIDLAND COUNTIES.—*Cirencester, Further Barton.* The broken weather which lasted from mid-July ended with a furious gale on the night of the 10th, and after a few cold days was succeeded by lovely summer weather, interrupted only by a violent TS on 24th.—*Chipping Campden, Hidcote.* Began cold, but ended with the last 14 days very mild. R about the average.—*Bishops' Castle, Castle Street.* Wet and stormy to 12th, afterwards fine and warm.—*Church Stretton, Woolstaston.* Very wet, with much L, and cold on the nights of the 15th and 16th.—*Wem, The Rectory.* Wet and cold until the middle. Fine weather then set in, and the much-delayed harvest was nearly completed. Warm from 25th.—*Coventry, Priory Row.* A fine fortnight of drying weather in the middle saved most of the harvest. With this exception, the weather was mostly broken and changeable. Mild, especially towards the end, and tender flowers were but little cut by frost.

VII. NORTH MIDLAND COUNTIES.—*Worksop, Hodsock Priory.* Rather wet, with normal temperature and a fair amount of sunshine.

VIII. NORTH WESTERN COUNTIES.—*Chelford, Astle Hall.* Very wet till 13th; fine from 13th to 23rd, then wet again to the end. The first frost occurred on 14th.—*Southport, Hesketh Park.* Easterly conditions were prevalent to an exceptional extent. Mean temp. 1°·0 below the average. Warm during the early part and unusually so during the last 11 days, but very considerably cooler in the central portion. Frost on grass on four nights. Sunshine 16 hours above the average, and R 2·02 in. in excess of the average, owing to three heavy falls during the first fortnight. Brooks and the underground water-level were exceptionally high.—*Chatburn, Middlewood.* R 3·05 in. above the average of 14 years.—*Hampson-in-Ellel.* The heavy R of August continued during the first half of September, and 11 days of R gave a total of 4·99 in., while 9 days in the second half gave ·98 in.—*Broughton-in-Furness.* Excessively wet in the first part, then some beautiful weather, and the latter part dull and showery, but with intervals of brilliant sunshine.—*Seathwaite Vicarage.* A great deal of R fell in the first part, the middle was warm and bright and there were warm showers in the latter part.

IX. YORKSHIRE.—*Upper Midhope.* On the whole mild; heavy R from 1st to 10th, when 4·66 in. of R fell, of which 1·41 in. fell on 8th and 2·02 in. on 10th, with strong winds. Foggy from 18th to 27th.—*Hebden Bridge, Falling Royd.* Wet and cold, with 5 inches of R in the first 10 days. Floods were general in the N. of England, causing

much damage.—*Goldsborough Hall*. The greater part was wet and unsettled. From the 1st to the 13th R fell on 11 days, the total being 3·51 in. From 13th to 21st was fine and dry, and there was another spell of wet, dull weather from the 21st to the end.—*Hull, Pearson Park*. The early part was variable with low temperature. Generally mild later, with some nice autumn days.—*East Layton Hall*. Lack of sunshine, much R and boisterous storms made up a bad month. Most of the grain was still in the fields at the end. Fruit crops were bad, the fruit being poor in quality and small in size.

SCOTLAND.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh, Levenhall*. A good deal of haze and fog occurred and little wind except on 11th, 12th and 21st.

XVI. EAST MIDLAND COUNTIES.—*Dundee, Balruddery*. Very bad for harvest operations. Duration of sunshine 115 hours.

XVII. NORTH EASTERN COUNTIES.—*Aberdeen, Cranford*. Dull and wet, with a great deal of fog from the 19th to the end.

XVIII. NORTH WESTERN COUNTIES.—*Lochmaddy*. From 12th to 25th only ·01 in. of R fell, an unusually small amount.

XIX. NORTHERN COUNTIES.—*Altnaharra*. The beginning was of a piece with the summer, cold and wet, and it continued very cold until the middle, when bright sunshine prevailed. The latter half was very fine.—*Bettyhill*. During the earlier days there was generally some R, but for the remainder the weather was charming.—*Castletown, The Clett*. Westerly winds prevailed in the first part with daily R. Fine and dry in the latter part, with south-easterly winds and some fog. Harvesting was only just started at the end of the month, and oats were still very unripe.

IRELAND.

XX. MUNSTER.—*Darrynane Abbey*. Another bad month, with only two really fine days.—*Cahir, Bengurragh*. Hay and wheat were damaged. Roots were very moist, but oats a fair crop.—*Nenagh, Castle Lough*. Another month of R, T, gales and high winds.—*Broadford, Hurdlestown*. Very unfavourable for farm work, and hardly any good hay was saved in this part of the country.

XXI. LEINSTER.—*Kilkenny, Sion Villa*. Although R fell on 20 days the weather was fairly fine, with many lovely days.—*Rathmines*,

Leinster Road. Although the R was heavy there was a good deal of fine weather.

XXII. CONNAUGHT.—*Tuam, Gardenfield.* Wet, the R being 1·49 in. over the average. From 2nd to 12th was mostly very wet, and there were great floods on 11th and 12th, crops being much damaged. A considerable part of the rest of the month was fine.—*Markree Observatory.* The first part was wet and at times squally. Bright sunshine was slight, but most of the nights clear. No fog.

XXIII. ULSTER.—*Belfast, Springfield.* The driest month since June, and most acceptable after the wet summer. The 13th closed a sequence of 56 wet days which commenced on July 20th.

OCTOBER.*

ENGLAND.

I. LONDON.—*Fulham, Edith Road.* A warm but dreary month of almost unbroken R. R 2·73 in. above the average and the greatest recorded except in 1891, when the same amount fell.—*St. Pancras, Camden Square.* Exceedingly wet and very mild, the mean temp. being 53°·1, or 3°·3 above the average, and the highest with three exceptions in 46 years.

II. SOUTH EASTERN COUNTIES.—*Wallington.* Extremely warm and wet. The R was only exceeded in 1882 and 1891 since the record commenced in 1881. The mean temp. was only twice exceeded and the mean shade and grass min. only once. On no occasion did the min. fall below 32° in shade or on grass. Mean temp. 52°·8, or 3°·3 above the average. R 3·10 in. above the average. Duration of sunshine 97·5 hours, being 2·9 hours below the average and 29 per cent. of the possible amount.—*Tenterden.* Wet and warm, with 10 days over 60° in the shade. Duration of sunshine 99·5 hours.—*Crawley.* By far the greatest R ever registered in one month.—*Lewes, Saxonbury.* Showery and mild, with high winds and only one fine day. S.W. gales on 5th and 6th and S on 26th. TSS on 8th, 12th and 15th. The Winterbourne stream began to flow on 18th.—*Bournemouth, Kempsey.* Extremely wet, the R being 9·38 in. or about two and-a-half times the average, and measured on no less than 29 days.—*Christchurch, Winkton Lodge.* The wettest month of a wet year. In spite of the quantity of R there were only 7 cloudy days. It seems a remarkable

* See also *Met. Mag.*, November, 1903, pp. 169, 173, 186; and December, 1903, p. 195.

characteristic of this neighbourhood that the R falls in the afternoon or night, permitting bright and sunny mornings.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R 2·94 in. above the average of 29 years.—*Watford, Weetwood*. R 7·49 in., and only 3 days were rainless. At the end, water was standing in the meadow for the first time.—*Hedsor*. Records going back to 1866 show no monthly fall approaching this, which was 9·04 in., the wettest month having been October, 1891, with 6·80 in. The total from January 1st to October 31st was 37·91 in., or 18·41 in. above the average of 10 years.—*Goring, Elmcroft*. Including the last 4 days of September R fell on 34 consecutive days. Floods occurred for the third time this year, but were not so high as in June.—*Abingdon, Culham College*. R fell on every day. It was characterised by coming in a succession of short, sharp showers.—*Oxford, Banbury Road*. Warm, wet and windy. The floods were very bad, but by no means so bad as in November, 1894, when 2·75 in. of R fell in 3 days.—*Blisworth, Crieff House*. Extraordinarily wet, with R on 29 days, the total being 3·03 in. above the average of 10 years.

IV. EASTERN COUNTIES.—*Dunmow, Bigods Hall*. The mornings were generally misty with exceedingly heavy dews. The land was soaked and the river in flood. Duration of sunshine 79·3 hours, out of a possible 324 hours.—*Ipswich, Copdock*. R was the distinguishing feature of the month, but the small amount of sunshine (91 hours) and the very equable temp. were also noticeable. There was no frost even on grass, and the mean temp., 51°·7, was distinctly high.—*Bury St. Edmunds, Westley*. A mild month with no frost. Only five months have had a greater R since 1856.—*Burgh Castle Rectory*. So strange an October is not remembered. Always believing the old saying, "21 fine days in October," it surprised one to find only 6 without R. The fall of the leaf was perhaps rather earlier than usual.—*Blakeney*. Remarkable for the heavy R, which was more than double the average of 10 years. The harvest, though late and protracted, was better than in some districts, but many stacks were in very bad order, the corn having grown through the roofs.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R 3·27 in., and rainy days 13, above the average. Wheat sowing was impossible.—*Dorchester Water Works*. The heaviest R yet recorded in any one month, the previous highest being 8·22 in. in September, 1896.—*Tavistock, Whitchurch*. Wet, damp and rather cold. R fell every day, and the total was more than twice the average. In 21 consecutive wet

days from September 26th to October 16th 8·68 in. of R fell. The total fall and number of rainy days were greater than in any month since observations were commenced in 1893, and August, September and October were the wettest three consecutive months. The mean temp. ranged from 57°·4 on 3rd to 42°·7 on 28th. Prevailing wind S.W.—*Barnstaple, Atheneum*. R 10·01 in., an amount not equalled in any month since observations commenced in 1865. The greatest previous fall was 8·40 in. in October, 1870.—*Lynmouth, Rock House*. The wettest month ever recorded. Over 1·00 in. fell on four days.—*Crewkerne, Merefield House*. During the second week the R was 3·47 in., of which 2·23 in. fell in 46 hours from 8 p.m. on 10th to 6 p.m. on 12th. There was no frost and the mean shade temp. was 54°·8. Prevailing wind S.W. and S.E. R to the end of October 41·51 in.—*Harpree Court*. R 6·60 in. above the average of 21 years and the heaviest monthly fall in that period, the next being 10·04 in. in October, 1891.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop, Blagdon House*. Continuous heavy R, much L and absence of frosts. R 3·97 in. above the average. Mean temp. 50°·3.—*Cirencester, Further Barton*. Wet from beginning to end, R falling on every day. R 4·26 in. above the average of 58 years and the third greatest in October in that period.—*Ross, The Graig*. A record not only in amount of R but in the fact that there were 31 days with R, the greatest number previously having been 28. From September 28th to November 2nd there were 36 consecutive days with R, and from September 23rd to November 2nd 8·60 in. fell on 39 days. Another feature of the month was the high min. temp., averaging 46°·8, which was exceeded only in 1876 with 48°·1. There were no frosts, and tender plants were in bloom much later than usual.—*Wem, The Rectory*. The wettest October remembered, though a few days were fine or nearly so. Some harvest was still out at the end. Rivers were all flooded and there was much sickness.—*Tenbury, Rochford*. Exceedingly wet and stormy. R 3·05 in. above the average, the fall for the 10 months being 30·06 in., or 9·58 in. above the average.—*Coventry, Priory Row*. Continuous R throughout. The largest R ever measured here in one month.

VII. NORTH MIDLAND COUNTIES.—*Horncastle, Bucknall*. R 5·59 in. ; previous wettest October since the record commenced in 1874 was in 1885 when 4·95 in. fell.—*Grimsby, Abbey Road*. Exceedingly wet and windy. The last three days were the only really fine ones, and were more like early spring than October.—*Workshop, Hodsock Priory*.

Warm, wet and stormy, with an unusual absence of frost ; constant rains, but no heavy falls.

VIII. NORTH WESTERN COUNTIES.—*Chelford, Astle Hall*. The wettest month ever remembered, having 6·67 in. of R and only two fine days.—*Wilmslow, Parksye*. A record R, the highest in 26 years. The nearest was November, 1882, with 6·07 in.—*Southport, Hesketh Park*. Exceptionally wet, with unprecedentedly low bar., much stormy weather and continuously high and remarkably equable temp., S.E. to S.W. winds greatly preponderating. Mean temp. 2°·3 above the average. Frost on grass on one night only. Sunshine 30 hours below the average and R 3·17 in. above the average. Rainy days were more numerous than in any previous October during 32 years' record. The water-level was again unusually high.—*Chatburn, Middlewood*. R 5·52 in. above the average of 14 years, and the heaviest fall for any month in that period. The next heaviest was in November, 1891, when 8·19 in. fell.—*Hampson-in-Ellel*. The total R, 8·87 in., was the largest fall in the district for any month during many years. The R for the six months ending June 30th was 17·06 in., and for the four succeeding months 25·57 in.—*Broughton-in-Furness*. The wettest October since 1877. Wild, wet and stormy, but mild on the whole. Very heavy R on some occasions, over an inch falling on four different days.

IX. YORKSHIRE.—*Wentworth Woodhouse*. R 6·55 in., the greatest yet recorded in a month.—*Upper Midhope*. The wettest month by far during 9 years. Very strong wind on 7 days.—*Goldsborough Hall*. The R was very heavy, the total being believed to be a record. Only three days without R.—*Oughtershaw Hall*. The wettest month for at least 13 years.—*Hull, Pearson Park*. Remarkable for unpleasant weather, the R being the heaviest in October since 1896, and that for the 10 months being 6·50 in. above the average of 20 years. It was exceptionally wet throughout and squally at times.—*Baldersby*. R 4·41 in. above the average of 10 years.—*East Layton*. A record for bad weather. There were only four days on which no R fell, and the total was also a record. Most of the corn was still standing at the end, and there was no chance to get it into the stack-yard.

X. NORTHERN COUNTIES.—*West Hartlepool, Bradgate*. R fell on every day. On 8th 2·90 in. of R fell, and on 8th and 9th there were 40 hours of continuous R—*Wolsingham*. Remarkable for having 31 consecutive rainy days, a circumstance which has not occurred before since the record commenced in 1868. The total fall, 9·28 in.,

was only exceeded by the fall of 10·01 in. in December, 1876.—*Eskdale*. L nearly every evening and one or two short TSS. The R was occasionally very heavy, but generally a steady downpour. At the end corn and hay were still in the fields, rotting. It was occasionally cold, but at times very close and heavy.

XI. WALES.—*Llanfrechfa Grange*. The greatest October R experienced in 38 years, the nearest to it being nearly 9 inches in 1891. Much of the R fell at night. Farming operations were very much hindered.

SCOTLAND.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh, Levenhall*. R almost an inch in excess of any other month of the year. A good deal of strong wind. Mean temp. 46°·3.

XV. WEST MIDLAND COUNTIES.—*Rothsay, Crichton Road*. R 11·04 in., the greatest monthly R on record in Bute since 1800. The next highest fall was 10·50 in. in August, 1861.—*Tighnabruaich*. R 10·61 in., making a record month. Temp. normal.

XVI. EAST MIDLAND COUNTIES.—*Nether Cambushinnie*. The R was a record for 9 years, exceeding August, 1895, the previous highest, by 1·78 in. The grain crops were utterly ruined.—*Dundee, Balruddery*. Exceedingly wet. Very bad harvest weather, and at the end there was still much oats and barley in the fields, some of which had been cut for nearly 8 weeks. Duration of sunshine 65½ hours; 11 sunless days.—*Montrose, Sunnyside*. Farmers had a trying time with their harvest work. On Sunday, 18th, ingathering was engaged in all day. At the end of the month much grain was still ungarnered.

XVII. NORTH EASTERN COUNTIES.—*Crathes, Pinewood*. Excessively wet. Harvest was not nearly finished at the end, and the crops were in a deplorable condition. The grain crop was above the average in amount, but the grain was soft and not very marketable. The turnip crop was poor and potatoes showed signs of disease.—*Aberdeen, Cranford*. Wet, with little sunshine and light S. and S.W. wind. Miserable weather for everyone.—*Alford, Lynturk Manse*. Harvest was very backward, a good deal of corn being still out at the end.

XIX. NORTHERN COUNTIES.—*Altnaharra*. Very wet, with much high wind.—*Bettyhill*. Very wet, with occasional fine days. On 14th and 15th the R was exceptionally heavy.—*Watten*. Wet throughout. Disappointing harvest weather. Some frost.

IRELAND.

XX. MUNSTER. — *Waterford, Brook Lodge*. The wettest October since 1875, the total for the 10 months being the greatest in over 50 years. Mean temp. $49^{\circ}9$.

XXI. LEINSTER. — *Kilkenny, Sion Villa*. Very wet, damp and cold, with some fine intervals. — *Broadford, Hurdlestown*. The wettest October on record. — *Ballybrack, Streamville*. Damp and mild, with an unusual number of wet days. R $\cdot 49$ in. above the average of 20 years. — *Rathmines, Leinster Road*. R slightly below the average, but rainy days much above. No heavy falls.

XXII. CONNAUGHT. — *Tuam, Gardenfield*. The wettest since the record commenced, except 1870. R $3\cdot40$ in. above the average.

XXIII. ULSTER. — *Belfast, Springfield*. The wettest month since November, 1890, when $9\cdot58$ in. of R fell, and the wettest October in a record of 28 years, the previous highest fall being $7\cdot26$ in. in 1894. The situation was very critical with regard to the agricultural outlook.

NOVEMBER.*

ENGLAND.

I. LONDON. — *St. Pancras, Camden Square*. Until the 27th the R was light and the weather on the whole fair and mild, but cloudy. On 27th and 28th $1\cdot38$ in. of R fell during a deep depression, bringing the total up to within half-an-inch of the average. There was very little fog. Mean temp. $44^{\circ}8$, or $1^{\circ}8$ above the average.

II. SOUTH EASTERN COUNTIES. — *Wallington*. Average temp., rather small R, but a large number of rainy days. It is extremely unusual to have a daily fall in November of over $1\cdot00$ in., and the only previous case was on November 10th, 1891. R $\cdot 46$ in. below the average. Duration of sunshine $42\cdot2$ hours, being $9\cdot1$ hours below the average and 16 per cent. of the possible amount. — *Sheppey, Leysdown*. Normal weather until 27th; on that and the succeeding day $1\cdot65$ in. of R fell, out of a total of $2\cdot62$ in. — *Lewes, Saxonbury*. Calm and dry to 27th, with some frost. S on 30th.

III. SOUTH MIDLAND COUNTIES. — *Muswell Hill*. R $\cdot 88$ in. below the average of 29 years. — *Abingdon, Culham*. Dry on the whole with variable temp. — *Oxford, Banbury Road*. Fine and dry as a whole. Fog from 1st to 8th.

* See also *Met. Mag.*, December, 1903, p. 206.

IV. EASTERN COUNTIES.—*Colchester, Lexden*. A cold and fine month, with some bright days.—*Dunmow, Bigods Hall*. The whole month was remarkable for scarcity of sunshine, the total being 52·8 hours out of a possible amount of 257 hours. Mist was persistent in the early part, and very slight falls of S occurred on four days. River Chelmer in flood on 28th.—*Ipswich, Copdock*. Damp and cheerless, though, if the last four days be excepted, there was very little R. In spite of this, the roads were in a deplorable state. Only 14 days had more than 1 hour's sunshine, and on 12 days the sun shone for 10 minutes or less. Dahlias were not cut till the end of the month, and a great deal of summer vegetation remained till then. Mean temp. 43°·5.—*Burgh Castle Rectory*. R on 18 days, but in small quantities and below the average. The ground was much saturated. The temp. was low in the day, but not at night.—*Norwich, Brundall*. Mean temp. 0°·5 below the average of 20 years. Ripe strawberries were gathered in the second week.—*Blakeney*. Twenty-one wet days and not much sun. S in the latter part.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R 1·05 in., and rainy days 3, below the average.—*Winterbourne Steepleton*. Comparatively dry, with temp. about the average.—*Tavistock, Whitchurch*. Showery, with R below, and temp. about equal to, the average. The mean temp. varied from 50°·7 on 2nd to 30°·8 on 30th. The hay and corn harvest was at last finished in the first half of the month, some oats being cut on the 5th.—*Okehampton, Oaklands*. Wet and mild.—*Combe Martin*. Although R fell on only 19 days, the atmosphere was saturated throughout, except on the 31st.—*Harptree Court*. R 1·61 in. below the average of 21 years.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop, Blagdon House*. Remarkably similar to November, 1902. R 1·56 in. below the average. Mean temp. 44°·1.—*Cirencester, Further Barton*. Fine and dry, with a great amount of sunshine. The R was exactly the average, but had it not been for the very heavy fall of the 27th and 28th, it would have been very low.—*Tenbury, Rochford*. Unsettled during the greater part of the month, but R ·69 in. below the average.

VII. NORTH MIDLAND COUNTIES.—*Worksop, Hodsock Priory*. Dry and fairly fine, with normal temperature.

VIII.—NORTH WESTERN COUNTIES.—*Chelford, Astle Hall*. Wet and stormy. On the 28th every stream and ditch was over its banks and the country was more under water than ever seen before.—*Southport, Hesketh Park*. The sunniest November since records commenced

in 1891. In other respects fairly normal, sea winds, however, predominating. Mean temp. $0^{\circ}\cdot3$ above the average. Frost in screen on 5 days, and on grass on 10. Sunshine 20 hours above the average, and R $\cdot20$ in. below the average. Unusual abundance of ozone.—*Chatburn, Middlewood*. R $\cdot29$ in. below the average of 14 years.—*Broughton-in-Furness*. Rather more frosty and less wet than the average. Traces of S in the middle and at the end, and very hard frost on 31st.

XI. WALES.—*Llangyhanfal, Plas Draw*. Generally mild, except in the first week and on the last day. Mean temp. $43^{\circ}\cdot0$.

SCOTLAND.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh, Levenhall*.—Till the 8th the weather was quiet, but a high S.E. wind blew on 8th and 9th. There was a great deal of S. and S.W. wind on 19th, 20th and 21st, rising to a gale on the night of the 20th. High wind again from 22nd to 24th, blowing a gale on 23rd. Mean temp. $39^{\circ}\cdot9$.

XV. WEST MIDLAND COUNTIES.—*Ballachulish, Ardsheal*. R $\cdot08$ in. above the average.

XIX. NORTHERN COUNTIES.—*Altnaharra*. Very changeable weather; intensely cold at times and at times very mild. The heavy S at the end was unusual.

IRELAND.

XXI. LEINSTER.—*Ballybrack, Streamville*. R $\cdot25$ in. below the average of 20 years.—*Rathmines, Leinster Road*. R below the average. There were many fine days and the average amount of cloud was only 5·1. Sudden change to wintry conditions on 29th.

XXIII. ULSTER.—*Belfast, Springfield*. Notable for foggy, frosty days. The driest November since 1896, the R being almost 1·50 in. below the average.

DECEMBER.*

ENGLAND.

I. LONDON.—*St. Pancras, Camden Square*. The weather throughout was extraordinarily sunless and gloomy. There was little frost, except during the first week and the last few days. The R was comparatively slight, and almost all fell during the earlier part of the month. Mean temp. $39^{\circ}\cdot0$, or $0^{\circ}\cdot2$ below the average.

* See also *Met. Mag.*, January, 1904, p. 222.

II. SOUTH EASTERN COUNTIES.—*Abinger Hall*. Wet and very unsettled in the first half. Colds and sickness were prevalent at the end, but no epidemic. Cold and very wintry for several days.—*Wallington*. The first half was wet and the latter dry. The days were cool, but the nights warm. The R and duration of sunshine were rather small, the former being .22 in. below the average, and the latter 28.3 hours, or 10.6 hours below the average, and 12 per cent. of the possible amount. Mean temp. $38^{\circ}5$, or $0^{\circ}5$ below the average.—*Lewes, Saxonbury*. Mild with R till 15th, then cool with fog, cloud and mist. Calm as a whole. Sharp frost on the last two nights.—*Crowborough, Steel Cross House*. An unusual absence of sunshine and a great deal of mist. The wind was easterly on 21 days.—*Bournemouth, Kempsey*. Average day temp. rather low, owing chiefly to cold weather at end of month. Unusually persistent dull or gloomy weather from 16th to 28th.—*Christchurch, Winkton Lodge*. Dull and calm; from 18th to 28th the sun was seen on two occasions only. R 2.24 in., falling almost entirely between 6th and 14th. Severe frost at the beginning and middle of the month, when the floods being out in consequence of the October rain, skating was possible for a few days.

III. SOUTH MIDLAND COUNTIES.—*Muswell Hill*. R .68 in. below the average of 29 years.—*Farnham Royal*. Mean temp. above the average, and R slightly below the average. A very dull month, with only 9 days with sunshine. Prevailing wind N.E. and S.E.—*Abingdon, Culham*. A dry month on the whole, though R fell on 15 days, but in no great quantity. Cold at the beginning and end.—*Oxford, Banbury Road*. A dry month overhead, but the earth was so wet that the smallest fall of R caused much mud, and floods had not quite disappeared up to Christmas.

IV. EASTERN COUNTIES.—*Ipswich, Copdock*. Cheerless and damp, light winds, generally N.E. to S.E., prevailing. A mild spell before Christmas, otherwise fairly normal as to temp. For 12 days, from 17th to 28th, there was not one minute of sunshine recorded. Total duration 40.7 hours. Mean temp. $37^{\circ}3$.—*Burgh Castle Rectory*. Dry, but one of the darkest seasons remembered, especially the last fortnight.

V. SOUTH WESTERN COUNTIES.—*Bishops Cannings*. R .98 in., and rainy days 6, below the average.—*Tavistock, Whitchurch*. Wet and cold. The R of the last three months of the year, 24.51 in., was the greatest in any three consecutive months since observations commenced in May, 1893. The mean daily temp. varied from $48^{\circ}6$ to $27^{\circ}6$. E. and S.E. winds were most prevalent.—*Polapit Tamar*. Cold, damp

and sunless.—*Crewkerne, Merefield House*. The month began with fine frosty weather, lasting for two days ; then three weeks of unusually wet weather. The remainder was mostly dull and gloomy, but dry, finishing with sharp frosts and more seasonable weather.

VI. WEST MIDLAND COUNTIES.—*Stoke Bishop, Blagdon House*. A cheerless month, with continuous mists and little sunshine. R .49 in. below the average. Mean temp. $40^{\circ}\cdot 1$.—*Cirencester, Further Barton*. Variable, with many lovely days, till 14th ; then an extremely gloomy, misty period with uniform temp. followed, which passed into frost in the last few days, when the sky cleared and a bitterly keen E. wind brought wintry weather.—*Tenbury, Rochford*. Unsettled and stormy in the earlier part, but dull in the latter, with sharp frost throughout the last week.

VII. NORTH MIDLAND COUNTIES.—*Worksop, Hodsock Priory*. Dry, dull and quiet, with low pressure and little frost.

VIII. NORTH WESTERN COUNTIES.—*Southport, Hesketh Park*. Quiet, and rather cool, with much hazy weather, E. and S.E. winds prevailing. Mean temp. $1^{\circ}\cdot 1$ below the average. Frost in screen on 11 days, and on grass on 17. Sunshine 8 hours below the average, and R .09 in. below the average. Mean amount of ozone unprecedentedly low. —*Chatburn, Middlewood*. R 1.28 in. below the average of 14 years. —*Broughton-in-Furness*. Mostly gloomy up to the 22nd, interspersed with some high winds and an occasional rainy day. Afterwards fine, with frosty nights and usually sunny days, but cold E. winds.

IX. YORKSHIRE.—*Goldsborough Hall*. Unsettled throughout. R or S fell on 17 days, but the total was only 1.42 in. The 7th was stormy, with heavy showers of S and sleet and strong S.E. wind. There were only three fine days from the 7th to the 26th, the remainder being dull and foggy.

X. NORTHERN COUNTIES.—*West Hartlepool, Bradgate*. Cold and quiet, keeping up the rainy and gloomy character of the year. Mean temp. $36^{\circ}\cdot 2$.

XI. WALES.—*Towyn, Gothic House*. Cold at first, with cloudless sky, but changing on 3rd to wet weather, which continued more or less to 22nd, when cold, dry E. wind set in.

SCOTLAND.

XII. SOUTHERN COUNTIES.—*Cargen [Dumfries]*. Dull and sunless, but with less R than the average.

XIII. SOUTH EASTERN COUNTIES.—*Musselburgh, Levenhall*. Gale from S.S.W. on the night of the 2nd, high wind on the 3rd, and another gale from the S.S.W. on the night of the 6th. Afterwards there was little wind until the 21st and 22nd, when it blew high from the S.W. and again on the night of the 31st. Except the 10th, 13th, 21st and 22nd, there was frost every night, and the mean temp. was only $34^{\circ}8$.

XV. WEST MIDLAND COUNTIES.—*Ballachulish, Ardsheal*. R 2·27 in. below the average.

XVI. EAST MIDLAND COUNTIES.—*St. Andrews*. One of the dampest, and quite the most sunless, of the months of a damp and sunless year.

XVII. NORTH EASTERN COUNTIES.—*Braemar*. A dull, dark, damp and sunless month.

XIX. NORTHERN COUNTIES.—*Watten*. Cloudy, dark and changeable, but fairly good winter weather.

IRELAND.

XX. MUNSTER.—*Nenagh, Castle Lough*. The first three weeks were mild and rainy. Then there was a moderate amount of frost.

XXI. LEINSTER.—*Castledermot*. The first eight days and the last seven were extremely cold but dry, and the remainder wet and dull.—*Ballybrack, Streamville*. The first three weeks were cold and damp, the last cold and dry. R 24 in. below the average of 20 years.—*Rathmines, Leinster Road*. Opening with dry frost, the weather until Christmas was dark and gloomy. Thence to the end the temp. never reached 40° , and cold E. and S.E. winds prevailed. Mean temp. $38^{\circ}7$, the lowest since 1892.

OBSERVERS' NOTES ON THE YEAR 1903.

ENGLAND AND WALES.

DIVISION I.—LONDON.

PADDINGTON, WESTBOURNE GROVE.—Abnormally wet and stormy. Thrice only did the daily measurements exceed one inch. An absolute drought lasted from June 20th to July 14th inclusive.

FULHAM, EDITH ROAD, WEST KENSINGTON.—Remarkable for the unexampled R, amounting to 59 per cent. above the average, but the number of days with R has been several times exceeded. There was one absolute drought of 22 days, from June 20th to July 11th. Mild and equable in temp. with no extremes, the mean temp. being 0°·7 above the average.

WESTMINSTER, CHESTER SQUARE.—Extraordinarily wet. Over an inch of R in one day on 6 occasions. Only two days without R in October.

HAMPSTEAD, WEST HAMPSTEAD.—Prior to the vernal equinox it was comparatively genial, part of February being particularly so. Spring grew worse as it progressed and there was fog in May. The summer closely resembled that of 1888: cool, dull and humid. Apart from copious R in October, autumn presented no abnormal characteristics.

ST. PANCRAS, CAMDEN SQUARE.—The year 1903 will long be remembered as the wettest year ever experienced in London so far as any observations are known to extend. The amount of R did not begin to assume abnormal proportions till the second week in June, after which an absolute drought lasting from June 19th to July 11th was the only interruption to a long period of extremely wet weather, with the result that on October 26th the total reached that of the whole of the previous wettest year, 1878. The fall in the two closing months was moderate, and the average for the year was exceeded by 13·11 in. During the year one inch or more fell on no fewer than 8 occasions, of which 3 occurred within one week in

mid-June. The previous highest number of such falls in any year was 5 in 1878, and on no previous occasion have more than 2 occurred in one month. As regards temp., 1903 was, as a whole, remarkably mild, the early months and the autumn showing very considerable excesses over the average. April, June and August alone had temp. below the average to any appreciable extent, the general character of the summer being cold and ungenial. Very little frost was experienced during the year, and there was an almost entire absence of S. The mean temp. was $50^{\circ}\cdot8$, or $1^{\circ}\cdot0$ above the average.

WANDSWORTH, NEW PARK ROAD.—The year was remarkable for the heavy summer R, which amounted to 16·90 in. in June, July and August, and for the number of falls of over an inch in 24 hours, of which there were 7. The R precipitated in these falls alone amounted to 9·16 in. The driest months were February and December, and the wettest June, July, October and August.

CAMBERWELL, DENMARK HILL.—Very wet and lacking in sunshine. A very wet summer followed a mild winter.

GREENWICH, BLACKHEATH.—The wettest year on record, though in June, the wettest month, there were only 11 wet days. Absolute drought for 22 days, from June 20th to July 12th. The heaviness of the daily falls was more remarkable than their frequency. The temp. of the year was above the average, that of April, June, August and December alone being below it.

WOOLWICH, CLIEFDEN, ELTHAM.—R 14·06 in. above the average.

DIVISION II.—SOUTH EASTERN COUNTIES.

SURREY.

HASLEMERE, HAZELHURST.—The R was the greatest on record, being 13·53 in., or 38 per cent., in excess. Every month was in excess except November and December, and in October more than double the average fell. There was no heavy fall of S, but S fell on June 3rd, and there were grass frosts on June 13th and August 23rd.

HASLEMERE, JESSES.—An extraordinary year for R and wind. R 63 per cent. above the average, and rainy days also much above the average. The R in June was notable, since nearly 5 inches fell on only 10 days. The October fall was a record in both respects.

HAMBLEDON, MATTERYES.—R 15·73 in. above the average of 16 years.

WITLEY, FERNSIDE.—The largest R since the record was commenced in 1872. The fall of June, 5·16 in., was beaten only in 1877 with 5·61 in., and the R of October has never been equalled. February, up to the 21st, was fine and warm, with slight R; terrific winds towards the end. March was mild and wet, with fierce winds at the end. April and May were cold, with frosts which continued into June in many places and ruined fruit. The first week of June was very cold without R; the 8th was the first and the 19th the last of 10 very wet days. In July there were extremes of heat and cold, the temp. falling to 38° on 13th. August was wet and cold, with high winds. The R of October, 8·44 in., was the largest on record. November had the least R of any month of the year, but was very foggy. No S fell up to the end of the year.

GODALMING, HURTMORE LANE.—R 13·94 in. above the average of 1891—1903 inclusive, and 8·48 in. above that of 1894, the previous wettest year in that period. The number of wet days also exceeded the previous highest.

FARNHAM, THE BOURNE VICARAGE.—The wettest year in a quarter of a century at least, the total R exceeding the average of 25 years by 14·09 in. It, however, followed a number of dry years; the ground was dry and the springs were low, and this excess was probably needed to restore deficiencies.

GUILDFORD, PICCARD'S ROUGH.—The wettest and healthiest year on record. The death-rate for the rural district round Guildford was under 10 per 1000.

BAGSHOT, HALL GROVE.—In June water was lying everywhere owing to the heavy R, and the water was high in wells. From June 20th to July 15th was good hay-making weather. There was no suitable weather afterwards for harvesting and many crops were spoiled. In October the R was heavy and work suspended; wheat could not be sown, nor the ground ploughed. Many land drains were rendered useless and had to be opened.

WEYBRIDGE, ST. MARY'S LODGE.—The R of 1903 was largely in excess of any previous record during 28 years, and exceeded the average by 13·54 in.

LYDEN CROFT.—The figures, showing the R to be 13·47 in. in excess of the 10 years' average, speak for themselves in proof of the extraordinary nature of the year's precipitation. The one redeeming feature was the almost rainless period from June 21st to July 15th. During this blessed interval the important hay crop of

the year was in great measure safely secured. Against loss in other directions, the farmer may count the gain of a renewed water supply in and upon his land.

REIGATE, RINGLEY MEAD.—R 12·04 in. above the average of 24 years.

NUTFIELD, HOLMESDALE.—The R exceeded that of 1894, the previous wettest since 1887, by 6·09 in. Every month till October had more than the average of that period. November, however, had ·32 in., and December ·27 in. below their averages.

WARLINGHAM, EGREMONT.—A record year for amount of R, exceeding the previous highest, 1894, by 6·68 in. From June 8th to 19th 6·70 in. fell. The intermittent stream in the Caterham valley, called the Bourne, broke out for the first time since 1897.

WALLINGTON.—Remarkably wet. The R exceeded the average of 20 years by 17·57 in. and was 10·52 in. greater than in 1891. There were 7 days on which over an inch fell and 25 with half-an-inch or more. The number of rainy days was 28 above the average, but 14 less than in 1891.

CROYDON, PARK HILL RISE.—The R was more than twice that of 1902, but the number of days fewer. TSS were frequent, with falls of over an inch on 6 days.

THAMES DITTON, WESTON GREEN.—R 14·23 in. above the average of 11 years.

KENT.

TENTERDEN.—One of the wettest years in 40 years' observations, the R being 4·41 in. above the average for that period, though only ·35 in. above the average of the 8 wet years, 1875—1882. Similar amounts fell in 1866, 1878, 1880, 1882 and 1894; 2 inches more in 1865; and 5 inches more in 1872 and 1877. The year was remarkable for the number of heavy falls, 3 over an inch; and though there were only a few more wet days than in 1902, 11 inches more R fell. Duration of sunshine 1647 hours. A partial drought lasted for 33 days, from January 20th to February 21st, with ·31 in. of R. It was very windy from February 20th to 27th. March was wet; April dry and very cold till the last week; May was warm at close with TSS; June dry, except for the very wet 12 days, 8th to 18th. Absolute drought lasted from June 20th to July 4th. This warm, dry month was the saving of much of the hay crop and probably of sheep from liver rot. The latter half of July was very wet, and so was the period August 9th to 25th. October was very wet and had

an exceptional number of rainy days. November was generally dry till the gale and R of the 27th. The latter half of December was dry, with hard frost at the close. The level of water in a well was :— On Jan. 9, 2 ft. 2 in.; on Feb. 26, 5 ft. 4 in.; on March 12, 8 ft. 7 in.; on April 11, 9 ft. 10; on May 9, 10 ft.; on June 17, 11 ft. 6 in.; on July 13, 10 ft. 6 in.; on Aug. 22, 8 ft. 11 in.; on Oct. 26, 12 ft. 9 in.; on Dec. 5, 18 ft. 9 in.

GOUDHURST, SCOTNEY CASTLE.—The R was only once exceeded since the record commenced in 1873—namely, in 1877, with 38·25 in.

GOUDHURST VICARAGE.—Extremely wet and ungenial, with little sun. May had a week of bright weather, and the end of June and the beginning of July were fine and bright for hay-making. The rest of the year was continuously wet.

TONBRIDGE, PRIMROSE HILL.—By far the wettest year on record. Very little S fell during the winter, which was mild. The frosts of April and May entirely destroyed the cherries, plums and apples.

CHIDDINGSTONE RECTORY.—R 11·51 in. above the average of 9 years, and 2·29 in. in excess of that in 1894, which was the heaviest during that period. The fall of 2·03 in. on July 23rd was the heaviest in 24 hours yet recorded.

ASH, PETTINGS HOUSE.—R 16·11 in. more than the average of 11 years and 9·66 in. more than the previous wettest year, 1894. On 5 days more than an inch was registered and of these 2·84 in. on July 23rd was the largest ever measured since observations commenced. In 12 days ending on June 19th 6·32 in. fell, and in 7 days ending July 23rd 4·55 in.

FARNINGHAM, MOUNT PLEASANT.—Unusually wet. In two of the wettest months, June and July, with 11·60 in., R fell on 27 days only, the average fall per rainy day being nearly ·41 in. There was an absolute drought for 26 days, from June 20th to July 15th. October was extremely wet, and, in contrast to June and July, there was some R measured every day.

HYTHER, HILLHURST FARM.—R 8·47 in. above the average of 19 years, and 1·09 in. above the previous greatest, in 1894.

FOLKESTONE, RADNOR PARK.—The wettest year since 1894, exceeding the average by 5·87 in.

OSPRINGE, LORENDEN.—The wettest year since observations began in 1866, the nearest approach being in 1872, when 34·18 in. fell on 195 days. The Ospringe stream issuing from the chalk hills, which had been dry since 1896, commenced running.

RECVLVER.—A disastrous year from an agricultural point of view. There was a remarkable recurrence of small depressions in close succession, and in many the bulk of the R fell as the depression appeared to be passing over and the bar. was rising. The total was the heaviest yet registered by 4 inches, but the number of days was exceeded in 1891.

MARGATE.—R $4\frac{1}{2}$ inches above the average of 22 years and rainy days 20 in excess. In seven months the fall was above the average. From June 20th there were 26 days without R, followed by 15 consecutive rainy days.

SUSSEX.

WEST BOURNE.—R 12·64 in. above the average, but rainy days only 10 above. The mean temp. was the highest yet registered.

FUNTINGTON.—The water in an artesian well which is generally lowest in December and highest in June, was this year higher on November 1st than ever known since the well was bored in 1897.

FOREST SIDE VICARAGE.—R 12·65 in. above the average of 15 years. The fall in October was the highest in any month in that period.

CHILGROVE.—The second highest total in 70 years, the fall of 10·53 in. in October being the greatest quantity recorded in any month during that period.

MIDHURST, BORDEN WOOD.—There were 59 days with more than ·25 in. of R, producing 36·12 in.; 33 days with more than ·50 in., producing 26·53 in.; and 7 days with more than 1·00 in., producing 9·86 in.

MIDHURST, LYNCH FARM.—Storms of R and wind occurred all through the year. The total R has only once been exceeded since the record commenced in 1868, 50·81 in. falling in 1872.

HORSHAM, WIMBLEHURST.—R 10·20 in. above the average of 10 years, and the greatest since observations commenced in 1891.

EASTBOURNE, GLENTHORNE.—A wet year, and even fine days were remarkably sunless. Very little N.E. or E. wind except during June.

LEWES, SAXONBURY.—By no means a record year, as the fall was exceeded as recently as 1894 and 1891.

HASTINGS, GUESTLING RECTORY.—The R, as elsewhere, far exceeded the average, but the most notable feature was that there were five falls of more than an inch.

BUXTED PARK.—Five years—1852, 1860, 1865, 1872 and 1877—had a greater R than 1903, the wettest being 1852, with 50·53 in.

MARESFIELD, FOREST LODGE.—The wettest year since 1877, when 40·74 in. of R fell. R 7·01 in. above the average of 45 years. The months in excess of the average were—March ·97 in., April ·50 in., May ·52 in., June 1·28 in., July ·68 in., August 1·47 in., September ·06 in., and October 3·40 in.; while January was ·04 in., February ·64 in., November 1·30 in., and December ·13 in., in defect.

CROWBOROUGH.—The chief feature was the heavy and continuous R, the total being 10·47 in. above the average of 32 years. It was the wettest year experienced since 1872. The number of days on which R fell was 204, a record so far as statistics are available. On 7 occasions the R exceeded 1·00 in. in 24 hours. There was little or no warm weather, and it was altogether unpleasant from a climatic point of view. Frost occurred on 39 days and S on 10.

TICEHURST, WHILIGH.—Horribly wet, especially in June, July, August and October. Three weeks of splendid weather favoured the hay harvest at the end of June and the beginning of July, followed by a deluge of over 4 inches falling in 6 days.

CROWBOROUGH, RENBY GRANGE.—Very wet and cold, with over an inch of R on 6 days. The fruit crop was spoiled by late frosts after mild weather. There were three weeks' drought and splendid weather from June 20th to July 11th. A wet summer was followed by a still wetter October.

WORTH, SOUTH HILL.—The wettest year on record. Spring frosts and gales spoiled the fruit blossom, and heavy R and bad weather seriously affected the hay and corn harvests.

EAST GRINSTEAD, HALSFORD PARK.—The wettest year on record for 40 years.

HAMPSHIRE.

TOTLAND BAY, ASTON HOUSE.—R 7·39 in. above the average and the wettest year since 1891, when 36·74 in. fell. November was dry, and March, April, August and October wet.

NEWPORT, GRAMMAR SCHOOL.—R 7·91 in. above the average of 22 years but exceeded in 3 years in that period. The R in October exceeded that of any month since the record commenced in June, 1881.

RYDE, BELDORNIE TOWER.—Partial droughts occurred from January 19th to February 21st, 34 days with ·33 in. of R, and from

June 20th to July 22nd, 33 days with $\cdot 21$ in. An absolute drought lasted from June 20th to July 4th inclusive.

OSBORNE.—A record year for the first 10 months, the R in that period, 32·00 in., being the largest amount registered during any of the 46 years for which a record has been kept. The total for the year was, however, exceeded in 1869, 1872 and 1894.

BOURNEMOUTH, KEMPSEY.—Very wet. January was mild, with a cold spell from the 11th to the 15th. A mild February and March were followed by a yet colder April; the temp. was always below 60° up till May 20th. June was cold, with exceptional max. temp. on the 1st and 19th, and was followed by a cold, wet July and August. October was extremely wet, with three very cold days.

SOUTHBOURNE-ON-SEA.—Very wet, although there were only two falls of over an inch in 24 hours. There was no S and there were only two TSS. October was abnormally wet, but June was normal.

MILFORD-ON-SEA, KEYHAVEN.—Disastrous frosts from April 12th to 17th ruined all wall fruit, early potatoes, &c. There was much potato disease in consequence of the wet August.

CHRISTCHURCH, WINKTON LODGE.—A cool year, with R five inches above the average of 12 years. October was the wettest month in that period, excepting September, 1896, when 7·85 in. of R fell. Spring was late, but March flowers were very fine and abundant. April frosts destroyed all fruit promise. The hay crop was abundant. Summer was cool and late, fires being required in June. No S or TSS.

RINGWOOD, BURLEY MANOR.—The R for the year was quite extraordinary and the amount in October, 10·30 in., still more remarkable.

FAREHAM, BELVOIR HOUSE.—The wettest year during 9 years' residence, and the worst for all fruit except gooseberries, but there was a fair crop of apples.

EMSWORTH, REDLANDS.—R 12·76 in. in excess of the average of 19 years.

WICKHAM.—Not a record year, as the amount of R was exactly the same as in 1891. There was no month without a fall of $\cdot 50$ in. in 24 hours. This has never happened previously.

BISHOPS WALTHAM, HILL PLACE.—The total R was the greatest for 28 years and exceeded the average of 27 years by 10·76 in. The fall of 9·44 in. in October constitutes a record monthly total.

BISHOPS WALTHAM, NORTHBROOK HOUSE.—The wettest year previous to 1903 was 1891, when 40·74 in. fell. Absolute drought from February 6th to 21st, and from June 21st to July 5th, inclusive.

PETERSFIELD, FAIRLEY.—The greatest R previously recorded was 44·41 in. in 1891. On 10 days this year more than an inch was recorded, the total for those days being 12·59 in.

EAST LYSS, NEWLANDS.—The year was distinguished by three "records": the greatest fall in any year, in any month (9·49 in. in October), and in any day (2·23 in. on October 11th).

WEST LYSS, BERRY GROVE.—Very wet and foggy, with but little summer-like weather.

SWARRATON RECTORY.—At the beginning of January the water level in a well sunk in the chalk was at its lowest, 25 feet. It rose until the second week in April, was then steady to the beginning of June, falling to the first week of October, and at the end of that month rising till at the close of the year the water was only 23 feet from the mouth of the well, which is 300 feet above sea level.

FARNBOROUGH, THE SCHOOL.—The wettest year since observations commenced in 1893, and October the wettest month.

HARTLEY WINTNEY.—R 14·39 in. above the average. The wettest year known here. The R of June is memorable, 5·55 in. falling in 9 days.

HECKFIELD, PARK CORNER.—The wettest in 33 years' record, the next wettest being 1879 with 31·00 in. The fall of 8·16 in. in October was the heaviest ever recorded here in a month.

BERKSHIRE.

SUNNINGDALE, LYNWOOD.—An abnormally large R, some 18 inches over the average. On 5 occasions more than an inch fell in 24 hours.

WARFIELD.—The wettest year on record for the Thames Valley. The R in June and October was like a tropical downpour and the land at the end of the year was quite sodden.

WINDSOR, ROYAL GARDENS.—R 8·91 in. above the average and the heaviest on record. The previous highest was 30·45 in. in 1879. The fall of 6·99 in. in October was also the heaviest on record for one month.

NEWBURY, WESTON.—The heaviest R registered in 30 years, the next highest being 38·40 in. in 1891.

YATTENDON COURT.—The year was characterized by wind, excessive R, and absence of sunshine; a great failure of fruit crops, abun-

dance of grass and luxuriant growth of all native plants and trees. Not a good season except for replenishing the chalk wells.

HEYWOOD PARK.—R 15·28 in. above the average of 20 years and the greatest in that period.

MAIDENHEAD, ISIS COTTAGE.—A record amount of R and great damage done by floods. Floods were out from June 19th to 23rd, and from October 30th to November 3rd.

TEMPLE HOUSE [MARLOW]. Floods in the Thames occurred in the third week of June and the first week of November. The June flood played sad havoc with trees and shrubs, killing a great many, especially yew, box, Portugal laurel and spruce fir.

LONG WITTENHAM, MANOR HOUSE.—R 10·39 in. above the average of 52 years; during that period the wettest year has been 1852, when 36·78 in. fell.

DIVISION III.—SOUTH MIDLAND COUNTIES.

MIDDLESEX.

STAINES, BELLE VUE.—The wettest year on record.

TEDDINGTON, HAMPTON ROAD.—During the year 10·03 in. of R, or nearly a third of the total, fell on 11 days. The heaviest R was from June 8th to 19th, when 5·96 in. fell.

ACTON, NEWBURGH ROAD.—R 13·19 in. above the average of 12 years.

CHILD'S HILL, HELENSLEA.—The greatest R in 30 years' record, that for 1879 being next with 33·95 in.

HERTFORDSHIRE.

EASTBURY.—It is difficult to find words adequate to describe the weather of 1903. February was the only really dry month. The most prominent features of the year were the great R of June 13th to 15th and the excessive and almost continuous R throughout October. There was scarcely any S.

WATFORD, ST. ALBANS ROAD.—The wettest year in memory; 1852 was the nearest to it, but nearly all the R in that year fell after May.

WATFORD, WEETWOOD.—R about 50 per cent. above the average and nearly 4 inches more than the heaviest fall on record for Watford, 35·98 in. at Wansford House in 1879, though probably more R fell in 1852. More than one-third of the total fell in June and

October together. February was the only dry month. There was absolute drought for 22 days from June 19th till July 12th.

HADLEY.—A year of abnormal R, the total being nearly 17 inches in excess of the average. Absolute drought lasted from May 18th to June 8th inclusive. February and March were fine and warm. No severe frost. There were no less than 7 days with over an inch of R.

BROXBOURNE.—The wettest year since observations commenced in 1879.

ST. ALBANS, COUNTY MUSEUM.—R about 50 per cent. above the average and over 2 inches more than the heaviest record for the neighbourhood, 36·71 in. at Gorhambury in 1877, though probably more R fell at St. Albans in 1852, when the fall at Nash Mills was 41·14 in. June and October had together more than one-third of the year's fall. February was the only dry month. There was absolute drought from June 20th to July 13th inclusive.

BERKHAMPSTEAD, ROSEBANK.—The total was only once exceeded during 48 years, when 38·97 in. fell in 1872.

KENSWORTH.—The excessive R caused the underground springs to rise rapidly, producing a plentiful supply of pure water. One well, 230 feet deep, had previously been perfectly dry for some months.

HAMELS PARK.—The winter was mild, open and dry; the spring cold and windy; the summer cold, dull, wet and windy; and the autumn mild, wet, dull and windy.

THROCKING RECTORY.—R 12·10 in., or 50 per cent., above the average of 20 years. There was one fall of 2 inches and four exceeding 1 inch. October had the greatest fall in any month since 1880.

BUCKINGHAMSHIRE.

SLOUGH, UPTON.—The wettest year since the gauge was established in 1873. Sap remained "up" very late with all trees, many of which had the March buds developed in November.

FARNHAM ROYAL.—Very wet, but only during the summer months, and although there was so much R, there was a great deal of sunshine, which is rather unusual.

HEDSOR.—Very mild throughout the early spring, vegetation being extremely forward at the end of March. This was followed by a cold and unseasonable April, with severe and destructive frosts. May was wet and close, with frequent TSS, and was followed by torrential R and destructive floods in June. From mid-July the

year was persistently wet, especially in October, when 9·04 in. of R fell. The total was 17·65 in. above the average of 10 years. Absolute drought for 22 days from June 20th to July 11th.

MARLOW MILLS.—R 15·53 in. above the average.

OXFORDSHIRE.

CAVERSHAM.—The excessive R fell chiefly in the six months May to October, especially in June and October. In June nearly 5 inches fell in 8 days, and although 5·57 in. fell, only 9 days were wet.

GORING, ELMCROFT.—Abnormally wet, the R being 12·28 in. above the average. The frosts in May almost entirely destroyed the fruit crops. Great damage was done to hay crops by floods, much being swept away or entirely ruined before it was cut. There was no severe cold and very little S.

ASSENTON.—The winter was mild with no severe frost. Spring opened badly, with frost every night from April 13th to 26th, but mild afterwards. The summer was wet, with little sunshine, and the autumn mild, wet and sunless.

DORCHESTER, BISHOPS COURT.—Unusually wet, and remarkable for the heavy daily falls. There were a great many floods. It was a disastrous year for agriculture, with excessive R and deficient sunshine.

CULHAM.—Wet throughout, with R 10 inches above the average. The year was remarkable for the number of days on which R was registered, though on only two occasions did over an inch fall. The heavy R in June caused such a summer flood in the Thames as had never been known in the district. Springs were higher than for years. The wettest year up to the end of October in 53 years, but the total did not reach that of 1852.

OXFORD, BANBURY ROAD.—Very little E. wind during the first three months, but a great deal in June. Three bad floods, two of which were in the summer months. Absolute drought for 21 days, from June 20th to July 10th. Blossom was well advanced by April 12th ; then nearly all destroyed by severe frosts.

HAMPTON POYLE RECTORY.—There were four local floods in the year—in May, June, August and October—of which the worst was in June.

BANBURY, BODICOTE.—The R was exceptionally great, not having been equalled for 25 years.

NORTHAMPTONSHIRE.

CASTLE ASHBY.—The wettest year since the record started in 1873 ; only four years in that period had a fall exceeding 30 inches.

SYWELL HALL.—Excessive R was the feature of the year. The wetness of October was due to the large number of rainy days, whilst that of May was principally due to the heavy fall on the 5th, when more than an inch fell in little over an hour.

CROYLAND ABBEY.—R 4·69 in. above the average of 40 years.

SCALDWELL.—The wettest year, and October the wettest month since observations commenced. R 9·49 in. above the average of 12 years. Corn ripened badly owing to want of sunshine, and was much damaged on account of the late and wet harvest.

COLLYWESTON HOUSE.—During the spring, summer and autumn the R was exceptionally heavy and frequent, but the total fall was greater in 1900. In this district the lack of warmth and sunshine did more harm to crops than the heavy R.

BEDFORDSHIRE.

SHILLINGTON.—Exceptionally wet. The daily R exceeded an inch on 5 occasions, whereas since 1897 it had only done so twice. The surrounding country was flooded several times.

WOBURN, RIDGEMOUNT.—A disastrous year for all cultivators on heavy land. January was unfavourable, having only 11 days without R. February was better, but in March the R was double the average. April was again better, but the four months from May to August were excessively wet. September was an average month, but October gave a record R, more than double the average. November and December were drier. The total was nearly 12 inches in excess of the average.

STOTFOLD.—R 11·36 in. above the average.

CAMBRIDGESHIRE.

CARLTON.—R more than 10 inches above the average of 12 years and the heaviest since observations commenced in 1891.

CAMBRIDGE, SIDNEY STREET.—The wettest year since observations began in 1863.

THORNEY.—R 5·44 in. above the average of 20 years and the highest since 1886, when 25·15 in. fell.

THORNEY, WRYDE HOUSE.—One of the most disastrous years on record for agriculture. The total R exceeded that of any year since

1870, except 1872 and 1880. Rainy days were 27 above the average of 14 years. The R in October was 2·64 in. above the average of 30 years.

DIVISION IV.—EASTERN COUNTIES.

ESSEX.

GRAYS.—In spite of the total R being 12 inches above the average of 8 years, the number of rainy days was only 4 in excess of 1902, when the R was about half that of 1903.

BILLERICAY, BURGHSTEAD LODGE.—The total R was nearly 150 per cent. of the average.

SHENFIELD RECTORY.—More than an inch in 24 hours occurred on 7 occasions, on two of which more than two inches fell, passing all previous experience. Besides the exceptional R, the year was remarkable for the absence of sunshine.

CHELMSFORD, HIGH STREET.—The R was the highest registered in 37 years, and exceeded that of 1879 by 2·95 in.

CHELMSFORD, SPRINGFIELD PLACE.—Floods were out many times. This place was above the actual floods, but ponds were fuller than for many years. There were several bad gales, the worst being on September 10th to 11th and October 6th, in both of which one or two elms were destroyed.

TERLING VICARAGE.—R 9·25 in. above the average of 10 years, only three months having R below the average. The heavy R was very beneficial in increasing the supply of water in wells and ponds.

COLCHESTER, LEXDEN.—The first three months were mild except for a week's frost in January, which allowed of some skating, and the season was very forward. April was cold till 25th, when a mild and very wet period occurred, lasting until May 11th. The summer was cold and very wet, except for one dry and hot period from June 21st to July 10th. September was mild, October very wet, and November and December rather cold and dry. Absolute drought for 23 days from June 21st to July 13th, and partial drought from January 23rd to February 21st, ·27 in. of R on 30 days.

DUNMOW, BIGODS HALL.—Phenomenally wet, and from all accounts far worse than in 1879. The River Chelmer, in the valley below, several times flooded the low-lying meadows, whereas in 1879 it appears to have done so once only.

EARLS COLNE.—By far the greatest fall in 26 years' record, the nearest being 28·49 in. in 1892.

SAFFRON WALDEN.—R 10·94 in. above the average of 28 years and the wettest year on record, the nearest being 1872 with 34·70 in. on 202 days.

AUDLEY END.—The wettest year on record in 37 years. 1872 had 34·40 in. of R on 226 days.

SUFFOLK.

IPSWICH, COPDOCK.—The feature of the year, eclipsing all else, was the extraordinary R. The dry February and very mild February and March, followed by a bitter April, were perhaps worthy of note, and also the very mild autumn.

BOYTON RECTORY.—The first quarter was dry and mild and the springs low. April and May were very cold, and there was great destruction of fruit. Summer and autumn were disastrously wet.

GREAT THURLOW.—Abnormal R, forming a record for 21 years, in which the previous highest was 27·02 in. in 1892.

STANSFIELD.—Excessively wet, except in February and December. As the bulk of the R fell from May to October it had a disastrous effect on the maturing of the hay and corn crops. The red clover seed crops never matured and were either carted off for manure or ploughed under.

HAWKEDON RECTORY.—The wettest year for a very long period. Eight days, from June 13th to 20th, produced 3·67 in., and this was followed by 23 days with only ·03 in., giving a good hay harvest on the uplands. To the end of October was a miserable record of floods and spoiled harvest. November was dull but fairly dry, with one big R, 1·06 in., on 27th. December was dry and very cloudy, with a cold snap at the end.

ASH BOCKING RECTORY.—Much cloud and gloom and little sunshine. There was scarcity of water early in the year and great excess in the latter half. TSS were few and slight.

BURY ST. EDMUNDS, WESTLEY.—The wettest in 47 years, except 1872. There have been 7 years with over 30 inches, some of which were fairly favourable for agriculture, but this was the worst of them all, nothing being got in well except part of the hay.

BACTON.—Very trying for those engaged in agriculture on account of the excessive R. In many cases hay, clover and corn were spoiled, and in some parts of the country barley was left in the fields.

SIBTON.—The R was considerably above the average. February

was very dry. In June the R was confined to 8 days, but 2·88 in. fell. Then came 21 days without R, a period invaluable for hay-making. After July 11th there was no settled weather until December 11th, after which it was very dry.

WALSHAM-LE-WILLOWS.—The wettest harvest for upwards of 20 years. Some beans, and even oats and barley, were still out in the last week of October. Fruit was very scarce except strawberries. The only hot weather occurred on a few days at the end of June and at the beginning of September.

SOUTHWOLD.—Till the end of May the R was normal. In June 2·60 in. fell on 7 days, and from July to October the amount of R was excessive.

HALESWORTH, RUMBURGH.—A record year for mud. The commons were simply swamps and the gateways quagmires.

BURGH HALL.—R fell on 178 days, but on 100 it did not exceed ·10 in., whilst on only 42 was it as heavy as ·20 in. The wet weather generally occurred most inopportunistly for agricultural purposes, and autumn and winter R was badly needed.

BURGH CASTLE RECTORY.—Whilst many parts of Great Britain were flooded, the R here does not seem to be greater than the annual average. It was not a prosperous year. There was little sunshine and very little fruit. Crops were not good nor well got in.

NORFOLK.

WATTON.—The greatest R during 38 years except 1872, when 36·26 in. fell.

GREAT YARMOUTH.—R 1·70 in. *below* the average.

SPROWSTON.—R about 4 inches above the average of 60 years. February was dry and there was no R from May 18th to June 12th. December was also dry, and from June to October inclusive, very wet.

EAST DEREHAM.—Mild winter, cold and late spring, and very wet summer and autumn. The R for the year was at least 6 inches above the average. There was not one TS.

AYLSHAM, WOODGATE.—Springs were very low, as the heavy R only influenced the shallow ones.

WORSTEAD.—Considering the R elsewhere, this part was highly favoured, and ponds and wells were still very low at the end. Nearly entire absence of TSS.

HILLINGTON.—The R was in excess of the average in all months except the two first and two last, but wet as it was, in no month

was the fall the greatest recorded, even the heavy R of October having been beaten by that of 6·62 in. in 1892. One inch or more was measured on only three days.

DIVISION V.—SOUTH WESTERN COUNTIES.

WILTSHIRE.

ALDERBURY.—R 12·54 in., and rainy days 14, above the average of 15 years. October was the wettest month, with nearly three times the average R.

MAIDEN BRADLEY.—R 19·93 in. above the average of 16 years and the highest in that period. Over an inch fell in a rainfall day on 5 occasions.

WARMINSTER, RYE HILL.—A disastrous year for farmers. Some good hay was made in the fine spell between June 20th and July 15th, but the corn crop was much damaged and badly harvested. The storms at the end of July and that of September 10th did much mischief in the neighbourhood.

SHREWTON.—Probably the wettest year in the memory of man, containing the wettest spring, summer and autumn, the wettest March, June and October, this last having 1·88 in. more than September, 1896, the wettest month previously recorded. Until the middle of July very wet and very dry periods alternated ; afterwards wet weather was almost continuous.

LUDGERSHALL, CONHOLT PARK.—The wet season was very useful in this district, as the chalk springs were becoming exhausted in the deep wells, and at the end of the year there was plenty of water in them.

BISHOPS CANNINGS.—R 10·23 in., and rainy days 16, above the average.

MARLBOROUGH, MILDENHALL.—R 13·44 in. above the average.

YATESBURY.—R 15·98 in. above the average of 13 years and 6·85 in. more than the previous highest fall in 1891. June yielded 5·49 in. on only 10 days, while in July there were 20 rainy days but only 3·05 in. of R. The fall of 7·65 in. in October was the highest ever measured in one month, except 8·60 in. in August, 1891.

DORSETSHIRE.

WINTERBOURNE STEEPLTON.—R 12·45 in., and rainy days 30, above the average of 10 years, but the R was less than in 1894,

when 50·07 in. fell on 204 days. One inch and upwards fell on 6 days. On no occasion were there more than 10 consecutive days without R.

BLOXWORTH RECTORY.—By far the wettest during the last 19 years.

BEAMINSTER VICARAGE.—R 11·38 in. above the average of 30 years, the previous highest totals being 47·02 in. in 1882, and 47·04 in. in 1891.

BEAMINSTER, FLEET STREET.—R about 10 inches above the average. In October R fell on every day, and 12 days in February formed the longest interval without R.

DEVONSHIRE.

IVYBRIDGE, LANGHAM HILL.—Extremely wet and sunless, with the greatest number of rainy days in 15 years. The only fine weather was from the middle of May to the middle of July. There were bad gales in February, November and December, and a good deal of wind throughout.

BERE FERRERS.—R 16·82 in. above the average of 27 years and the greatest in that period ; 1877, with 60·15 in., comes next.

ASHBURTON, DRUID HOUSE.—R 14·50 in., and rainy days 18, above the average of 38 years.

TAVISTOCK, WHITCHURCH.—Damp, cloudy, windy, and very wet, with about average temp. The longest consecutive wet periods were 21 days from September 26th to October 16th, with 8·68 in. of R, and 19 days from February 19th to March 9th ; and the longest dry periods, 9 days from April 16th to 24th, and from May 18th to 26th. Falls of an inch or more occurred on 5 days. The first three months were warm, and April, June to October, and December were cold. The hay and corn harvests were good, but not finished till November.

CHUDLEIGH, IDEFORD.—R 9·91 in., and rainy days 36, above the average of 16 years. The greatest previously was 44·55 in. in 1894. There were 21 consecutive wet days from September 26th to October 16th, and 13 consecutive rainless days from February 7th to 19th. There were 11 periods of 7 or more consecutive rainy days.

POLAPIT TAMAR.—The R was exceptional, the total being 14·90 in. above the average. On 5 days more than an inch was recorded. The R in October, 11·27 in., was by far the highest hitherto recorded in one month.

ROUSDON.—A very wet year, the total R being 7·43 in. above the

average of 20 years, and only exceeded once in that period, when 39·88 in. was recorded in 1891. October was the wettest and November the driest month. There were 206 rainy days, or 32 above the average. The longest dry period was 11 days in May. R fell every day from October 1st to November 2nd, making 33 consecutive rainy days.

EXETER, HEAVITREE.—R 10·69 in. above the average of 10 years.

STOCKLEIGH POMEROY.—R 9·02 in. above the average of 9 years and 5·98 in. more than the previous highest in 1897. It was a year of continuous R with not many heavy falls.

HEANTON SATCHVILLE.—R 11·65 in. above the average of 13 years. The fall of October was 4·50 in. above the average and the heaviest yet recorded in any month.

ABBOTSHAM, RICCARD'S DOWN.—A cold, wet year, the R being, on the whole, uniformly distributed with no large amounts. No S.

INSTOW.—Although the year was exceptionally wet, June was unusually dry. On September 10th there was a most disastrous gale, followed by nearly two months of very mild weather with continual R. Consequently fresh buds formed on all fruit trees, and many pears and apples blossomed as if in spring.

CORNWALL.

REDRUTH, TREVINCE.—R 14·67 in., and rainy days 35, above the average, the R being the heaviest by 7 inches in 16 years' record.

REDRUTH, TREWIRGIE. R 13·04 in. above the average of 24 years. There were no absolute or partial droughts. Very little S. Mean temp. 49°·8.

ALTARNON.—February, April, June and November gave less than the average of 40 years, and March, August, October and December more, especially March and October, the latter being the wettest month on record. The year's total was exceeded by 1872, 1877 and 1882, but in number of rainy days it stands *facile princeps* with 269. All crops were good in bulk, but when the dry period came in November, favouring the gathering of roots and apples, much of the grain had rotted in the ground.

BUDE.—R 9·49 in. above the average of 21 years.

SOMERSET.

ILTON VICARAGE.—R 13·23 in. above the average of 22 years and the greatest since observations commenced in 1880. The next

heaviest fall was 38·80 in. in 1891. This year the R of every month except November was above the average.

WELLINGTON.—The wettest year during 12 years' observations, the R being about 10 inches above the average. The only months with R below the average were February and November.

NORTH CADBURY RECTORY.—Not one dry month, only four having less than 3 inches of R, but October was the only month with an excessive fall. There was only one fall of an inch, but 23 of ·50 in. and upwards, and other 33 of ·25 in. and upwards. Hardly any S, the ground being never really white.

SIMONSBATH.—Uniformly wet, with low temp. and very little sun. After the middle of July the ground was hardly dry enough for gardeners to do any work. The R was mostly of a steady, moderate kind, with a high average of hours to the inch.

HOLFORD.—The early part of the year was generally very mild, and January, except one week of frost, was also damp. Storms and much strong wind at the end of February. Vegetation was very forward in March. The first three weeks of April were bright and cold with strong wind, but the end of the month and May were fine and warm. It was wet again towards the end of June, with heavy storms, T, and cold winds. Part of July was hot and dry, and August, September and October, on the whole, very wet and dull. November and December were mild, with a good deal of wind in November and damp in December, but a week of frost and E. wind at the end.

CRANMORE HALL.—The heaviest R on record, 1882 coming nearest with 52·47 in. The first 10 months each yielded considerably over the average, and the continuous wet spell from September 26th to November 2nd was without parallel.

FROME, ORCHARDLEIGH.—The biggest R ever recorded here. March and August were wet, and October the wettest since 1891, when 10·07 in. fell.

CHEWTON MENDIP, THE PRIORY.—The wettest year since the record commenced in 1887. The previous highest R was 54·24 in. in 1891.

STON EASTON.—R 15·93 in. above the average of 35 years.

HARPTREE COURT.—Extremely wet, the R being 16·03 in., and rainy days 11, above the average of 22 years. The R of every month except May and November was in excess, and the fall for

October was the highest monthly fall yet registered. Absolute drought lasted for 19 days from May 20th to June 7th.

HIGH LITTLETON.—R 14·56 in., and rainy days 31, above the average of 10 years, the R exceeding that of 1894, the next highest, by 8·40 in.

WESTON-SUPER-MARE, BEAUFORT ROAD.—Generally a cold and wet summer, with constant high, cold winds. October was unusually wet and warm, with temp. 2°·8 above the average.

LONG ASHTON.—R 8·56 in. above the average of 30 years, and the largest since 1882, which had 4·89 in. more. February, July and November were below the average, September equal to it, and the other months above, October being the wettest month since 1891.

CLEVEDON WATER WORKS.—The R was exceeded only by that of 1882, when 44·88 in. fell, and that of October was greater than in any month except August, 1879, 8·74 in., October, 1882, 8·45 in., and October, 1891, 8·84 in.

DIVISION VI.—WEST MIDLAND COUNTIES.

GLOUCESTERSHIRE.

CLIFTON, PEMBROKE ROAD.—R 8·37 in. above the average of 30 years and exceeded only 3 times in 48 years, the highest being 48·46 in. in 1882. The number of rainy days was 31 above the average and was exceeded twice. The R was in excess in 8 months.

BRISTOL, FISHPONDS.—A year of great R, the excess being greater than in any year since 1882. October was by far the wettest month, contributing over 4 inches above its normal quantity, but January, March and the three following months each had an excess of an inch or more.

STOKE BISHOP, BLAGDON HOUSE.—A year of normal temperature; very rainy and windy and most disastrous to all kinds of crops. R 6·92 in. above the average. Mean temp. 49°·9.

WICKWAR RECTORY.—Apparently the most remarkable within memory for continuance and volume of R and absence of sunshine.

KEMPSFORD.—The second heaviest R since 1863, the heaviest being 36·74 in. in 1882. The early part of the year was remarkable for rough winds, which occurred on 124 days during the first six months. The summer was not so wet as in 1879.

LYDNEY, PRIORS MESNE.—The wettest and gloomiest year in 10 years. The most remarkable feature was the R of October, 10·63 in., whereas the previous highest was 5·12 in.

CIRENCESTER, DOLLARWARD HOUSE.—Thoroughly wet, every month being above the average of 15 years, except February, November and December. The R was both heavy and continuous, the number of rainy days being 29 more than the average.

CIRENCESTER, FURTHER BARTON.—R 14 inches above the average of 58 years, and every month above the average except February, November and December. There were 30 wet days more than the average and an unusual number of heavy falls.

STROUD, STANLEY PARK.—The wettest during 15 years' records, the R being 50 per cent. above the average of 14 years.

HATHEROP RECTORY.—R 10·27 in. above the average of 40 years. The wettest year except 1882 since records commenced, but only exceeding 1875 by ·01 in. and 1872 by ·03 in.

WHITMINSTER.—The greatest R since 1858, except 1882, when 40·40 in. fell.

QUEDGELEY HOUSE.—R 10·24 in. above the average of 53 years and exceeded only in 1852, 1872 and 1882.

BIRDLIP HILL.—The greatest R since 1872.

BLAISDON.—R 12·28 in. above the average of 12 years.

GLOUCESTER, BELGRAVE ROAD.—The greatest R of the last 20 years. The R was 11·04 in., or 45 per cent., above, and the rainy days 37 above, the average.

ODDINGTON.—Much the wettest year since records commenced in 1892. The number of rainy days was also considerably above the average. October and May were very wet, but December decidedly drier than usual. There were only 2 days in the year with so much as an inch of R.

HEREFORDSHIRE.

ROSS, THE GRAIG.—The R was only exceeded in 1872, 1875, 1882 and 1886 since the record commenced in 1852, and previously in 1839, 1841 and 1852 at a rather wetter station.

MUCH DEWCHURCH, BRYNGWYN.—The wettest year since 1872.

LEDBURY, PUTLEY COURT.—By far the wettest year since observations commenced 20 years ago. The R seems to have put down some insect pests considerably, notably the gooseberry scale.

DILWYN.—R nearly 11 inches above the average of 15 years, and 4·58 in. above the previous highest total in 1900. The number of rainy days was equal to the previous highest.

LEOMINSTER, FARM.—The only previous greater R since 1869 were 41·36 in. on 219 days in 1872, and 37·31 in. on 208 days in 1886.

PENBRIDGE, MARSTON.—R 9·77 in., and rainy days 44, above the average of 23 years. January was mild and wet and March wet. April began dry and there was frost every night from 9th to 25th, followed by 17 days of R, yielding 3·97 in. At the end of June and till July 14th it was hot and dry; then it set in wet till August 3rd, so that much hay was spoiled. August and the first 12 days of September were wet; it then cleared for a week, after which it was more or less wet till November 3rd. There was much high wind.

SHROPSHIRE.

LUDLOW, ASHFORD HOUSE.—R more than 12 inches above the average, which was passed on September 12th. No less than 21 days had R over ·50 in., and 6 days had over one inch.

WOOLSTASTON.—The wettest year recorded since 1865, and a very cold summer.

MUCH WENLOCK, WILLEY PARK.—The wettest and most sunless of the past 20 years. Fruit crops were practically a failure and cereals suffered greatly.

WARWICKSHIRE.

COVENTRY, PRIORY ROW.—Extraordinary R; the largest yet measured except in 1872, when 39·47 in. fell.

DIVISION VII.—NORTH MIDLAND COUNTIES.

LEICESTERSHIRE.

BELVOIR CASTLE.—R 3·90 in. above the average. Mean temp. 48°·1, the max. in shade being 85° on July 10th and the min. 15° on January 14th. Mean earth temp. at 3 feet 48°·6. Duration of sunshine 1447 hours 10 mins.; 59 sunless days. Prevailing wind S.W.

LINCOLNSHIRE.

KIRKSTEAD.—R 6·32 in. above the average of 10 years and the greatest in 15 years except 1900, when 26·65 in. fell.

SPILSBY, ASHBY ROAD.—R 4·92 in. above the average of 20 years.

LINCOLN, D'ISNEY PLACE.—The greatest R in 18 years.

LOUTH, WESTGATE.—R 5·64 in. above the average of 32 years, which little more than made up for the deficiency of last year.

Only three years have had a greater fall : 1872, 41·37 in., 1880, 35·61 in., and 1883, 35·49 in. On 6 days there was more than an inch of R.

CAISTOR, HUNDON MANOR.—The wettest year ever known in this locality.

BURTON ON STATHER.—The wettest year in 15 years' records, and October was the wettest month in that period.

NOTTINGHAMSHIRE.

NOTTINGHAM, BEESTON FIELDS.—The wettest year since 1882, when 37·80 in. of R fell on 210 days. The fall of 6·60 in. in October was the greatest in any month since records commenced in 1881; the fall of 2·07 in. on August 24th was also a record for that period.

NOTTINGHAM, STRELLEY HALL.—R about 6½ inches above the average. The fall in 1886 was much the same, but 1882 was 4½ inches more.

WORKSOP, HODSOCK PRIORY.—A mild year, as although the spring and summer were cool, the winter and autumn were extremely mild, with an entire absence of severe frost. R about 12 per cent. above the average; a wet period from August to October, but the rest of the year distinctly dry. No S at all. Sunshine deficient. The low bar. and high winds throughout the year were quite exceptional.

DERBYSHIRE.

HAZELWOOD, CHEVIN.—R about 8 inches above the average of 16 years.

WIRKSWORTH.—R 6·20 in. above the average of 12 years.

HARDWICK HALL.—A cruel spring with very late frosts, followed by a sunless and wet summer and autumn, and ending in an early, wet and foggy winter.

DIVISION VIII.—NORTH WESTERN COUNTIES.

CESHIRE.

ECCLESTON.—The greatest R since observations commenced 15 years ago.

CHESTER, CHRISTLETON HALL.—The winter was free from severe frost, except from January 6th to 18th, but there were frequent high and cold winds. The first half of March was wet and stormy. Spring was fairly dry. Sharp frost lasted from April 15th to 23rd. The first half of May was cold, wet and dull. The summer was

changeable, dull and generally sunless, with cold nights. Autumn was dull, with cold winds throughout ; it was very wet during October, but there was less R during November and December. The total R was 4·70 in. above the average of 23 years and ·40 in. below the record of 1880.

CHESTER, HOOLE LODGE.—The heaviest R in 21 years' record.

CHELFORD, ASTLE HALL.—R 10·14 in. above the average of 20 years and the wettest since 1882, when 40·89 in. fell. In 1877 the fall was 42·46 in.

MACCLESFIELD, SWANSCOE PARK.—R 8·18 in. above the average of 13 years and 3·22 in. above the fall of 1891, the previous wettest.

NESTON, HINDERTON.—R 32·7 per cent. above the average of 34 years and exceeded only in 1872 and 1877.

LANCASHIRE.

GARSTON, GRASSENDALE PARK.—In a record dating from 1878 the R of this year was exceeded only in 1882, when 40·02 in. fell. In the same period only one month, October, 1892, with 7·70 in., exceeded October, 1903.

AIGBURTH, KELTON.—R 7·56 in. above the average of 28 years and only twice exceeded in that period—in 1877, when the fall was 42·59 in. on 246 days, and in 1882 with 40·20 in. on 247 days. In the four months August to November the R was 19·83 in., or more than half the total.

SOUTHPORT, HESKETH PARK.—Unusually stormy, wet and sunless. Mean temp. 0°·4 above the average, owing to the exceptional warmth of February and March, and notwithstanding the cool summer and the severe weather in April. Sunshine 135 hours below the average, the deficiency being most marked in March, May and October. November was the sunniest month, relatively to the average. Wind movement very considerable in February, March, August and October, and below the average in December only. R 5·91 in. above the average, being the greatest since 1886, in and previous to which, however, several materially heavier falls were registered. The excess was largely confined to September and October. Brooks and subsoil water were at a low level during the early months, but unusually high from September to December. Bright sunshine was recorded on 275 days.

BRINDLE RECTORY.—R 14·31 in. above the average of 10 years.

ST. MICHAEL'S-ON-WYRE.—The wettest year since 1877, when

54·00 in. of R fell; the number of rainy days was only exceeded in 1882. It was a most disastrous year for agriculture. A sharp frost on June 21st did much damage to early potatoes and the harvest season was bad. From September 22nd to November 2nd, a period of 42 days, R fell on 41. Some corn was still out in December.

CLITHEROE, DOWNHAM HALL.—The wettest year since 1855 except 1866, when 58·26 in. fell.

FORTON.—Very wet, the R being one-third more than the average of 10 years, and falling chiefly in the second half of the year.

HAMPSON-IN-ELLEL.—R 13·21 in. above the average and the largest since 1877.

BOLTON-LE SANDS.—Unusually heavy R and absence of sunshine. Very little fruit ripened.

ARKHOLME, STORRS HALL.—The wettest year since 1852, the R being exceptionally heavy from the middle of July to the end of October, and as R fell on most days, either during the day or the night, the late hay crops and much of the corn was got in late and in bad condition. Some of the corn was out on Christmas Day. Severe frosts in April killed most of the fruit.

CARTMEL, AYNSOME.—Very high winds in the last week in February. Sharp night frosts during May and June and several ground frosts in every month. Floods occurred in the district during the second week in September and the last week in October.

BROUGHTON-IN-FURNESS.—Wild, stormy and wet on the whole, with R 6·84 in. above the average of 10 years, though that of the first six months was considerably below the average. There was one period of drought from May 21st to June 23rd, when only ·27 in. of R fell.

CARTMEL FELL VICARAGE.—Altogether a most disastrous year. A late seed-time and spring was followed by the wettest autumn in memory. A spell of 9 or 10 days of splendid harvest weather was followed by 11·75 in. of R in October. Grain could not be touched on account of the persistent downfall and a large percentage was utterly spoiled. Scores of acres of potatoes were good for nothing through standing in water, and turnips and mangolds were little better.

SEATHWAITE VICARAGE.—Notwithstanding small falls in April, May and June, the rest of the year was by far the wettest in the last 15 years. There was no really severe wintry weather, but the temp. was persistently low throughout.

DIVISION IX.—YORKSHIRE.

WEST RIDING.

DONCASTER, WADWORTH HALL.—The greatest R since observations commenced in 1889, beating the previous record in 1900 by .35 in.

DONCASTER, MAGDALENS.—The worst harvest for 30 years. Much flooding in the district.

BARNSELY, CHURCH STREET.—The greatest R since 1882, and the greatest number of rainy days since 1872.

MELTHAM, HAREWOOD LODGE.—The wettest year since 1877, the R being 32 per cent. above the average. June was the only dry month, and seven months were very wet, including October, which was the wettest since 1870. Rainy days were much in excess. The temp. was slightly above the mean, the winter being again mild and the summer cool as in 1902. The temp. in February was very exceptional, being 2°·0 above any February in 25 years. A year of deficient sunshine, with few and unimportant TSS.

HEMSWORTH HALL.—R 2·88 in. above the average of 11 years.

WAKEFIELD, WALTON.—R 1·68 in. above the average of 28 years, but 2·87 in. below the average of 1876—1880. Duration of sunshine 1241 hours on 278 days. In 1903 it rained and cleared up; in 1902 it rained and did not clear.

WAKEFIELD, STANLEY GRANGE.—R 5·30 in. above the average. October was exceptionally wet, being 3·95 in. above the average.

GOOLE.—The R and number of rainy days were the greatest in 25 years. That of October was also the highest in the same period.

HALIFAX, HALL INGS.—A very wet year, the R exceeding the average of 13 years by 7·94 in. More than an inch fell on 3 days.

HALIFAX, PUBLIC LIBRARY.—Generally wet, with low temp. in the summer and high temp. in the winter.

BRADFORD, HORTON.—Except in January the weather was generally very unsettled, especially during the summer and early autumn. October was exceptionally wet, but November and December much drier, though colder than usual.

OTLEY, FARNLEY HALL.—Perhaps the worst year for wind and R within the memory of man. Generally overcast with little sunshine.

ILKLEY, EATON ROAD.—A very wet year. June was the only fine month, but like the rest of the summer it was cold. Only 8 days in the year had max. temp. reaching 70°. Mean temp. 46°·8.

SKIPTON, "CRAVEN HERALD" OFFICE.—R 12 inches more than the average, and the wettest year in 16 years' observations.

HARROGATE, HARLOW HILL.—Abnormal R, but more sunshine than last year. Mean. temp. near the average. Alternate mild and frigid spells in spring, with almost continuous strong winds, thus destroying fruit blossoms.

ARNcliffe VICARAGE.—R the highest on record, the nearest approach being 79·49 in. in 1877.

SEDBERGH, BRIG FLATTS.—The R was a record for 25 years, the chief feature being the number of wet days. Harvest was not finished until the end of the year and quite ruined.

EAST RIDING.

BEVERLEY, EAST RIDING ASYLUM.—A cold, sunless year, with R 7·18 in. above the average since 1891, and the greatest yet registered. October was the wettest month in that period.

MARKET WEIGHTON, DALTON HALL.—Not remarkable for the quantity of R, but for the almost continually dull, damp atmosphere and frequent showers. October was a record month for quantity of R.

WETWANG.—R 1·24 in. above the average of 21 years. There was a remarkable absolute drought from May 17th to June 11th inclusive.

THIXENDALE.—There was much wind and R and many days of extraordinary gloom and darkness with a scarcity of summer sunshine. Fruit of all kinds was exceedingly deficient, owing largely to the late frosts destroying most of the blossom, which had been abundant, but appeared too early. Owing to a wet autumn potatoes were much diseased. Harvest was very late at the finish and crops were much damaged by standing in the fields for weeks after being cut. No wasps were seen and swallows were scarce.

NORTH RIDING.

NEW MALTON.—One of the most disastrous seasons for many years for those engaged in land cultivation. The long continued and severe cold in April did immense damage to fruit crops and to the young grain. The wet autumn delayed the harvest and many of the later sown corn crops were very much damaged.

AYSGARTH VICARAGE.—In a record commencing in 1876 no year approached 1903 except 1877 with 52·03 in. April, June, July, November and December, however, fell short of the average.

LEYBURN, BOLTON HALL.—Excessively wet and dull. R 10·48 in. above the average of 27 years. June, July, August and November had rather less than the average R.

INGLEBY MANOR.—The wettest for at least 20 years, having ·63 in. more R than 1886. January, February and March had temp. above the average, the rest of the year below. There was little sun; corn crops were late and harvest much delayed by R in October and November.

INGLEBY GREENHOW VICARAGE. — A very wet summer and autumn. Harvest was secured with much difficulty and potatoes were much rotted.

EAST LAYTON.—The worst year ever known for farmers. One season ran into another in the most tantalizing and ruinous way, the hay harvest being relegated to the time of the corn harvest and the corn harvest being left to the tender mercies of the wettest season any one can remember.

DIVISION X.—NORTHERN COUNTIES.

DURHAM.

HURWORTH GRANGE.—R 7·04 in. above the average of 11 years. With the exception of October there was not any great excess of R. There were no absolute or partial droughts.

DARLINGTON, CLEVELAND PARADE.—R about 7 inches above the average. On 17 days half-an-inch or more fell.

EASTGATE.—R 15·10 in. above the average of 9 years. Extraordinary fall of 11·51 in. in October.

SEAHAM HALL.—A cold, wet year. Frequent frosts in May and June, and S covered the fruit bushes when in blossom, causing the fruit to fall.

SUNDERLAND, WEST HENDON HOUSE.—R 6·97 in. above the arithmetical average, and 7·23 in. above the geometrical mean for the 30 years, 1860-89. This is the greatest amount in one year on record since 1860 inclusive, with the exception of 1872 with 36·86 in., and 1900 with 35·71 in. October, with 8·16 in., was the wettest month ever recorded. On one day only did the fall reach 1 inch. R to some extent fell on 278 days, and a measurable quantity on 218. These are much above the average, the latter being the more remarkable. S fell on 26 days. One partial drought only, from January 23rd to February 20th inclusive, 29 days with ·24 in. of R.

The number of days with alternation of sea and land breezes was much below the average, there being deficiencies in every month except January and April. The wind force was above the average, with very great excess in February and a noticeable deficiency in December. The duration of R was above the average, the excess being most marked in June and October, and deficiency in February. There were striking excesses of S. and S.W. winds, and deficiency of N.E., E., and W. winds. The deficiency of S.E. winds was also very noticeable till the autumn. The striking deviations from the monthly averages were the excesses of S. winds in March and December, S.W. in February and March, N.W. in April; and the deficiency of all the northerly and easterly winds in February and March, and of all the westerly winds in December. The N.E. wind was the wettest in proportion to the time it blew, and the W., as usual, the driest; but in the case of all the winds the proportionate R that fell was above the average.

NORTHUMBERLAND.

NEWCASTLE, TOWN MOOR.—R 6·42 in., and rainy days 26, above the average of 36 years. The R of October was the greatest yet registered, being 6·09 in. above the average.

STAMFORDHAM VICARAGE.—Not even the oldest inhabitant, over 86 years of age, remembers such a wet year, nor especially such an October. Floods in the Pont Valley did great damage to corn crops.

MORPETH, BOTHALHAUGH.—The R makes this year third in the list, 1900 with 36·83 in. and 1877 with 35·02 in. coming before it. October was a record month, and the fall of 3·21 in. on the 8th was only ·01 short of the previous record on October 26th, 1900. It was a record year for rainy days, the previous highest being 212 in 1900.

SCOTS GAP, ROTHLEY CRAG.—R 6·24 in. above the average of 11 years, and the highest in that period except 1900, when 39·95 in. fell.

HOWICK HALL.—One of the wettest years in over 40 years' observations. The total amount was exceeded in other years, but the number of wet days was a record. The R for October was only once exceeded.

PAWSTON.—The early part was very dry, the latter very wet. The farmers here were fortunate in getting in their crops at the end of September just before the weather broke, whilst some not 20 miles off had theirs out in November.

CUMBERLAND.

MILLOM, LEYFIELD.—The greatest R during 14 years, being 8·94 in. above the average of 13 years. Rainy days 45 above the average.

SEASCALE.—R 7·16 in. above the average of 14 years and exceeded only once, 44·24 in. falling in 1900.

COCKERMOUTH, ULLOCK.—Exceptionally wet. The R of the first quarter was 84 per cent. above the average of 9 years, of the second quarter 18 per cent. below, and of the third 50 per cent. above. The number of days was greatly in excess of any previous year. From February 18th to April 7th R was recorded every day.

COCKERMOUTH, HIGHAM.—The R was the heaviest in 40 years' observations. That of the first three months, 20·41 in., was also the highest and October was the wettest month in that period.

BROUGHTON GRANGE.—R 12·40 in. above the average, and the greatest since 1877, when 59·27 in. fell. The falls in April, May and June were below the average, hence crops were very late, and the wet autumn prevented some from being saved at all.

PENRITH, NUNWICK HALL.—R 15·07 in. above the average of 10 years, and the wettest by nearly 10 inches in that period. The fall of 8·74 in. in October exceeded by more than 2 inches that of any previous month.

WIGTON, BROOKFIELD.—The greatest R recorded here, exceeding the previous highest in 1877 by 9·31 in.

WREAY VICARAGE.—By far the wettest year since the record began 28 years ago, October being much the wettest month in that period. R was recorded each day from September 24th to November 2nd.

CARLISLE CEMETERY.—The heaviest R in 41 years' observations, the nearest approach being 44·63 in. on 233 days in 1877.

CARLISLE, NEWBY GRANGE.—The heaviest R yet recorded, and strangely distributed. A long drought in May and June did much harm and was followed by almost incessant R till November. It was a very bad season agriculturally, some crops being never gathered. In high country, corn was standing in December. A very mild autumn, and roses were in bloom till the end of November.

WESTMORLAND.

KIRKBY LONSDALE, CASTERTON.—The wettest and most disastrous year remembered in this locality. The remnant of the grain was in

many places gathered in during Christmas week, and potatoes in some places were not worth getting up. There were gales and floods in almost every month.

BOWNESS, LINDETH HOWE.—A very dull, wet and windy year, The first quarter was wet and windy but mild, the second dull, windy and cold, though April and June were dry. In the third quarter July was fairly seasonable, but August, September and October were wet except from September 13th to 21st.

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

MONMOUTH.

LLANFRECHFA GRANGE.—Cold and wet, with more R and rainy days than in any year since 1882. The fall of 11·43 in. in October has only once been exceeded, 11·64 in. having fallen in December, 1876. Outdoor fruit was much injured.

ABERGAVENNY, DYNE HOUSE.—R the greatest yet recorded, 11·40 in. falling in October. The fruit crop was deficient, chiefly owing to cold winds in April. The fall of the leaf occurred 9 or 10 days later than usual.

GLAMORGAN.

COWBRIDGE, FONMON CASTLE.—R 4 or 5 inches above the average of 19 years, having been exceeded 3 times in that period. The great feature was the continual wetness, R falling on 204 days, the greatest number ever recorded. October gave the greatest fall ever recorded in a single month.

LOWER PENARTH.—Cold and wet, and remarkable for the fluctuations of the bar. and almost constant gales. There were only 70 days in the year quite free from R or S. It was one of the healthiest years on record as judged by the death rate, except in January and February. The lowest mortality was at the rate of 3·3 per 1000 in August.

COWBRIDGE, ASH HALL.—R 12·70 in. above the average of 10 years, and the greatest since 1882, when 64·54 in. fell.

OYSTERMOUTH, NEWTON.—The year began with wet weather till January 12th, when there was hard frost for 6 days. February was dull and cold. Stormy from Feb. 21st till March 3rd. March was dull with some sunny days; April dry but foggy, with frost from 15th to 26th. Cold E. winds from June 17th to 24th; June being a

dull month but dry. Some fine and warm days in July. Stormy weather from August 15th to September 12th. October and November were stormy and wet. Hard frost for the first three weeks of December, then wet till 23rd, after which frost and E. winds.

SWANSEA, GLANMOR CRESCENT.—R 10·64 in. above the average of 10 years.

MORRISTON, GLANRAVON.—R 16·83 in. above the average of 12 years.

NEATH, FAIRY LAND.—Very wet and cold, the R exceeding the average of 18 years by 12·82 in., and exceeded only in 1891 when 61·05 fell. The number of rainy days was, however, a record. There were 39 consecutive rainy days from September 26th to November 3rd, but the fall only exceeded an inch on 3 days in the year.

DOWLAIS, GWERNLLWYN.—R 23·77 in. above the average of 17 years.

CARMARTHEN.

DOLAUCOTHY.—An abnormal year, with an almost unprecedented fall of R. Much damage was done to late hay and corn in the high valleys, and great destruction caused by high floods. The fall of 16·68 in. in October is believed to be quite unprecedented in the county. There were 12 falls in the year exceeding an inch, 6 from ·90 in. to 1 in., 6 from ·80 in. to ·90 in., 9 from ·70 in. to ·80 in., 8 from ·60 in. to ·70 in., and 8 from ·50 in. to ·60 in.

PEMBROKE.

HAVERFORDWEST, HIGH STREET.—The chief characteristics were absence of severe frost, the prolonged periods of storm, and number of wet days. R 10·69 in. above the average of 50 years and ·79 in. greater than in 1852, but exceeded by ·30 in. in 1860, by 13·09 in. in 1872, by 7·49 in. in 1877, and by 6·70 in. in 1882. Absence of sunshine generally and low temp., especially in summer, prevented fruit from ripening.

ST. DAVIDS.—The first three months were stormy and wet, with fairly high day temp. April became colder and was unseasonable. June was cold with N. and E. winds, which much retarded vegetation. July was unsettled, and light hay crops were secured with difficulty, while the wet weather of August and September did much damage to corn crops. October was unusually wet though milder, and

November and December cold and showery, ending with six days of dry frosty weather.

BRECON.

CRICKHOWELL, GWERNVALE.—Generally cold, dull and inclement, the R being 17 inches above the average and the highest yet recorded. R fell on 43 consecutive days from September 23rd to November 4th. The only dry period was from June 16th to July 11th, when .05 in. was measured in 25 days. The number of rainy days was 65 over the average.

LLANFRYNACH, TYMAWR.—A very wet year. R fell on 42 consecutive days from September 23rd to November 3rd. There were 12 days on which over an inch of R fell.

BUILTH.—Exceptionally wet, the R being nearly 20 inches, or more than 50 per cent., above the average, and rainy days 39 above the average. Very few TSS and no great fall in one day.

MONTGOMERY.

POOL QUAY VICARAGE.—The wettest year since 1877, the R being 14.86 in. above the average of 16 years, and falling on 38 days more than the average number. The next highest fall was 41.27 in. on 256 days in 1882. There were 5 falls of over an inch, and the river was in flood or bank-full 13 times. Mean temp. 48°·5, or 0°·4 above the average of 10 years.

FLINT.

FLINT, SOUGHTON HALL.—The wettest year since 1877 when the record commenced. The next wettest was 1892 with 39.03 in.

ST. ASAPH, NANTLYS.—R exceeded twice only in 38 years; in 1872 with 47.82 in. and in 1877 with 39.37 in.

DENBIGH.

ROSSET, TREVALYN HALL.—Wet and sunless, with R more than 7 inches above the average, and the largest since 1872. The fall in October was the largest in one month since observations commenced in 1868.

DENBIGH, GARN.—R 14.40 in. above the average of 19 years, and the wettest during that period.

MERIONETH.

BALA, ERYL ARAN.—A record R for 18 years, exceeding 1891, the previous wettest, by 15·41 in.

CORWEN, RUG.—Wet, very cold and most unfavourable. Preponderance of easterly winds. Not much S.

ISLE OF MAN.

DOUGLAS, WOODVILLE.—The R was more than 25 per cent. above the average and was the largest for 30 years except 1876, when 58·66 in. fell. In 1882 the R exceeded 50 inches. The number of rainy days in 1903 was also very large. The excessive R occurred mostly in September and October, which together gave 15·12 in. Although falls of an inch in 24 hours are by no means uncommon here, there were in 1903 only 2 instances. Taken altogether, the weather was abnormally bad, and the gales of February 26th—27th and July 5th—6th were of quite unusual violence, and most destructive to plant life.

DOUGLAS, CRONKBOURNE.—The wettest year in the Isle of Man since 1877.

SCOTLAND.**DIVISION XII.—SOUTHERN COUNTIES.****WIGTON.**

WHITHORN, CUTROACH.—Considerably the wettest of the last 10 years, particularly in the number of days, which was 25 per cent. above the average. The dry periods were few and short: 10 days in January, a fortnight in April, the first half of June, and the last 10 days of December.

STONEYKIRK, ARDWELL HOUSE.—The wettest year since the gauge was established in 1879.

KIRKCUDBRIGHT.

CARGEN [DUMFRIES].—The total R, 60·86 in., has been exceeded only twice, in 1872 and 1877, during 45 years.

GLENHEAD OF TROOL.—The wettest year in the recollection of the oldest resident, some months having R every day.

DUMFRIES.

DUMFRIES, IVY BANK.—R 13·50 inches, and rainy days 37, above the average of 17 years, and the greatest since observations commenced in 1887.

MONIAIVE, MAXWELTON HOUSE.—The highest R since 1888. On 10 occasions the fall exceeded an inch. The fall in March was 8·49 in. above, and in October 6·98 in. above, the average of 15 years. The autumnal R damaged the corn crops, and here out of 8 fields of oats 2 were worthless. Harvest was not finished till October 25th.

ROXBURGH.

HAWICK, BRANXHOLME.—The heavy R of the first three months and from July onward was remarkable. There was a great want of sunshine. Crops were average in quantity, but were not completely harvested until December. Fruit generally was very short. It was a record year for salmon fishing owing to the continued high water in the Tweed.

RIDDELL.—Extraordinarily wet, the R being 18·49 in. above the average ; 1900 was, however, a wetter year, with 42·70 in.

MELROSE ASYLUM.—R 10·80 in. more than the average of 21 years and 2·51 in. less than 1900, the only greater year. The number of rainy days was 45 above the average and the greatest recorded.

DIVISION XIII.—SOUTH EASTERN COUNTIES.**BERWICK.**

WEST FOULDEN.—Except 1877 and 1900 the wettest for 27 years. With the exception of August, 1877, October was the wettest month in the same period.

LINLITHGOW.

NETHER PARKLEY.—The R was unequalled for the last 54 years, the greatest hitherto being 46·80 in. in 1876. Harvest was very late, some fields not being cut until the end of November.

BO'NESS, GRANGE.—A wet year, though owing to the deficient fall in November and December the R was exceeded by 1894 and 1895. Crops were good, but the wet October ruined what had not been brought in. There was little sun in the summer and little growth in young pine woods.

DIVISION XIV.—SOUTH WESTERN COUNTIES.

AYR.

BARRHILL, DOCHROYLE.—R 18·07 in. above the average of 28 years.

GIRVAN, GLENDOUNE.—Cold and sunless to a marked degree, with R 11 inches above the previous highest record.

LOCH FINLAS.—R 46·5 per cent. above the average of 10 years, and the greatest in that period.

MAYBOLE, CULZEAN.—Very cold, with little sunshine, and generally bad crops.

DIVISION XV.—WEST MIDLAND COUNTIES.

STIRLING.

FALKIRK, LAURIESTOWN.—The first three months were exceptionally wet, with frequent heavy falls, and much flooding and damage to low lands. April was dry, with frost on 18 nights. The first part of June and the middle of September were fine. There were only 3 dry days in October, and the R did much damage to the harvest. It was one of the worst and latest harvests remembered and it was the end of November before all was gathered in.

STIRLING, POLMAISE.—R about 16 inches above the average. The only redeeming feature was the dry April and May, when crops were got into the ground in fairly good condition. The deluge in October ruined a good harvest.

BUCHLYVIE.—Very unsettled, sunless and rainy. R 25·50 in. above the average of 14 years and 13·93 in. above 1900, the highest of these years. In the first three months 31·50 in. fell, saturating the ground, so that spring work was much delayed and sowing made very late. April, May, and the first three weeks of June had a comparatively small R. Harvest was late and the ingathering so hindered by the excessive R of October that it was well into November before all the corn was secured, about three-fourths being badly damaged. R fell on 56 days more than the average.

ARGYLL.

KINTYRE, KILLEAN.—An exceptionally cold, rainy and late spring. Drought in June, followed by sunless, rainy weather, with low temp. during the remainder of the summer and autumn, except from September 14th to 26th, when fair weather prevailed.

SKIPNESS CASTLE.—The wettest year since observations commenced in 1868.

KILMUN, BENMORE.—The heaviest R yet recorded here. Dull and sunless summer, and poor crops both in field and garden.

INVERARAY, NEWTOWN.—Exceptionally wet, the R during the first three months being specially heavy. June was fine and dry, but after that there was no continuance of fine or warm weather, except a fortnight in September.

KILMELFORT, BRAGLEENBEG.—A record year, with continuous R, but no heavy flood at any time.

KILMELFORT, ARDUAINE.—Abnormally wet, though April, May and June were so dry that many forest trees planted in the previous winter died of drought, a most unusual thing. The soil was dry and dusty 12 inches under the turf. The summer was very cold; there was excessive growth and mildness in autumn, and roses were in bloom at Christmas.

BALLACHULISH, ARDSHEAL.—The greatest R yet recorded here, being 32·17 in., or 44·3 per cent., above the average. The R was below the average in April, May and December.

STRONTIAN, LAUDALE.—The greatest R ever recorded here, the nearest approach being 105·10 in. in 1877. A cold year, with no summer weather and very little sun.

ISLAY, ARDBEG.—R about 9 inches above the average and the greatest for many years. As much R fell in January, February and March as usually falls in six months. From the middle of April to the end of June was exceptionally dry.

MULL, QUINISH.—The greatest R yet recorded, 66·37 in. in 1877 being the nearest approach to it.

DIVISION XVI.—EAST MIDLAND COUNTIES.

KINROSS.

KINROSS, GELLYBANK.—Very wet, with R 8·92 in. above the average of 27 years. The R in October, which was 3·61 in. above the average, damaged the grain while in stook, and led to the latest in-gathering known.

FIFE.

STRATHMIGLO.—The wettest year since 1872, six months being largely in excess of the average. There was great want of sunshine, and the easterly type of weather prevailed.

ST. ANDREWS.—Most unusually wet, windy and sunless. Very low temp. in summer, but no excessive cold in winter.

PERTH.

OCHTERTYRE [STIRLING].—The heaviest R in 20 years, exceeding the next highest record in 1900 by 9·29 in.

DOUNE, GARTINCABER.—R about 20 inches above the average, with a large number of rainy days. High winter, and low summer, temp. Much strong wind, but absence of exceptionally heavy gales.

STRONVAR.—R 55·02 in. above the average, and the greatest ever recorded here. The fall for the first three months, 49·42 in., was quite unprecedented.

LOCHEARNHEAD, ARDVORLICH.—R 44·06 in. above the average of 16 years. The fall of January, February and March, 51·49 in., was most abnormal.

COUPAR ANGUS.—The wettest year yet recorded and in some respects the most disastrous, the R being 8·40 in. above the average. There were no floods, but persistent wet days. In 1900 the R was nearly the same, but came in several floods in autumn. Nine months exceeded the average R; eight months had above the average temp., and want of sunshine was more pronounced than cold.

BLAIR ATHOLL.—The heaviest R by several inches since records commenced in 1878.

FORFAR.

ARBROATH, DISHLAND HILL.—The wettest year since the establishment of the gauge in 1890, the number of wet days was, however, exceeded on one occasion.

RESCOBIE, PITSCANDLY.—Disastrous from an agricultural point of view, being dry when moisture was wanted and wet when harvest was in progress. The grain crop was not gathered till November 12th and was much damaged.

DIVISION XVII.—NORTH EASTERN COUNTIES.

KINCARDINE.

FETTERCAIRN, THE BURN.—The heaviest R since 1877, and owing to constant dull weather and want of drying winds, this year was far more disastrous for the harvest. From November 1st, 1902, to October 31st, 1903, the R was 49·99 in., or nearly 50 per cent., over the average yearly fall.

CRATHES, PINWOOD.—Excessively wet, being probably the wettest since 1872. Grain crops with few exceptions were secured in very bad condition. Potatoes were good, but turnips light, though with little disease.

ABERDEEN.

BRAEMAR, GLENCLUNIE.—The wettest and coldest year for 22 years.

ABERDEEN, CRANFORD.—Cold and wet with little sunshine, and the greatest R in 16 years.

BANFF.

CULLEN HOUSE.—One of the worst seasons for many years, not so much on account of the R, which was exceeded in 1895 and 1891 and equalled in 1892, but want of sunshine was the great hindrance to all vegetation, especially fruit.

ELGIN OR MORAY.

WESTER ELCHIES SCHOOL.—R 2·44 in., and rainy days 50, above the average of 26 years. July gave several heavy TSS and August soaking, sunless days.

DIVISION XVIII.—NORTH WESTERN COUNTIES.

INVERNESS.

FORT AUGUSTUS.—The record of R for 20 years was broken, the previous highest being 54·65 in. in 1894.

DRUMNADROCHIT.—The R was 13·27 in. above the average of 17 years, and the greatest in that period, exceeding the next highest in 1898 by 6·15 in. The number of rainy days was 28 above the average but 9 less than in 1900. The wettest month was January, which broke the monthly record.

ROSS AND CROMARTY.

CONTIN, KINNAHAIRD.—The coldest year experienced in over 60 years. Summer was cold with little or no sun, and harvest time extremely wet and cold.

DIVISION XIX.—NORTHERN COUNTIES.

SUTHERLAND.

ALTNAHARRA.—Very cold with abnormally heavy R. S fell earlier than usual and was very heavy while it lasted.

CAITHNESS.

CASTLETOWN.—The very worst harvest on record. Although at the beginning of autumn a plentiful though late grain crop was anticipated, the extremely wet October and the frosts of November completely ruined it. Small in quantity, miserable in quality and in many cases unsecured, the loss was almost total. Turnips were also completely spoilt by the excessive R, and potatoes though plentiful also suffered severely, and mostly had to be left in the ground. Hay was a fair average crop, but where late much was lost.

IRELAND.**DIVISION XX.—MUNSTER.****CORK.**

CASTLETOWNSHEND.—R 15·63 in. above the average of 10 years.

BANDON, ARDNACARRIG.—Excessive R, being the greatest since 1872. Low temp. and frequent storms.

CORK, WELLESLEY TERRACE.—R excessive, being 14·57 in. above the average and the greatest since 1872. Mean temp. 3°·6 below the average. Frequent storms, the most severe being on January 16th, February 26th and September 10th.

MALLOW, SUMMER HILL.—Record R, being 10·97 in. above the average of 14 years, and resulting in much damage to all crops. The only months under the average were April, June, November and December.

KERRY.

KENMARE, DERREEN.—The wettest year since observations commenced in 1877.

WATERFORD.

LISMORE, BALLYGALLY.—Consistent wet weather, especially in the first three months, but no excessively heavy falls. Two very strong gales amounting to hurricanes in February and September.

WATERFORD, BROOK LODGE.—The wettest year since 1872.

SHESKIN.—Disastrous for agriculturalists. The land was so continually saturated that all farming operations were interfered with. Hay, oats and potatoes were most seriously injured.

TIPPERARY.

CLONMEL, BRUCE VILLA.—R 9·30 in. above the average, and the wettest since 1888.

NENAGH, CASTLE LOUGH.—A year of R, storms and T. The R was exceeded only in 1877, when 50·11 in. fell on 260 days.

NENAGH, HIGHLANDS.—Very heavy R throughout, except in April, May and June. Farmers got their crops down early and saved some. Summer was wet and sunless, and the crops poor and hard to secure. Winter was not very severe, but there was a good deal of boisterous wind.

CLARE.

BROADFORD, HURDLESTOWN.—The wettest year since observations commenced, the R being 12·12 in., and rainy days 30, above the average of 18 years.

MILTOWN MALBAY.—The year opened very wet, the first four months having 21·35 in. of R and only 25 dry days. May and June were partially dry but cold, and the remaining six months were almost one long continuous fall of R, giving 34·41 in. and only 31 dry days. During the summer and harvest the temp. kept fairly high. The R for the year was the highest in 30 years, 1877 coming next with 56·00 in.

LAHINCH, MOY HOUSE.—Very wet, but the R was curiously distributed. In the first three months 17·21 in. fell, in the next three 4·71 in., and for 30 days ending on June 21st only ·05 in. August was, as usual, the wettest month, and the third three months had 18·28 in. The total R was ·15 in. less than in 1897, but the number of days was greater. Only one fall of over an inch.

DIVISION XXI.—LEINSTER.

WEXFORD.

TEMPLEUDIGAN, BALLINDONEY.—Very wet and sunless, the R being 13·56 in. more than the average. The whole year was cold, there being very few warm days. The number of rainy days was well over the average.

QUEEN'S COUNTY.

ABBAY LEIX.—R 11·47 in. above the average of 29 years and the highest in 30 years, the next being 46·95 in. in 1900.

KILDARE.

TIMOLIN.—Very cold, stormy and wet, with mean temp. only 45°·9.

STRAFFAN HOUSE.—June was dry with harsh E. wind, and the rest of the year wet, cold and ungenial, with the least sunshine since observations commenced.

DUBLIN.

BALLYBRACK, STREAMVILLE.—R 2·97 in. above the average of 20 years.

KILLINEY, CLONEEVIN.—R 4·33 in., and rainy days 37, above the average of 18 years. The R was exceeded in 1900, with 35·35 in. ; in 1895, with 32·85 in. ; and in 1894, with 32·64 in. ; but the number of rainy days was greater than in any year since observations began in 1885.

RATHMINES, TERENURE.—R about 3 inches above the average. On no day did so much as an inch fall, this being the first year without a fall of at least one inch in 12 years' record.

BALBRIGGAN, ARDGILLAN.—R 4·33 in., and rainy days 30, above the average of 10 years. The R was exceeded only in 1900 with 34·50 in., and the number of rainy days, never.

MEATH.

MOYNALTY, WESTLAND.—Except 1877, when 48·10 in. of R fell, this was the wettest year since observations were commenced in 1875. The R of July, August, September and October amounted to 18·64 in. and was the heaviest observed in that period.

DIVISION XXII.—CONNAUGHT.

GALWAY.

TUAM, GARDENFIELD.—R 15·51 in. above the average of 20 years, and the greatest in 38 years' record. The first quarter was the wettest of any year in that period and caused great floods, the second quarter was the driest in that period, and the third again the wettest.

MAYO.

BALLINROBE, CRANMORE.—The wettest year during 30 years' observations.

ACHILL, CORAUN HOUSE.—A wonderful year for R and gloom, and most ungenial with hardly any sun or heat, but there was an absence of T. The land was wetter in August than in December, and there was no chance to get the turf dried.

BURRISHOOLE HOUSE.—A fair spring, but autumn was much wetter than usual, and the TSS were much above the average. Over an inch in 24 hours fell on 6 occasions.

DOO CASTLE.—The wettest year within memory of the oldest inhabitant of this district.

SLIGO.

MARKREE OBSERVATORY.—Very wet throughout, the R being 12·35 in. above the average of 30 years.

DIVISION XXIII.—ULSTER.

CAVAN.

BALLYCONNELL HOUSE.—The R was excessive ; the total exceeded the average of 10 years by 10·82 in., and the rainy days were 27 in excess.

ARMAGH.

LURGAN, BELLE VUE.—R 4·46 in., or 15 per cent., and rainy days 44, or 23 per cent., above the average of 10 years. It was not until July 14th that the ground became thoroughly saturated. August, September and October had each considerably more than the average, and the remaining two months had less. The temp. was below the average almost every month.

ANTRIM.

BELFAST, SPRINGFIELD.—The wettest year since 1886 and previously to that only exceeded twice in 28 years. Most unfortunate for agriculture.

BALLYMENA.—R 6·67 in. above the average of 20 years.

STRANOCUM.—R 7·50 in. above the average of 10 years.

DONEGAL.

LOUGH ESKE CASTLE.—January, February and March were very wet and cold ; April, May and June dry and very warm until June 21st, when R set in and continued persistently with few intervals until the middle of September. October was again wet and windy.

DUNFANAGHY.—Excessive R in the first quarter. In the second quarter the R was under the average. October was the wettest month, R falling every day. R also fell every day from November 19th to December 24th.

HORN HEAD.—R 7·52 in. above the average of 12 years and 4·62 in. above the previous wettest year.

HEAVY RAINS IN SHORT PERIODS.

THIS section should be one of the most interesting in the volume, yet we regard it with but little satisfaction. The difficulties in the way of obtaining measurements of heavy falls in short periods are great, because very few observers are sufficiently at leisure to watch the beginning and end of individual showers, or to read their rain gauges at frequent intervals when rain is falling. Very few as yet possess recording gauges and those who do rarely have them fitted with a drum rotating in one day, without which it is impossible to read the time-scale closely enough to get exact values of intensity. Again, we regret to find that the possessors of suitable recording gauges do not always send us an analysis of the heavy falls recorded. When the omission is due to want of time or inclination to undertake the somewhat irksome work of measuring the traces, we would gladly relieve the observer of that trouble, and we willingly promise to measure the heavy falls on any rain gauge diagrams that are sent to us and to return the originals to the owners.

In this connection we may note that the electrical recorder which Messrs. Negretti and Zambra now fit to their tipping-bucket gauge enables heavy falls in very short periods to be comfortably measured. The recording part is kept inside the house and during a heavy fall all the observer has to do is to sit and count the number of clicks the recording mechanism makes per minute. Each click represents .01 in. of rain, and by noting the time by the second hand of a watch, the difficulty of interpreting a contracted time-scale is completely overcome.

We are glad to recognise that many observers are sufficiently interested in the details of their work to incur all the discomfort of reading their gauges immediately the heaviest part of a shower has passed, and the list of heavy falls in short periods, though perhaps presenting more room for improvement than other parts of the volume, is in no way less full or less trustworthy than those for

former years, and it may accordingly be treated with exactly the same confidence.

In the following list we have quoted no falls of greater duration than 12 hours, because if falls of such a duration were in any way remarkable, they would almost certainly be dealt with in treating of heavy rains on rainfall days. Even with this change the list is a long one, as it comprises 101 entries on 36 days, a number that has only been surpassed in 1899, since the limit of short period rains was raised from six hours in 1894. The year does not appear to have been remarkable for very intense falls.

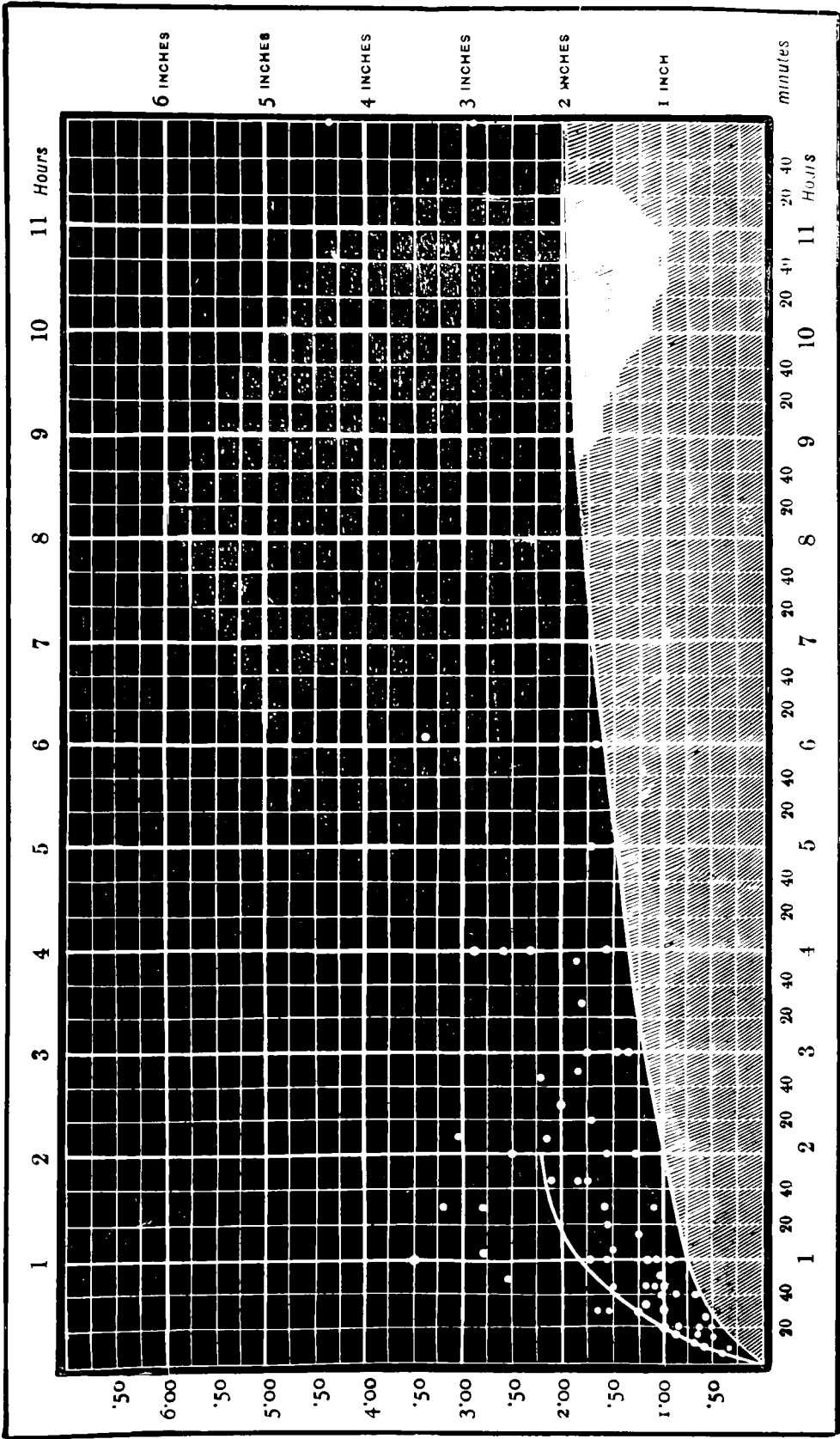
The most remarkable falls are quoted below. That at Timolin Vicarage is noteworthy, as it is rare for nearly three-quarters of an inch of rain to fall in ten minutes; still higher rates have been frequently recorded. The fall at Beddington Corner on May 30th is, however, almost unprecedented. The fall of 3 inches of rain in an hour was looked upon as the highest intensity ever likely to occur in the British Isles for so long a period until 3·63 in. was recorded at Maidenhead in 1901. The 3·50 in. in one hour at Beddington Corner is another lesson to observers even in dry districts to see that their rain gauge is large enough to hold at least four inches, considering that in one hour one-twelfth of the whole annual rainfall was precipitated.

The limit of duration of heavy falls quoted in these pages was raised from 6 hours in 1894, and since then the number placed on record for periods up to 12 hours' duration has averaged 82 per annum.

Year	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.	1903.	Aver.
Falls of 12 hours' duration or less	86	93	63	88	61	113	72	83	61	101	82

The greatest number was 113 in 1899, a dry year with severe TSS, and the smallest number was 61 in 1898 and 1902. In 1903 the number was 101, and in the last ten years the number of these heavy falls has only once been exceeded. Falls heavy enough to find a place in the table were, as usual, confined to the months from May to October and nearly half of them occurred in July. These were of interest, because while 26 of the cases occurred during the TSS of July 18th and 19th, 8 were recorded in the course of the long-continued rain of winter type on the 23rd. May came next to July in the number of very intense falls, mainly because of the violent TSS of the 28th, 29th, and 30th, while June was scarcely repre-

HEAVY FALLS IN SHORT PERIODS.



The shaded portion represents falls too numerous to require insertion ; the short white curve, extremes rarely exceeded
Face p. [128].

sented, and between them August and September had scarcely more than May alone. The actual figures are :—

	Month.	May.	June.	July.	Aug.	Sept.	Oct.	Year.
No. of Heavy Falls...		21	4	45	11	11	9	101

The absence of heavy winter rains is noticeable ; but it must not be forgotten that the wetness of 1903 was due less to short torrential falls than to steady and long-continued heavy rains.

No less than 18 of the falls can be classed as exceptionally heavy ; these are indicated in the table with a **x**, and are shown on the accompanying diagram.

The most remarkable falls are :—

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
July 14	XXI.	Timolin Vicarage	·72	... 10	4·32
May 30	II.	Croydon, Duppas House... ..	·80	... 15	3·20
July 19	„	Alton, Shalden Manor	1·68	... 30	3·36
„ 18	VI.	Betley Hall [Crewe].....	2·53	... 50	3·04
May 30	II.	Beddington Corner	3·50	1 0	3·50
„ 30	„	Wallington, Cotswold.....	2·77	1 5	2·56
July 19	„	Alton, Shalden Manor	3·21	1 30?	2·14
„ 19	„	Tonbridge, Primrose Hill	2·50	2 0	1·25

Three of these, it will be noticed, occurred during the TSS of May 30th, and three others on July 19th, the remaining two also dating from July. It is unnecessary to dwell farther on the character of the rainfall on those days, as they are all referred to in the section on heavy rains on rainfall days.

In order to have some basis for comparing the relative intensity of rainfall in different years, we may quote the number of entries of falls of less than two hours' duration and the average of the preceding eleven years :—

Entries of less than Two Hours' Duration.

	Number of entries.	Average rate per hour.
Average 1892—1902.....	55	1·83 in.
1903	74	1·83 in.
Diff.	+19	·00 in.

The number of cases is seen to have exceeded the average by about one-third, but the intensity of these short rains was equal to the average of the foregoing years, another indication that duration and not intensity was the general character of the rainfall of 1903.

Heavy Falls in Short Periods in 1903.

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
July 26 ...	VI.	Kings Heath, Cambridge Rd.	·11	... 1½	5·28 x
Oct. 14 ...	"	" " " "	·22	... 3	4·40 x
" " "	V.	East Harptree, Harptree Court	·11	... 3	2·20
May 17 ...	I.	St. Pancras, Camden Square..	·19	... 5	2·28
July 11 ...	IX.	Swinton	·39	... 6	3·90 x
Oct. 15 ...	I.	St. Pancras, Camden Square..	·21	... 8	1·58
July 23 ...	IX.	Meltham, Harewood Lodge...	·23	... 9½	1·45
July 14 ...	XXI.	Timolin Vicarage	·72	... 10	4·32 x
Aug. 24 ...	I.	Clapham Park, New Park Rd.	·57	... 10	3·42
July 23 ...	XVI.	Forfar, Lilyfield.....	·36	... 10	2·16
" 19 ...	II.	Maidstone, St. Michael's Road	·28	... 10	1·68
" 11 ...	VI.	Rugby, Bilton Grange	·40	... 12	2·00
May 30 ...	II.	Croydon, Duppas House	·80	... 15	3·20 x
July 14 ...	XXI.	Timolin Vicarage	·65	... 15	2·60
" 19 ...	II.	Betchworth, The Holmes.....	·50	... 15	2·00
Aug. 13 ...	XVI.	Forfar, Lilyfield.....	·44	... 15	1·76
May 5 ...	VIII.	Rochdale, Fieldhead.....	·40	... 15	1·60
" 4 ...	V.	Combe Martin, Cove Cottage.	·37	... 15	1·48
July 18 ...	I.	St. Pancras, Camden Square..	·35	... 15	1·40
Aug. 1 ...	IV.	Swaffham	·33	... 15?	1·32?
July 18 ...	I.	St. Pancras, Camden Square..	·87	... 17	3·07 x
Sept. 24 ...	VI.	Cirencester	·82	... 19	2·59
June 17 ...	V.	Minehead, Porlock... ..	1·00	... 20	3·00 x
May 29 ...	XX.	Broadford, Hurdlestown	·80	... 20	2·40
" 28 ...	III.	Abingdon, Culham.....	·63	... 20	1·89
July 18 ...	V.	Iwerne Courtney, Shroton ...	·62	... 20	1·86
" " "	II.	Abinger Hall	·50	... 20?	1·50?
Aug. 14 ...	VIII.	Rochdale, Fieldhead	·46	... 24	1·15
" 19 ...	XXII.	Newport, Burrishoole House..	·57	... 25	1·37
July 19 ...	V.	Helston, Tendarah.....	·55	... 25	1·32
" 18 ...	IV.	Leyton, Lea Bridge Road.....	·58	... 28½	1·22
" 19 ...	II.	Alton, Shalden Manor	1·68	... 30	3·36 x
" " "	"	" " " "	1·53	... 30?	3·06?x
" 18 ...	V.	Verwood Manor.....	1·25	... 30	2·50 x
May 9 ...	VI.	Bristol, Fishponds	1·00	... 30?	2·00?
July 20 ..	II.	Glen Andred [Groombridge]...	·62	... 30	1·24
May 9 ...	"	Sheppey, Leysdown	·54	... 30?	1·08?
July 19 ...	V.	Ilminster, Ilton Vicarage	·53	... 30	1·06
" " "	II.	Lynchmere, Shottermill	1·20	... 35	2·06
" 18 ...	III.	Henley-on-Thames, Greys ...	1·02	... 40	1·53
June 24 ...	XXI.	Rathmines, Leinster Road ...	·88	... 40	1·32
July 18 ...	VI.	Cirencester, Further Barton...	·72	... 40	1·08
" 2 ...	XXII.	Newport, Burrishoole House..	·71	... 40	1·07
Aug. 18 ...	VIII.	Chester, Christleton Hall	·64	... 40	·96
July 18 ...	VI.	Chipping Sodbury, Stanshawes Court	1·50?	... 45	2·00?
" 19 ...	II.	Alton, Holybourne	1·20	... 45	1·60
May 5 ...	VI.	Ross, Perrystone Court	1·12	... 45?	1·49?
Sept. 4 ...	II.	Ulcombe Place	1·00	... 45?	1·33?
July 18 ...	VI.	Betley Hall [Crewe]	2·53	... 50	3·04 x
Aug. 24 ...	II.	Emsworth, Redlands.....	1·02	... 55	1·11
May 30 ...	"	Beddington Corner.....	3·50	1 0	3·50 x

Heavy Falls in Short Periods in 1903—continued.

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
July 18 ...	VI.	Earls Croome, Levant Lodge.	1·71	1 0	1·71
„ 23 ...	IV.	Buckhurst Hill House	1·57	1 0	1·57
„ 18 ...	VI.	Tenbury, Rochford	1·15	1 0	1·15
Oct. 8 ...	II.	Botley Hill	1·05	1 0	1·05
May 28 ...	V.	Dorchester Waterworks	1·03	1 0	1·03
July 19 ...	II.	Nutfield Priory	1·00	1 0	1·00
„ 23 ...	III.	Cambridge, Sidney Street ...	1·00	1 0	1·00
„ 3 ...	XX.	Miltown Malbay	·93	1 0	·93
Sept. 4 ...	II.	Sheppey, Leysdown	·92	1 0?	·92?
June 24 ...	XXII.	Ballinasloe	·90	1 0	·90
Aug. 18 ...	XXI.	Bagnalstown, Fenagh House..	·77	1 0	·77
May 30 ...	II.	Wallington, Cotswold	2·77	1 5	2·56 x
July 27 ...	XVII.	Alford, Lynturk Manse	1·50?	1 5	1·38?
Aug. 24 ...	II.	Wooton, Fernhill	1·25	1 15	1·00
May 30 ...	„	Wimbledon Sewage Works .	1·58	1 20	1·19
July 19 ...	„	Alton, Shalden Manor	3·21	1 30?	2·14?x
June 11 ...	III.	Bedford, Milton Ernest	2·77	1 30?	1·85?x
Sept. 4 ...	„	Ealing, Gordon Road	1·61	1 30	1·07
May 28 ...	V.	Crewkerne, Merefield House..	1·13	1 30	·75
July 29 ...	XXI.	Oldcastle, Killeagh Rectory...	1·10	1 30	·73
May 30 ...	II.	Beddington	2·10	1 45	1·20
„ 28 ...	VI.	Worcester, Diglis Lock	1·80	1 45	1·03
„ 30 ...	II.	Croydon, Waddon New Road	1·75	1 45	1·00
July 19 ...	„	Tonbridge, Primrose Hill.....	2·50	2 0	1·25 x
Aug. 18 ...	XXI.	Ballybrack, Streamville	1·60	2 0	·80
May 28 ...	V.	Honiton, Combe Raleigh	1·28	2 0	·64
„ 30 ...	II.	Wallington, Cotswold	3·02	2 10	1·39 x
Sept. 24 ...	XI.	Crickhowell, Gwernvale	2·17	2 10	1·00
July 19 ...	V.	Honiton, Combe Raleigh	1·72	2 20	·74
Oct. 27 ...	„	St. Austell, Trevarna	2·00	2 30	·80
July 18 ...	II.	Bisham Vicarage.....	2·24	2 45?	·81?
May 30 ...	„	Croydon, Duppas House	1·85	2 50	·65
Sept. 9 ...	III.	Broxbourne, Stafford House...	1·75	3 0	·58
July 23 ...	„	Ponders End, Bylock Hall ...	1·48	3 0	·49
May 5 ...	„	Mears Ashby	1·35	3 0	·45
Sept. 4 ...	II.	Witley, Fernside.....	1·80	3 30	·51
„ „ ...	„	Ewhurst, Coneyhurst	1·85	3 55	·47
„ „ ...	„	Chichester, Chilgrove	2·85	4 0	·71 x
„ „ ...	„	Funtington	2·60	4 0	·65
Oct. 27 ...	XI.	Wrexham.....	2·60?	4 0	·65
July 23 ...	I.	Blackheath, Eastcombe Villas	2·31	4 0	·58
Oct. 27 ...	V.	Abbotsham, Riccard's Down..	1·55	4 0	·39
Aug. 24 ...	II.	Ewhurst, Coneyhurst	1·71	5 0	·34
Oct. 27 ...	V.	Liskeard, Oak Park	1·52	5 0	·30
Sept. 10 ...	XXII.	Ballinasloe	1·49	5 0	·30
Oct. 27 ...	V.	Liskeard, Trevillis.....	1·64	6 0	·27
July 23 ...	IV.	Buckhurst Hill House	3·37	6 5	·55
July 18 ...	XI.	Llangyhanfal, Plas Draw.....	1·84	8 0	·23
„ 23 & 24	IV.	Buckhurst Hill, Ardmore ...	4·35	12 0	·36
„ 14 & 15	X.	Silloth	2·88	12 0?	·24?

HEAVY RAINS ON RAINFALL DAYS IN 1903.

Introduction.

THE first impression on examining the daily records of rainfall during 1903 is one of surprise that more days did not show falls exceeding 2·50 in.; the high rainfall prepared us, however, for a comparatively small number of days with a record of 7·5 per cent. of the total for the year. It appears that 1903 was not remarkable for phenomenally wet days; its claim to distinction in the annals of British Rainfall must rest rather on the very large number of days on which moderately heavy falls occurred, and on the exceptional duration of the individual falls.

In the treatment of this section no change has been introduced from the practice of earlier years. For every station from which the requisite information was available the wettest day of the year has been selected, the amount which fell on that day and the amount which fell in the whole year have been copied out, and the ratio which the former bears to the latter has been calculated in the form of a percentage. The symbol **M** is used as heretofore, as Mr. Symons put it, "in order to save time, trouble, circumlocution and printing," for it signifies *the maximum rainfall recorded at a station on any rainfall day throughout the year*. Whenever the value of **M** is not less than 2·50 in. or than 7·5 per cent. of the annual total it is placed on record in the following Chronicle. The general conclusions resulting from the consideration of all the **M** (for the sake of brevity we treat this convenient contraction as either singular or plural), including those which fell short of the limit, are stated in the Abstract which concludes the section. For 1903 the number of stations dealt with for this purpose was 2936, more than has ever previously been available. Much trouble has been caused, but this happens every year, by a considerable number of observers who register their rainfall systematically to the wrong day, in contempt of Rule IX.

Part I.—Chronicle.**January 5th.**

M occurred at 10 stations in South Wales and Cornwall, only one of which requires notice.

XI. Llantrisant (Talgarn)..... 2·77 in. or 3·9 per cent.

January 9th.

An ordinary winter cyclone brought **M** to about 30 stations in Scotland and the north of Ireland, a considerable part of the precipitation taking the form of **S**.

XIII. Whitburn (Polkemmet) 2·71 in. or 4·9 per cent.
 XV. Kintyre (Campbeltown, Witchburn) ... 3·00 „ 5·1 „
 „ Islay (Gruinart)..... 2·86 „ 4·9 „

January 26th.

A severe gale with heavy **R**, producing floods in many parts of the north of England, brought **M** to about 30 stations in North Wales, Yorkshire and the Lake District. The intensity of this **R** may be judged by the fact that no less than eleven **M** exceeded 3·00 in.

IX. Slaidburn (Whitendale) 2·59 in. or 2·9 per cent.
 „ Ingleton (Kingsdale Head)..... 4·22 „ 5·3 „
 „ Oughtershaw Hall 3·00 „ 3·2 „
 „ Sedbergh (Brig Flatts) 3·42 „ 4·9 „
 „ „ (Akay) 3·40 „ 4·5 „
 „ „ (Cemetery) 3·37 „ 4·7 „
 „ „ (Thorn's Hall) 3·23 „ 4·4 „
 X. Borrowdale (Grange) 3·72 „ 3·1 „
 „ Kirkby Lonsdale (Casterton)..... 2·83 „ 4·2 „
 „ „ „ (Barbon Manor) 3·02 „ 4·8 „
 „ „ „ („) 2·81 „ 4·3 „
 „ Ravenstonedale..... 4·11 „ 5·2 „
 „ Patterdale Hall... 3·21 „ 2·5 „
 XI. Rhiwbryfdir 3·28 „ 2·4 „

January 28th—30th.

Three days of very heavy **R** in Scotland, producing **M** at about 15 stations in the north-western Highlands. Most **M** occurred on the 29th; but this is one of the cases in which uncertainty as to the strict observance of the rules for measuring and noting the contents of the rain gauge makes it difficult to be quite definite in giving dates. The remarkable figure at Glenquoich represents the **R** for 24 hours ending at 6 p.m., and it is thus not strictly comparable with the other records. The still higher fall which was recorded at Ben Nevis Observatory for the 29th was the largest **M** of the year.

XV.	Loch Eck (Benmore)	2·62 in. or 2·4 per cent.		
„	Ballachulish (Glencoe).....	2·60 „	2·3	„
XVI.	Lanrick Castle	2·80 „	4·3	„
XVIII.	Ben Nevis Observatory	4·78 „	2·2	„
„	Loch Shiel (Glenaladale)....	2·75 „	2·0	„
„	Mucomir	3·00 „	3·5	„
„	Glenquoich.....	4·72 „	3·1	„
„	Skye (Strathaird).....	3·10 „	3·0	„
„	Glencarron Lodge.....	3·15 „	2·9	„

February 7th—8th.

Two days of exceptionally heavy R, bringing M to about 70 stations, chiefly in Scotland and the Lake District, and producing serious floods, especially near Glasgow.

February 7th.

X.	Rydal (The Stepping Stones)	2·58 in. or 2·4 per cent.		
XIV.	Shaws W.W. (Prospect Hill).....	2·87 „	3·3	„
XV.	Kilsyth (Currymire).....	2·50 „	3·7	„
XVI.	Lochearnhead (Ardvorlich) ..	2·70 „	2·5	„

February 8th.

X.	Ambleside (Skelwith Bridge).....	3·29 „	2·7	„
„	Elterwater Hall.....	3·34 „	2·8	„
XIV.	Airdrie (Hillend Reservoir)	2·75 „	5·5	„
„	Lochwinnoch (Garthland)	3·08 „	3·7	„
„	„ (Castlesempole)	2·83 „	4·3	„
„	Shaws W.W. (Gryfe Reservoir)	3·60 „	3·8	„
„	„ „ (Mansfield)	3·00 „	3·3	„
„	„ „ (New Yetts Dam)	2·50 „	2·7	„
XVI.	Alva House	2·76 „	5·0	„

February 24th.

M at a dozen stations in the Lake District.

X.	Buttermere (Hassness).....	3·34 in. or 2·3 per cent.		
„	Keswick (Eskin Place)	2·58 „	3·1	„
„	„ (Shu-le-crow)	2·54 „	3·0	„
„	Grasmere (High Close)	2·85 „	2·3	„
„	„ (The Wray)	3·19 „	2·6	„

February 27th.

The severest gale of the year, accompanying a deep cyclonic disturbance which swept over the north of Ireland and south of Scotland, nowhere produced R of the intensity that might be expected. About a dozen M were reported, chiefly in the south-east of England, but the only one anywhere near the track of the storm-centre and the only one of any remarkable amount was :—

X.	Dungeon Ghyll	3·55 in. or 2·3 per cent.		
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March 17th.

M at half-a-dozen stations scattered over the whole country. One just merits notice.

XVI. St. Fillans 2.50 in. or 2.7 per cent.

May 11th.

M at half-a-dozen stations in the south-east of England, one of which had a noteworthy fall.

II. Sheldwich 2.75 in. or 6.7 per cent.

May 30th.

A very violent TS brought **M** to nearly a dozen stations in the vicinity of Croydon. The **R** was capricious and extremely local, the two remarkable falls noted below standing in contrast to the amounts at places not far away, where almost nothing was recorded.

II. Wallington..... 3.13 in. or 7.3 per cent.
,, Beddington Corner (Millgreen Road) ... 3.67 ,, 8.6 ,,

June 10th.

The wettest week on record in the Thames Valley did not produce any striking **M**, the peculiarity of the period being the steady continuance of heavy rain, unaccompanied by torrential outbursts. Still the 10th brought **M** to about fifty stations in the south of England, one of which had a fall sufficiently heavy to require special notice. Although the stations in the neighbourhood of Carshalton hardly seemed to bear out the high rainfall reported there, careful enquiry has satisfied us that it is correct.

II. Carshalton (Sewage Works) 3.17 in. or 7.2 per cent.

June 14th.

About 250 stations in the S. of England had their **M** on what was, undoubtedly, the wettest day of the wettest week of the year. The distribution of rain for the whole of this wet period is dealt with in Part I. of this volume, and maps are given there of the fall of three consecutive days, so that it is not necessary to say more here than to direct attention to those falls coming under special notice.

III. Oving House 2.74 in. or 7.7 per cent.
IV. Southend (Water Works, Eastwood) .. 2.39 ,, 7.5 ,,
,, Foulness (The Lodge) 3.01 ,, 9.7 ,,
,, Billericay (Burghstead Lodge) 2.53 ,, 7.5 ,,
,, ,, (Norsey Manor) 3.10 ,, 8.5 ,,
,, Southminster..... 2.50 ,, 8.0 ,,

June 19th.

About a dozen stations in the immediate neighbourhood of Plymouth attained their **M** in a local downpour.

V.	Plymouth (Freedom Field).....	2·56 in. or 5·0 per cent.
„	„ (Drake's Reservoir)	2·58 „ 5·4 „
„	Devonport (Rowden's Reservoir)	2·60 „ 5·7 „

June 25th—26th.

Two wet days in the S.W. of Ireland brought **M** to about 25 stations, but of these only one, on the 26th, had appreciably more than 2·00 in.

XXI.	Wexford (Reclaimed Lands)	2·54 in. or 5·9 per cent.
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July 5th.

M at about 35 stations in Scotland, produced by a well-marked cyclone crossing the country from west to east.

XVIII.	Alness (Ardross Castle)	2·86 in. or 5·3 per cent.
XIX.	Altnaharra.....	2·80 „ 4·9 „
„	Wick	2·50 „ 7·0 „

July 14th.

More than 50 stations in the N. of England and Ireland and the S. of Scotland had their **M**, the intensity of the rain being greatest on the coast of Cumberland. To the S.W. and N.E. of that position the rain, although very heavy, was more equally distributed over several days, no one of which was wet enough to yield **M**.

X.	Eskdale	3·03 in. or 3·8 per cent.
„	Cleator Moor Water Works	3·47 „ 4·7 „
„	Silloth.....	2·88 „ 6·3 „
XII.	Whithorn	2·50 „ 4·6 „

July 17th—19th.

A succession of TSS brought **M** to about 50 scattered stations in all parts of the S. of England, though the amounts were insignificant in all but two cases.

July 18th.

VI.	Betley Hall [Crewe].....	2·92 in. or 7·6 per cent.
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July 19th.

II.	Alton (Shalden Manor)	3·22 in. or 6·3 per cent.
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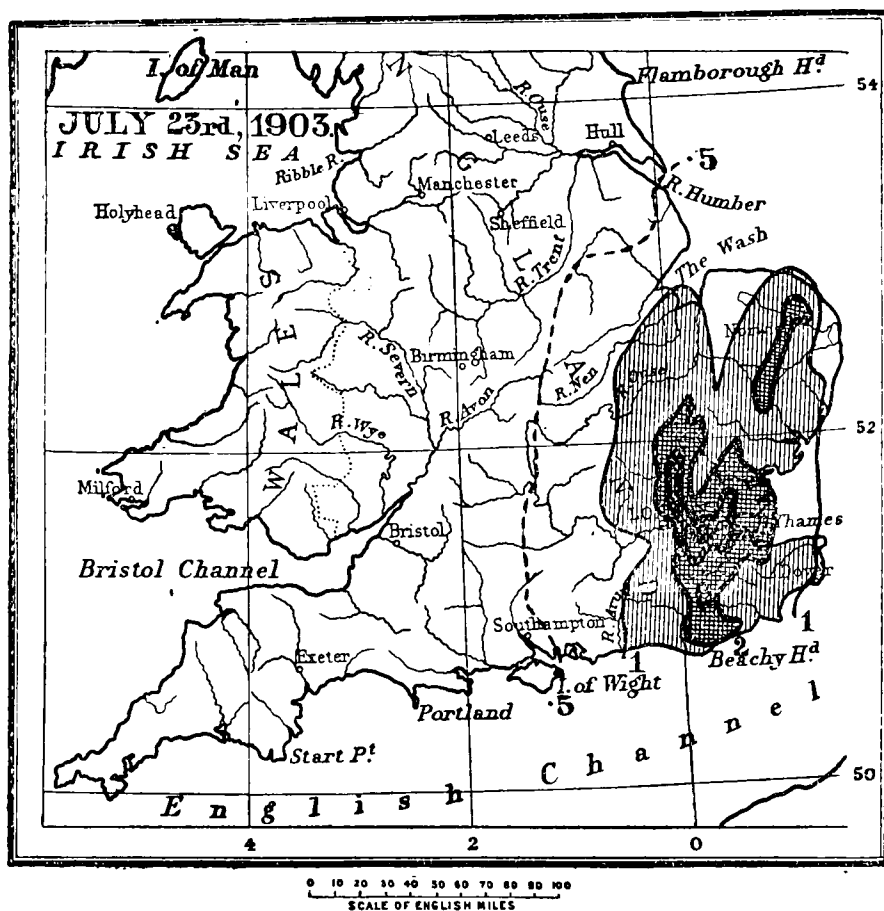
July 21st.

M at about a dozen stations in the W. of England.

VI.	Tortworth Court	2·61 in. or 6·0 per cent.
„	Dursley	2·60 „ 5·7 „

July 23rd.

The whole of the S.E. of England was subjected to a long-continued rain of winter type, commencing early in the afternoon and continuing all night in many instances. The meteorological conditions were due to a cyclonic centre passing from S.W. to N.E. along the French coast of the English Channel, and the rainfall map for the day shows that the heaviest falls occurred in Essex, where a small area received more than 4·00 in. of R. Towards the W. and N.



the intensity of the fall rapidly diminished, no place west of a line drawn from the Isle of Wight to Nottingham, and none north of a line from Nottingham to Grimsby receiving so much as half-an-inch of R. Every place east of a line from Littlehampton to Peterborough had more than one inch of R. The wettest part of the area affected was a strip about 5 miles wide, with over 3 inches, running from S. to N. along the Greenwich meridian for 30 miles, including

Epping Forest, and a strip of 10 miles wide, running at right angles to the former, down the Thames as far as Chatham, a distance of about 20 miles. The map shows the distribution of this remarkable fall with great accuracy. The following are the areas affected and the amount of rain :—

	Area, sq. miles.	Average Rain. inches.	Volume of Rain. sq. miles \times in.
1·00 in.—2·00 in.	7,488	1·5	11,232
2·00 „ —3·00 „	2,252	2·6	5,855
3·00 „ —4·00 „	359	3·5	1,256
Above 4·00 „	24	4·2	101
Total	10,123		18,444

This indicates that on an area of about 10,000 square miles an average of 1·82 in. of R fell in 24 hours.

Although M were reported from more than 300 stations, the largest number on one day in 1903, the total area affected was very much less than on October 27th or September 10th, because the number of rainfall stations in the south-east of England is greater than in any other part of the country of equal extent. This fall provides the longest list for the Chronicle and half the entries in the table of highest falls.

I.	Poplar (Isle of Dogs)	2·67 in. or 8·0 per cent.
„	„ (Old Ford).....	2·64 „ 7·5 „
„	„ („ „).....	2·94 „ 8·3 „
„	Barking Outfall [Woolwich]	2·76 „ 8·7 „
„	Deptford (Kent Water Works).....	2·48 „ 7·5 „
„	Greenwich (Deptford Pumping Station)	2·97 „ 7·5 „
„	„ Blackheath (Eastcombe Villas)	3·42 „ 9·9 „
„	„ „ (Ingleside Grove)	3·21 „ 9·7 „
„	Woolwich, Eltham (High Street)	2·68 „ 7·4 „
II.	Lyden Croft [Edenbridge]	2·76 „ 6·8 „
„	Tunbridge Wells (Langton Green)	2·95 „ 8·0 „
„	„ „ (Bredbury)	3·77 „ 8·9 „
„	„ „ (Didmarton)	2·89 „ 7·7 „
„	Speldhurst Rectory	3·03 „ 8·6 „
„	„ (Harwarton)	3·55 „ 8·9 „
„	„ (Etherton Hill)	2·58 „ 6·1 „
„	Tonbridge (Mabledon Park)	3·30 „ 9·2 „
„	„ (Primrose Hill)	3·10 „ 8·0 „
„	„ (Beech Hurst)	3·10 „ 8·1 „
„	Maidstone	2·65 „ 7·1 „
„	Ash (Pettings House)	2·84 „ 7·0 „
„	Orpington (Kent Water Works)	3·16 „ 8·4 „
„	Farningham Hill	3·78 „ 9·4 „
„	„ (Mount Pleasant)	3·12 „ 7·8 „
„	Meopham	2·86 „ 7·9 „
„	Rochester (Knight's Place)	3·28 „ 9·0 „
„	Strood Water Works	2·64 „ 8·4 „
„	Frindsbury (The Shrubbery).....	2·43 „ 8·0 „

II.	Bromley Common (Elmfield).....	2.60 in.	or 6.9 per cent.
„	Bickley (The High Field)	3.21 „	8.3 „
„	Bromley (The Palace).....	2.84 „	7.5 „
„	„ (Widmore Road)	2.75 „	8.0 „
„	Chislehurst (Foxbury).....	3.24 „	8.5 „
„	„ (Hawkwood)	3.25 „	8.9 „
„	Southfleet (Kent Water Works)	3.54 „	10.2 „
„	Wilmington („ „)	4.03 „	11.9 „
„	Sidcup (Hatherley Road)	3.94 „	10.1 „
„	Dartford (West Hill House)	4.41 „	12.8 „
„	Higham (Oakleigh)	2.22 „	7.7 „
„	Erith (Crossness)	2.79 „	8.5 „
„	Bexhill (The Grange)	2.44 „	8.5 „
„	Hailsham	2.50 „	6.6 „
„	Crowborough (Jarvis Brook)	3.00 „	6.7 „
„	„ (Beechcroft)	2.64 „	5.7 „
„	„	2.51 „	5.5 „
„	Ticehurst (Whiligh).....	2.53 „	6.3 „
„	Wadhurst (Lower Cousley Wood)	2.89 „	8.2 „
„	Crowborough (Steel Cross House).....	3.11 „	6.7 „
„	„ (Renby Grange)	3.14 „	7.3 „
„	Frant (Eridge Castle)	3.07 „	6.4 „
„	Glen Andred [Groombridge]	2.85 „	6.8 „
III.	Ponders End (Bylock Hall)	3.02 „	8.2 „
„	„	2.83 „	8.2 „
„	Ramsey Marsh [Waltham Abbey]	2.70 „	7.6 „
„	Hoddesden (Feilde's Weir).....	3.09 „	8.5 „
„	Ware (Red House)	2.51 „	7.0 „
„	Much Hadham	3.15 „	8.4 „
„	Royston (Therfield Rectory)	2.75 „	7.5 „
„	Foxton House [Royston].....	2.49 „	7.7 „
„	Wimpole Hall	2.28 „	7.5 „
„	Cambridge (Sidney Street).....	2.45 „	8.0 „
„	„ Observatory	2.34 „	7.7 „
IV.	Grays Sewage Works	2.93 „	9.5 „
„	Orsett	2.85 „	9.0 „
„	East Ham	2.68 „	8.3 „
„	West Ham (Abbey Mills)	3.59 „	9.9 „
„	Southend (York Road).....	2.37 „	7.9 „
„	Wanstead (Red Bridge)	3.71 „	10.5 „
„	Leyton (Lea Bridge Road)	2.79 „	7.7 „
„	Buckhurst Hill (Ardmore)	4.35 „	10.3 „
„	Upminster Hall	2.28 „	7.5 „
„	Walthamstow (Ferry Lane)	2.65 „	7.4 „
„	Woodford (Haggard Lane)	3.06 „	8.4 „
„	Billericay (Ramsden Hall)	3.07 „	8.3 „
„	Buckhurst Hill Reservoir	4.16 „	11.2 „
„	„ „ House	4.25 „	11.7 „
„	Chingford Mill	2.87 „	7.8 „
„	Brentwood (Shenfield Rectory).....	2.74 „	7.0 „
„	Loughton (High Beech)	3.65 „	9.5 „
„	Waltham Abbey	2.71 „	7.6 „
„	„ (Gunpowder Factory).	2.63 „	7.3 „
„	Epping (The Hemnalls)	3.08 „	7.5 „
„	Braintree (Bocking, Fennes)	2.51 „	7.9 „
„	Ixworth (Walsham-le-Willows).....	2.71 „	8.8 „
„	Norwich (Brundall)	2.28 „	7.7 „
„	Salhouse	2.50 „	9.2 „

August 11th.

M of no particular interest at about 20 stations in Norfolk and Dorset.

IV. Lowestoft (Lound Pumping Station)..... 1·95 in. or 7·5 per cent.

August 14th.

M due to TSS at about 10 widely separated stations. Only one requires to be quoted here, but at Burrishoole House, Co. Mayo, the fall was 2·49 in., just escaping insertion.

XXIII. Killybegs 2·77 in. or 4·1 per cent.

August 24th.

A cyclone passing across England from the south of Dorset to the east of Norfolk brought **M** to about 150 stations, from Surrey to Derbyshire, but the intensity of the **R** was only sufficient to claim notice at a few stations in Rutland and Nottinghamshire.

VII.	Waltham-le-Wolds	2·46 in. or 7·8 per cent.
„	Uppingham (Ridlington).....	2·73 „ 8·0 „
„	Tolethorpe Hall [Stamford]	2·15 „ 7·6 „
„	Kingston Hall [Loughborough].....	2·58 „ 7·6 „
„	Nottingham (Mapperley Hill)	2·75 „ 8·6 „
„	„ (Basford)	2·50 „ 7·9 „

September 4th.

TSS, in some instances of destructive severity, brought **M** to about 65 stations in the south-east of England and the western suburbs of London. Only a few of the falls were heavy enough to merit notice.

II.	Funtington.. ..	2·73 in. or 6·6 per cent.
„	West Stoke Rectory	2·81 „ 6·4 „
„	Chichester (Chilgrove).....	2·85 „ 5·8 „
„	Portsmouth (Fort Cumberland).....	2·67 „ 8·5 „

September 8th.

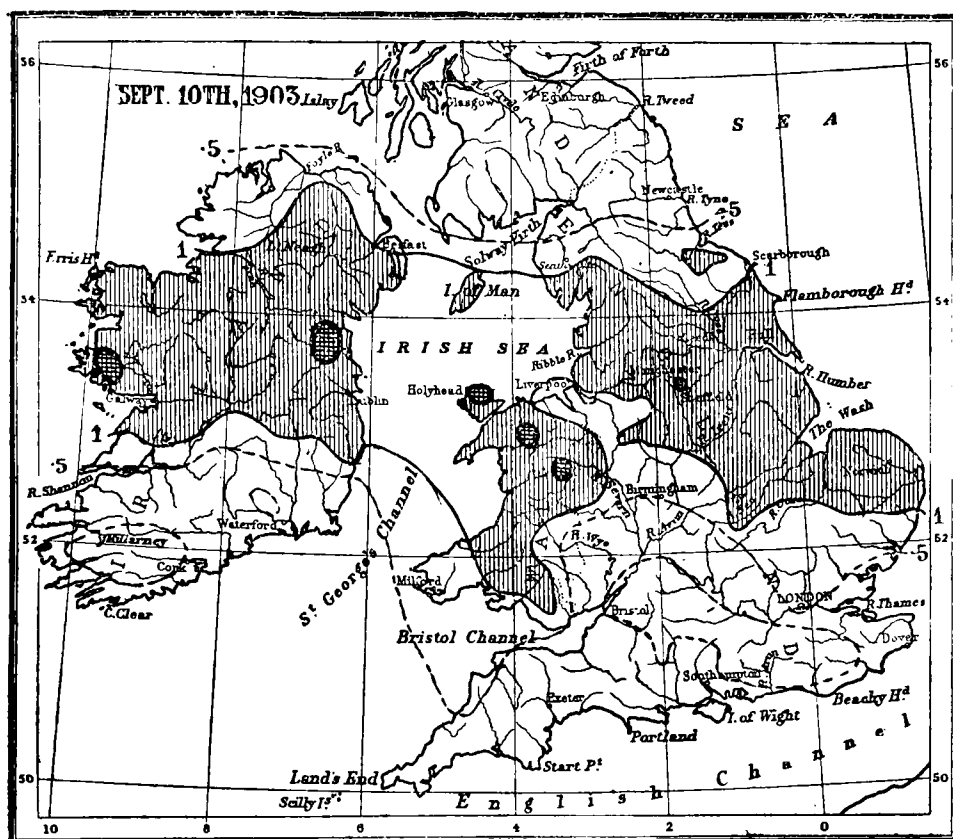
M at about 65 stations, chiefly in Lancashire, two of which just claim recognition.

VIII.	Grange-over-Sands (Eggerslack)	2·67 in. or 4·2 per cent.
IX.	Holmbridge (Yateholme).....	2·50 „ 3·4 „

September 10th.

The remarkable distribution of **R** in England, due to TSS on September 10th, 1902, was made the subject of a map in *British Rainfall*. A year later an equally remarkable cyclonic **R** occurred, the centre of a very deep depression, in which the barometer fell and rose more than an inch in twenty-four hours, passing across the middle of Ireland and England from W. to E. This brought **M** to

about 250 stations, chiefly in central Ireland, North Wales, Lancashire, Yorkshire and Lincolnshire, but only the M of a single station in the west of Ireland can be included in the Chronicle, all the others being less than 2·50 in. or 7·5 per cent. of the annual total. This fact does not detract from the interest of the storm, and we have constructed a map which is worth comparing with that for the same day in the previous year. The uniformity of the distribution of a great cyclonic rain is brought out in striking contrast to the irregular distribution of the wettest areas when the weather is produced by TSS.



Although only rising at a few isolated points to as much as 2 inches, the area with R above 1·00 in. occupied the whole breadth of Ireland, England and Wales, and probably also of the Irish Sea. The land alone which received over 1·00 in. in the 24 hours measured more than 40,000 square miles, and if the sea be included, over which there is reason to believe an equally heavy rain extended, the total area exceeds 53,000 square miles.

	Area, sq. miles.	Mean Fall.	Volume of Rain. sq. miles x in.
1·00 in.—2·00 in.	40,550	1·4	56,770
Above 2·00 „	1,180	2·2	2,596
Total	41,730		59,366

This corresponds to an average fall, within the area stated, of 1·42 in.

Except for the extension of high rainfall over South Wales, the general distribution was, broadly speaking, a wet belt running from the W. of Ireland due E. to the E. of England ; the portion with more than one inch of rain being 450 miles long, and averaging 120 miles wide from north to south. Placing upon the map the track of the centre of the depression, taken from the *Weekly Weather Report*, it becomes clear that the greatest amount of precipitation occurred to the left of the cyclone track, a fact which has often been observed in other cases.

XXII. Recess Hotel 2·90 in. or 3·8 per cent.

September 24th.

TSS brought M to about a dozen stations in the S.W. of England and S. Wales, and one really heavy fall was reported.

XI. Crickhowell (Gwernvale)..... 3·00 in. or 5·3 per cent.

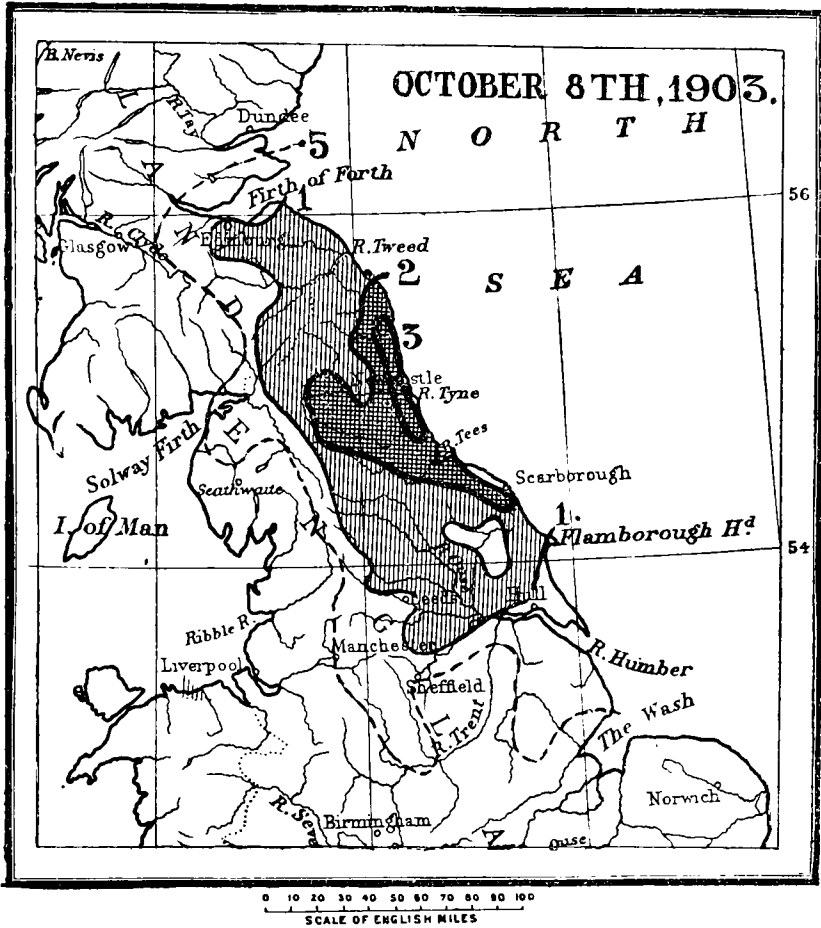
October 4th.

Half-a-dozen scattered M, one of which must be cited.

XI. Glyncorrwg 2·70 in. or 2·4 per cent.

October 8th—9th.

A cyclone passing across England, with the track of the centre running from the Bristol Channel to the Wash, brought very heavy and long-continued R to the north of England, and M occurred at about 150 stations, chiefly in the north of Yorkshire, in Durham and Northumberland. The storm was particularly severe in the neighbourhood of Newcastle, where considerable damage was done. The R for the 8th, on which all the M occurred, has been mapped in detail, and it is seen to have been a local fall mainly affecting a strip along the east coast between the Humber and the Firth of Forth. Falls exceeding 1·00 in. occurred along a belt 45 miles wide between the two estuaries ; the penumbra of smaller R surrounding the wet centre was a very narrow fringe and the intensity of the rain increased towards the east. The west coast of England in the same latitude was practically rainless.



The areas affected by this fall are :—

	Area, sq. miles.	Mean Fall.	Volume of Rain. sq. miles x in.
1·00 in.—2·00 in.	6,450	1·5	9,675
2·00 „ —3·00 „	2,220	2·4	5,328
Over 3·00 „	220	3·2	704
Total	8,890		15,707

This indicates that the average rainfall over about 9000 square miles was 1·77 in. for the twenty-four hours.

The only M on the 8th outside the wet area on the E. coast is that at Ardwell House, which is supported by no other station, the nearest gauges to it showing less than ·50 in. The observer called attention at the time to the remarkable fall, and after fully investigating the circumstances we cannot find any reason for not accepting the figure as correct.

October 8th.

IX.	Middlesbrough (Albert Park)	2.29 in. or 7.7 per cent.	
X.	Stockton (Rimswell).....	2.30 „	8.5 „
„	West Hartlepool (Bradgate)	2.90 „	9.1 „
„	Hartlepool (Hurworth Burn)..	3.45 „	10.5 „
„	„ (Hart Reservoir)	2.45 „	8.6 „
„	Durham Observatory	2.51 „	8.1 „
„	Weardale W.W. (Waskerley)	2.52 „	5.9 „
„	„ „ (Smiddy Shaw).....	2.67 „	6.2 „
„	Seaham (Dalton Pumping Station)	3.14 „	9.2 „
„	Fence Houses (Chilton Moor).....	3.25 „	9.3 „
„	Seaham Harbour	2.48 „	7.7 „
„	Sunderland (Ryhope Pumping Station)	2.84 „	8.6 „
„	„ (W. Hendon House) No. 5	2.59 „	7.8 „
„	„ (Fever Hospital).....	2.72 „	8.2 „
„	„ (Claxheugh Grove).....	3.03 „	9.0 „
„	„ (The Cedars)	2.94 „	8.5 „
„	Newcastle (Clifton Road)	2.67 „	8.7 „
„	„ (Lit. and Phil. Soc.).....	3.66 „	10.0 „
„	„ (Northumberland Road)	2.29 „	7.6 „
„	„ (Claremont Road)	2.68 „	8.1 „
„	„ (Leazes Park).....	3.25 „	9.9 „
„	„ (Town Moor)	3.68 „	10.7 „
„	„ (Wellburn, Jesmond)	3.34 „	9.8 „
„	North Shields (Dockway Square).....	2.58 „	7.8 „
„	Tynemouth.....	2.50 „	7.5 „
„	Angerton Hall	2.69 „	6.4 „
„	Morpeth (Bothalhaugh Garden).....	3.22 „	9.0 „
„	„ (Longhirst)	3.45 „	10.1 „
„	„ (Cockle Park)	2.87 „	8.2 „
„	Rothbury (Cragside)	2.58 „	6.4 „
„	Alnwick Castle	2.68 „	6.7 „
XII.	Stoneykirk (Ardwell House)	3.17 „	6.9 „

October 14th.

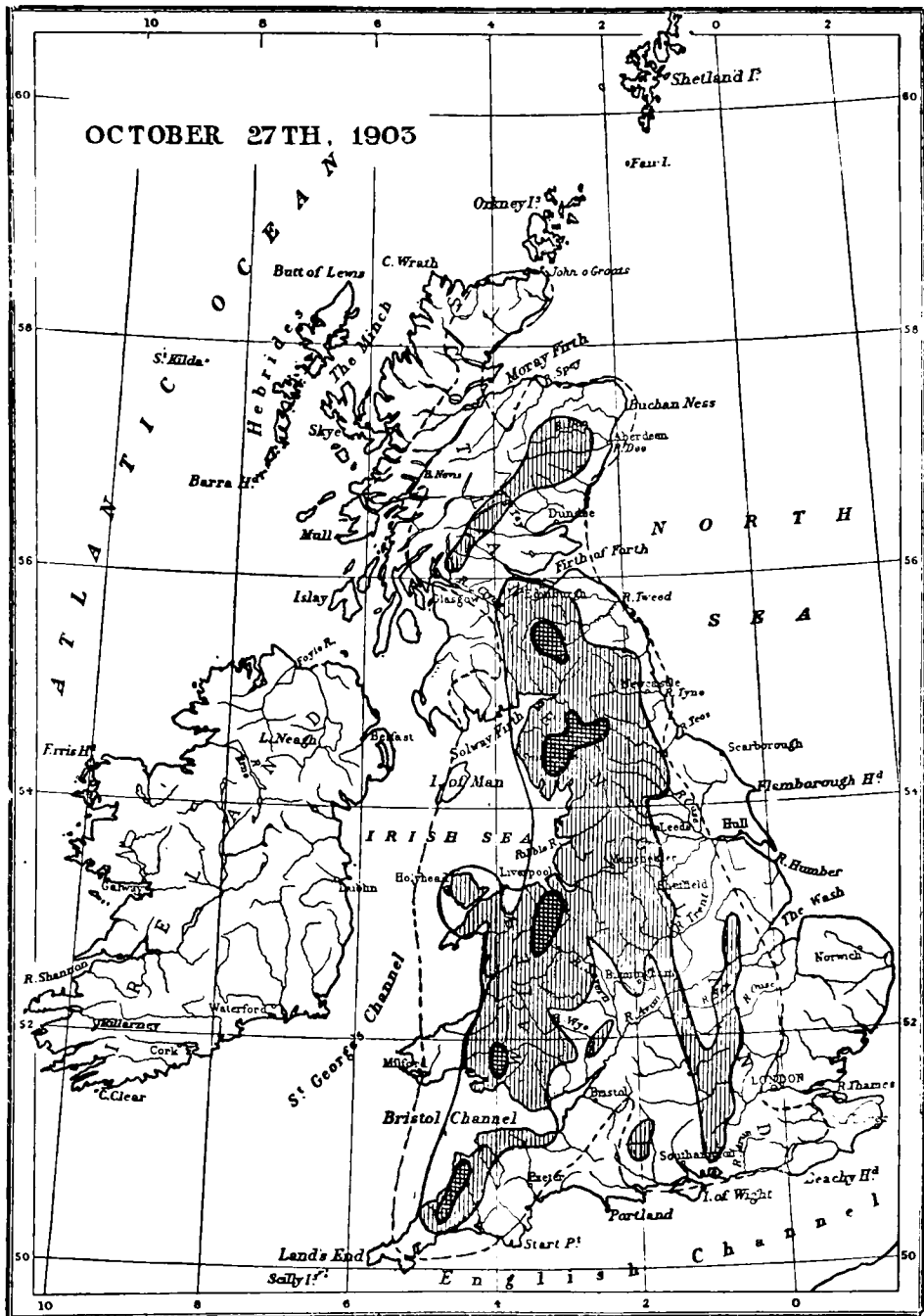
M at about 90 stations, most of them in Wales and the S.W. of England. A remarkable fall occurred at Ushenish, S. Uist, in the track of a cyclonic disturbance which passed northward along the coast of Scotland.

XI.	Newport (W.W. Newchurch)...	2.60 in. or 4.4 per cent.	
„	Rhondda (Pont Lluest Wen Reservoir)	2.50 „	3.1 „
„	Treherbert (Bute Colliery).....	2.87 „	2.7 „
„	„ (Tyn-y-waun)	2.90 „	2.6 „
„	Ystalyfera (Wern School)	2.71 „	3.3 „
„	Nanthir Reservoir [Aberdare]	2.58 „	3.2 „
XVIII.	S. Uist (Ushenish)	3.72 „	3.8 „

October 27th.

The centre of a severe cyclone pursued a somewhat unusual path; entering by the Bristol Channel, it curved northward through the W. of England and ultimately curving still more to the left, passed out into the Atlantic between Islay and Mull. There was, in con-

sequence, a widespread heavy R, though the area affected by falls exceeding 1·00 in. was little more than half as great as on Septem-



ber 10th. The greatest R occurred in the W. of England and in Wales, well on the left of the track of the cyclonic centre ; but the

whole of the E. of Ireland was entirely without R, and very little fell in the S.W. of Scotland. M occurred at about 180 stations scattered over the whole length of the country from Cornwall to Aberdeen; but only three, in Wales, were large enough to record.

The somewhat irregular distribution of the R is brought out in the map on p. [145], on which the dotted line encloses the whole area with more than .50 in. of R. Measurement shows the following areas to have been affected.

	Area, sq. miles.	Mean Fall.	Volume of Rain. sq. miles x in.
1.00 in.—2.00 in.	27,720	1.4	38,808
Over 2.00 ,,	1,540	2.3	3,542
Total	29,260		42,350

This means that upon 29,000 square miles of country the R for the day averaged 1.45 in.

XI. Llandilo (Dynevor Castle)	2.52 in. or 3.3 per cent.
„ Wrexham (Pack Saddle Reservoir)	2.60 „ 5.4 „
„ „ (Broughton)	2.50 „ 5.2 „

November 27th.

For the second time during the year the barometer fell more than an inch in the course of one day, as a cyclone centre passed from west to east from the S. of Ireland to Norfolk. Heavy R occurred at many places and more than 50 stations, chiefly in Surrey and Sussex, recorded M. The only falls sufficiently large to quote, however, were found in Wales.

XI. Strata Florida (Hafod).....	2.66 in. or 3.4 per cent.
„ Rhayader (Claerwen)	2.60 „ 3.1 „

December 3rd.

M at about 10 stations in the north, deserving notice only because Seathwaite, the historic home of heavy rain, was amongst the number.

X. Borrowdale (Seathwaite).....	4.13 in. or 2.5 per cent.
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December 12th.

The last heavy rain of the year was a poor example of a winter cyclonic storm, the centre describing a sharply curved track round Cornwall, Wales and the S.E. of Ireland. Within this area, but mainly in Cornwall and Devon, and especially on Dartmoor, about 110 stations recorded M, and three of these deserve notice.

V. Sheepstor (Red Stone).....	2.95 in. or 4.3 per cent.
„ Dartmoor (Leather Tor Farm)	3.16 „ 4.7 „
„ Okehampton (Oaklands)	2.92 „ 5.0 „

Part II.—Abstract.

The sixteen highest daily falls have always been selected for special consideration, and those for 1903 are duly set out in Table I. Ben Nevis once more heads the list and curiously enough with a smaller value than has ever brought it to that place before; a fact which is the more remarkable because it happened in 1902 also. The second place is taken by Glenquoich with a fall practically equal to that of Ben Nevis. We feel that we should not exclude Glenquoich from the Table, although the gauge at that station is read at 6 p.m. and its record is consequently not strictly comparable with the others. Both of these large falls occurred in the same great R which prevailed over the N.W. of Scotland at the end of January. Five other heavy falls were due to winter rains in the Lake District and Yorkshire. Eight of the ten summer falls were due to the great cyclonic R of July 23rd, in the S.E. of England, the fall of 4·41 in. at Dartford being the most remarkable in the list, though by no means unprecedented.

Table II. shows that the sixteen highest M of 1903 were a little above the average of the sixteen highest falls and had been exceeded as recently as 1901 and 1900. The highest M for the year was actually below the average for the previous 38 years, and indeed we have to go back as far as 1896 (and before that to 1889) until we find a lower figure at the top of the list.

Table III., which follows Table I. from motives of economy of space, gives the 16 falls which yielded the highest percentage of the annual rainfall at the same station. This Table is shared between July 23rd and October 8th, the former in the S.E., the latter in the N.E. of England. The areas affected in each case were comparatively small, so that the sixteen stations are very unequally distributed geographically. Dartford heads the list with 12·8 per cent. of the annual rainfall, or more than one eighth, as its share for the one day.

Table IV. enables us to compare the percentages with those in the past, and it shows 1903 to have been just below the average as regards the absolute highest, and just above the average as regards the mean. In either case one must go back to 1896 to find lower values.

Table V. summarises the whole work of all the rainfall observers in the British Isles, from the time when the total number of available daily records was under 500 until now, when it is close upon

3,000. It appears from this epitome of earlier records, that the percentage which all the *M* bore to the total *R* in 1903, was not only below the average but actually lower than in any year since 1883. This is not due to the smallness of the daily falls, for the next column shows that the *M* were actually considerably in excess of the average and higher than in any year since 1880 ; indeed, their average amount has only been surpassed on three occasions in the whole record—viz., in 1880, 1875 and 1865. The low mean percentage is merely a result of the exceptionally high total *R*, which was only exceeded in 1872 and once equalled, in 1877. The “mean total fall” in the year comes out as 41 inches compared with an average of 33 inches. In the Table stations of low rainfall predominate, so that the figure does not give the actual average rainfall of the country. It has, however, been calculated otherwise that the average rainfall of the British Isles is 39·50 in., and calculating to that basis (assuming the ratios to hold good) we get 49 inches as the average depth of *R* over the British Isles in 1903, which may be compared with 56 inches in 1872, the only wetter year since the Table was made possible in 1865. As a matter of fact, the careful determination of the rainfall of 1872 on a specially constructed map gave 53 inches, and that of 1903, similarly determined, gave 52 inches. The whole bearings of the rainfall of 1903, in comparison with other wet years, are considered in a special article in the first part of this volume.

The last part of this article deals with the number of *M* greater than 2·00 in. and 3·00 in., and these are tabulated in Table VI., from which it appears that in 1903 no less than 625 *M* exceeded the former limit and 83 the latter. These totals were only once surpassed, in 1900 ; but here we must be careful to take into account the rapid increase in the number of observers. The columns expressing the numbers as a percentage of the total number of records does this, and in it we find confirmation of the excessive wetness of 1903, for 21·3 per cent. of the *M* were greater than 2·00 in., a figure only once exceeded, in 1900. *M* exceeding 3·00 in. amounted to 2·8 per cent. of the whole number, a ratio far higher than the average, but passed twice in recent years. The moderately high *M* were thus more numerous than on any previous occasion except one, while the excessively high *M* did not show so great a relative preponderance.

TABLE I.—*Maximum Falls in 1903.*

Date.	Div.	Station.	Depth.	Per Cent.	Total.
Jan. 29 ...	XVIII.	Ben Nevis Observatory	4·78 in.	2·2	216·75 in.
„ 30 ...	„	Glenquoich	4·72 „	3·1	151·83 „
July 23 ...	II.	Dartford, West Hill House.	4·41 „	12·8	34·52 „
„ „ ...	IV.	Buckhurst Hill, Ardmore..	4·35 „	10·3	42·08 „
„ „ ...	„	„ „ House	4·25 „	11·7	36·35 „
Jan. 26 ...	IX.	Ingleton, Kingsdale Head...	4·22 „	5·3	79·36 „
July 23 ...	IV.	Buckhurst Hill Reservoir...	4·16 „	11·2	37·00 „
Dec. 3 ...	X.	Borrowdale, Seathwaite ...	4·13 „	2·5	166·09 „
Jan. 26 ...	„	Ravenstonedale	4·11 „	5·2	79·05 „
July 23 ...	II.	Wilmington, Kent W.W....	4·03 „	11·9	33·82 „
Sept. 6 ...	X.	Borrowdale Vic. = Rosthwaite	4·03 „	3·0	136·15 „
July 23 ..	II.	Sidcup, Hatherley Road ...	3·94 „	10·1	38·96 „
„ „ ...	„	Farningham Hill.....	3·78 „	9·4	40·03 „
„ „ ...	„	Tunbridge Wells, Bredbury	3·77 „	8·9	42·41 „
Oct. 14 ...	XVIII.	S. Uist, Ushenish	3·72 „	3·8	99·05 „
Jan. 26 ...	X.	Borrowdale, Grange	3·72 „	3·1	121·17 „

TABLE III.—*Maximum Percentages in 1903.*

Date.	Div.	Station.	Per cent.	Fall.	Total.
July 23 ...	II.	Dartford, West Hill House..	12·8	4·41 in.	34·52 in.
„ „ ...	„	Wilmington, Kent W.W....	11·9	4·03 „	33·82 „
„ „ ...	IV.	Buckhurst Hill House	11·7	4·25 „	36·35 „
„ „ ...	„	„ „ Reservoir...	11·2	4·16 „	37·00 „
Oct. 8 ...	X.	Newcastle, Town Moor	10·7	3·68 „	34·46 „
July 23 ...	IV.	Wanstead, Red Bridge	10·5	3·71 „	35·44 „
Oct. 8 ...	X.	Hartlepool, Hurworth Burn	10·5	3·45 „	32·81 „
July 23 ...	IV.	Buckhurst Hill, Ardmore...	10·3	4·35 „	42·08 „
„ „ ...	II.	Southfleet, Kent W.W.....	10·2	3·54 „	34·75 „
„ „ ...	„	Sidcup, Hatherley Road ...	10·1	3·94 „	38·96 „
Oct. 8 ...	X.	Morpeth, Longhirst	10·1	3·45 „	34·25 „
„ „ ...	„	Newcastle, Lit. & Phil. Soc.	10·0	3·66 „	36·63 „
July 23 ...	IV.	West Ham, Abbey Mills ...	9·9	3·59 „	36·35 „
„ „ ...	I.	Blackheath, Eastcombe Villas	9·9	3·42 „	34·56 „
Oct. 8 ...	X.	Newcastle, Leazes Park ...	9·9	3·25 „	32·95 „
„ „ ...	X.	Newcastle, Wellburn, Jesmond ...	9·8	3·34 „	34·25 „

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.
Mean ...	3·79	6·5	71·0	5·45	7·1	.....	...
1903 ...	4·13	7·2	84·7	4·78	2·2	Ben Nevis Obs. ...	XVIII.
Diff. ...	+ 34	+ 7	+ 13·7	—67	—4·9	.....	...

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.	„
Mean ...	10·2	2·80	28·1	13·0	3·78	.....	...
1903 ...	10·6	M 3·76	35·6	12·8	4·41	Dartford, West Hill House	II.
Diff. ...	+ 4	+ 96	+ 7·5	— 2	+ 63	.....	...

TABLE V.—*Comparison of the Mean of all the Maximum Falls of 1903 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	m 3·4	1·59	M 47	M 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	M 1·83	37	109	M 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	m 1·14	m 25	m 74	m 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	M 5·7	1·58	28	82	4·6 „
1902.....	2832	4·4	1·20	27	79	3·5 „
Mean ...	1607	4·5	1·46	33	96	4·3 „
1903.....	2936	4·0	1·67	41	121	4·9 „
Diff.....	+1329	— ·5	+ ·21	+ 8	+25	+ ·6 „

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	.....	8
3	1505	.....	170	.....	23
4	1691	.....	138	.....	9
5	1801	.....	179	.....	24
6	..	1718	.....	158	.....	44
7	1921	.....	52	.....	4
8	1974	.....	374	.....	34
9	1812	.....	170	.....	24
1890	2081	.....	345	.....	54
1	..	2218	.....	270	.....	39
2	2231	.....	470	.....	81
3	2267	.....	183	.....	29
4	2321	.....	313	.....	36
5	2423	.....	249	.....	31
6	2465	.....	249	.....	16
7	2598	.....	275	.....	62
8	2691	.....	373	.....	72
9	2791	.....	283	.....	43
1900	2702	.....	641	.....	89
1	2747	.....	497	.....	68
2	2832	.....	163	.....	30
Mean	2202	.....	271	.....	39
1903	2936	.....	625	.....	83
Diff.	+734	.....	+354	.....	+44

DROUGHTS IN 1903.

BEING anxious to improve the geographical distribution of the stations the records of which are taken into account in discussing droughts, we have this year increased the number from 50 to 73. The advantage of doing so is that it enables us to feel assured that no important period of drought in any part of the country has escaped detection, and the only disadvantage that can be suggested is that it makes comparison with past records less easy. This difficulty is overcome by retaining the old comparison table and calculating the number of droughts to correspond with the old number of stations. Thus, in 1903 there were 16 absolute droughts reported at 73 stations, which correspond to 11 for 50 stations.

The definitions of the two kinds of drought remain unaltered. They are :—

AN ABSOLUTE DROUGHT is a period of *more than* 14 consecutive days without measurable rain.

A PARTIAL DROUGHT is a period of *more than* 28 consecutive days, the average rainfall of which does not exceed .01 in. per day.

The year was not one in which many droughts were to be expected, and considering the small number which occurred in the abnormally dry year 1902, it is surprising to find so many. The total number of absolute droughts for the 73 stations was sixteen. Of these one occurred in Lincolnshire, one in the middle of Ireland, and one in the south of Scotland in May and June, one in Islay in the first half of June, one in the heart of the Highlands in December, and one in the East Riding in February. The remaining ten absolute droughts occurred simultaneously in the south-east of England during the last week of June and the first fortnight of July. It was, indeed, the very district which had the greatest excess of rainfall in the middle of June which experienced immediately afterwards an absolute drought averaging 20 days. No station in any part of the country recorded more than one absolute drought for the year.

Seven of the stations which experienced absolute droughts had to report partial droughts also, though in most cases these were at a different period. In addition, 15 other stations had partial droughts,

two having partial droughts on two occasions in the year. Altogether five cases of partial drought are credited to Ireland, all including the last week of May and the first three weeks of June; four to Scotland during the same period, and fifteen to England affecting thirteen stations. The partial droughts in England did not extend into Wales, and they occurred at three periods of the year. The first, in January and February, affected the east coast and the Midlands. The second, in May and the early part of June, was felt in Lancashire, Yorkshire and the north of Nottingham and Lincoln. The third period of partial drought was at the end of June and in July, and it affected two isolated stations in the west of England and one in the south-east.

Full particulars of the droughts are given in the usual tabular form. The 42 stations reporting no droughts are not included in the Table, in order to save space, but they are all set out at length in the next section dealing with spells of continuous rain. To summarise briefly—of 73 uniformly distributed stations 42 reported no droughts of any kind, 16 had one absolute drought each, and of these 6 had one partial drought and one had two partial droughts as well. Partial droughts were reported at 22 stations, two of which had two partial droughts and 7 had an absolute drought as well.

The map given in the next section (p. [160]) shows by appropriate signs the position of all the stations where the absolute and partial droughts referred to were reported.

In order to compare 1903 with the previous 16 years, the numbers have been calculated to the same basis as on former occasions and are presented in the usual summary Table.

The number of absolute droughts was 11, compared with an average of 33; in other words, only one-third of the number that might have been expected. The only year with fewer was 1902, a year it will be remembered unique in the combination of very low rainfall and incessant rain. The average duration of the droughts was one day longer than the average of fifteen years and the duration of the longest was one day less than the average extreme drought. On the average, 25 stations, or one-half of the total number, are without a drought; in 1903 the number without a drought was 39.

The number of partial droughts was also below the average, but six out of the fifteen years had less, and there was nothing remarkable about the duration or the number of stations without an instance.

Droughts in 1903.

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
			Days			Days	in.
ENGLAND & WALES.							
St. Pancras (Camden Square) ... <i>London.</i>	June 20	July 11	22	None			
Hythe (Hillcrest Road) <i>Kent, East.</i>	June 21	July 15	25	June 20	July 19	30	·22
Basingstoke (Sherborne St. John) <i>Hampshire.</i>	June 20	July 4	15	None			
Oxford (Magdalen College) <i>Oxford.</i>	June 20	July 10	21	Jan. 23	Feb. 20	29	·28
Blisworth (Crieff House)..... <i>Northampton.</i>	June 25	July 10	16	None			
Stamford (Easton) <i>Northampton.</i>	June 20	July 10	21	None			
Colchester (Lexden)..... <i>Essex.</i>	June 21	July 13	23	Jan. 23	Feb. 25	34	·34
Saffron Walden <i>Essex.</i>	June 20	July 11	22	None			
Geldeston [Beccles] <i>Norfolk.</i>	June 21	July 5	15	Jan. 23	Feb. 28	37	·36
Calne (High Street)..... <i>Wiltshire.</i>	June 20	July 4	15	None			
Bideford (Northam Vicarage) ... <i>Devon, North.</i>	None			June 17	July 16	30	·24
Ross (The Graig) <i>Hereford.</i>	None			June 16	July 15	30	·29
Weston Park [Shifnal] <i>Stafford.</i>	None			Jan. 11	Feb. 20	41	·41
Caistor (Hundon Manor) <i>Lincoln.</i>	May 21	June 5	16	May 12	June 12	32	·32
Worksop (Hodsock Priory) <i>Nottingham.</i>	None			Jan. 11 May 10	Feb. 20 June 12	41 34	·41 ·28
St. Michael's-on-Wyre Vicarage. <i>Lancashire, North.</i>	None			May 18	June 24	38	·37

Droughts in 1903—(continued).

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
			Days			Days	in.
ENGLAND & WALES—(con.)							
Knaresborough (Farnham)..... <i>Yorkshire, W.R. (N.)</i>	None			May 11	June 12	33	·26
Lowthorpe (The Elms) <i>Yorkshire, E.R.</i>	Feb. 2	Feb. 18	17	Jan. 13 May 11	Feb. 18 June 12	37 33	·37 ·25
Morpeth (Bothalhaugh) <i>Northumberland.</i>	None			Jan. 13	Feb. 18	37	·30
SCOTLAND.							
Garliestown (Galloway House) ... <i>Wigton.</i>	May 30	June 14	16	None			
Inveraray (Newtown) <i>Argyll.</i>	None			May 23	June 21	30	·19
Strontian (Laudale) <i>Argyll.</i>	None			May 23	June 23	32	·29
Islay (Ardbeg) <i>Argyll.</i>	June 1	June 16	16	May 24	June 27	35	·29
Forfar (Lilyfield) <i>Forfar.</i>	None			May 6	June 4	30	·20
Alvey Manse <i>Inverness, East.</i>	Dec. 13	Dec. 31	19	None			
IRELAND.							
Miltown Malbay <i>Clare.</i>	None			May 23	June 21	30	·30
Mountrath (Ballyfin) <i>Queen's County.</i>	None			May 17	June 21	36	·32
Oldcastle (Killeagh Rectory)..... <i>Meath.</i>	May 30	June 21	23	None			
Ballinasloe <i>Galway.</i>	None			May 23	June 21	30	·14
Westport (Murrisk Abbey) <i>Mayo.</i>	None			May 23	June 21	30	·28
Bushmills (Dundarave) <i>Antrim.</i>	None			May 17	June 21	36	·31

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
Mean	33	18	26	25	26	38	58	29
1903*	11	19	25	39	16	34	41	35
Diff.	-22	+1	-1	+14	-10	-4	-17	+6

* Reduced to value for 50 stations for comparison.

RAINY SPELLS IN 1903.

CONSIDERABLE interest attaches to the succession of consecutive rainy days as well as to the succession of consecutive dry days which when sufficiently numerous constitute a drought. Hitherto no systematic effort has been made to ascertain the relative frequency of long spells of wet weather, and while introducing this section into *British Rainfall* we feel that the method of treatment must be tentative at first. The main difficulty is to decide how much rain should be considered to entitle any day to rank as one of a wet spell, and how many consecutive days with rain are required to constitute a spell sufficiently long to be remarkable. The first difficulty we have avoided by adopting the usual definition of a rainy day, one on which at least .01 in. of rain is registered, considering that a day wet enough to break a drought is wet enough to continue a rainy spell. As regards the second point, we felt that a week with rain on every day is so far from uncommon in all parts of the country as to call forth little remark, while a fortnight with rain every day is unusual in most places. So we decided for the present to reckon as many consecutive rainy days to a rainy spell as it has been customary to count consecutive dry days in an absolute drought. Thus we define—

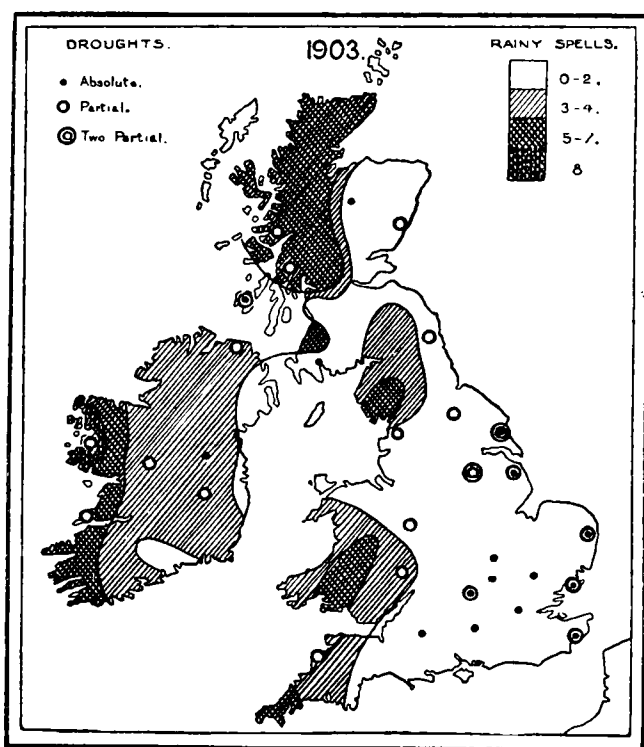
A RAINY SPELL is a period of *more than* 14 consecutive rainy days.

The following Table of Rainy Spells is a somewhat formidable list, for it refers to a very wet year and to one of which continuity rather than intensity was the characteristic of the rainfall. We should have expected the number of rainy spells in such a year as 1903 to be not very different from the number of absolute droughts in such a year as 1887. But we find that in 1887 fifty stations yielded 80 absolute droughts, whereas in 1903 the number of rainy spells calculated to fifty stations was no less than 139. By raising the limit of a rainy spell to 16 days the number for 50 stations would become 123, by raising the limit to 17 days it would be 106, and by raising it to 18 days the number would be 90. The labour of compiling such a table as we give this year for the first time is great

and time-consuming, and as it is impossible to say at present how abnormal 1903 may have been with regard to the duration of rainy spells, it seems better to let the Table stand exactly in the form in which it was drawn up.

The same 73 stations which were used for the discussion of the droughts have been utilized for the rainy spells, and they are all given in the Table. The total number of rainy spells which occurred was 203, and none occurred at 8 stations—viz., Oxford, Blisworth, Geldeston, Hillington, Calne, Hurworth Grange, Forfar and Bray.

Droughts and Rainy Spells in 1903.



Thirty stations recorded one or two wet spells, and these 38 stations occupied the whole of England east of the Severn and the Exe, except an area including the Lake District and extending into the south of Scotland. The whole of eastern Scotland south of the Moray Firth, and most of the south-west also, had less than three wet spells, and a narrow strip of the east coast of Ireland was equally favoured. The whole west and north of Scotland experienced more than five wet spells, and so did a strip of the west of Ireland, in which, near Westport, occurred the one instance out of the 73 where as many as 8 wet spells were recorded at one station.

In England no station where an absolute drought occurred had more than two wet spells, and only two stations recording a partial drought had more than that number. One absolute drought station in Scotland and one in Ireland had three wet spells, whereas all the partial drought stations in Ireland and all but one in Scotland had three wet spells or more. This distribution is made very clear on the little map opposite. It is obvious at a glance that more than three wet spells only occurred in the districts which normally have the heaviest rainfall—viz., Cornwall and Devon, Wales, the Lake District, the Southern Uplands and Western Highlands of Scotland, and the extreme west of Ireland. How far the number experienced in 1903 exceeds the average we have at present no means of judging.

As regards seasonal distribution it is noteworthy that in no case did a wet spell end in June and only 24 ended in the three months May—July, most of them in England. Most wet spells ended in the month of November, when there were 35; March came next with 33, while October followed closely with 30. The three months in which most wet spells terminated were October—December, which aggregated 81.

As to geographical distribution, the 37 stations in England and Wales yielded 74 wet spells, the 20 stations in Scotland gave 73, and the 16 stations in Ireland 56. The proportion of wet spells per 50 stations being—England 100, Scotland 182, Ireland 175, or for the British Isles 139.

The most remarkable instances of duration (all exceeding the traditional “forty days” which figure in the superstitions of so many Rain Saints) were as follows:—

Rainy Spells in 1903 exceeding 40 days.

	Station.	Began.	Ended.	Lasted days.	Total fall in.	Rain per day.		
						Max.	Min.	Mean.
X.	Dunoon Ghyll. ...	Feb. 18	Apr. 7	49	28·48	2·72	·01	·58
XII.	Dumfries	Feb. 19	Apr. 1	42	10·73	·97	·01	·26
XIV.	Dalry.....	Feb. 19	Apr. 7	48	10·13	·97	·01	·21
XV.	Buchlyvie.....	Feb. 19	Apr. 7	48	16·10	1·10	·01	·34
„	Inveraray.....	Feb. 19	Apr. 8	49	18·65	1·12	·01	·38
„	„	Sept. 25	Nov. 4	41	14·31	1·30	·01	·35
„	Strontian	Jan. 21	Mar. 13	52	26·56	1·72	·02	·51
„	„	Jul. 28	Sept. 11	46	18·77	1·50	·02	·41
XXII.	Westport	Jul. 28	Sept. 13	48	15·04	1·53	·01	·31

All these stations except Strontian and Westport had rain every day throughout the whole month of March and a considerable

portion of the previous and following months, while the three stations at the end of the list had nearly as long a wet spell in autumn, the whole of August and parts of the adjoining months having proved rainy at Strontian and Westport. It is surprising to find that October, which had rain every day at stations in all parts of the country, does not form part of any of the longest unbroken spells.

At several stations two rainy spells were separated by a single dry day, and the three most remarkable are given below :—

Long Rainy Spells, including One Dry Day.

Station.	Began.	Ended.	Dry day.	Lasted, days.	Total Rain.	Max.	Min.	Mean.
X. Dungeon Ghyll	Jan. 17	Apr. 7	Feb. 17	81	49·86	3·55	...	·62
XV. Strontian	Jan. 21	Apr. 17	Mar. 14	87	39·77	1·72	...	·46
XXII. Westport	Jul. 12	Sept. 13	Jul. 27	64	18·15	1·53	...	·28

The long rainy spell at Dungeon Ghyll is the most remarkable on account of the fact that the average daily fall for 81 days considerably exceeded half-an-inch. That for Strontian is an example of persistent raininess which cannot often be surpassed even in the West Highlands, for here we find rain falling on every day but one for the last ten days of January, the whole of February, the whole of March, and more than the first fortnight of April, 87 days, broken by one dry day into two spells of 52 and 34 days respectively, and while no one day had so much as an inch and three quarters, the average for each day was close on half-an-inch.

Only nine of the rainy spells yielded average falls exceeding half-an-inch per day and these occurred at four stations. The following statement shows that Dungeon Ghyll, a typical Lake District station, and Bendamph, a typical West Highland station, had the heaviest average falls; 13 inches falling in 16 consecutive days at the former station cannot have been surpassed by much, if at all, even at Ben Nevis, Seathwaite, or Snowdonia, during 1903.

Rainy Spells yielding an average rate exceeding .50 in. per day.

Station.	Began.	Ended.	Lasted, days.	Total fall, in.	Max.	Min.	Mean.
X. Dungeon Ghyll	Jan. 17	Feb. 16	31	21·38	3·55	·01	·69
" " "	Feb. 18	Apr. 7	49	28·48	2·72	·01	·58
" " "	Sept. 21	Oct. 16	26	15·31	1·65	·02	·59
" " "	Oct. 18	Nov. 2	16	13·07	3·38	·06	·82
XV. Strontian	Jan. 21	Mar. 13	52	26·56	1·72	·02	·51
XVIII. Fort Augustus	Jan. 20	Feb. 4	16	8·59	2·11	·01	·54
" Bendamph	Jan. 22	Feb. 15	25	18·98	1·74	·07	·76
" " "	Feb. 18	Mar. 14	25	14·86	1·82	·03	·59
" " "	Mar. 16	Mar. 31	16	10·97	2·15	·02	·69

The relative duration of dry and rainy spells was ascertained for each of 72 selected stations by counting the frequency with which groups of consecutive days, all rainy or all rainless, occurred throughout the year. It is unnecessary to give the values for each station, but the following summary is of interest.

Frequency of Rainy and Dry Spells of different duration.

	No. of Sta- tions	DURATION IN DAYS.											
		5-9		10-14		15-19		20-24		25-29		30 & over	
		NUMBER OF CASES AT 72 STATIONS.											
		Rainy	Dry	Rainy	Dry	Rainy	Dry	Rainy	Dry	Rainy	Dry	Rainy	Dry
England & Wales...	37	314	296	115	61	49	6	11	5	5	1	8	0
Scotland	19	176	98	62	21	24	3	26	0	10	0	11	0
Ireland	16	171	104	70	16	22	0	22	1	5	0	7	0
British Isles	72	661	498	247	98	95	9	59	6	20	1	26	0

The first line of the Table shows that in England and Wales there were at 37 stations 314 instances of rainy and 296 of dry spells of from 5 to 9 consecutive days each ; 115 instances of rainy and 61 of dry spells of from 10 to 14 days each ; and so on. The other lines give similar information for Scotland, Ireland and the whole country. The last three groups, for durations of 15 days and more, are made the subject of detailed study under this heading and that of droughts. Altogether there were 1108 instances of rainy spells exceeding five days in duration, an average of 15 per station ; and 612 instances of dry spells exceeding five days in duration, an average of rather more than 8 per station. For less than 10 days' duration the number of dry spells did not fall very far short of the number of rainy spells, and for the south of England the short dry spells were the more numerous. But as the duration increased, the preponderance of persistent rainy weather became more and more marked in all parts of the country, though less so in England than in Scotland or Ireland. For the British Isles as a whole, if the number of rainy spells in each group is represented by 100, the number of dry spells bears the following ratios :—

	Days.	Days	Days.	Days.	Days.
Duration	5-9	10-14	15-19	20-24	25-29
Ratio: No. of Dry to 100 Rainy Spells	76	40	10	10	5

There were no cases of absolute droughts exceeding 29 days' duration, so no ratio can be given to the 26 rainy spells which exceeded that limit.

Table of Rainy Spells.

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES.			Days	in.	in.	in.	in.
St. Pancras (Camden Square)... <i>London.</i>	Feb. 21	Mar. 7	15	1·77	·37	·01	·12
Hythe (Hillcrest Road) <i>Kent, East.</i>	July 16	July 30	15	4·23	1·14	·01	·28
	Sep. 27	Oct. 16	20	2·67	·51	·01	·13
Brighton (Old Steyne)..... <i>Sussex, East.</i>	Feb. 21	Mar. 7	15	2·30	·74	·01	·15
Basingstoke (Sherborne St. John) <i>Hampshire.</i>	Apr. 25	May 11	17	3·62	·69	·01	·21
	Oct. 1	Nov. 2	33	8·98	1·00	·01	·27
Oxford (Magdalen College) ... <i>Oxford.</i>	None.						
Blisworth (Crieff House)..... <i>Northampton.</i>	None.						
Stamford (Easton) <i>Northampton.</i>	Apr. 25	May 12	18	4·03	·69	·01	·22
	Oct. 1	Oct. 16	16	4·22	1·00	·01	·26
Colchester (Lexden)..... <i>Essex.</i>	Apr. 25	May 11	17	3·88	1·55	·01	·23
Saffron Walden..... <i>Essex.</i>	Feb. 21	Mar. 7	15	1·46	·41	·01	·10
Geldeston [Beccles] <i>Norfolk.</i>	None.						
Hillington School..... <i>Norfolk.</i>	None.						
Calne (High Street)..... <i>Wiltshire.</i>	None.						
Swanage (Royal Victoria Hotel) <i>Dorset.</i>	Sep. 28	Oct. 16	19	5·29	·92	·01	·28
Torquay (Cary Green)..... <i>Devon, South.</i>	Oct. 18	Nov. 2	16	3·30	·68	·02	·21
	Dec. 6	Dec. 22	17	4·51	1·14	·01	·27
Bideford (Northam Vicarage)... <i>Devon, North.</i>	Feb. 21	Mar. 9	17	3·97	·68	·01	·23
	Apr. 25	May 9	15	4·29	1·50	·01	·29
	Sep. 28	Nov. 1	35	11·55	1·61	·04	·33
	Dec. 3	Dec. 19	17	3·56	1·09	·01	·21
St. Austell (Trevarna)..... <i>Cornwall.</i>	Feb. 20	Mar. 9	18	3·57	·60	·01	·20
	Apr. 25	May 9	15	5·13	·91	·01	·34
	Sep. 20	Oct. 16	27	7·20	·92	·01	·27
	Oct. 18	Nov. 2	16	7·31	2·45	·01	·46
	Dec. 3	Dec. 19	17	7·90	2·15	·04	·46
Ilminster (Ilton Vicarage) <i>Somerset, South.</i>	Sep. 30	Oct. 16	17	4·01	·80	·01	·24
	Oct. 18	Nov. 4	18	3·45	·75	·01	·19

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.
Ross (The Graig)	Apr. 25	May 11	17	4·67	·97	·01	·27
Hereford.	July 14	July 30	17	2·39	·58	·01	·14
	Sep. 28	Nov. 2	36	8·11	1·39	·01	·23
Weston Park [Shifnal]	Oct. 1	Oct. 16	16	3·02	·86	·01	·19
Stafford.							
Caistor (Hundon Manor).....	Apr. 26	May 13	18	3·04	·82	·02	·17
Lincoln.	Oct. 1	Oct. 15	15	4·45	·86	·02	·30
Worksop (Hodsock Priory) ...	Apr. 26	May 11	16	3·20	·47	·04	·20
Nottingham.							
Chellaston	Apr. 25	May 12	18	3·98	·57	·01	·22
Derby.	Oct. 1	Oct. 16	16	3·76	·70	·01	·24
Macclesfield (The Park)	Apr. 27	May 11	15	2·31	·41	·02	·15
Cheshire.							
St. Michael's-on-Wyre Vicarage	Sep. 22	Oct. 16	25	6·31	·76	·01	·25
Lancashire, North.	Oct. 18	Nov. 2	16	4·00	1·26	·01	·25
Knaresborough (Farnham)	Oct. 1	Oct. 20	20	4·97	1·23	·01	·25
Yorkshire, W.R. (N.)							
Sedbergh (Akay)	Jan. 21	Feb. 11	22	10·09	3·40	·01	·46
Yorkshire, W.R. (N.)	Feb. 18	Mar. 13	24	5·43	1·00	·01	·23
	Sep. 23	Oct. 16	24	8·51	1·08	·06	·35
	Oct. 18	Nov. 4	18	5·52	1·43	·01	·31
Lowthorpe (The Elms)	Apr. 26	May 10	15	3·36	·85	·02	·22
Yorkshire, E.R.	Oct. 6	Oct. 31	26	5·64	·88	·01	·22
Darlington (Hurworth Grange)	None.						
Durham.							
Morpeth (Bothalhaugh)	Sep. 27	Oct. 16	20	7·90	3·22	·01	·40
Northumberland.							
Brampton (Denton House).....	Feb. 19	Mar. 7	17	3·49	·69	·02	·22
Cumberland.	Aug. 23	Sep. 11	20	6·00	1·06	·01	·30
	Oct. 1	Oct. 16	16	5·19	1·27	·05	·32
Dungeon Ghyll	Jan. 17	Feb. 16	31	21·38	3·55	·01	·69
Westmorland.	Feb. 18	Apr. 7	49	28·48	2·72	·01	·58
	Sep. 21	Oct. 16	26	15·31	1·65	·02	·59
	Oct. 18	Nov. 2	16	13·07	3·38	·06	·82
	Nov. 7	Nov. 29	23	8·42	1·08	·01	·37
	Dec. 6	Dec. 22	17	6·29	1·80	·01	·37
Llantrisant (Talygarn).....	Mar. 5	Mar. 20	16	4·00	·69	·01	·25
Glamorgan.	Mar. 24	Apr. 7	15	1·80	·40	·01	·12
	Oct. 2	Nov. 4	34	15·32	2·37	·02	·45
	Dec. 7	Dec. 24	18	5·70	1·48	·01	·32

Table of Raining 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.
Llandovery (Tonn)	Jan. 22	Feb. 11	21	3·92	·45	·01	·19
<i>Carmarthen.</i>	Mar. 21	Apr. 6	17	2·20	·48	·01	·13
	Sep. 26	Nov. 2	38	14·18	1·68	·01	·37
	Nov. 7	Nov. 23	17	1·81	·35	·01	·11
	Dec. 2	Dec. 17	16	2·91	·78	·01	·18
Haverfordwest (High Street)...	Feb. 19	Mar. 6	16	3·90	·62	·01	·24
<i>Pembroke.</i>	Oct. 18	Nov. 2	16	6·67	1·07	·05	·42
	Dec. 2	Dec. 16	15	4·10	·61	·02	·27
New Radnor (Ednol)	Feb. 19	Mar. 11	21	7·27	1·09	·01	·35
<i>Radnor.</i>	Apr. 25	May 11	17	4·31	·66	·01	·25
	Sep. 23	Oct. 16	24	7·50	1·32	·01	·31
	Oct. 18	Nov. 3	17	4·86	1·25	·01	·29
	Dec. 3	Dec. 20	18	4·21	·84	·01	·23
Lake Vyrnwy	Jan. 18	Feb. 4	18	2·67	·48	·01	·15
<i>Montgomery.</i>	Mar. 13	Apr. 6	25	5·90	·98	·01	·24
	Sep. 26	Nov. 3	39	14·94	1·51	·01	·38
Denbigh (Garn).....	Sep. 30	Nov. 3	35	8·08	1·12	·01	·23
<i>Denbigh.</i>							
SCOTLAND.							
Garliestown (Galloway House)	Mar. 11	Apr. 7	28	4·90	1·02	·01	·18
<i>Wigton.</i>	Oct. 10	Nov. 2	24	6·72	·92	·01	·28
Dumfries (Ivy Bank)	Feb. 19	Apr. 1	42	10·73	·97	·01	·26
<i>Dumfries.</i>	Oct. 18	Nov. 2	16	4·55	1·28	·01	·28
Hawick (Bransholme).....	Mar. 16	Apr. 2	18	4·49	·71	·03	·25
<i>Roxburgh.</i>	Sep. 27	Oct. 12	16	3·07	...	·01	·19
	Oct. 19	Nov. 3	16	3·71	1·30	·01	·23
Edinburgh (Royal Observatory)	Sep. 29	Oct. 16	18	3·84	1·06	·02	·21
<i>Edinburgh.</i>	Oct. 18	Nov. 2	16	2·14	·84	·01	·13
Girvan (Pinmore).....	Feb. 21	Mar. 12	20	4·61	·70	·01	·23
<i>Ayr.</i>	Mar. 15	Apr. 7	24	6·01	·75	·01	·25
	July 2	July 18	17	3·16	1·09	·01	·19
	July 25	Aug. 22	29	5·34	·80	·01	·18
	Aug. 25	Sep. 11	18	5·02	·95	·02	·28
	Oct. 10	Nov. 4	26	7·66	·89	·02	·29
Dalry (Blair).....	Feb. 19	Apr. 7	48	10·13	·97	·01	·21
<i>Ayr.</i>							
Buchlyvie (The Manse)	Jan. 20	Feb. 16	28	12·20	2·41	·01	·44
<i>Stirling.</i>	Feb. 19	Apr. 7	48	16·10	1·10	·01	·34
	Aug. 25	Sep. 13	20	5·33	1·24	·01	·27
	Sep. 28	Oct. 16	19	6·67	·98	·02	·35
	Oct. 18	Nov. 3	17	3·54	·78	·01	·21

Table of Rainy Spells—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
SCOTLAND—(con.)			Days	in.	in.	in.	in.
Inveraray (Newtown) <i>Argyll.</i>	Jan. 21	Feb. 16	27	13·05	2·08	·01	·48
	Feb. 19	Apr. 8	49	18·65	1·12	·01	·38
	June 22	July 12	21	5·44	1·06	·01	·26
	July 27	Aug. 16	21	6·53	·82	·01	·31
	Aug. 24	Sep. 12	20	7·52	1·71	·01	·38
	Sep. 25	Nov. 4	41	14·31	1·30	·01	·35
	Dec. 2	Dec. 23	22	6·47	1·70	·01	·29
Strontian (Laudale)..... <i>Argyll.</i>	Jan. 21	Mar. 13	52	26·56	1·72	·02	·51
	Mar. 15	Apr. 17	34	13·21	1·42	·01	·39
	July 28	Sep. 11	46	18·77	1·50	·02	·41
	Oct. 10	Nov. 4	26	11·69	1·22	·04	·45
	Nov. 8	Nov. 27	20	8·84	2·06	·02	·44
Islay (Ardbeg) <i>Argyll.</i>	Feb. 20	Mar. 14	23	3·94	·42	·01	·17
	Mar. 17	Apr. 8	23	5·06	·93	·01	·22
	Oct. 2	Oct. 19	18	6·49	1·20	·05	·36
Blair-Atholl <i>Perth.</i>	Mar. 15	Apr. 7	24	5·82	·61	·01	·24
Forfar (Lilyfield) <i>Forfar.</i>	None.						
Aberdeen (Cranford) <i>Aberdeen.</i>	Nov. 10	Nov. 30	21	3·27	·54	·01	·16
	Dec. 7	Dec. 21	15	2·25	·74	·01	·15
Keith <i>Banff.</i>	Feb. 19	Mar. 5	15	1·66	·39	·01	·11
	Nov. 9	Nov. 28	20	3·22	·67	·01	·16
Fort Augustus (St. Benedict's) <i>Inverness, East.</i>	Jan. 20	Feb. 4	16	8·59	2·11	·01	·54
	Mar. 15	Apr. 7	24	7·80	1·17	·01	·33
	June 22	July 7	16	4·10	·94	·01	·26
	Aug. 30	Sep. 13	15	3·71	·67	·02	·25
	Oct. 8	Oct. 31	24	5·18	1·21	·01	·22
Alvey Manse..... <i>Inverness, East.</i>	Aug. 3	Aug. 20	18	1·71	·31	·01	·10
	Aug. 22	Sep. 13	23	4·93	·57	·01	·21
Loch Torridon (Bendamph) ... <i>Ross, West.</i>	Jan. 22	Feb. 15	25	18·98	1·74	·07	·76
	Feb. 18	Mar. 14	25	14·86	1·82	·03	·59
	Mar. 16	Mar. 31	16	10·97	2·15	·02	·69
	June 23	July 10	18	8·61	1·36	·01	·48
	July 29	Aug. 23	26	6·66	1·21	·01	·26
	Aug. 26	Sep. 14	20	9·81	1·65	·02	·49
	Oct. 13	Nov. 1	20	8·58	1·56	·02	·43
Alness (Ardross Castle) <i>Ross, East.</i>	Jan. 26	Feb. 17	23	4·76	1·02	·01	·21
	Mar. 15	Apr. 8	25	4·54	·69	·01	·18
	June 22	July 8	17	5·37	2·86	·01	·32
	Aug. 30	Sep. 13	15	4·11	1·16	·02	·27
	Sep. 28	Oct. 31	34	8·03	1·38	·01	·24

Table of Rainy Spells—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
SCOTLAND—(con.)				Days	in.	in.	in.
Altnaharra <i>Sutherland.</i>	Jan. 21	Feb. 5	16	4·94	1·11	·03	·31
	Feb. 19	Mar. 10	20	5·20	·73	·04	·26
	June 25	July 9	15	5·44	2·80	·01	·36
	Aug. 2	Aug. 22	21	4·86	·68	·01	·23
	Aug. 25	Sep. 13	20	5·30	1·23	·01	·27
	Oct. 21	Nov. 4	15	2·83	·77	·01	·19
	Nov. 8	Nov. 29	22	6·60	·89	·01	·30
Castletown (The Clett) <i>Caithness.</i>	Jan. 26	Feb. 17	23	3·01	·38	·01	·13
	June 26	July 12	17	4·55	2·43	·01	·27
	Aug. 13	Sep. 14	33	6·42	1·05	·01	·19
	Sep. 29	Oct. 19	21	4·14	1·07	·01	·20
	Oct. 21	Nov. 4	15	2·43	·70	·01	·16
	Nov. 19	Dec. 3	15	3·97	·65	·03	·26
IRELAND.							
Cork (The Palace) <i>Cork.</i>	Feb. 19	Mar. 13	23	5·20	·65	·01	·23
	Mar. 15	Mar. 29	15	3·79	·61	·02	·25
	Aug. 11	Aug. 31	21	3·78	·84	·01	·18
	Dec. 6	Dec. 23	18	4·20	·75	·01	·23
Darrynane Abbey..... <i>Kerry.</i>	Jan. 15	Feb. 9	26	4·16	·83	·01	·16
	Feb. 19	Mar. 11	21	4·37	·60	·01	·21
	Mar. 13	Apr. 3	22	4·76	·90	·01	·22
	Aug. 7	Aug. 23	17	3·84	1·05	·01	·23
	Oct. 17	Nov. 2	17	5·51	·84	·02	·32
Clonmel (Bruce Villa) <i>Tipperary.</i>	Aug. 11	Aug. 31	21	4·01	·63	·01	·19
Limerick (Roxborough) <i>Limerick.</i>	Feb. 20	Mar. 14	23	4·77	·59	·01	·21
	Mar. 16	Apr. 3	19	3·50	1·30	·01	·18
	July 13	July 29	17	3·93	·70	·03	·23
	July 31	Aug. 29	30	5·11	·47	·01	·17
Miltown Malbay <i>Clare.</i>	Feb. 19	Mar. 11	21	5·81	·84	·01	·28
	Mar. 15	Apr. 7	24	7·05	1·26	·01	·29
	July 28	Aug. 31	35	7·14	1·01	·01	·20
	Sep. 20	Oct. 7	18	3·67	·85	·01	·20
	Oct. 9	Nov. 2	25	6·11	1·01	·01	·24
Enniscorthy (Ballyhyland) .. <i>Wexford.</i>	Feb. 19	Mar. 18	28	7·34	1·08	·01	·26
	Mar. 20	Apr. 4	16	2·45	·51	·01	·15
	Aug. 11	Aug. 29	19	4·52	·65	·03	·24
Bray (Fassaroe)..... <i>Wicklow.</i>	None.						
Mountrath (Ballyfin) <i>Queen's County.</i>	Feb. 19	Mar. 12	22	6·05	·67	·03	·28
	Mar. 14	Apr. 6	24	4·47	·70	·01	·19
	Dec. 2	Dec. 16	15	2·96	·65	·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.
Oldcastle (Killeagh Rectory)... <i>Meath.</i>	Feb. 19	Mar. 12	22	4·19	·60	·03	·19
	Mar. 15	Mar. 31	17	3·90	·97	·01	·23
	Sep. 28	Oct. 16	19	3·89	·83	·01	·20
Ballinasloe..... <i>Galway.</i>	Feb. 19	Mar. 13	23	4·88	·51	·01	·21
	Mar. 15	Apr. 6	23	5·28	·98	·01	·23
	July 31	Aug. 31	32	6·73	·89	·01	·21
	Sep. 26	Oct. 26	31	4·39	·43	·01	·14
Westport (Murrisk Abbey) ... <i>Mayo.</i>	Jan. 15	Jan. 29	15	2·29	·40	·01	·15
	Feb. 19	Mar. 12	22	6·97	·94	·03	·32
	Mar. 15	Apr. 6	23	6·40	1·20	·01	·28
	May 2	May 17	16	1·85	·36	·01	·12
	July 12	July 26	15	3·11	·92	·01	·21
	July 28	Sep. 13	48	15·04	1·53	·01	·31
	Sep. 30	Oct. 26	27	8·68	1·23	·01	·32
	Nov. 18	Dec. 11	24	4·36	·42	·02	·18
Collooney(MarkreeObservat'ry) <i>Sligo.</i>	Feb. 18	Mar. 10	21	5·43	·72	·01	·26
	Mar. 15	Apr. 6	23	5·31	·74	·02	·23
	Aug. 7	Aug. 21	15	4·56	2·04	·01	·30
	Sep. 26	Oct. 26	31	6·52	·78	·02	·21
Banbridge (Milltown) <i>Down.</i>	Mar. 14	Mar. 31	18	2·82	·87	·01	·16
	Sep. 28	Oct. 26	29	4·23	·44	·01	·15
Bushmills (Dundarave) <i>Antrim.</i>	Feb. 19	Mar. 9	19	3·25	·44	·01	·17
	Mar. 15	Apr. 6	23	3·77	·65	·01	·16
	Dec. 2	Dec. 16	15	1·74	·31	·01	·12
Newtown Stewart (Baron's Court) <i>Tyrone.</i>	Feb. 19	Mar. 10	20	5·10	·61	·03	·26
	Mar. 14	Mar. 31	18	5·30	·66	·03	·29
	Sep. 30	Oct. 16	17	5·01	1·19	·02	·29
Horn Head..... <i>Donegal.</i>	Mar. 15	Apr. 7	24	4·40	·63	·01	·18
	July 31	Aug. 15	16	3·66	·79	·01	·23
	Sep. 28	Nov. 3	37	8·02	·87	·01	·22
	Nov. 19	Dec. 10	22	4·53	·51	·02	·21

RAINY DAYS IN 1903.

IN Part I. of *British Rainfall*, 1902, we discussed the number of rainy days in different parts of the British Isles, comparing the number for the year at 62 stations, with the average number for the 12 years 1891–1902. We have extended the discussion this year so as to take account of the number of rainy days, and the number of days with rain of different amounts for the 72 well-distributed stations used in the discussion of droughts and rainy spells, as set forth in full in the following Table of the intensity of daily rainfall. This gives an excellent idea of the variations which occurred throughout the country during a year which was everywhere wet. The smallest number of rainy days amongst the stations considered was 170 at Colchester and Swanage, and as the rainfall at those stations was respectively 29·93 in. and 37·28 in., the average fall per rainy day was ·176 in. and ·219 in. The minimum intensity per rainy day was ·142 in. at Beccles. The largest number of rainy days occurred at Dungeon Ghyll, where it was 288, and the rainfall being 153·47 in., the average fall per rainy day amounted to ·533 in., a very remarkable figure.

The averages for the larger divisions and for the British Isles as a whole, were as follows :—

	Average 1891–1902.*			Year, 1903.†			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.
		in.	in.		in.	in.		in.	in.
England & Wales	181	35·57	·197	211	44·89	·213	+30	+ 9·32	+·016
Scotland	206	43·93	·213	244	59·38	·243	+38	+15·45	+·030
Ireland	216	42·38	·196	252	51·09	·203	+36	+ 8·71	+·007
British Isles	197	39·63	·201	229	50·09	·219	+32	+10·46	+·018

* Average of 62 stations. † Average of 72 stations.

Thus it appears that in England these were 30, and in Scotland and Ireland more than 35, rainy days in excess of the average number, and so it is safe to say that over the whole of the British Isles the number of rainy days in excess of the average, if added together, would amount to more than a month.

It may present the facts in a more interesting light if the excesses above the average of rainy days and total fall are reduced to the form of percentages of the average.

Excess in 1903, as per cent. of average 1891-1902.

	Rainy days.	Total rainfall.
England and Wales	17	26
Scotland	18	35
Ireland	17	21
British Isles	16	26

Here it appears that the amount was more in excess than the number of days, and consequently the intensity of the rainfall was also greater than the average.

In treating of the relative frequency of daily falls of different amount, we are confronted with the difficulty that there is no average to use for comparison. The data indeed exist, and are before us, it is only a matter of time and money to throw them into the required form ; but the want of time and money constitutes the only obstacle to scientific work that is insuperable even to patience and perseverance.

On studying the Table of 72 stations it is seen that the most frequent falls were those between a tenth and a quarter of an inch, except at stations in the wettest districts where the most frequent daily fall exceeded a quarter-inch. The average number of falls exceeding an inch for each station was nearly 6. In England and Wales falls over an inch averaged 6 per station, in Scotland 7 and in Ireland 4. This is undoubtedly much above the normal number. The greatest number of such falls in the selected list was 47 at Dungeon Ghyll, while one station (Swanage) had no case in the year of a fall so great as one inch in one day.

Space forbids further discussion of this subject, but we cannot leave it without reducing the figures of some characteristic stations and groups of stations to a strictly comparable form. This is done by calculating them all so as to give the relative frequency of different intensities of rainfall on the supposition that each station had 229 rainy days, the average number for the British Isles as a whole,

in 1903, while preserving the relative proportions between the various groups.

*Relative Frequency of Falls of Rain in 1903 reduced to
229 rainy days.*

	·01 in.	·02-·04 in.	·05-·09 in.	·10-·24 in.	·25-·49 in.	·50-·99 in.	1·00-1·99 in.	2·00 in. & over.
STATIONS.								
Camden Square	33	36	35	66	34	15	10	—
Dungeon Ghyll	11	34	29	39	32	47	25	12
Buchlyvie	32	34	29	45	50	32	5	2
GROUPS.								
England, I.-IV.	30	45	39	61	35	14	5	—
England and Wales..	26	42	39	58	38	20	5	1
Wales and Lake Dis.	17	36	37	55	42	31	9	2
Scotland	19	37	37	59	45	25	7	—
Ireland.....	21	37	39	66	44	18	4	—
British Isles	23	39	38	61	42	21	5	—

Intensity of Daily Rainfall and Number of Rainy Days at 72 Stations in 1903.

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 ...	26	28	27	51	27	12	8	0	179	in. 38·10	in. ·21
"	Hythe, Hillcrest Road.....	28	48	36	51	32	9	4	0	208	32·86	·16
"	Brighton, Old Steyne	14	43	31	59	22	16	2	0	187	33·03	·18
III.	Basingstoke, Sherborne St. John	23	33	33	48	37	24	3	0	201	43·41	·22
"	Oxford, Magdalen College	22	36	22	44	36	14	2	1	177	35·14	·20
"	Blisworth, Crieff House	27	33	33	46	25	13	2	0	179	31·25	·17
IV.	Stamford, Easton ..	24	37	27	54	27	10	3	0	182	31·00	·17
"	Colechester, Lexden	23	31	28	46	31	7	4	0	170	29·93	·18
"	Saffron Walden	26	37	38	47	31	6	7	0	192	35·27	·18
"	Geldeston [Beccles]	37	41	39	43	20	8	2	0	190	26·95	·14
"	Hillington	23	41	44	47	26	18	3	0	202	35·64	·18
V.	Calne, High Street	22	21	32	46	39	20	2	0	182	40·89	·22
"	Swanage, Royal Victoria Hotel	12	29	26	43	41	19	0	0	170	37·28	·22
"	Torquay, Cary Green	19	36	28	53	40	20	2	0	198	41·15	·21
"	Northam	10	36	33	64	45	19	5	0	212	47·37	·22
"	St. Austell, Trevarna	25	43	33	63	51	28	3	2	248	59·31	·24
"	Ilminster, Ilton Vicarage	30	44	33	57	36	24	1	0	225	42·76	·19
VI.	Ross, The Graig.....	45	37	43	40	36	18	3	0	222	38·12	·17
"	Weston Park [Shifnal].....	16	41	42	50	23	14	3	0	189	30·65	·16
VII.	Caistor, Hundon Manor	20	59	30	58	17	11	4	0	199	31·36	·16
"	Workshop, Hodsock Priory	26	45	45	42	19	10	3	0	190	27·95	·15
"	Chellaston	46	33	37	57	27	12	1	0	213	32·03	·15
VIII.	Macclesfield, The Park	24	36	38	65	39	14	2	0	218	40·71	·19
"	St. Michael's-on-Wyre Vicarage	34	38	39	56	40	20	4	0	231	45·90	·20
IX.	Knarborough, Farnham	39	49	41	46	32	12	3	0	222	32·53	·15
"	Sedburgh, Akay.....	17	32	41	54	60	30	14	1	249	74·85	·30
X.	Lowthorpe, The Elms	27	49	43	48	26	11	1	0	205	29·56	·14

Intensity of Daily Rainfall and Number of Rainy Days at 72 Stations in 1903—(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.)															
	Darlington, Hurworth Grange.	26	43	35	60	27	13	1	0	205	in. 32.09	in. .16				
	Morpeth, Bothalhaugh	35	49	40	48	29	14	1	1	217	35.78	.16				
	Brampton, Denton House	22	43	47	55	44	18	5	0	234	46.07	.20				
	Dungeon Ghyll	14	43	37	49	40	58	32	15	288	153.47	.53				
	Llantrisant, Talygarn	20	37	39	49	45	31	12	2	235	70.63	.30				
	Llandoverly, Tonn	22	35	44	62	51	29	7	0	250	63.07	.25				
	Haverfordwest, High Street ...	19	28	33	69	42	32	6	0	229	56.69	.25				
	New Radnor, Ednol	15	44	34	60	42	37	6	0	238	61.11	.26				
	Lake Vyrnwy.....	15	36	45	56	54	36	7	1	250	70.60	.28				
Denbigh, Garn	20	37	39	62	39	23	3	0	223	46.40	.21					
XII.	SCOTLAND.															
	Garliestown, Galloway House..	12	26	39	57	46	27	3	0	210	50.48	.24				
	Dunfries, Ivy Bank	22	42	27	77	52	17	3	0	240	50.45	.21				
	Edinburgh, Royal Observatory	21	64	40	47	27	9	4	0	212	32.06	.15				
	Girvan, Pinmore	17	49	30	74	56	37	2	0	265	63.25	.24				
	Dalry, Blair	15	24	38	67	55	33	7	0	239	66.85	.28				
	Buchlyvie, The Manse.. ..	40	43	36	56	62	40	6	2	285	74.76	.26				
	Inveraray, Newtown	33	35	30	53	71	49	13	1	285	88.74	.31				
	Strontian, Laudale	6	29	32	61	55	51	33	1	268	112.22	.42				
	Islay, Ardbeg... ..	8	36	34	81	58	18	6	0	241	55.91	.23				
XVI.	Blair-Atholl	17	34	40	62	50	24	1	0	228	46.97	.21				
	Forfar, Lilyfield.....	16	46	32	51	38	20	3	0	206	41.88	.20				
	Aberdeen, Cranford	38	65	39	54	37	17	3	0	253	40.00	.16				
	Keith Station.....	28	37	53	57	28	13	5	0	221	38.44	.17				
	Fort Augustus, St. Bendict's...	15	29	47	62	47	33	8	1	242	65.98	.27				
	Alvey Manse	10	31	48	73	34	18	1	0	215	38.81	.18				
	XVIII.	SCOTLAND.														
		Garliestown, Galloway House..	12	26	39	57	46	27	3	0	210	50.48	.24			
		Dunfries, Ivy Bank	22	42	27	77	52	17	3	0	240	50.45	.21			
		Edinburgh, Royal Observatory	21	64	40	47	27	9	4	0	212	32.06	.15			
Girvan, Pinmore		17	49	30	74	56	37	2	0	265	63.25	.24				
Dalry, Blair		15	24	38	67	55	33	7	0	239	66.85	.28				
Buchlyvie, The Manse.. ..		40	43	36	56	62	40	6	2	285	74.76	.26				
Inveraray, Newtown		33	35	30	53	71	49	13	1	285	88.74	.31				
Strontian, Laudale		6	29	32	61	55	51	33	1	268	112.22	.42				
Islay, Ardbeg... ..		8	36	34	81	58	18	6	0	241	55.91	.23				
XVII.	Blair-Atholl	17	34	40	62	50	24	1	0	228	46.97	.21				
	Forfar, Lilyfield.....	16	46	32	51	38	20	3	0	206	41.88	.20				
	Aberdeen, Cranford	38	65	39	54	37	17	3	0	253	40.00	.16				
	Keith Station.....	28	37	53	57	28	13	5	0	221	38.44	.17				
	Fort Augustus, St. Bendict's...	15	29	47	62	47	33	8	1	242	65.98	.27				
	Alvey Manse	10	31	48	73	34	18	1	0	215	38.81	.18				

Intensity of Daily Rainfall and Number of Rainy Days at 72 Stations in 1903--(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.	'02-'04.	'05-'09.	'10-'24.	'25-'49.	'50-'99.	1'00-1'99.	2'00 or over	in.	in.			
XVIII.	SCOTLAND—(con.)													
	Loch Torridon, Bendamph	6	19	35	49	70	44	29	1	253	108.26	.43		
XIX.	Alness, Adross Castle.....	37	47	37	71	47	17	7	1	264	54.20	.21		
"	Altnaharra	16	44	47	68	48	30	2	1	256	56.70	.22		
"	Castletown, The Clett.....	32	48	60	78	33	14	2	1	268	42.35	.16		
XX.	IRELAND.													
	Cork, The Palace	26	35	35	68	47	20	6	0	237	51.21	.22		
"	Darrynane Abbey.....	23	41	53	80	54	20	3	0	274	53.71	.20		
"	Clonmel, Bruce Villa	15	37	40	73	34	23	5	0	227	47.55	.21		
"	Limerick, Roxborough.....	18	50	41	71	57	11	2	0	250	47.16	.19		
XXI.	Miltown Malbay	34	40	52	65	57	23	8	0	279	59.57	.21		
"	Enniscorthy, Ballyhyland	28	43	36	43	50	33	6	0	239	57.03	.24		
"	Bray, Fassurce	24	31	48	56	42	19	6	0	226	47.89	.21		
"	Mountrath, Ballyfin.....	21	38	45	70	53	23	4	0	254	53.27	.21		
"	Oldcastle, Killeagh Rectory ..	13	44	39	69	44	16	4	0	229	45.65	.20		
XXII.	Ballinasloe	34	49	43	69	53	15	2	0	265	46.88	.18		
"	Westport, Murrisk Abbey	29	42	46	67	66	26	6	0	282	63.48	.23		
"	Collooney, MarkreeObservatory	12	52	40	81	62	16	1	1	265	53.97	.20		
XXIII.	Banbridge, Milltown	17	54	40	76	30	14	2	0	233	38.30	.16		
"	Bushmills, Dundarave	29	31	40	89	40	10	3	1	243	44.06	.18		
"	NewtownStewart, Baron'sCourt	12	32	37	87	52	24	4	0	248	54.93	.22		
"	Horn Head	28	43	45	87	51	20	1	1	276	52.72	.19		
	ENGLAND & WALES (Mean) ...	24	39	36	52	35	19	5	1	211	44.89	.21		
SCOTLAND	"	21	39	39	63	48	27	7	0	244	59.38	.24		
IRELAND	"	23	41	42	72	50	20	4	0	252	51.09	.20		
BRITISH ISLES	"	23	40	38	60	42	21	5	0	229	50.09	.22		

MONTHLY RAINFALL OF 1903.

WE are happy to be able to treat the monthly rainfall of 1903 with a degree of detail a little more worthy of the conscientious work of the observers than has been practicable heretofore. The knowledge of the geographical distribution of rainfall has increased enormously since *British Rainfall* first appeared, and all through the long series of volumes the discussion of each section, and most of all that dealing with monthly rainfall, has been rising on the stepping-stones of former efforts. We are now able to base our discussion of the rainfall of the months not only on the long table of 233 observing stations, and on the numerous and valuable notes of the observers, but also on a series of monthly maps, which are no longer to be viewed as mere diagrams but as scientific documents. We regret the small scale on which it has been necessary to reproduce them, but they were drawn on a much larger scale and will bear to be studied with a magnifying glass if required. Nothing but the necessity of keeping the cost of this volume within the price asked for it has prevented us from giving two full-page maps for each month—one to show the actual rainfall, the other the difference from the average. The maps now given represent the rainfall at each of 68 stations selected to give as uniform a distribution as possible over the country, in place of the 52 stations used for the old diagram maps. The figures are ratios to the average rainfall for the month, which is represented for each station by 100. Thus if the rain at Seathwaite amounts to half the monthly average, it is represented by 50; if twice the monthly average falls in London it is represented by 200. It may be that the actual amount which fell in the month was 4 inches at each station; but the maps do not take account of actual falls, they deal only with the relation of the falls to the average. On the maps the areas where the rainfall was under the average and where it is consequently represented by figures less than 100, are

left white ; the areas within which the rainfall was less than 75, 50, or 25 per cent. of the average respectively are indicated by dotted lines—heavier as the amount is smaller, so as to give prominence to the driest parts of the country. Similarly the whole area above the average is shaded and that part above 150 per cent. is indicated by a dotted line. Above 200 and 300 per cent. the shading is deepened so as to attract the eye to the wettest regions ; and to complete the expressiveness of the maps the actual percentages are placed upon the sites of the respective stations.

Table I. gives a list of the stations employed, and the ratio of each month to the average. This is a new Table now appearing for the first time. At the end four lines are added, giving the means for each month for England and Wales, Scotland, Ireland, and the British Isles as a whole ; these means are not to be taken as an exact statement of fact, for the number of stations is too small, but they give a useful approximation to the general variations.

When dealing with differences from the average it is advisable to take the average for the same period at each station, and it is desirable that the period should be a long one. For monthly averages 50 years would probably not be too long ; but 30 years is the longest stretch of time for which any large number of stations is available. When observations have not been maintained at one of the selected stations for the full period of 30 years, the probable value for that period has been computed by recognised processes, and all the values given may be accepted with confidence. The period selected as the most convenient is that for the 30 years 1870—99, which is used in the annual table also. This is not the same average as has been used in *Symons's Meteorological Magazine*, but the difference in any one month is small.

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.	Camden Square	114	51	142	127	174	306	208	182	115	211	75	61	151
II.	Tenterden	91	75	120	125	136	181	162	153	90	132	72	64	114
"	Arundel, Patching	145	55	122	158	180	147	139	172	86	180	53	84	124
"	Osborne, Newbarn Cottage	82	92	185	168	175	151	100	161	98	233	53	98	130
III.	Basingstoke, Sherborne St. John	129	73	238	124	146	253	163	179	87	265	55	118	151
"	Hitchin, Wratten	139	67	210	96	183	338	163	153	89	210	84	93	152
"	Oxford, Magdalen College	125	46	201	133	244	273	126	163	72	225	59	51	143
IV.	Kettering	112	51	187	105	107	141	93	141	128	202	67	60	118
"	Shoeburyness	134	77	68	128	167	385	263	182	100	126	101	50	149
"	Bury St. Edmunds, Westley	112	18	129	127	137	152	131	157	133	199	87	58	124
V.	Cawston	87	45	111	148	104	118	151	116	116	169	56	49	108
"	Cerne Abbas, Melbury	103	72	278	93	261	98	124	165	120	217	35	123	133
"	Sidmouth, Sidmount	100	58	145	96	192	102	112	134	142	156	55	91	112
"	Bideford, Northam	144	73	246	102	189	53	78	130	121	233	74	101	131
"	St. Ives, Phillack Rectory	124	60	237	84	72	87	114	156	112	187	72	166	127
"	Altarnon	131	72	216	71	115	53	134	156	121	216	77	113	127
VI.	Stroud, Upfield	135	69	208	112	198	184	134	135	95	228	53	67	134
"	Church Stretton, Woolstaston	97	97	239	69	179	129	118	161	145	170	85	92	130
"	Warwick, Barford Rectory	92	58	228	95	117	120	129	119	132	211	68	47	112
VII.	Boston	85	30	207	110	88	82	104	203	63	214	71	62	127
"	Mickleover Manor	98	47	163	86	173	44	89	164	114	219	84	48	112
VIII.	Chester, The Nurseries	110	86	213	94	123	44	129	113	135	180	122	53	118
"	Blackburn, Guide Reservoir	96	121	158	82	121	47	103	112	118	194	79	66	110
IX.	Barnsley, Church Street	110	118	175	82	178	68	102	134	144	220	51	50	122
"	Knaresborough, Farnham	104	110	166	70	231	82	115	84	151	221	56	57	122
"	Arncliffe Vicarage	155	193	212	98	104	63	101	159	126	225	54	77	133
"	Hull, Pearson Park	99	52	147	116	152	82	107	114	130	179	66	34	109
"	Middlesbrough, Albert Park	134	76	135	103	152	137	116	65	148	245	79	47	123
X.	Newcastle, Town Moor	134	80	54	80	127	151	162	71	100	313	77	74	123
"	Borrowdale, Seathwaite	124	179	211	77	109	57	110	188	86	177	70	85	125
XI.	Cardiff, Ely	147	80	205	99	118	83	130	133	106	236	55	107	128
"	Haverfordwest, High Street	119	84	212	109	133	82	101	133	116	181	62	93	118
"	Aberystwith, Gogerddan	139	116	206	125	94	77	119	144	137	216	129	72	135
"	Brecon, Llandeafaelog-fach	105	94	220	88	104	63	88	139	136	199	57	77	115
"	Llandudno	175	174	218	70	91	55	98	123	139	133	115	92	124
XII.	Auchencarn, Torr House	138	106	265	83	127	106	134	133	98	222	81	85	132
"	Moffat, Ericstane	124	169	304	43	59	83	104	157	84	220	54	69	124

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.
XIII.	Marchmont House	143	163	100	57	70	73	142	124	91	211	50	70	110
XIV.	Girvan, Pinmore	137	128	196	88	129	105	132	135	97	193	94	104	130
XV.	Loch Thom	118	198	223	57	107	73	118	157	82	188	81	112	128
"	Falkirk, Kerse	254	352	392	96	58	97	151	125	85	220	51	65	159
"	Islay, Eallabus	143	149	176	102	83	32	108	174	85	184	106	79	122
"	Mull, Quinish	114	176	184	84	114	66	114	167	59	189	83	88	121
XVI.	Balquhadder, Stronvar	175	234	320	52	57	80	118	176	104	207	65	96	146
XVII.	Dundee, Eastern Necropolis	185	158	129	57	69	107	148	173	93	196	34	93	122
"	Braemar	157	248	286	105	55	58	118	113	81	133	51	92	122
"	Aberdeen, Cranford	214	102	79	96	125	76	174	133	114	152	99	83	121
"	Keith Station	220	147	51	165	102	80	181	127	80	135	102	53	118
"	Cawdor, Budgate	206	186	150	94	111	106	109	99	65	144	128	25	116
XVIII.	Applecross Gardens	135	238	196	110	85	73	90	167	119	161	102	68	131
"	Fort William Observatory	178	246	254	102	123	88	114	207	96	169	69	60	144
XIX.	Golspie, Dunrobin Castle	150	129	85	149	91	63	185	149	85	140	147	42	118
"	Watten Station	138	129	53	147	89	52	152	214	103	147	177	52	124
XX.	Cork, Queen's College	179	106	226	70	127	150	219	122	138	152	40	99	129
"	Killarney	126	95	318	59	104	69	98	94	120	142	50	77	111
"	Waterford, Brook Lodge	149	83	232	57	109	203	117	125	109	164	54	137	127
"	Broadford, Hurdlestown	157	124	242	85	180	53	156	138	128	183	77	157	139
"	Milton Malbay	144	162	276	84	107	31	130	139	134	170	85	142	134
XXI.	Carlow, Browne's Hill	154	116	264	80	128	136	151	144	123	113	87	86	130
"	Dublin, FitzWilliam Square	152	113	196	53	123	128	153	93	158	85	82	67	114
"	Mullingar, Belvedere	210	177	250	84	60	44	160	166	141	137	78	75	132
XXII.	Ballinasloe	142	170	264	62	77	75	138	169	136	133	65	93	127
"	Clifden, Kylemore House	118	119	178	73	94	44	107	128	151	142	57	90	106
"	Collooney, Markree Observatory	148	182	228	99	89	22	142	182	122	150	97	77	129
XXIII.	Seaforde	142	106	207	53	128	109	145	121	133	194	52	123	126
"	Ballymena, Harryville	174	125	176	87	109	54	124	138	105	165	62	88	118
"	Omagh, Edenfel	185	161	284	107	105	68	129	197	110	196	86	113	145
"	Buncrana, Rockfort	131	132	145	93	93	36	113	188	74	125	97	64	109
England and Wales		118	81	183	104	148	128	126	143	116	203	72	77	126
Scotland		163	181	191	94	79	79	136	152	90	179	87	74	127
Ireland		154	131	232	76	109	81	139	143	125	150	71	99	125
British Isles		138	119	196	95	124	105	131	145	111	185	76	81	126

JANUARY.

The first month of the year was wet, but not excessively so. There was no long-continued snowstorm and violent storms were comparatively few. Thunderstorms were rather frequent, not only in the north-west, where they commonly occur during winter, but in England also. In the Midlands the rainfall was just under the average, and around the Wash and at several points on the south coast of England it did not exceed the average. At two stations amongst those representing England and Wales the rainfall was more than 50 per cent. in excess, but the excess for England as a whole was under 20 per cent., an amount that calls for no remark.

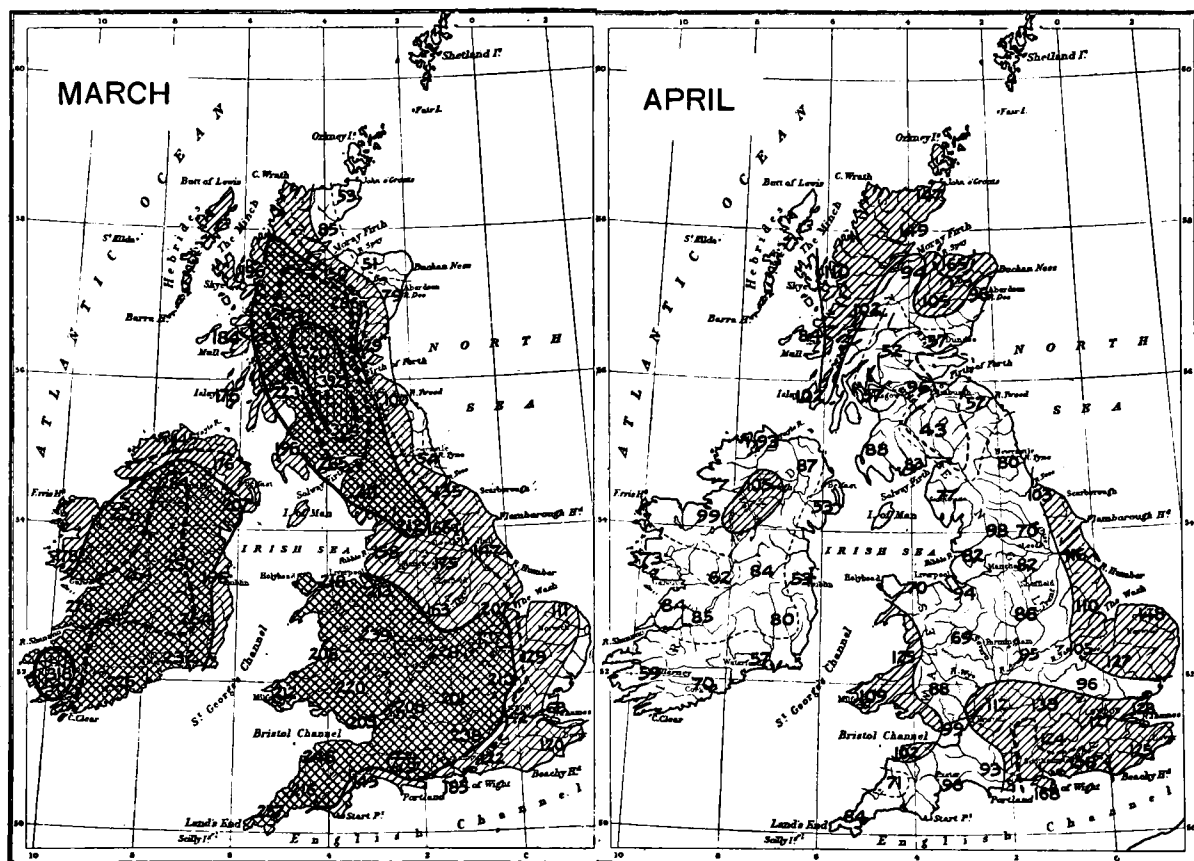
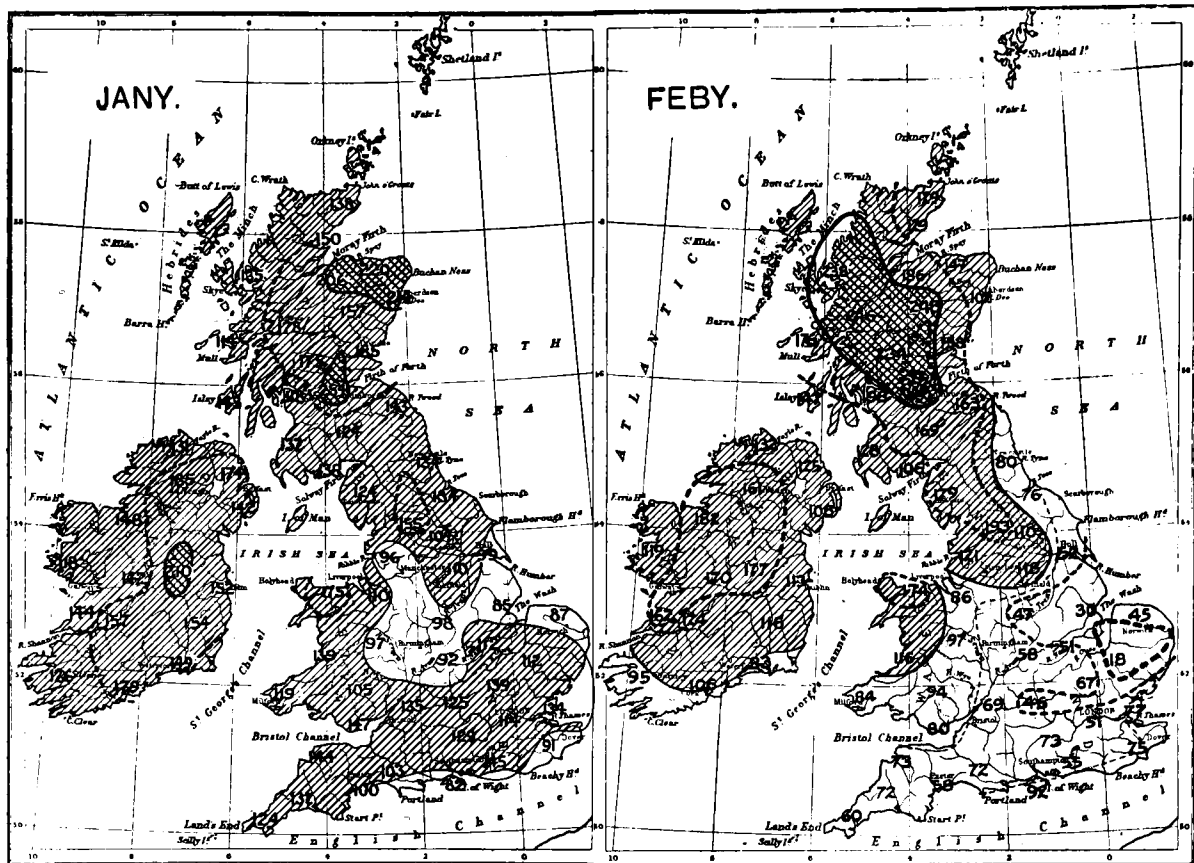
Scotland and Ireland were much wetter, the excess averaging nearly 65 per cent. for the former and about 55 per cent. for the latter. The general tendency was towards a uniform distribution of rainfall, the excesses being greatest towards the east, where the rainfall is normally low, and least towards the west, where it is normally high. Over the centre and east of Scotland the rainfall was more than 50 per cent. in excess and at two places, in the central Lowlands and in the eastern angle south of the Moray Firth, it was more than double the average. The east of Ireland was relatively wetter than the west, though the contrast was not so marked as in Scotland.

FEBRUARY.

This month presented the greatest contrasts of the year. The whole of the east of England between the Humber and the Thames had less than half its normal fall, and a considerable area south of the Wash had less than one quarter, the total rainfall for the month being well under half-an-inch. The west of Scotland north of the Clyde had more than twice its normal rainfall and a large area received a total fall exceeding 12 inches. One station reported a fall three and a half times greater than the average. The following extracts from the Table show the extreme percentage variations, the three wettest and the three driest stations for the month being contrasted :—

DRIEST.			WETTEST.		
Station.	Amount. in.	Per cent. of aver.	Per cent. of aver.	Amount. in.	Station.
Bury St. Edmunds...	·28	... 18	352	... 7·90	Falkirk.
Boston	·47	... 30	248	... 6·74	Braemar.
Cawston	·73	... 45	246	... 16·46	Fort William.
Mean	·49	31	282	... 10·37	Mean.

MAPS OF MONTHLY RAINFALL, 1903.



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.

By extending the scope of the comparison to the monthly values given in the other Tables in this volume and in the *Meteorological Magazine*, we can present the following remarkable contrast between five of the driest and five of the wettest stations in February :—

LOW RAINFALL.		HIGH RAINFALL.	
Station.	Amount. in.	Amount. in.	Station.
Geldeston	·12	36·24	.....Ben Nevis Observatory.
Bury St. Edmunds	·28	27·65	.....The Styne.
Aldborough	·30	23·50	.....Ullscarf.
Brundall	·34	22·40	.....Mickleden.
Stretham, Cambridgeshire ...	·40	21·35	... ..Glen Quoich.
Total		131·14	.....Total.
Mean		26·23	.....Mean.

The average of five of the driest stations in the east of England during February has thus to be multiplied by 90 before it equals the average of five of the wettest stations in the north-west of Britain ; and the wettest station of all in February, 1903, had 302 times the amount of rain of the driest.

The month will be remembered for the destructive gale of the 27th in Ireland and the north of England, and for the harmless but no less interesting fall of Saharan dust in the south a few days earlier. With regard to rainfall, in Scotland it was as wet as in October, and only a little less wet than in March, the only month of the year that was more extreme. It was the driest month in East Anglia since September, 1898, and the driest February in that region since the unprecedented February drought of 1891. We dwell more upon the abnormal dryness of the south than on the abnormal wetness of the north, for the latter is not unexpected in a wet year.

MARCH.

The wettest month of the year and for many years, the rainfall of the whole country being practically double the average. England was a little wetter in October, but the rainfall of Ireland and Scotland came to a maximum this month. It is impossible without unduly delaying the publication of the volume to ascertain when a wetter month was experienced in the British Isles ; but, with the exception of August, 1891, no month would even require to be inquired into until the run of wet years which ended in 1886 is reached. Notwithstanding the wetness of the month, a fringe of the east coast of England and a substantial area in the north-east

of Scotland had a fall below the average. Wales and the west and midland districts of England had rather more than twice the average fall, and Ireland was equally wet on the whole, while in Scotland a number of stations in the region of highest rainfall recorded more than three times their normal fall. At many stations rain fell on every day of the month. January has always a high rainfall in the western Highlands, and as February and March were proportionally wetter in the same district than in any other part of the country, the result was to yield some remarkable aggregate falls for the first quarter of the year. The following list contains all the cases of ten inches or more of rain occurring on each of three consecutive months. Almost all these received more than one-third of the whole year's rainfall in the three first months, and some, including Ben Nevis, had one-half.

TABLE II.—*Stations reporting ten inches or more of Rain in each month, January to March, 1903.*

STATION.	COUNTY.	Jan.	Feb.	Mar.	Total, Jan. to March.	Total, 1903.	Jan.- Mar. as p. c. of 1903.
		in.	in.	in.	in.	in.	
Sprinkling Tarn	Cumberland	20·30	23·23	27·20	70·75	189·30	37
Styehead Tarn	„	21·55	23·55	27·05	72·15	194·60	37
The Sty, B.	„	23·70	27·65	30·50	81·85	223·40	37
Borrowdale (Seathwaite) ...	„	18·18	20·85	22·23	61·26	166·09	37
Ullscarf	„	20·40	23·50	21·00	64·90	174·30	37
Helvellyn (Birkside)	„	11·50	11·00	14·50	37·00	114·60	32
Wythburn	„	12·50	14·20	17·20	43·90	115·90	38
Rosthwaite	„	14·89	17·45	21·53	53·87	136·15	40
Buttermere (Hassness)	„	17·35	16·84	24·12	58·31	143·97	41
Borrowdale (Grange)	„	15·80	16·30	21·10	53·20	121·17	44
Armboth Fells (The Pewitts)	„	17·50	17·70	19·30	54·50	132·00	41
Helvellyn (Whiteside)	„	11·50	13·20	17·80	42·50	114·00	37
Thirlmere (Dale Head Hall)..	„	13·30	15·20	18·80	47·30	113·70	42
Keswick (Barrow House).....	„	11·68	11·11	16·12	38·91	94·04	43
Ullswater (Hallsteads)	„	10·68	11·23	15·92	37·83	87·48	43
Keswick (Deer Close)	„	10·70	12·54	14·12	37·36	85·23	44
„ (Eskin Place).....	„	10·77	12·43	13·15	36·35	83·40	44
„ (Shu-le-crow)	„	10·64	12·43	13·16	36·23	84·57	43
Matterdale	„	11·72	14·06	16·76	42·54	96·90	44
Ravenstonedale	Westmorland	12·82	11·72	11·26	35·80	79·05	45
Ambleside (Skelwith Bridge)	„	13·97	15·97	16·37	46·31	122·00	38
Little Langdale (Fell Foot)...	„	15·50	18·00	16·60	50·10	141·36	35
Ambleside (Gale House).....	„	11·51	11·12	11·32	33·95	95·92	35
„ (Lesketh Howe)...	„	11·98	12·77	13·08	37·83	103·64	36

TABLE II. *Stations reporting ten inches or more of Rain in each month, January to March, 1903—(continued).*

STATION.	COUNTY.	Jan.	Feb.	Mar.	Total, Jan. to March.	Total, 1903.	Jan.- Mar. as p.c. of 1903.
		in.	in.	in.	in.	in.	
Elterwater Hall	Westmorland	13·75	16·25	14·24	44·24	118·30	37
Rydal (The Stepping Stones)	„	12·41	14·26	14·64	41·31	110·01	38
Loughrigg (Silverthwaite) ...	„	11·27	12·33	12·32	35·92	98·17	37
Dungeon Ghyll	„	17·76	19·78	17·01	54·55	153·47	36
Mickleden	„	19·22	22·40	23·10	64·72	173·34	37
Grasmere (High Close).....	„	13·24	14·58	14·54	42·36	123·11	34
„ (The Wray)	„	14·94	16·52	15·74	47·20	124·45	38
Grisedale (Ruthwaite Lodge)	„	17·12	15·42	21·30	53·84	130·63	41
Patterdale Hall	„	16·73	15·71	23·78	56·22	127·70	44
„ (Greenside Mine). ..	„	16·05	20·69	28·53	65·27	139·86	47
Ullswater (Swarthfell).....	„	10·00	11·50	16·00	37·50	83·80	45
Cardiff W.W. (Beacon's Res.)	Brecon	15·42	10·65	15·91	41·98	113·16	37
Taff Fechan (Neuadd Res.)...	„	16·65	11·90	17·15	45·70	117·03	39
Lake Vyrnwy (Haol-y-ffridd)	Montgomery	13·85	11·44	15·98	41·27	110·52	37
„ „ (Lluestwen) ...	„	13·69	10·51	12·87	37·07	105·88	35
„ „ (Llwynrhiw)...	„	15·44	13·28	15·89	44·61	118·43	38
„ „ (Carreg Goch)..	„	13·19	10·11	14·63	37·93	106·81	36
Rhiwbrydir	Merioneth	15·60	12·20	12·98	40·78	135·13	30
Bettws-y-coed (Aberllyn) ...	Carnarvon	10·46	10·38	10·74	31·58	74·18	43
Lake Cowlyd.....	„	16·60	12·90	20·60	50·10	114·30	44
Llanbedr-y-Cennin (Llyndulyn)	„	14·05	17·56	18·65	50·26	134·80	37
Dalry (The Old Garroch).....	Kircudbright	10·21	10·24	13·35	33·80	86·97	39
Gameshope Loch	Peebles	10·15	10·20	20·93	41·28	98·23	42
„ Farm	„	12·88	14·30	25·18	52·36	115·92	45
Talla Linns Foot	„	10·19	11·35	18·66	40·20	90·99	44
Dunlop (Dunlop House)	Ayr	10·60	10·50	10·70	31·80	88·90	36
Lochwinnoch (Garthland) ...	Renfrew	12·31	11·30	10·02	33·73	84·36	40
Gorbals W.W. (Middleton)...	„	12·25	11·55	11·25	35·05	83·90	42
Shaws W.W. (Duchall Moor)	„	11·20	12·30	12·00	35·50	101·70	35
„ „ (Green Water). ..	„	11·20	12·50	12·90	36·60	97·90	37
„ „ (Gryfe Res.) ...	„	11·50	13·50	12·60	37·60	94·60	40
„ „ (Mansfield).....	„	10·41	11·33	12·79	34·53	91·39	38
„ „ (Shielhill)	„	13·10	12·40	11·10	36·60	98·60	37
„ „ (Darndaff Moor)...	„	10·70	12·30	12·60	35·60	90·40	39
„ „ (Spango Burn). ..	„	11·00	13·30	10·90	35·20	92·90	38
„ „ (Hole Glen).....	„	10·28	10·00	10·53	30·81	84·59	36
„ „ (New Yetts Dam)..	„	11·50	11·18	12·32	35·00	94·16	37
Greenock (Prospect Hill)....	„	11·34	12·10	12·56	36·00	87·35	41
Arrochar House	Dumbarton	10·40	14·55	16·00	40·95	103·85	39
Strathblane (Craigbarnet)....	Stirling	10·30	10·70	10·10	31·10	81·50	38
Little Denny Reservoir	„	10·80	10·20	10·70	31·70	71·62	44
St. Ninians (Faughlin).....	„	11·00	11·20	10·65	32·85	79·55	41
Buchlyvie (The Manse)	„	11·05	10·20	10·25	31·50	74·76	42
Ben Lomond	„	13·30	15·50	17·20	46·00	137·80	33
Glengyle.....	„	17·80	17·40	19·10	54·30	129·50	42
Dunoon (Redhurst)	Argyll	13·21	11·32	13·38	37·91	103·46	37

TABLE II.—*Stations reporting ten inches or more of Rain in each month,
January to March, 1903—(continued).*

STATION.	COUNTY.	Jan.	Feb.	Mar.	Total, Jan. to March.	Total, 1903.	Jan.- Mar. as p. c. of 1903.
		in.	in.	in.	in.	in.	
Loch Eck (Benmore)	Argyll	14·72	13·80	14·34	42·86	110·98	39
Inveraray (Castle Gardens)...	"	12·90	13·37	12·98	39·25	101·42	39
" (Newtown)	"	10·60	11·17	11·20	32·97	88·74	37
Oban (Kilninver)	"	12·84	11·66	17·17	41·67	106·16	39
Ballachulish (Ardsheal)	"	11·99	12·89	13·54	38·42	104·86	37
" House	"	16·50	14·18	21·47	52·15	121·57	43
" (Glencoe)	"	20·44	12·64	18·60	51·68	112·66	46
Strontian (Laudale)	"	12·78	13·31	15·27	41·36	112·22	37
Sound of Mull	"	11·35	13·57	10·63	35·55	88·83	40
Loch Dhu	Perth	15·90	14·50	18·00	48·40	118·70	41
Loch Drunkie	"	13·00	11·20	11·60	35·80	87·70	41
Bridge of Turk	"	11·90	10·25	12·45	34·60	88·80	39
Loch Katrine (Tunnel Hill Top) ..	"	16·00	14·80	20·10	50·90	119·30	43
Callander (Leny House)	"	12·00	10·00	11·00	33·00	76·00	43
Balquhiddel (Stronvar)	"	15·38	15·73	18·31	49·42	109·02	45
Lochearnhead (Ardvorlich)	"	17·02	15·15	19·32	51·49	107·06	48
St. Fillans (Portmore)	"	11·89	12·57	17·59	42·05	91·84	46
Killin (Auchmore House)	"	13·38	13·90	15·95	43·23	91·40	47
N. Ballachulish (Altshellach)	Inverness	13·13	11·98	17·11	42·22	102·44	41
Ben Nevis Observatory	"	33·45	36·24	37·96	107·65	216·75	50
Fort William Observatory ...	"	15·49	16·46	15·90	47·85	106·46	45
Loch Shiel (Glenaladale)	"	14·34	17·00	14·46	45·80	134·45	34
Mucomir	"	13·20	10·59	10·30	34·09	84·67	40
Loch Nevis (Inverie)	"	12·61	13·14	12·24	37·99	108·26	35
Glenquoich	"	21·20	21·35	20·99	63·54	151·83	42
Skye (Strathaird)	"	12·94	10·80	10·06	33·80	104·11	33
Invergarry	"	12·32	16·88	15·94	45·14	94·52	48
Loch Ness (Whitebridge)	"	10·76	15·02	14·30	40·08	79·93	50
Kintail (The Glebe)	Ross	10·70	12·51	11·18	34·39	86·70	40
Glencarron Lodge	"	14·01	13·54	11·45	39·00	108·35	36
Loch Torridon (Bendamph) ..	"	14·57	16·62	17·31	48·50	108·26	45
Kinlochewe	"	15·14	14·98	10·65	40·77	103·29	40

APRIL.

For such a year as 1903 April made itself conspicuous by low rainfall. In Great Britain it was about as near the average as a month can be. Only three stations in the selected list, two in the south of England and one in the north of Scotland, had an excess exceeding 50 per cent.; only one station in the list had a deficiency exceeding 50 per cent. Ireland, with three-quarters of its normal

fall, was drier than in any month except November. The month was a gleam of dry weather between a wet winter and a wet summer.

MAY.

The month was rather wet, particularly in England and Ireland, still a good deal of Ireland and most of Scotland had less than the average fall. The greatest excess of rainfall occurred in the upper Thames valley and Dorsetshire, where from 2 to $2\frac{1}{2}$ times the average amount fell, and there was a smaller very wet patch to the north of Leeds.

JUNE.

Considering the British Isles as a whole, this month was of average rainfall, England and Wales received about 30 per cent. more and Scotland and Ireland about 20 per cent. less than their normal amounts. Yet, when we come to examine the distribution of the rainfall, we find that this "on the whole average" month is the most interesting of the year. It was discussed in some detail at the time,* and the rainfall of individual days is made the subject of a special article in Part I. of the present volume.

Only a few patches of Scotland had even the smallest excess of rain, and nothing need be said of June in that country except that it was the best month of the year. The north-west of Ireland had less than a quarter of its usual rainfall, but the south-east of that island had twice its average. Cornwall, Devon, Wales and the whole of England north of 53° N. lat., except a strip along the coast of Durham and Northumberland, were far below the average; indeed in Lancashire, Cheshire and Derbyshire not half the average rainfall was received. But in the south-east, within a rectangle south of the parallel of 53° N. and east of the meridian of 3° W., the rainfall did exceed the average. Within a rectangle bounded by 52° N. on the north, 2° W. on the west and 51° N. on the south, the rain was more than twice the average, that space including practically the whole of the Thames valley; and in the middle upon a block of country measuring 100 miles due east from Reading to the sea and 40 miles from Croydon northward to Hitchin, including the lower Thames valley and Hertfordshire, the rain was from three to four times the average amount. As London lay in the centre of the wettest part of the area the newspapers of the whole country gave great prominence to this fall, which, though unprecedented for London, was probably not

* *Met. Mag.*, July, 1903, pp. 93-99.

more remarkable than the almost unnoticed rainfall in the West Highlands during the Spring months.

So far as percentages of the average are concerned, the contrast between the west of Ireland and the east of Essex in June was greater than that between East Anglia and the West Highlands in February, and we set it out in the same form for comparison. The amounts make a poor show, however, because in June it was the region of high rainfall that was below the average, and that of low rainfall which was above (the extremes crossing each other), whereas in February the low rainfall was the one to be lowered, the high the one to be raised.

DRIEST.				WETTEST.			
Station.	Amount. in.	Per cent. of aver.		Per cent. of aver.	Amount. in.	Station.	
Markree	·70	...	22	385	...	6·15	.....Shoeburyness.
Miltown Malbay ...	1·01	...	31	338	...	6·40	.....Hitchin.
Buncrana	1·04	...	36	306	...	6·43	.....Camden Sq.
Mean	·92	...	30	343	...	6·33	.....Mean.

The east was thus relatively eleven times wetter than the west, though absolutely only seven times wetter.

JULY.

This was a wet month all over the country, the excess approaching one-third in all three kingdoms. The floods of the lower Thames valley continued, the only part of England having more than twice the average fall being a broad belt passing through London from Windsor to the sea. A small patch round Cork was the only other place where the rainfall reached twice the normal amount. South Wales and the Midlands, from Birmingham to Sheffield, made up the only area of any size with less than the average rainfall.

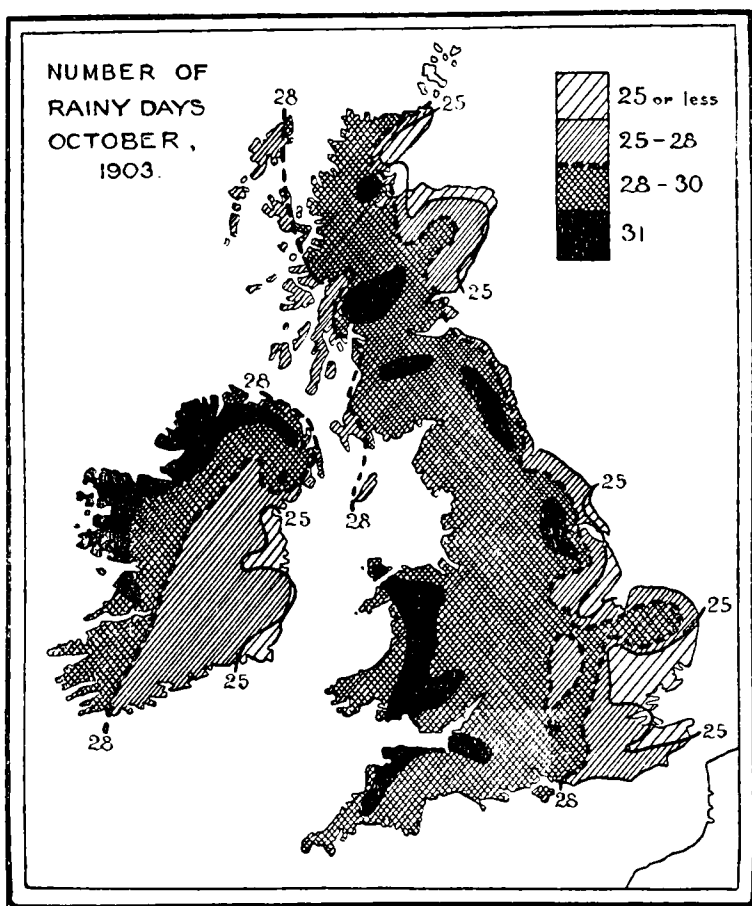
AUGUST.

Although only one or two small scattered patches had twice the average rainfall, and in spite of the fact that the east of Yorkshire, Durham and Northumberland had distinctly less than the average, this was one of the most uniformly wet months of the year. Except on the north-east coast of England the total rainfall exceeded three inches everywhere, and over more than half the country it exceeded five inches. A succession of rain-bearing cyclones swept over our islands from the west, bringing weather of the most ungenial type. "Wet and cold" was the burden of the remarks of observers from Land's End to John o' Groats, and from Sleat Head to Lowestoft.

SEPTEMBER.

As a whole the country had an excess of about 10 per cent. of rainfall. In Scotland only a few stations reported more than the average fall. The north of England and the central part of the south of England were also below the average. In the regions of excessive fall only one station in England, and two in Ireland, amongst the selected number, had more than 50 per cent. above the average.

OCTOBER.



A month of excessive rainfall, the details of which have been discussed, with a map, in the *Met. Mag.** Only at Dublin did the rain fall slightly short of the average, and Ireland, with an excess of 50 per cent. was the least wet division of the British Isles. Scotland had an excess of about 80 per cent., the average being

* *Met. Mag.*, November, 1903, pp. 169-177.

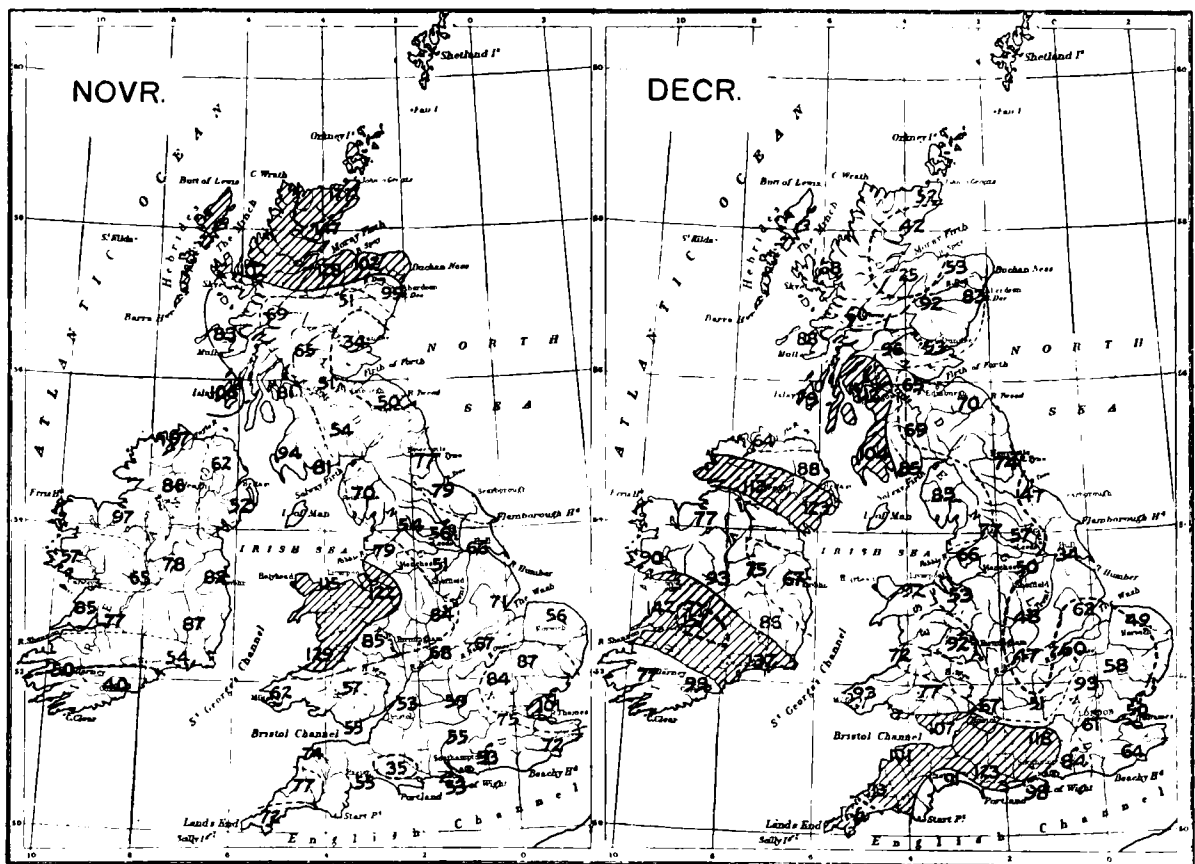
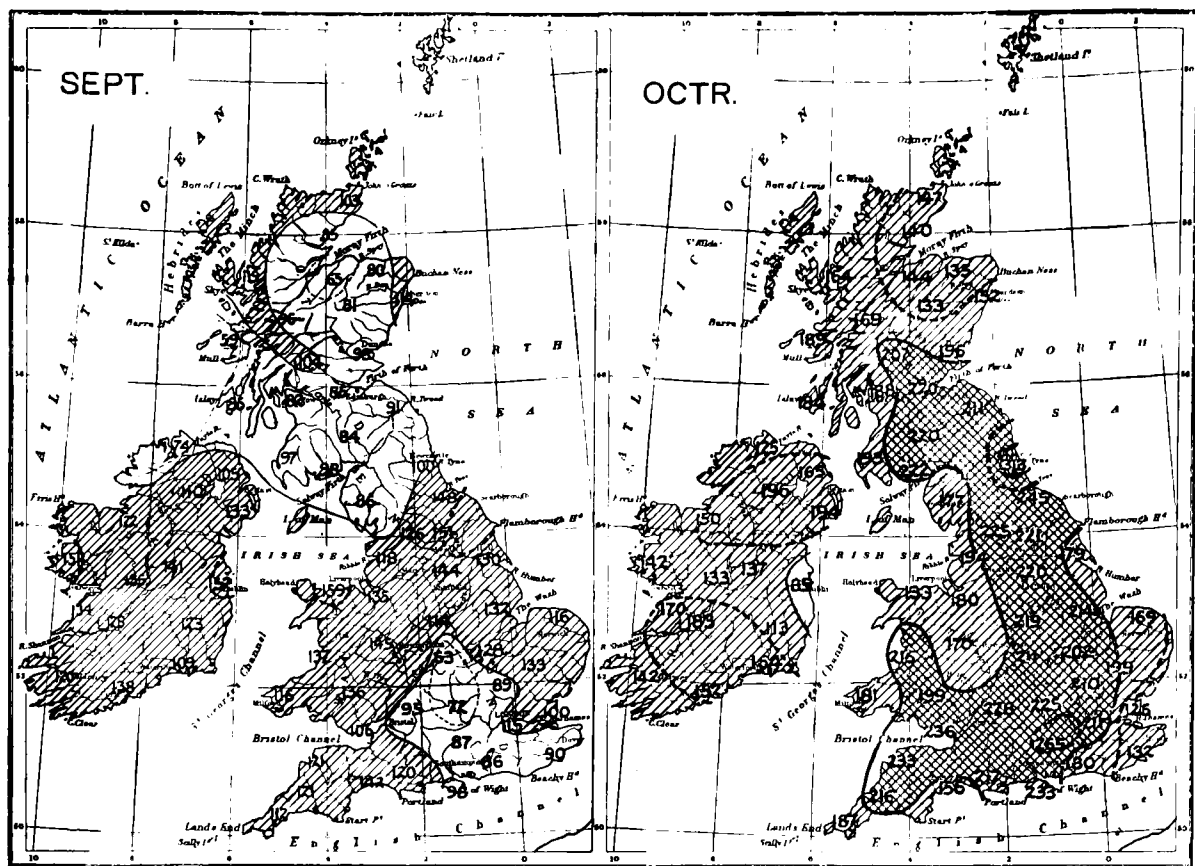
greatly exceeded in the south. The interest of the month is greatest in England and Wales, where the rainfall was more than twice the average, over the country as a whole. The excesses were greatest round Newcastle, where the fall was three times the average, and did considerable damage.

The very heavy falls of the month deserve some special notice, and the following list includes all which exceeded 20 inches, the limit being made so high in order to keep the number dealt with within reasonable limits. It will be observed that in extreme cases this month contributed more than one-fifth, and in one instance nearly one quarter, of the year's rainfall.

TABLE III.—*Stations reporting twenty inches or more of Rain in October, 1903.*

STATION.	COUNTY.	October, 1903.	Year, 1903.	October Fall as per cent. of Annual Fall.
		in.	in.	
Sprinkling Tarn	Cumberland..	27·60	189·30	15
Styehead Tarn	„	27·40	194·60	14
The Stye B	„	32·50	222·10	15
Seathwaite	„	23·62	166·09	14
Ullscarf	„	35·00	174·30	20
Helvellyn (Birkside)	„	24·00	114·60	21
Wythburn	„	22·00	115·90	19
Rosthwaite... ..	„	20·70	136·15	15
Buttermere (Hassness)	„	20·82	143·97	14
Armboth Fells (The Pewitts)... ..	„	20·90	132·00	16
Helvellyn (Whiteside)	„	20·40	114·00	18
Ambleside (Skelwith Bridge)..	Westmorland	20·22	122·00	17
Little Langdale (Fell Foot) ...	„	23·35	141·36	17
Dungeon Ghyll	„	25·62	153·47	17
Mickleden	„	26·72	173·34	15
Grasmere (High Close)	„	22·74	123·11	18
„ (The Wray).....	„	20·89	124·45	17
Patterdale Hall.....	„	20·81	127·70	16
„ (Greenside Mine)	„	20·89	139·86	15
Llwynypia (Glyncornel)	Glamorgan ...	22·51	112·74	20
Glyncorrwg	„	20·35	110·82	18
Mountain Ash (Clydach Res.)..	„	21·98	99·67	22
Treherbert (Bute Colliery).....	„	20·07	108·30	19
„ Tyn-y-waun	„	20·56	112·74	18
Taff Fechan (Neuadd Res.) ...	Brecon.....	20·40	116·64	18
Lake Vyrnwy (Llestwen).....	Montgomery	20·01	105·88	19
„ (Llwynrhiw) ...	„	21·19	118·43	18
Rhiwbryfdir	Merioneth ...	21·45	135·13	16
Llanbedr-y-Cennin (Llyndulyn)	Carnarvon ...	20·30	134·80	15
Ben Lomond ..	Stirling	22·10	137·80	16
Mull (Bunessan)	Argyll	20·30	108·94	19

MAPS OF MONTHLY RAINFALL, 1903.



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.

The most remarkable feature about October, next to the enormous falls at individual stations, was the large number of rainy days. At many places rain fell on every day of the month, and the areas within which this occurred are shown in black on the little map given on p. 187. The zones, within which from 30 to 29 days, 28 to 25 days, and less than 25 days, in the month, were rainy, are shown in progressively lighter tints. Very few observers reported less than 24 rainy days.

A list of all the stations at which 10 inches or more fell, would take up more space than we can afford to give; but reference to the monthly table shows that 36 out of the 233 stations with which it deals, had more than 10 inches of rain in the month, and it will be observed that two of them had for the second time in 1903 a string of consecutive months with very high rainfall. These are worth quoting as a curiosity:—

Rainfall exceeding 10 inches in four consecutive months.

Station.	July.	August.	September.	October.	Average.
X. Seathwaite	10·28 ...	21·14 ...	10·95 ...	23·62 ...	16·49
XI. Rhiwbryfdir	11·21 ...	17·79 ...	11·28 ...	21·45 ...	15·43

At Rhiwbryfdir 11·73 in. fell in November, making the average for five consecutive months 14·69 in.

NOVEMBER.

This was the driest month of the year. Taken as a whole only three-quarters of the average rainfall was experienced over the British Isles. The fall exceeded the average only in the north-west of Wales and Cheshire, and in the north of Scotland. One of the selected stations showed an excess exceeding 50 per cent., two of them at the opposite extremity of the islands showed a deficiency exceeding 50 per cent.

DECEMBER.

The second dry month of the year. The extremes were better marked than in November, a considerable area in England and Scotland had less than half the average amount of rainfall, and the excesses, except in part of the south of Ireland, were trifling. The month suffered from few of the rain-bringing cyclones usual in winter; and the result of two consecutive dry months at the end falsified the expectation which was reasonably formed in October that 1903 was to prove the wettest year on record. That unenviable distinction remains with 1872, though the margin between the two is narrow,—only one inch.

MONTHLY RAINFALL AT 233 STATIONS IN THE BRITISH ISLES DURING 1903.

ENGLAND.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
I.	London	St. Pan ras (Camden Square)	2.15	.83	2.30	2.14	2.99	6.43	5.20	4.24	2.64	6.03	1.85	1.30	38.10
II.	Surrey	Guildford (Epsom Road).....	2.71	1.75	3.09	2.22	3.05	5.37	4.60	4.55	3.74	7.24	2.16	2.59	43.07
"	Kent, West	Tenterden	2.14	1.39	2.26	2.20	2.34	3.56	3.67	3.63	2.37	4.76	2.33	1.75	32.40
"	"	Sevenoaks (Riverhead Vic.)	2.32	1.39	2.24	2.26	2.21	5.55	5.39	4.13	2.40	5.52	2.47	2.10	37.98
"	"	Hythe	2.53	1.39	2.18	2.61	2.49	3.25	4.69	3.46	1.93	4.75	3.01	2.44	34.73
"	"	Ospringe (Lorenden)	2.30	1.29	2.22	1.78	3.47	4.21	4.80	3.37	2.13	4.58	2.61	1.69	34.45
"	Sussex, West	Arundel (Patching)	4.10	1.32	2.80	2.50	3.06	2.65	3.71	4.02	2.42	7.49	2.00	1.99	38.06
"	"	Maresfield (Forest Lodge) ..	2.83	1.60	3.00	2.34	2.40	3.39	3.16	3.96	2.98	7.52	2.15	2.88	38.21
"	Hants, I. of W.	Totland Bay (Aston House)	2.22	1.77	3.06	2.74	2.44	1.95	2.40	3.80	2.32	8.40	1.62	2.64	35.36
"	"	Bps. Waltham (Swanmore Ho.)	2.48	1.68	3.39	2.81	3.55	2.64	3.52	3.79	2.41	10.35	2.57	3.92	43.11
"	"	Basingstoke (Sherborne S.J.)	3.25	1.59	4.38	2.24	2.73	5.01	4.20	4.21	2.20	8.77	1.75	3.08	43.41
"	"	Newbury (Welford Park).....	3.51	1.77	4.49	3.06	3.77	6.00	2.83	3.90	2.27	8.35	2.05	2.45	44.05
III.	Berks	Hertford (Bayfordbury).....	1.99	.98	3.14	1.32	2.05	5.19	4.41	4.03	2.67	6.04	1.91	1.92	35.65
"	Herts	Royston (Therfield Rectory).	2.38	.56	2.88	1.44	3.92	6.02	5.14	3.33	1.94	5.21	2.33	1.63	36.78
"	"	Slough (Upton)	2.31	1.00	2.68	2.08	2.54	6.07	3.38	3.28	2.13	6.44	1.73	2.22	35.86
"	"	Greenlands [Henley-on-Thames]...	2.94	.99	3.61	2.56	3.67	6.46	2.96	3.42	1.92	7.99	2.31	2.40	41.23
"	"	Buckingham (Adstock)	2.40	.66	2.98	1.42	3.76	4.81	3.17	3.64	1.65	6.16	1.50	1.15	33.30
"	Oxford	Oxford (Magdalen College) ..	2.40	.75	2.77	2.13	4.16	5.66	3.17	3.78	1.60	6.30	1.40	1.02	35.14
"	Northampton	Wellingborough (Swanspool)	1.91	.79	2.86	1.74	3.38	3.29	2.36	3.25	2.22	5.94	1.47	.93	30.14
"	Bedford	Shillington	2.25	.93	2.84	1.36	2.68	5.84	3.94	2.89	2.06	5.27	2.11	1.53	33.70
"	Cambridge	Stretham Engine	1.51	.40	1.58	1.25	2.26	3.11	5.18	2.92	2.21	4.35	1.85	.95	27.57
"	"	Wisbech (Bank House).....	1.43	.66	2.25	1.50	2.46	2.02	4.19	3.47	2.93	4.87	1.82	.88	28.48
IV.	Essex	Loughton (High Beech) ...	1.86	.73	2.15	1.61	2.44	6.02	6.78	4.58	2.58	6.34	1.84	1.41	38.34
"	"	Chelmsford (High Street)...	1.76	.78	1.99	1.75	1.78	5.70	5.82	3.89	2.07	4.74	2.01	1.46	33.75
"	"	Braintree (Bocking Place)...	2.00	.46	1.70	1.84	3.03	4.90	4.97	3.88	2.05	4.75	1.92	1.38	32.88
"	Suffolk	Ipswich (Woolverstone Pk.)	1.89	.49	1.61	2.06	2.32	3.90	4.55	3.81	2.58	4.57	2.29	.93	31.19
"	"	Haverhill (Great Thurlow).	1.87	.42	2.08	2.05	3.09	4.69	3.83	3.18	2.74	4.77	2.10	1.10	31.93
"	"	Aldborough (Aldringham Ho.)	2.17	.30	1.55	1.66	1.70	3.30	4.55	4.00	1.79	3.17	2.21	1.06	27.46
"	"	Geldeston [Beccles]	1.55	.12	1.80	2.20	2.20	2.54	3.32	4.22	2.61	3.83	1.49	1.07	26.95
"	Norfolk	Swaffham	1.74	.44	2.30	1.92	2.14	2.37	2.67	3.32	4.23	6.19	1.63	1.14	30.09
"	"	Holt	1.14	.44	1.80	2.20	2.34	1.92	4.06	3.67	2.87	4.99	2.07	1.35	28.85

ENGLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
V.	Wilts.	Alderbury	2.71	1.60	4.51	2.65	3.13	3.28	2.73	3.70	1.87	8.97	1.31	3.30	39.76
"	"	Trowbridge (W.W. Biss)..	3.82	2.45	4.76	3.01	4.11	4.90	4.02	4.88	2.50	8.26	1.87	3.57	48.15
"	"	Marlborough (Mildenhall).	3.38	1.88	5.01	2.68	4.79	4.93	3.00	3.54	2.28	7.63	2.01	2.31	43.44
"	Dorset	Beaminstor Vicarage	3.55	1.89	5.55	3.88	3.14	2.79	3.68	4.53	5.07	8.37	2.04	4.76	49.25
"	"	Wimborne (Chalbury).....	2.60	1.93	4.01	3.13	3.58	2.44	3.05	3.74	2.49	8.64	1.69	2.59	39.91
"	"	Buckhorn Weston	2.77	1.32	3.37	2.85	2.47	2.93	3.56	3.64	2.36	5.81	1.78	2.42	35.28
"	Devon, South	Buckfastleigh (Bossell Pk.)	9.06	4.29	10.17	1.89	3.15	1.91	5.69	6.32	5.83	13.12	3.50	8.38	72.51
"	"	Dartmoor (Lowery).....	6.30	4.01	8.17	2.81	3.59	1.72	5.17	5.87	5.03	13.22	3.79	7.71	67.69
"	"	Exeter (Manston Terrace)	3.04	1.98	2.98	2.02	3.50	2.70	3.64	3.41	3.67	6.17	1.53	4.19	38.83
"	"	Cullompton	3.97	1.80	3.98	2.51	3.48	2.60	3.58	3.27	3.78	7.21	2.45	4.10	42.73
"	"	South Molton (Castle Hill Sch)	4.98	2.61	5.37	3.05	2.60	1.82	3.41	4.61	5.13	11.11	3.92	5.34	53.45
"	North	Penzance (Penlee)	5.43	2.08	5.74	1.70	1.67	1.89	4.49	4.99	4.79	8.57	4.30	7.45	53.10
"	Cornwall	St. Agnes	4.54	1.75	5.16	2.04	2.45	1.83	3.73	4.29	2.72	8.00	2.92	7.03	45.96
"	"	Bude	4.99	2.07	4.81	1.77	1.64	.93	2.91	4.98	2.74	9.17	2.79	3.47	42.27
"	"	Ilminster (Ilton Vicarage).	3.70	2.37	4.36	2.23	2.83	3.25	3.37	3.85	3.83	7.12	1.55	4.30	42.76
"	Somerset, South..	Holford (Woodlands House)	3.72	1.94	4.13	2.22	2.77	4.70	2.91	4.69	5.43	8.63	1.98	3.52	46.64
"	"	Glastonbury (Street)	3.65	1.46	3.27	2.57	2.56	3.17	2.60	3.97	3.31	7.33	1.92	2.76	38.62
VI.	Gloucester, West.	Clifton (Pembroke Road)	4.29	2.01	4.44	3.25	3.38	3.74	1.75	4.39	3.33	8.03	1.91	3.13	43.65
"	"	Stroud (Upfield)	3.33	1.47	3.86	2.30	4.18	4.12	3.89	3.83	2.58	7.09	1.59	1.66	39.90
"	"	Fairford (Hatherop Rec.)...	3.10	1.54	3.93	2.13	5.07	4.91	2.88	3.27	2.94	6.46	1.90	1.24	39.37
"	"	Moreton-in-Marsh (Longbore)	3.50	1.87	3.57	2.57	4.08	4.44	4.71	4.43	2.16	6.43	2.73	1.86	42.35
"	Hereford	Ross (The Graig)	3.51	2.15	3.34	2.31	4.22	2.81	2.52	3.53	3.04	7.40	1.18	2.11	38.12
"	"	Leominster (Fam)	2.85	1.88	3.72	1.98	3.73	3.36	2.59	4.50	2.99	6.09	1.54	1.89	37.12
"	Shropshire.....	Ch. Stretton (Woolaston)	2.74	2.19	4.81	1.47	4.70	3.16	3.13	5.23	3.98	6.78	2.70	2.68	43.57
"	"	Much Wenlock (Willey Pk.)	2.17	1.78	3.86	1.49	3.78	1.45	2.83	6.18	4.09	5.96	2.08	2.08	37.75
"	"	Shrewsbury (Highfield)	2.04	1.55	3.65	1.03	2.61	1.84	2.84	4.43	3.39	5.13	2.93	1.79	33.23
"	"	Oswestry (The Mount Res.)	5.18	3.34	7.28	1.19	5.76	1.45	3.42	6.35	7.47	9.98	3.18	3.37	57.97
"	Stafford	Penkridge (Rodbaston)	1.78	1.34	4.34	1.91	2.39	1.19	1.59	3.96	4.00	5.73	2.37	1.85	32.45
"	"	Burton (Shobnall)	2.00	.94	3.07	1.43	2.77	1.22	2.69	4.58	3.19	4.74	2.37	1.59	30.59
"	"	Market Drayton (Old Springs)	1.98	1.37	3.96	1.76	2.15	1.46	3.00	4.10	4.41	6.57	2.85	1.72	35.83
"	Worcester	Malvern (Madresfield Rec.)	2.80	1.94	3.28	1.73	4.42	3.79	3.04	3.45	2.89	5.92	1.28	3.12	37.66
"	"	Stourbridge (Pedmore)	2.08	1.44	4.72	1.62	2.94	1.80	2.12	4.65	4.36	6.21	1.90	2.09	35.93
"	"	Leamington (Cubington).	1.90	.86	3.31	1.42	2.59	2.71	3.00	2.93	2.19	6.66	1.72	.93	30.22
"	Warwick	Bedworth Cemetery	1.64	1.06	4.31	1.84	3.00	1.63	1.98	4.19	2.13	6.03	1.89	1.24	30.94
"	"	Loughboro' (Nan Pantan Res)	2.42	1.08	3.74	2.04	2.36	1.99	1.73	5.36	2.48	6.15	1.58	1.83	32.76
VII.	Leicester	Belvoir Castle	1.33	.79	3.20	1.60	2.79	2.08	1.82	5.09	2.98	5.65	1.89	1.04	30.76

ENGLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	Mar.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
VII.	Rutland.....	Market Overton	1.67	.96	3.20	1.86	3.54	1.69	2.29	5.00	3.30	6.37	1.85	1.31	33.04
"	Lincoln, South	Sleaford (Rauceby Hall) ...	1.95	.72	3.59	1.88	2.59	1.50	2.09	4.37	3.56	5.91	2.32	1.19	31.67
"	" North.....	Market Rasen	1.85	.59	3.02	1.31	2.11	1.30	2.44	5.81	3.57	5.45	2.26	.75	30.46
"	" "	Burton-on-Stather	1.52	1.31	2.81	1.46	3.03	1.87	2.80	2.72	3.69	6.53	1.56	.73	30.03
"	Notts	Ollerton (Boughton W.W.) ..	1.66	.91	3.48	.74	4.18	1.45	2.75	5.29	2.27	5.83	1.67	1.00	31.23
VIII.	Derby.....	Darley Hall	3.34	1.89	4.63	2.10	3.09	1.24	3.01	5.43	3.66	7.30	2.56	1.93	40.18
"	Cheshire.....	Congleton (Buglawton Vic.) ..	3.58	1.84	3.27	1.89	2.16	1.05	2.79	3.89	4.41	6.61	3.47	1.33	36.29
"	Lancashire, South	Manchester (Withington) ..	2.57	2.43	3.49	1.61	2.94	1.38	2.98	3.61	4.52	6.06	3.22	1.02	35.83
"	" "	Ormskirk (Ruford)	2.47	2.59	2.87	2.35	2.77	1.84	2.57	4.68	5.26	6.59	3.82	2.94	40.75
"	" "	Burnley (Swinden, Lower) ..	4.73	4.89	6.83	2.48	3.16	2.14	4.12	5.01	5.92	10.88	2.85	3.14	56.15
"	" North	St. Michael's-on-Wyre ..	3.84	2.88	3.47	1.47	3.06	1.53	3.93	4.83	5.36	8.80	3.66	3.07	45.20
"	" "	Cartmel (Pit Farm)	4.64	3.15	4.06	1.68	4.30	2.37	4.31	7.06	7.78	9.46	4.15	3.58	56.54
IX.	York, W.R., South	Rotherham (MoorgateGrange)	2.16	1.73	2.92	1.44	2.75	1.69	1.71	3.26	2.99	5.42	1.18	1.01	28.26
"	" " Central	Meltham (Harewood Lodge) ..	5.90	5.95	7.89	2.67	4.41	1.49	3.60	5.15	5.37	10.44	3.25	3.16	59.28
"	" " "	South Milford Rectory ..	1.73	1.49	2.69	1.27	3.46	1.96	2.90	2.69	3.50	7.72	1.26	1.17	31.84
"	" " "	Malham Tarn	7.06	6.86	8.63	4.27	3.76	1.99	5.64	6.98	6.59	13.72	4.07	4.08	73.65
"	" North	Ripon (Mickley)	3.20	3.04	4.23	1.36	4.58	1.95	3.48	3.34	4.43	8.47	1.72	2.17	41.97
"	York, E.R.	Patlington.....	1.72	.60	2.13	2.21	2.69	2.15	2.97	4.30	3.16	5.66	2.50	.81	30.90
"	" "	Pocklington (Warter)	1.77	.99	3.07	2.43	3.46	1.70	3.28	2.81	3.92	7.25	2.00	1.26	33.94
"	" "	Lowthorpe (The Elms) ...	1.65	.85	2.31	2.55	2.44	1.72	3.03	2.44	3.08	6.28	2.02	1.19	29.56
"	York, N.R.	Thirsk (Sowerby)	2.22	1.49	2.60	1.41	2.99	1.69	3.49	2.45	3.26	7.03	1.69	1.45	31.77
"	" "	Whitby (Mulgrave Castle) ..	1.68	1.54	2.14	2.97	2.92	3.29	3.46	1.60	3.55	6.70	3.08	1.25	34.18
"	" "	Middlesbrough (Ormesby) ..	2.29	1.15	2.06	1.70	2.85	3.41	3.34	1.71	3.64	6.71	1.82	.98	31.66
X.	Durham.....	Darlington(HurworthGrange)	2.54	1.50	2.70	1.09	3.47	1.97	3.74	1.93	2.85	7.06	1.43	1.81	32.09
"	" "	Hartlepool(HurworthBurn)	2.05	.82	1.73	1.38	1.85	2.97	4.19	2.06	2.76	8.76	1.84	2.10	32.51
"	" "	Wolsingham	3.95	3.23	3.48	1.63	3.27	1.98	5.27	2.80	2.72	9.28	2.35	1.92	41.88
"	Northumberland	Corbridge (Hawden Dene) ..	2.67	2.66	2.08	1.31	2.15	2.56	4.79	2.73	3.15	7.51	2.08	1.68	35.38
"	" "	Morpeth (Bothalhaugh) ...	3.00	1.19	.98	1.48	1.91	2.42	3.85	2.92	3.20	9.31	2.60	2.43	34.39
"	" "	Alwinton (Biddleston) ...	4.24	2.55	2.36	1.74	1.84	1.25	4.23	3.30	3.20	9.61	2.71	2.34	39.37
"	" "	Howick Hall	3.62	1.27	1.10	1.92	1.56	2.48	4.96	3.66	2.70	7.75	2.75	2.86	36.63
"	Cumberland	Borrowdale (Seathwaite)...	18.13	20.85	22.23	4.81	7.94	3.96	10.28	21.11	10.95	23.62	9.70	12.46	166.09
"	" "	Brampton (Denton House) ..	4.50	4.48	3.45	1.50	2.03	1.68	4.88	6.32	4.32	8.01	2.67	2.23	46.07
"	Westmorland ...	Kendal (Ivy Garth)	7.90	5.23	6.03	1.95	3.66	2.18	4.83	9.68	8.11	10.89	3.02	4.48	67.96
"	" "	Appleby (Castle Bank) ...	6.06	6.33	7.52	1.08	2.16	.95	3.98	3.77	4.19	9.07	3.03	2.72	50.86
"	" "	Lowther Castle.....	4.01	7.40	10.59	1.95	3.00	1.45	2.95	3.50	5.00	7.98	3.02	3.21	54.06

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)	5.35	2.09	5.04	2.68	3.82	2.50	2.99	5.11	3.25	9.55	1.79	2.96	47.13
"	"	Abergavenny (Larchfield) ..	4.65	2.85	5.65	2.03	4.81	2.99	2.86	4.96	3.47	9.76	1.73	3.11	48.87
"	Glamorgan.....	Cardiff (Roath Park)	5.81	2.19	5.80	2.48	4.48	3.11	3.53	6.14	3.73	11.06	2.40	4.24	54.97
"	"	Neath (Fairy Land).....	5.50	2.65	7.81	2.39	3.79	1.58	3.78	7.38	5.71	11.23	2.61	3.95	58.38
"	"	Llanelli (Old Market Place)	4.84	3.29	6.19	2.96	2.68	1.33	2.51	7.38	4.55	11.68	3.34	4.28	55.03
"	"	Llandovery (Tonn)	6.85	4.31	8.52	2.62	3.49	1.52	2.80	6.63	5.93	12.64	4.57	3.19	63.07
"	"	St. David's	4.12	2.03	4.40	2.67	1.94	1.81	3.49	4.70	3.76	8.11	3.42	3.81	44.26
"	Cardigan	Aberystwith (North Parade)	3.78	2.51	4.92	2.15	1.41	2.27	3.73	5.78	4.74	10.29	4.42	2.66	48.66
"	Brecon	Cantref Rectory	3.28	4.95	11.66	2.20	4.64	2.06	3.00	5.34	5.25	12.42	2.49	5.20	67.49
"	"	Llysdinam [Newbridge] ...	5.90	3.48	7.68	2.55	3.77	3.10	3.02	6.52	4.62	10.11	3.46	4.11	58.32
"	"	Rhayader (Nantgwillt) ...	8.77	5.82	12.49	2.69	4.96	3.30	3.05	8.55	6.52	15.06	6.49	6.44	84.14
"	"	Newtown (Dolfor)	4.42	3.01	6.34	1.48	3.48	3.32	3.24	6.02	4.74	9.20	2.66	3.64	51.55
"	"	St. Asaph (Nantlys)	2.54	1.91	4.27	1.51	2.40	1.37	3.43	3.39	5.48	6.18	3.06	1.88	37.42
"	"	Rosset (Trevalyn Hall) ...	2.59	1.62	4.35	1.58	3.19	1.27	2.73	3.56	3.99	6.88	2.35	1.46	35.57
"	Denbigh.....	Llanbedr (Minafon)	6.18	3.29	6.77	2.35	2.30	1.12	4.06	7.37	6.18	9.15	5.07	4.31	58.15
"	Merioneth	Llanderfel (Palé)	7.61	7.43	8.39	2.52	3.96	1.22	3.35	7.95	6.87	12.24	3.90	5.00	70.44
"	"	Rhiwbrydir	15.60	12.20	12.98	4.10	5.08	3.29	11.21	17.79	11.28	21.45	11.73	8.42	135.13
"	"	Criccieth (Talarvor)	4.14	1.95	4.76	2.05	2.29	1.34	4.36	5.69	5.57	8.71	5.59	3.83	50.28
"	Anglesey	Llanerchymedd	5.87	4.23	6.69	1.85	2.34	2.18	3.05	4.32	6.41	7.98	3.80	5.10	53.82
"	Isle of Man	Douglas (Woodville)	5.29	3.06	3.40	1.83	2.96	2.58	4.77	3.95	6.17	8.95	4.21	4.58	52.25
"	Jersey.....	St. Helier (St. Louis Obs.)	2.60	2.22	2.26	1.44	2.57	3.61	2.07	3.33	2.76	6.29	2.92	2.59	34.66
"	Guernsey	St. Peter Port (Villa Carey)	3.37	1.34	3.11	2.35	1.47	2.63	2.08	4.92	3.87	6.00	2.23	3.22	36.59

SCOTLAND.

XII.	Wigton	Carlirstown (Galloway House)	6.19	3.46	5.39	1.32	3.14	2.28	4.41	5.52	3.26	8.87	3.29	3.35	50.48
"	"	Corsewall	4.56	2.95	4.31	1.52	3.05	1.79	3.81	4.79	2.88	7.93	3.22	2.24	43.05
"	"	Dalbeattie (Little Richon)	5.58	3.83	7.63	1.08	3.24	2.84	5.00	5.88	4.12	10.79	3.21	3.95	57.15
"	"	Dalry (Glendarroch)	8.66	6.95	11.56	1.57	2.70	2.89	3.95	7.77	5.39	11.68	4.28	6.37	73.77
"	Dumfries	Langholm (Drove Road)...	8.08	6.52	9.75	2.54	2.62	2.27	5.73	7.92	5.71	11.85	3.85	3.87	70.71
"	"	Moffat (Ericstane)	8.00	8.53	12.50	1.23	1.70	2.48	3.92	6.67	3.64	11.45	3.36	4.78	68.26
"	"	Hawick (Branxholme)	4.70	4.14	6.06	1.11	1.69	1.16	3.46	3.91	3.15	6.22	2.44	2.32	40.36
"	Roxburgh	Jedburgh (Ancrum Bridge)	4.41	3.07	3.16	1.17	1.24	1.29	4.49	2.91	3.06	7.72	1.66	1.29	35.47
"	"	Selkirk	5.27	6.04	5.96	1.09	1.07	1.90	4.42	4.01	2.42	10.12	1.31	2.56	46.17
XIII.	Peebles	Eddlestone (Portmore) ...	4.85	4.95	3.95	1.32	2.60	1.90	4.00	3.90	2.35	8.52	2.65	2.40	43.39

SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XIII.	Berwick	Marchmont House	3.55	3.71	2.53	1.30	1.67	1.90	4.90	4.36	2.84	7.82	1.77	2.14	38.49
	Haddington	Whittinghame Gardens	2.87	4.38	1.98	1.19	1.13	2.45	4.45	3.05	2.88	7.09	2.25	1.34	35.07
	Midlothian	Edinburgh (Royal Obs.)	3.96	3.99	4.10	1.06	1.17	1.09	3.82	2.57	2.03	5.72	1.47	1.08	32.06
	Linlithgow	Carribber Reservoir	6.80	5.89	6.53	1.25	1.72	1.91	4.68	4.63	2.26	7.30	2.06	1.86	46.89
	Lanark	Cleghorn	6.31	5.17	7.78	1.39	2.00	1.66	4.44	6.51	2.96	7.06	3.38	2.45	51.11
XIV.	"	Hamilton (Water Works)	6.85	7.10	10.40	1.15	2.05	1.85	3.20	5.60	3.15	6.20	2.65	2.80	53.00
	Ayr	Colmonell	7.15	3.35	5.65	1.10	3.20	1.99	3.49	4.72	3.46	9.01	4.92	4.90	52.94
	"	Maybole (Culzean Gardens)	6.50	4.75	5.75	1.05	4.45	2.50	2.75	5.05	2.70	7.50	3.75	3.60	50.35
	"	Kilmarnock (North Craigh)	7.00	5.00	8.30	1.40	3.00	3.20	3.50	7.30	4.40	9.50	4.00	4.00	60.60
	"	Helensburgh (Water Works)	6.50	5.57	6.19	1.18	2.79	2.89	4.21	7.65	3.82	9.99	2.95	3.78	57.52
XV.	Dumbarton	Buchlyvie (The Manse)	11.05	10.20	10.25	1.94	3.02	3.30	5.00	7.55	4.09	9.55	3.37	5.44	74.76
	Stirling	Rothsay (Barone Cott.)	6.27	5.72	6.11	1.89	3.05	2.12	4.71	9.50	3.74	9.69	3.87	4.90	61.57
	Bute	Kintyre (Devaar)	6.49	4.51	5.14	1.51	2.51	1.58	4.39	4.91	3.83	11.01	5.33	5.53	56.74
	Argyll	Lochgilphed (Poltalloch)	5.26	5.51	4.21	1.67	1.39	1.13	3.78	8.63	3.10	9.25	4.60	3.88	52.41
	"	Inveraray (Newtown)	10.60	11.17	11.20	3.24	2.98	2.96	4.63	10.95	4.61	13.08	6.83	6.49	88.74
XVI.	"	Morvern (Drimmin)	7.62	10.33	9.54	2.42	3.02	2.73	5.59	8.13	4.64	13.16	6.68	6.61	80.47
	"	Ballachulish (Ardsheal)	11.99	12.89	13.54	3.13	3.25	3.87	7.18	11.94	6.09	15.68	7.78	7.52	104.86
	"	Strontian (Laudale)	12.78	13.31	15.27	2.70	4.05	2.75	5.84	13.17	7.33	16.45	9.56	9.01	112.22
	"	Islay (Ardbeg)	6.26	5.22	5.23	3.04	2.72	.59	3.95	6.05	3.80	9.32	6.48	3.25	55.91
	"	Dollar	5.64	3.38	5.11	1.12	1.73	2.76	5.64	5.49	4.11	8.64	1.68	2.58	47.88
XVII.	Kinross	Loch Leven Sluice	7.20	6.96	6.56	1.29	1.63	2.87	5.41	4.78	3.04	7.55	1.63	3.27	52.19
	Fife	Kilconquhar (Balcarres)	5.21	4.68	2.93	1.46	1.35	2.44	6.14	4.89	2.51	6.26	1.39	1.83	41.09
	Perth	Balquhider (Stronvar)	15.38	15.72	18.31	2.04	2.28	3.44	5.63	10.69	6.44	15.58	5.44	8.06	109.02
	"	Coupar Angus	3.80	3.77	3.91	1.31	1.23	2.30	4.12	4.19	2.57	4.81	.86	2.81	35.68
	"	Blair-Atholl	5.82	5.91	7.02	1.11	1.66	2.25	3.42	5.32	2.98	6.45	2.00	3.03	46.97
XVIII.	Forfar	Arbroath (Dishland Hill)	3.71	2.73	1.88	.67	1.37	1.76	4.56	3.80	1.92	4.20	1.09	1.84	29.53
	"	Kirriemuir (Balsakeilly)	4.30	4.20	5.50	2.00	1.50	3.00	5.30	5.50	2.00	6.50	1.00	3.60	44.40
	"	Fettercairn (The Burn)	5.07	3.88	3.97	1.90	1.50	2.42	5.89	4.65	3.05	6.67	1.15	4.14	44.29
	Aberdeen	Alford (Lynturk Manse)	2.94	3.06	1.69	3.22	2.26	1.86	6.59	3.80	2.44	5.59	2.71	2.89	39.05
	"	Haddo House	2.71	2.79	1.17	2.60	2.79	1.63	5.92	4.13	3.13	4.58	2.58	2.17	36.20
XIX.	Banff	Banff (Earl Hill)	3.16	2.17	.71	1.66	2.02	1.33	5.83	4.60	2.49	3.89	3.18	1.95	32.99
	"	Grantown	4.16	3.32	2.95	2.74	1.86	1.96	4.08	3.65	2.79	3.95	3.11	.84	35.41
	Moray	Gordon Castle	3.52	2.76	1.10	2.23	1.94	1.64	5.84	5.12	1.96	4.31	3.64	1.02	35.08
	"	Cawdor (Budgate)	4.42	3.47	3.24	1.40	2.25	2.38	3.63	3.03	1.95	4.11	3.40	.63	33.91
	Nairn	"													

SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XVII.	Nairn	Nairn (Achareidh)	2.98	2.52	2.16	1.23	1.44	2.42	3.36	2.19	1.56	3.25	2.19	.64	25.94
XVIII.	Inverness, West	Mucomir	13.20	10.59	10.30	2.67	3.43	2.77	5.63	9.32	5.08	10.43	6.28	4.97	84.67
"	"	Glen Quoich	21.20	21.35	20.99	6.31	5.32	3.59	10.13	16.47	8.47	16.31	14.41	7.28	151.83
"	"	Alvey Manse	5.63	4.20	4.11	1.75	2.02	2.10	3.81	4.03	2.88	4.38	3.50	.40	38.81
"	"	Loch Ness (Whitebridge)	10.76	15.02	14.30	2.23	3.57	2.21	5.93	5.19	4.38	8.45	5.63	2.26	79.93
"	Ross, West	Applecross	7.45	10.23	7.90	3.00	2.73	2.22	3.70	7.31	6.26	10.35	6.30	3.92	71.37
"	"	Strathconan (Dalbreac)	8.72	7.05	7.47	1.47	2.20	1.19	5.17	6.76	2.78	9.96	5.85	1.09	59.71
"	"	Loch Torridou (Bendamph)	14.57	16.62	17.31	4.37	3.69	2.86	7.47	10.71	5.93	12.40	7.36	4.97	108.26
"	"	Ardrross Castle	6.53	5.66	4.39	3.52	2.75	1.41	6.04	5.79	2.94	7.95	5.27	1.95	54.20
XIX.	"	Invershin	3.77	3.94	2.69	4.07	1.80	1.45	2.77	5.96	2.30	5.76	5.65	1.53	41.69
"	Sutherland	Dunrobin Castle	3.94	3.08	2.10	2.69	1.83	1.36	5.23	3.94	2.31	4.63	4.78	1.42	37.31
"	"	Wick	2.90	2.68	1.37	2.96	1.60	1.30	4.76	4.34	2.71	4.39	5.04	1.85	35.90
"	Caithness	Watten Station	2.81	2.21	.98	2.32	1.63	.91	3.73	5.57	2.72	4.72	4.93	1.55	34.08
"	"	Sumburghhead (Dunroseness)	5.22	5.67	4.96	3.02	1.17	2.35	2.25	2.64	2.99	4.55	4.39	2.25	41.46

IRELAND.

XX.	Cork	Castletownshend (Glen Barrabane)	5.55	2.43	5.80	1.69	3.02	4.27	4.05	4.70	3.06	7.06	2.71	4.62	48.96
"	"	Cork (The Palace)	7.98	3.47	5.91	1.88	2.93	3.74	5.79	4.14	3.70	5.62	1.51	4.54	51.21
"	"	Mallow (Summer Hill)	6.78	4.00	7.30	1.72	2.65	2.34	4.79	4.33	5.10	6.30	1.59	4.45	51.39
"	Kerry	Waterville (Iveragh Lodge)	6.90	4.10	6.42	1.88	3.58	1.82	4.72	5.61	4.41	5.93	3.48	3.64	52.45
"	"	Kenmare (Derreen)	10.44	7.92	14.33	2.49	4.02	5.54	5.66	7.85	9.15	10.74	4.33	8.52	90.99
"	Waterford	Waterford (Brook Lodge)	6.04	2.75	5.95	1.40	2.29	5.31	3.63	4.62	3.36	6.56	2.10	5.87	49.89
"	Tipperary	Clonmel (Bruce Villa)	6.45	3.13	5.83	1.76	3.62	2.36	6.16	4.25	3.44	4.72	1.50	4.33	47.58
"	"	Nenagh (Castle Lough)	6.39	3.77	7.51	1.39	2.78	1.45	5.28	4.62	4.17	5.42	2.35	4.53	49.65
"	"	Ballingarry (Hazelfort)	4.57	3.35	5.33	1.56	1.71	2.05	4.69	4.59	3.00	4.27	2.64	3.07	40.86
"	Limerick	Limerick (Roxborough)	5.03	3.10	5.30	1.92	2.97	2.02	4.70	4.94	3.61	4.96	2.52	6.09	47.13
"	Clare	Carrigaholt Castle	4.30	3.35	5.49	1.79	1.75	1.43	3.43	4.42	3.20	4.63	2.46	3.78	40.06
"	"	Miltown Malbay	5.88	5.17	7.99	2.31	2.80	1.01	4.23	6.76	5.52	7.30	3.62	6.51	59.53
XXI.	Wexford	New Ross (Longraigue)	5.75	2.73	6.83	1.46	2.56	5.66	4.23	4.62	3.41	5.01	2.22	5.77	50.27
"	"	Enniscorthy (Ballyhyland)	7.07	3.45	6.64	1.31	3.64	5.04	6.64	5.26	3.59	5.58	2.20	6.61	57.05
"	"	Gorey (Courtown House)	5.16	2.38	4.79	1.08	2.42	4.06	4.17	4.92	2.32	3.93	2.19	4.26	40.93
"	Kilkenny	Kilkenny (Stion Villa)	4.97	2.76	4.59	1.82	2.36	4.24	4.32	4.37	3.04	4.50	1.72	2.88	41.58
"	Wicklow	Bray (Fassaroe)	5.00	3.79	5.80	1.57	3.56	1.65	4.60	4.22	5.17	5.11	2.85	4.57	47.87
"	Carlow	Carlow (Browne's Hill)	4.85	3.03	5.98	1.87	3.01	3.15	4.58	5.06	3.45	3.92	2.73	2.99	44.29

IRELAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XXI.	Queen's County	Abbey Leix (Blandsfort)	6.19	2.91	5.41	1.88	2.64	2.69	4.43	5.75	4.11	5.21	2.73	3.08	47.03
	Kildare	Strafan House	4.70	2.51	4.75	1.01	1.78	1.83	4.41	3.42	2.96	2.77	2.70	2.26	35.10
	Dublin	Glasevin (Botanic Gardens)	3.49	2.36	3.68	1.23	2.37	2.32	4.04	3.37	3.34	2.44	2.52	1.82	32.98
	Meath	Athboy	6.36	3.10	4.94	1.33	1.88	1.56	4.30	5.57	3.57	3.96	2.59	2.63	41.79
	"	Moynalty (Westland)	5.63	4.19	5.64	1.55	2.58	1.46	3.82	6.05	4.43	4.34	2.43	3.36	45.48
	"	Athlone (Twyford)	4.91	3.42	5.15	1.28	1.77	1.75	4.32	6.46	3.93	3.81	2.38	2.70	41.88
	"	Mullingar (Belvedere)	6.45	4.45	6.16	1.96	1.43	1.20	5.53	6.68	4.50	4.67	2.68	2.57	48.28
	"	Ardee (Lissenny)	4.43	3.57	5.19	1.39	2.61	1.62	3.40	4.24	4.34	4.22	2.11	3.17	40.29
	"	Greenore	4.03	3.99	3.53	1.48	2.21	2.47	4.19	4.37	3.57	3.44	2.01	2.93	36.22
	"	Ballinasloe	4.96	4.21	6.45	1.44	1.91	2.04	4.58	6.69	4.30	4.59	2.35	3.36	46.88
XXII.	Galway	Clifden (Kylemore House)	9.26	7.21	10.10	3.44	4.35	2.32	6.57	10.11	10.12	11.25	4.70	8.09	87.52
	"	Tuam (Gardenfield)	6.53	5.79	7.77	1.33	2.45	1.09	5.86	8.58	4.97	7.36	3.60	3.64	58.97
	"	Ballinrobe (Cranmore)	7.16	7.35	7.16	1.52	2.61	1.03	5.28	7.77	6.77	7.14	4.01	4.24	62.04
	"	Achill (Corann House)	5.33	4.38	6.37	1.94	2.28	2.31	5.14	8.78	5.77	8.07	3.21	4.72	58.30
	"	Doo Castle [Tobercurry]	5.53	5.91	6.35	4.40	2.45	1.02	5.72	7.25	4.47	6.29	3.00	3.68	56.07
	"	Crossmolina (Enniscoe)	6.79	6.36	9.55	2.43	2.49	.94	5.12	7.68	5.74	8.13	4.59	5.47	65.29
	"	Ballysadare B. (Glen Lodge)	5.08	4.28	6.29	2.39	2.57	.71	4.92	6.55	4.86	5.98	3.43	2.90	49.96
	"	Stradone House	6.30	4.71	7.65	1.79	3.29	1.23	5.29	5.80	4.61	5.56	2.26	3.64	50.13
	"	Ballyconnell House	6.16	4.33	7.22	1.80	3.00	1.37	5.57	6.06	4.18	6.03	3.10	3.75	52.57
	"	Monaghan	4.89	2.46	5.22	1.28	2.36	1.02	3.86	4.95	3.71	4.30	1.96	2.38	38.39
XXIII.	Armagh	Armagh Observatory	4.97	2.80	4.40	1.15	3.10	1.09	3.32	4.12	3.18	3.89	1.91	2.36	36.29
	"	Seaforde	5.14	3.15	5.29	1.37	3.14	2.97	4.92	4.26	4.48	7.43	2.06	4.48	48.69
	"	Donaghadee	4.33	2.45	4.06	1.03	3.16	1.76	3.43	4.07	3.01	5.50	1.86	3.20	37.86
	"	Belfast (Springfield)	5.33	3.02	4.77	1.82	2.74	2.05	4.91	5.94	3.69	7.30	2.59	3.07	47.23
	"	Ballymena (Harryville)	6.48	3.53	4.83	2.01	2.81	1.55	4.20	5.36	3.79	6.41	2.41	3.44	46.82
	"	Bushmills (Dundarave)	5.79	3.11	4.26	1.82	2.60	.72	4.54	5.28	2.14	7.13	4.25	2.42	44.06
	"	Garvagh (Moneydig)	6.18	2.78	5.41	1.81	2.73	1.57	4.15	5.05	4.53	6.23	3.43	2.51	46.38
	"	Stewartstown (The Square)	6.64	1.75	4.52	1.32	3.06	1.64	4.63	5.96	3.79	5.53	2.37	3.47	44.68
	"	Omagh (Edenfel)	6.19	4.00	7.03	2.40	2.56	1.95	4.36	7.92	3.89	7.28	3.04	4.24	54.86
	"	Killybegs	5.98	6.09	7.82	4.09	3.09	1.35	6.84	11.68	3.35	7.44	4.98	4.16	66.87
	"	Raphoe (Convoy House)	7.25	5.89	6.84	1.93	3.24	1.84	4.64	7.33	3.61	8.31	3.73	3.74	57.35
	"	Buncrana (Rockfort)	4.60	3.65	4.31	2.17	2.32	1.04	4.16	7.39	2.90	5.87	4.00	2.68	45.09
	"	"	6.17	5.29	6.28	2.36	2.69	.89	4.61	6.56	2.51	7.83	3.78	3.78	52.75
	"	Horn Head													
	"	"													
	"	"													
	"	"													
	"	"													
	"	"													
	"	"													

ON THE RELATION OF THE TOTAL FALL OF RAIN IN 1903 TO THE AVERAGE.

THERE are two ways in which one may calculate the average distribution of rain over a considerable area. Of these, the first is to select stations equally distributed over the whole surface and take their arithmetical mean. Even if the records are perfect, this method does not yield a correct result unless the stations are sufficiently numerous to represent all degrees of rainfall in the country, and so uniformly spaced as to avoid over-representing districts of high or of low fall. The other method is to place upon a map all available figures, however irregularly they may be distributed, and then to draw lines separating different zones of rainfall, *e.g.*, lines for 25, 30, 40 inches, &c., drawing the lines across bare places with due regard to surface features which are known to affect rainfall. The mean rainfall of each zone can easily be found by inspection of the map with the figures on it and then the area of the zones can be measured. All the areas each multiplied by its own mean fall when added together and divided by the total area give the average fall with a very close degree of approximation. The chief objection to this method is that it is excessively laborious. It is applied in Part I.

This section has always been dealt with on the basis of the first method alone, and for the sake of continuity we again discuss the results exactly in the established way.

The long table gives the rainfall at 174 stations selected partly because they possess a long record, partly in order to secure as uniform a distribution geographically as is possible, and the relation of the rainfall for 1903 to the average at each station is shown by an appropriate sign on the map. The distribution is far from perfect.

There are awkward gaps in Ireland. A distressing absence of long records in the Highlands induces us to cover the nakedness of the land on the principle by which the seventeenth century geographers, grieving over the blanks on the map of Africa,—

“ . . . upon unpeopled downs
Placed elephants for want of towns.”

Perhaps this may suggest to some patriotic Highland lairds that there is still room for a rain-gauge on their estates.

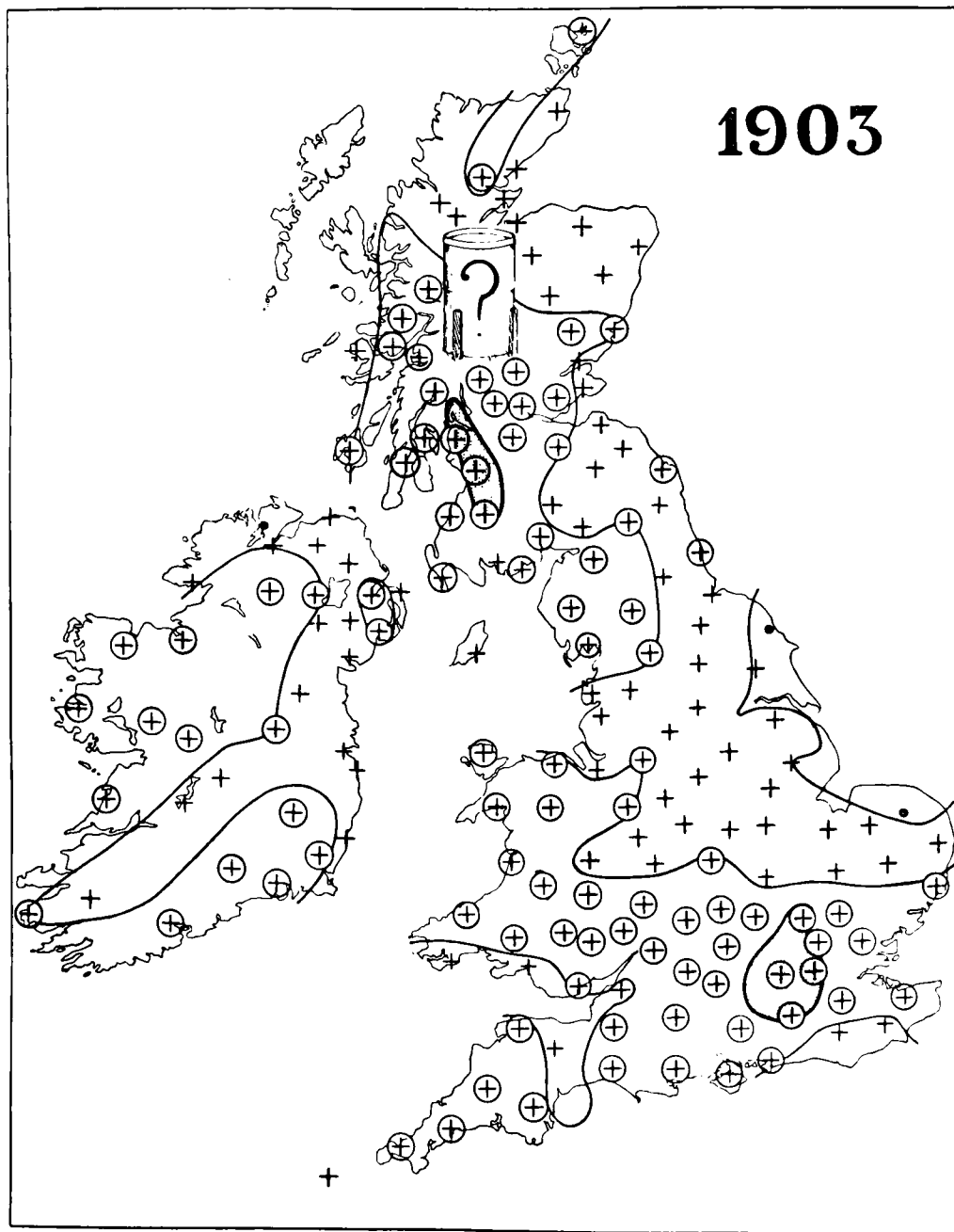
Although not satisfactory, the distribution this year is no worse than it has been previously ; indeed, in some particulars it is better.

It is possible that on the east coast one or two stations may have recorded a fall in 1903 which was below the 30 years' average ; but if so, we have not lighted upon it. An extremely narrow strip of the east coast had less than 10 per cent. in excess, as indicated by the dots on the map, but everywhere else the year was wet, and in most places, as the ringed pluses record, very wet indeed. The excess was least in Ireland, where meteorological excesses are rarely prominent, but taking Ireland as a whole, the rainfall deduced from the mean of 34 stations was (to the nearest inch) 51 inches, while the average is 41 inches, the excess being very nearly one quarter. For Scotland, deduced from 46 stations, the rainfall was about 59 inches, compared with an average of 45 inches, the excess approaching one-third ; while England and Wales, as deduced from 94 stations, lay between the two, with an excess considerably exceeding one-quarter, the fall in 1903 having been 44 inches, that in an average year being 34 inches. Taking the British Isles as a whole, we find an excess in 1903 of about 11 inches of rainfall, or 28 per cent. of the normal amount. The exact figures based on the 174 stations are given in the following abstract :—

ABSTRACT.

COUNTRIES.	No. of Records.	Average. 10 years 1890-99.	Average. 30 years 1870-99.	1903.	Diff. from Average 1870-99.	
					Amount.	Per cent.
England and Wales...	94	in. 32·25	in. 34·22	in. 43·81	in. 9·59	+ 28
Scotland.....	46	45·01	45·14	59·05	13·91	+ 31
Ireland	34	40·96	41·27	51·11	9·84	+ 24
Mean of all Stations...	174	37·33	38·48	49·26	10·78	+ 28

DIFFERENCE OF TOTAL RAINFALL IN 1903 FROM
THE AVERAGE OF 1870-99.



The round dot indicates a rainfall within 10 per cent. of the average.

The + and — respectively show excess or defect of between 10 and 25 per cent.
The same signs enclosed by a ring indicate a departure from the average of more than 25 per cent.

Places where departures of more than 50 per cent. occur are shaded.

[Face p. [198].

It will be observed on looking at the map that a line is drawn to emphasise the boundary between falls over and under 25 per cent. of the 30 years' average. One or two points may be detected where the line appears at fault; but that is because at one or two of the selected stations the excess of rainfall was just beyond the limit, and was not quite in accord with that at several stations in the immediate neighbourhood for which averages were available. There is no reason to doubt the correctness of these apparently anomalous results, for local conditions often make differences in rainfall, which are so individual as to be negligible in discussing the general distribution. While the ringed pluses on the map show all the selected stations at which the rainfall exceeded the average by 25 per cent. or more, they do not distinguish the higher excesses. We have, however, enclosed by a strong line the areas in which all stations had an excess of 50 per cent. or more for the year, and to make them the more conspicuous they have been shaded. These areas were drawn on a large scale map with great care, the averages for some 40 additional stations having been calculated so as to define their limits as closely as possible. Within them no place had less than the average rainfall and half as much again.

The following are the stations in the Table concluding this section which had excesses of more than 50 per cent. in 1903 :—

Rainfall for 1903 more than 50 per cent. above Average.

Div.	County.	Station.	Average, 1870-99.	Depth in 1903.	Diff. from Aver.	
					Amount.	Per cent.
I.	London...	St. Pancras, Camden Sq...	in. 25·16	in. 38·10	in. 12·94	+ 51
II.	Surrey	Abinger Hall.....	31·70	48·60	16·90	+ 53
III.	Hertford	Hitchin, Wratten	24·66	37·56	12·90	+ 52
"	Bucks.....	Slough, Langley	24·00	36·40	12·40	+ 52
XIV.	Ayr.....	Loch Finlas	51·70	77·87	26·17	+ 51
"	"	Kilmarnock, North Craig	39·46	60·60	21·14	+ 54
"	Renfrew..	Waulk Glen	46·91	71·25	24·34	+ 52
XV.	Argyll	Strontian, Laudale	72·20	112·22	40·02	+ 55

Speaking generally, we may say that in 1903 the British Isles as a whole were very wet. In Ireland the south, the west, and the north-east, were very wet; the east and part of the centre being

less so. In Scotland the western highlands of the mainland, the whole centre, and most of the southern uplands, were very wet, with a large patch in the south-west, where it was very wet indeed ; the south-east of the kingdom and the north-east being less wet. In England and Wales the whole west and south, from the Mersey to the Thames, was very wet, with a large area where it was very wet indeed, spreading northwards, westwards, and southwards, from London ; the north-west, including the Lake District, was also very wet, but a great triangular area between, spreading from the Mersey to Hartlepool and Lowestoft, was not so wet, and probably at some points on the east coast the rainfall may not have exceeded the average, the lowest value in the table being + 1 per cent. at Osgodby, near Scarborough.

This section, with the differences from the average at about 170 stations, first appeared in *British Rainfall* 1881 ; and one of the best means of comparing the rainfall of one year with that of another, which we possess at present, is by accepting the average of the well-distributed stations in that table as the rainfall of the year. That average is certainly too low, for however carefully the stations are selected to secure uniform distribution, there are gaps unrepresented, and these all lie in wet districts. In Scotland, and especially in Ireland, the figures from 1881 to 1889 are based on such a small number of stations as to possess little meaning. A better means of comparison, extending over a longer period, may ultimately be obtained—it is a matter of time and money, the data are all before us—but in the meantime the figures in the following table give at least some sort of comparison of the conditions during the last 23 years. The column for England is probably fairly correct throughout, those for Scotland, Ireland and the British Isles are less closely approximate, except in the last five 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. The figures for each year are taken from the Abstract, and compared afresh with the best values we possess for the average rainfall of the country.

Unfortunately, the only years that could compare with 1903 for wetness do not come within the scope of this table, and we must refer the reader to the comparison in Part I. of this volume between the rainfall of the wettest years of the nineteenth century and after.

Rough Comparison of the Rainfall for 23 years.

	ENGLAND & WALES.			SCOTLAND.			IRELAND.			BRITISH ISLES.		
	Fall.	Diff.fromAv.		Fall.	Diff.fromAv.		Fall.	Diff.fromAv.		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	·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 ^m
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 ^M

Here we need scarcely say more than that the year was the wettest of the last thirty, and very nearly the wettest of which we have any record ; while, for the neighbourhood of London, it was the wettest ever experienced as far back as continuous records of any sort extend, which is to about the year 1725.

It may be observed that the excess of rainfall in 1903 was very nearly equal to the deficit in the two previous years, 1901 and 1902 ; so that the average of these three years should on the whole give the normal rainfall of the country so far as the total amount is concerned.

**COMPARISON OF THE RAINFALL OF THE YEAR 1903
WITH THE AVERAGE OF THE PERIODS
1890-99 & 1870-99.**

ENGLAND & WALES.

DIV.	COUNTY.	STATION.	Average, 1890-9.	Average, 1870-99.	Depth in 1903.	Difference from average, 1870-99.	
						Per Amount.	cent.
			in.	in.	in.	in.	
I.	London	St. Pancras (Camden Square)..	22·78	25·16	38·10	12·94	+ 51
II.	Surrey	Abinger Hall	30·03	(31·70)	48·60	16·90	+ 53
"	Kent, West ..	Tenterden	26·76	28·36	32·65	4·29	+ 15
"	" " ..	Sevenoaks (River Hill)	26·23	27·49	37·00	9·51	+ 35
"	" East ..	Selling (Harefield)	28·83	29·55	40·89	11·34	+ 38
"	Sussex West..	Chichester (Chilgrove)	33·60	33·82	49·53	15·71	+ 46
"	" East ..	Maresfield (Forest Lodge)	29·58	31·45	38·21	6·76	+ 21
"	Hampshire.....	Isle of Wight (Osborne)	27·87	28·12	36·49	8·37	+ 30
"	" ..	Alresford (Ovington)	30·41	(32·00)	(42·29)	10·29	+ 32
"	Berkshire	Newbury (Welford Park)	28·75	30·29	44·05	13·76	+ 45
III.	Hertfordshire..	Hertford (Bayfordbury)	22·84	24·97	35·65	10·68	+ 43
"	" ..	Hitchin (Wratten)	23·25	24·66	37·56	12·90	+ 52
"	Buckingham ..	Slough (Langley)	23·25	24·00	36·40	12·40	+ 52
"	" ..	Winslow (Addington Manor) ..	23·84	26·75	34·94	8·19	+ 31
"	Oxfordshire ..	Oxford (Magdalen College) ...	21·40	24·54	35·14	10·60	+ 43
"	" ..	Banbury (Bloxham Grove) ...	23·40	(27·20)	37·77	10·57	+ 39
"	Northampton...	Wellingboro' (Croyland Abbey)	21·55	25·31	29·33	4·02	+ 16
"	Cambridgeshire	Stretham Engine	20·96	22·16	27·57	5·41	+ 24
"	" ..	Wisbech (Bank House)	22·28	24·89	28·48	3·59	+ 14
IV.	Essex	Chelmsford (High Street)	21·22	22·96	33·75	10·79	+ 47
"	" ..	Saffron Walden (Newport) ...	24·27	(24·80)	33·43	8·63	+ 35
"	Suffolk	Rendlesham Hall	22·60	(23·70)	29·89	6·19	+ 26
"	" ..	Ixworth (Walsham-le-Willows)	25·17	25·87	30·86	4·99	+ 19
"	Norfolk	Geldeston [Beccles]	22·97	23·93	26·95	3·02	+ 13
"	" ..	Swaffham (Dunham)	25·92	28·41	32·88	4·47	+ 16
"	" ..	Cawston Rectory	25·22	27·28	29·52	2·24	+ 8
V.	Wiltshire	Salisbury Plain (Chitterne Ho.)	26·88	28·56	37·81	9·25	+ 32
"	" ..	New Swindon	26·26	(28·20)	39·93	11·73	+ 42
"	Dorsetshire ..	Beaminster Vicarage	34·87	(38·20)	49·25	11·05	+ 29
"	" ..	Wimborne (Chalbury Rectory)	29·82	31·06	39·91	8·85	+ 28
"	Devonshire, S...	Ashburton (Druid House)	49·99	52·92	66·51	13·59	+ 26
"	" " ..	Polapit Tamar	36·79	38·85	52·16	13·31	+ 34
"	" " ..	Bampton (Huntsham)	45·28	(46·80)	57·75	10·95	+ 23
"	" N..	Barnstaple (Arlington Court)..	51·68	53·30	67·47	14·17	+ 27
"	Cornwall	St. Ives (Phillack Rectory) ...	35·27	36·68	46·50	9·82	+ 27
"	" ..	St. Austell (Trevarna)	42·75	47·16	59·31	12·15	+ 26
"	Somerset, N....	Glastonbury (Street)	26·90	30·40	38·62	8·22	+ 27
VI.	Gloucester, W..	Clifton (Pembroke Road)	32·59	35·45	43·65	8·20	+ 23
"	" ..	Stroud (Upfield)	26·83	29·85	39·90	10·05	+ 34
"	Herefordshire..	Ross (The Graig)	25·61	29·51	38·12	8·61	+ 29

ENGLAND & WALES—(continued).

DIV.	COUNTY.	STATION.	Average, 1890-9.	Average, 1870-99.	Depth in 1903.	Difference from average, 1870-99.	
						Per Amount.	cent.
			in.	in.	in	in.	
VI.	Herefordshire...	Kington (Lynhales)	29·50	33·56	43·73	10·17	+ 30
„	Shropshire	Bishops Castle (Castle Street)..	28·46	(32·90)	37·87	4·97	+ 15
„	„ ..	Shifnal (Haughton Hall)	25·41	28·21	33·89	5·68	+ 20
„	„ ..	Market Drayton (Buntingsdale)	26·53	(28·70)	36·04	7·34	+ 26
„	Staffordshire ..	Burton (Rangemore)	24·96	28·01	32·67	4·66	+ 17
„	„ ..	Cheadle (The Heath House) ...	30·05	(33·50)	39·23	5·73	+ 17
„	Worcestershire.	Northwick Park	25·24	29·22	38·16	8·94	+ 31
„	„ ..	Grt. Malvern (Church Street)..	24·79	(29·00)	37·12	8·12	+ 28
„	„ ..	Stourbridge (Pedmore)	25·59	(29·20)	35·93	6·73	+ 23
„	Warwickshire..	Coventry (Priory Row)	24·96	27·96	36·87	8·91	+ 32
VII.	Leicestershire ..	Thornton Reservoir	24·17	26·48	30·58	4·10	+ 15
„	Rutland	Market Overton	24·05	(26·90)	33·04	6·14	+ 23
„	Lincoln, South.	Stubton [Newark]	21·47	24·87	29·57	4·70	+ 19
„	„ North.	Horncastle (Bucknall)	21·25	(23·90)	26·36	2·46	+ 10
„	„ „	Brigg	24·40	(26·31)	30·28	3·97	+ 15
„	Nottingham ...	Worksop (Hodsock Priory) ..	22·67	(24·70)	27·95	3·25	+ 13
„	Derbyshire	Matlock Bath	28·93	25·07	42·68	7·61	+ 22
VIII.	Cheshire	Chester (The Nurseries)	26·74	29·17	34·35	5·18	+ 18
„	„ ..	Chelford (Astle Hall)	28·49	(30·60)	38·79	8·19	+ 27
„	„ ..	Torrside Reservoir	43·93	44·98	50·02	5·04	+ 11
„	Lancashire, S...	Ormskirk (Rufford)	32·63	33·71	40·75	7·04	+ 21
„	„ „	Stonyhurst College	48·16	47·57	58·96	11·39	+ 24
„	„ N...	Kirkham (Weeton)	36·86	(38·60)	47·21	8·61	+ 22
„	„ „	Cartmel (Holker)	43·69	43·69	63·18	19·49	+ 45
IX.	York, WR Central	Wakefield Prison	24·86	(26·80)	30·42	3·62	+ 14
„	„ „ „	Malham Tarn	58·44	58·17	73·65	15·48	+ 27
„	„ „ North	Knaresborough (Farnham) ...	25·07	26·70	32·53	5·83	+ 22
„	„ E. Riding.	Pocklington (Warter)	29·03	30·75	33·94	3·19	+ 10
„	„ N. Riding.	Scarborough (Osgodby)	25·11	(27·70)	27·89	·19	+ 1
„	„ „ ..	Northallerton (The Lodge) ...	(25·10)	25·80	30·59	4·79	+ 19
„	„ „ ..	Middlesbrough (Albert Park).	24·72	(24·30)	29·79	5·49	+ 23
X.	Durham	Wolsingham	33·26	34·75	41·88	7·13	+ 21
„	„ ..	Sunderland (W. Hendon House)	25·11	26·19	33·15	6·96	+ 27
„	Northumberland	Hallington (Fawcett)	28·73	29·12	36·43	7·31	+ 25
„	„ ..	Rothbury (Cragside)	33·27	34·41	40·49	6·08	+ 18
„	„ ..	Howick Hall	26·90	28·29	36·63	8·34	+ 29
„	Cumberland ...	Borrowdale (Seathwaite)	135·75	132·74	173·70	40·96	+ 31
„	„ ..	Carlisle (Cemetery)	33·04	31·64	47·24	15·60	+ 49
„	Westmorland...	Kirkby Stephen (Redmaine Ho.)	46·05	42·12	55·10	12·98	+ 31
XI.	Monmouth	Abergavenny (Larchfield)	34·91	37·82	48·87	11·05	+ 29
„	Glamorgan	Cardiff (Ely)	39·51	42·81	54·74	11·93	+ 28
„	„ ..	Neath	47·28	(50·50)	61·81	11·31	+ 22
„	Carmarthen ...	Llandilo (Dynevor Castle) ...	50·57	(52·80)	75·34	22·54	+ 43
„	Pembroke	Pembroke (Stackpole Court) ..	37·70	(41·20)	48·40	7·20	+ 17
„	„ ..	Castle Malgwyn [Llechryd] ..	40·85	43·85	58·67	14·82	+ 34
„	Cardigan	Aberystwith (Gogerddan) ...	44·67	45·41	61·21	15·80	+ 35
„	Brecon	Cantref Rectory	46·39	(51·10)	67·49	16·39	+ 32

ENGLAND & WALES—(continued).

DIV.	COUNTY.	STATION.	Average, 1890-9.	Average, 1870-99.	Depth in 1903.	Difference from average, 1870-99.	
						Per Amount.	cent.
			in.	in.	in.	in.	
XI.	Radnor	Rhayader (Nantgwillt)	56·82	61·45	84·14	22·69	+ 37
„	Flint	St. Asaph (Nantlys)	26·30	28·71	37·42	8·71	+ 30
„	Merioneth	Llanderfel (Palé)	45·65	(48·20)	70·44	22·24	+ 46
„	Carnarvon	Criccieth (Talarvor)	35·56	35·83	50·28	14·45	+ 40
„	Anglesea	Llanerchymedd (Llwydiarth Esgob) ...	38·60	38·21	53·82	15·61	+ 41
„	Isle of Man ...	Douglas (Woodville)	41·83	(43·30)	52·25	8·95	+ 21
„	Scilly	St. Mary's	31·23	(32·80)	39·87	7·07	+ 22

SCOTLAND.

XII.	Wigton	Stoneykirk (Ardwell House)...	34·77	(35·05)	45·87	10·82	+ 31
„	Kirkeudbright.	Auchencairn (Torr House) ...	46·02	(46·45)	61·40	14·95	+ 32
„	„	Gatehouse (Cally)	47·90	48·74	57·78	9·04	+ 19
„	„	Cargen [Dumfries]	43·90	43·43	60·86	17·43	+ 40
„	Dumfries	Langholm (Ewes School)	52·19	(54·10)	67·25	13·15	+ 24
„	„	Moffat (Ericstane)	52·60	54·97	68·26	13·29	+ 24
XIII.	Selkirk	Galashiels (Abbotsford Road).	31·26	33·82	39·55	5·73	+ 17
„	Berwick	Marchmont House	31·93	34·94	38·49	3·55	+ 10
„	Haddington	Prestonkirk (Smeaton)	24·33	25·72	30·76	5·04	+ 20
„	Edinburgh.....	Pentland Hills (Glencorse) ...	38·93	39·55	49·99	10·44	+ 26
XIV.	Lanark	Airdrie (Hillend Res.)	38·68	37·30	50·26	12·96	+ 35
„	Ayr.....	Girvan (Pinmore)	46·98	48·87	63·25	14·38	+ 29
„	„	Loch Finlas	50·86	(51·70)	77·87	26·17	+ 51
„	„	Kilmarnock (North Craig) ...	42·45	39·46	60·60	21·14	+ 54
„	Renfrew.....	Gorbals W.W. (Waulk Glen)..	49·00	46·91	71·25	24·34	+ 52
XV.	Stirling	Stirling (Polmaise Gardens)...	34·59	35·80	50·84	15·04	+ 42
„	Bute	Rothsay (Barone Cottage) ...	46·35	(47·70)	61·57	13·87	+ 29
„	Argyll	Kintyre (Skipness Castle).....	50·14	49·18	62·51	13·33	+ 27
„	„	Inveraray Castle	78·67	(69·10)	101·42	32·32	+ 47
„	„	Appin (Airds)	55·56	55·90	73·42	17·52	+ 31
„	„	Strontian (Laudale)	68·69	(72·20)	112·22	40·02	+ 55
„	„	Islay (Ardbeg)	43·00	(44·60)	55·91	11·31	+ 25
„	„	Mull (Quinish)	56·30	(57·50)	69·26	11·76	+ 20
XVI.	Kinross	Loch Leven Sluice.....	35·83	36·20	52·19	15·99	+ 44
„	Fife	Kilconquhar (Balcarres)	32·93	(34·90)	41·09	6·19	+ 18
„	Perth	Bridge of Turk	60·56	66·66	88·80	22·14	+ 33
„	„	Balquhider (Stronvar).....	72·98	(74·70)	109·02	34·32	+ 46
„	„	Crieff (Ochertyre).....	39·44	(41·50)	58·95	17·45	+ 42
„	Forfar	Dundee (Eastern Necropolis)..	27·55	28·95	34·65	5·70	+ 20
„	„	Kirriemuir (Lintrathen)	33·03	(35·60)	49·80	14·20	+ 40
„	„	Montrose (Sunnyside Asylum)	26·98	29·16	38·02	8·86	+ 30
XVII.	Aberdeen	Braemar	34·51	36·07	43·91	7·84	+ 22
„	„	Cromar (Tillypronie).....	31·73	30·65	35·38	4·73	+ 15
„	„	Ellon (Mains of Waterton) ...	30·09	30·91	35·07	4·16	+ 13
„	Banff	Keith Station.....	33·84	32·72	38·44	5·72	+ 17
„	Elgin	Grantown	31·69	31·00	35·41	4·41	+ 14
„	Nairn	Nairn (School House)	25·42	(24·60)	29·13	4·53	+ 18

SCOTLAND—(continued)

DIV.	COUNTY.	STATION.	Average, 1890-9.		Average, 1870-99.	Depth in 1903.	Difference from average 1870-99.	
			in.	in.			Amount.	Per cent.
XVIII.	Inverness, West	Loch Shiel (Glenaladale)	108·85	105·29	134·45	29·16	+	28
"	"	Glenquoich	112·44	108·26	151·83	43·57	+	40
"	Ross, West	Strathconan (Dalbreac)	53·62	(50·90)	59·71	8·81	+	17
"	"	Braemore House	64·48	58·56	67·99	9·43	+	16
"	"	Fearn (Lower Pitkerrie)	23·50	23·52	28·84	5·32	+	23
XIX.	Sutherland	Invershin	32·66	32·76	41·69	8·93	+	27
"	"	Dunrobin Castle	32·26	(31·60)	37·31	5·71	+	18
"	Caithness	Watten Station	28·03	(27·40)	34·08	6·68	+	24
"	Orkney	Shapinsay (Balfour Castle) ...	32·74	31·66	39·93	8·27	+	26

IRELAND.

XX.	Cork	Cork (Queen's College)	40·66	(41·28)	54·31	13·03	+	32
"	Kerry	Valencia (Glanleam)	55·30	(55·90)	69·61	13·71	+	25
"	"	Killarney District Asylum ...	55·10	(58·11)	64·64	6·53	+	11
"	Waterford	Waterford (Brook Lodge)	38·56	(39·30)	49·88	10·58	+	27
"	"	Glenam [Clonmel]	40·89	42·17	53·91	11·74	+	28
"	Tipperary	Derry Castle [Killaloe]	47·55	(47·70)	55·78	8·08	+	17
"	Clare	Miltown Malbay	45·31	(44·50)	59·57	15·07	+	34
XXI.	Wexford	Enniscorthy (Ballyhyland) ...	41·45	42·87	57·03	14·16	+	33
"	"	Gorey (Courtown House)	33·62	35·72	40·98	5·26	+	15
"	Wicklow	Bray (Fassaroe)	39·68	40·55	47·89	7·34	+	18
"	Carlow	Carlow (Browne's Hill)	33·65	34·44	44·62	10·18	+	30
"	King's Co.	Parsonstown (Birr Castle)	32·96	33·06	40·93	7·87	+	24
"	Dublin	Dublin (Fitz William Square) ..	27·30	27·75	31·60	3·85	+	14
"	Meath	Moynalty (Westland)	36·67	(37·40)	45·48	8·08	+	22
"	Westmeath	Mullingar (Belvedere)	36·50	(36·50)	48·28	11·78	+	32
XXII.	Galway	Ahascragh (Clonbrock)	39·32	(40·40)	54·34	13·94	+	35
"	"	Clifden (Kylemore Castle) ...	71·03	(72·50)	92·18	19·68	+	27
"	"	Tuam (Gardenfield)	42·18	(41·90)	58·97	17·07	+	41
"	Mayo	Crossmolina (Enniscoe)	52·60	(50·50)	65·29	14·79	+	29
"	Sligo	Collooney (Markree Obs.)	41·27	41·83	53·97	12·14	+	29
XXIII.	Armagh	Armagh Observatory	30·97	31·36	36·29	4·93	+	16
"	Down	Warrenpoint (Summer Hill) ...	36·44	(38·70)	47·16	8·46	+	22
"	"	Seaforde	36·27	38·61	48·69	10·08	+	26
"	"	Banbridge (Milltown)	30·23	31·47	38·30	6·83	+	22
"	"	Donaghadee	30·39	(32·00)	37·86	5·86	+	18
"	Antrim	Belfast (Antrim Road)	35·28	34·57	44·63	10·06	+	29
"	"	Ballymena (Harryville)	39·52	(39·60)	46·82	7·22	+	18
"	"	Bushmills (Dundarave)	36·70	(38·20)	44·06	5·86	+	15
"	Londonderry	Garvagh (Moneydig)	37·95	39·16	46·38	7·22	+	18
"	"	Londonderry (Creggan Res.) ..	41·36	(41·20)	46·92	5·72	+	14
"	Tyrone	Stewartstown (The Square) ...	36·14	(35·10)	44·68	9·58	+	27
"	"	Omagh (Edenfel)	39·66	37·85	54·86	17·01	+	45
"	Donegal	Killybegs	59·87	(59·40)	66·87	7·47	+	13
"	"	Buncrana (Rockfort)	40·24	(41·50)	45·09	3·59	+	9

EXTREMES OF RAINFALL IN 1903.**Greatest Rainfall, at the Styne (B), Cumberland 223·40 in.****Least Rainfall, at Beachy Head, East Sussex 24·16 ,,****ENGLAND.**

GREATEST.		in.	LEAST.		in.
Div.			Div.		
X.	The Styne, B	223·40	II.	Beachy Head	24·16
,,	Stynehead Tarn	194·60	IV.	Cromer	24·20
,,	Sprinkling Tarn	189·30	IX.	Mexborough	24·35
,,	Ullscarf	174·30	III.	Stanground Sluice	24·38
,,	Borrowdale (Seathwaite)...	173·70	IV.	Yarmouth (Ormesby St. Michael)	24·46
,,	Mickleden	173·34	IX.	Rotherham (Ulley Res.) ...	24·50

WALES.

GREATEST.		in.	LEAST.		in.
Div.			Div.		
XI.	Snowdon (Llydaw), No. 12	211·00	XI.	Llandwyn Island.....	27·06
,,	Dolwyddelan (U.Nhadog) No. 2	187·00	,,	Rhyl	34·24
,,	Eigiau Upper, No. 15	160·48	,,	Llanefydd (Rhyl W.W.) ...	34·25
,,	,, Lake, No. 3	148·90	,,	Flint (Highfield, Northop)...	35·48
,,	Dolwyddelan (Tynddol) No. 1	140·42	,,	Rossett (Trevalyn Hall) ...	35·57
,,	Rhiwbryfdir = Oakley Quarries	135·13	,,	Prestatyn (Edlestone House)	35·75

SCOTLAND.

GREATEST.		in.	LEAST.		in.
Div.			Div.		
XVIII.	Ben Nevis Observatory ...	216·75	XVII.	Kinloss	25·91
,,	Glenquoich	151·83	,,	Nairn (Achareidh)	25·94
XV.	Mull (Knock)	139·78	XIII.	Musselburgh (Levenhall) ...	28·01
,,	Ben Lomond	137·80	,,	Edinburgh (George Square).	28·16
XVIII.	Loch Shiel (Glenaladale) ...	134·45	XVII.	Duffus House	28·58
XV.	Glengyle	129·50	XIII.	Drummore [Musselburgh]...	28·77

IRELAND.

GREATEST.		in.	LEAST.		in.
Div.			Div.		
XX.	Mangerton	140·90	XXI.	Kingstown (People's Park) ..	29·28
XXII.	Clifden (Kylemore Castle)...	92·18	,,	Rathmines (Terenure)	30·28
XX.	Gap of Dunloe (Garrymeen)	91·50	,,	Dublin (Fitzwilliam Square)	31·60
,,	Kenmare (Derreen).....	90·99	,,	Rathmines (Leinster Road)	32·19
XXII.	Clifden (Kylemore House)...	87·52	,,	Killiney (Cloneevin)	32·44
,,	Recess Hotel	77·04	,,	Dublin (Phoenix Park)	32·90

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 more than 3 ft. above ground.

GENERAL TABLES
OF
TOTAL RAINFALL IN 1903,
AT NEARLY
4000 STATIONS
IN THE
BRITISH ISLES.

EXPLANATORY NOTE.

The divisions in the General Tables 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.

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 ₧ means that a series of levels has been taken from the gauge to an Ordnance Survey bench mark ; †, that the height has been ascertained approximately from the same source ; ‡, that levels have been taken from the gauge to the sea, or to some non-official datum ; and §, that the altitude has been taken by the barometer.

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Cumberland	270	Lincolnshire	250	Surrey	211
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ENGLAND AND WALES.

DIVISION I.—LONDON.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
NORTH OF THE THAMES.						
D PADDINGTON (Westbourne Grove)	A. P. Baker, Esq.	5	0 9	64 T	35·46	187
D KENSINGTON (V. & A. Museum)	General Festing, F.R.S.	8	0 6	27 T	42·37	196
D „ (Holland House) ...	Mr. C. Dixon	5	4 6	68 T	36·36	183
D „ (Addison Gardens)	G. H. M. Wish, Esq..	5	1 1	23	34·79	177
D „ (Campden Hill) ...	H. F. Rutter, Esq., C.E.	8	4 10	130 T	35·22	167
FULHAM.						
D „ W. Kensington (Edith Rd.)	G. von U. Searle, Esq..	5	0 10	16	35·04	178
D CHelsea (Pumping Station) ...	M Fitzmaurice Esq CMG	8	1 0	19 T	36·53	176
D „ (St. Luke's Gardens) ..	T. W. E. Higgins Esq. CE	5	1 0	25 T	37·52	175
WESTMINSTER (Chester Square).	C. Lethbridge, Esq. ..	5	10 0	...	35·22	195
„ (Spring Gardens) (1)	M Fitzmaurice Esq CMG	8	66 4	95 T	32·97	...
„ („ „) (2)	„ „ „	12	65 11	95 T	34·01	...
„ („ „) (3)	„ „ „	8	6 0	35 T	34·96	...
D „ (Strand)	J. J. Steward, Esq. ...	5	40 0	80	41·60	174
ST. MARYLEBONE.						
D§ „, Regent's Pk (R Botanic Gdns)	J. B. Sowerby, Esq. ...	8	1 0	126 T	38·78	171
„ (Hamilton Terrace)	Miss Cobb	5	0 11	125 T	38·54	196
HAMPSTEAD (Burrard Road)	W. Godden, Esq.	5	1 6	261 T	35·98	...
D „ (Barrow Hill)	H. F. Rutter, Esq., C.E.	5	3 4	196 T	34·96	180
„ (Squire's Mount) ...	The Misses Field	5	1 0	388 T	37·19	...
D† ST. PANCRAS (Camden Square) ...	Dr. H. R. Mill	8	0 8	111 T	38·10	179
† „ („ „) ...	„ „ „	5	1 0	111 T	38·05	...
D† „ („ „) <i>Snow g.</i>	„ „ „	8	3 0	113 T	36·59	162
† „ („ „) <i>float g.</i>	„ „ „	8	0 8	111 T	37·44	...
STOKE NEWINGTON,						
D „ „ (New River Filter Beds)	E. L. Morris, Esq., C.E.	5	1 0	101 T	35·48	164
D „ „ („ „ Reservoirs)	J. Francis, Esq., C.E..	5	4 0	105 T	35·19	178
HACKNEY (Clapton Pond) ..	Norman Scorgie, Esq. CE	8	2 6	70 T	31·49	160
D FINSBURY (New River Head) ...	J. Francis, Esq., C.E. ...	5	3 8	100	33·54	167

DIVISION I.—LONDON.—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
NORTH OF THE THAMES—(con.)						
CITY OF LONDON (Guildhall) ...	D. J. Ross, Esq., C.E..	8	2 6	49 †	38·33	...
" " " (") ...	" " "	8	51 0	98 †	36·26	...
D SHOREDITCH (City Road)	J. Bigwood, Esq., M.P.	5	1 2	...	37·10	163
§ " (Old Street)	Royal Meteorological Soc	5	1 0	70 †	36·84	180
D STEPNEY (Mile End)	J. Metson, Esq.	5	14 0	...	39·31	150
D POPLAR (Isle of Dogs)	M Fitzmaurice Esq CMG	8	1 0	15 †	33·46	172
D " (Old Ford)	W.B. Bryan, Esq., C.E.	8	0 9	19 †	35·51	169
D " (")	M Fitzmaurice Esq CMG	8	1 0	35 †	35·08	157
D WOOLWICH [Barking Outfall]...	" " "	8	0 9	6 †	31·76	189
SOUTH OF THE THAMES.						
LAMBETH.						
D § " West Norwood (Thornlaw Rd.)	W. Marriott, Esq.	5	1 0	221	36·14	189
§ " Brixton (Acre Lane)	Meteorological Council.	8	1 0	77 †	37·95	179
D " (Denmark Hill)	Col. E. P. Maltby	5	1 0	120	38·41	177
D BATTERSEA (Southwark W.W.)	J. W. Restler, Esq., C.E.	5	3 6	21	30·65	155
D " Nine Elms (Heathwall)	M Fitzmaurice Esq CMG	8	37 0	51 †	33·06	172
WANDSWORTH.						
" Streatham (Woodfield Avenue)	F. Jordan, Esq.	5	1 0	120 †	34·77	180
D " Clapham Park (New Park Rd.)	D. W. Horner, Esq. ...	5	1 0	128 †	39·57	187
D " Wimbledon Com. (Richmond Ho.)	E. Rawlings, Esq.	5	1 3	175 †	39·43	194
" (Putney Heath)	H. E. H. Wrinch, Esq. CE	5	1 6	180 †	37·58	187
" Wimbledon Pk. (Woodhouse)	Sir A. E. Bateman ...	5	1 1	150	38·88	177
D § " Wandsworth Com. (Patten Rd)	F. C. Bayard, Esq. ...	5	1 0	100	39·28	181
D CAMBERWELL (Dulwich Wood Pk)	H. V. Caldicott, Esq. ...	5	1 2	276	37·31	188
D " Nunhead (Southwark W.W.)	J. W. Restler, Esq., C.E.	5	4 0	176	29·62	167
D † DEPTFORD (Kent Water Works)	F. C. Bayard, Esq. ...	5	1 0	20	33·01	183
GREENWICH.						
D † " (Deptford Pumping Station)	M Fitzmaurice Esq CMG	10	1 6	15	39·60	170
† " (Royal Observatory)	W. H. M. Christie Esq CB	8	0 5	155 †	35·54	179
D " Blackheath (Eastcombe Villas)	H. K. G. Rogers, Esq..	5	1 1	135 †	34·56	194
" " (Ingleside Grove)	Graham C. Lawson, Esq.	8	5 6	150	33·03	181
LEWISHAM.						
D " Forest Hill (Dartmouth Rd.)	F. C. Bayard, Esq. ...	5	1 0	220	35·21	183
D " " (Barr Beacon) ...	J. W. Restler, Esq., C.E.	5	1 0	344 †	35·25	197
D WOOLWICH, Eltham (Cliefden)..	Miss Yeatman	5	0 11	198 †	35·17	173
" " (Court Rd.)	A. Roberts, Esq. ...	5	1 10	177	35·91	...
D " " (High St.)	F. C. Bayard, Esq. ...	5	1 0	245	36·26	173

DIVISION II.—SOUTH EASTERN COUNTIES.

WEST SURREY.

D	Haslemere (Lower Street)	J. W. Penfold, Esq. ...	8	4 0	481 †	48·20	194
	" (Jesses)	A. F. Parbury, Esq. ...	5	1 0	575 †	46·10	201
D	" (")	" " "	5	0 10	572 †	47·09	200
D	" (Hazelhurst)	T. P. Newman, Esq. ...	5	1 0	550 †	49·46	203
	" (Grayswood Hill) ...	B. E. C. Chambers, Esq.	5	1 0	580 †	45·50	...

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
WEST SURREY—(con.)						
Dunsfold (Durfold)	Miss Billiter	5	1 0	225 T	43·57	...
Chiddingfold (Pickhurst)	Admiral Maclear	5	1 0	250	44·89	...
D " (Beaconscroft)	" "	5	1 0	230 T	46·50	197
Dunsfold Rectory	Rev. W. H. Winn	5	1 0	170	43·23	...
Haslemere (Weycombe)	G.B. Buckton, Esq. FRS.	5	1 0	562 T	43·33	...
Okewood Vicarage	Rev. R. H. B. Simpson	5	0 9	285 T	42·72	...
D Hambledon (Matteryes)	J. Borrowman, Esq.	5	4 6	300	42·44	212
D Witley (Fernside)	Mrs. J. H. Foster	5	1 0	350 T	44·06	191
Hascombe Rectory	Rev. Canon Musgrave	8	1 0	450 T	42·39	...
" (Hall Place)	E. L. Rowcliffe, Esq.	8	1 5	273 T	45·13	164
D Cranleigh Common (Homefield Cott.)	A. F. Jones, Esq.	5	1 2	175 T	43·64	180
" "	W. Welch, Esq.	5	1 0	182 T	46·24	...
§ " (County School)	Royal Meteorological Soc	5	1 0	232 T	42·20	190
D " (Winterfold)	Mr. R. Turvey	8	3 6	603 T	48·12	182
Ewhurst (Malquoits)	W. Webb, Esq.	5	1 6	400	46·98	205
D " (Coneyhurst)	Miss Ewart	8	1 0	561 T	48·07	201
" (Heathside)	J. Sparkes, Esq.	5	1 6	600 T	48·91	...
" (Woolpit)	Mr. H. W. Perrin	5	1 6	600	48·80	...
Abinger (Feldemore)	E. Waterhouse, Esq.	5	3 6	505 T	47·52	190
D " (Joldwynds, Holmbury)	Mr. F. Cornish	5	1 0	536	47·85	191
Bramley (Grafham Grange)	late J. C. McAndrew, Esq	8	1 2	180	42·74	...
D Godalming (Hurtmore Lane)	O. H. Latter, Esq.	5	1 0	310 T	41·79	207
D Wonerish (Shamley Green)	Mr. A. Nash	5	1 0	400	45·93	175
D § Bramley (Cloverlea)	J. Bartlett, Esq.	5	1 2	147	48·74	174
D Godalming (Tilthams)	Col. A. C. Bigg-Wither	5	1 0	130 T	39·93	203
D Abinger Rectory	Miss Brodie Hall	5	1 0	381	48·70	170
D " Hall	Lord Farrer	8	2 0	320 T	48·60	181
Farnham (Crooksbury Ridges)	F. R. Walters, Esq. M. D.	5	1 4	440 T	40·38	...
D " (The Bourne Vicarage)	Rev. T. W. Sidebotham	5	1 0	308 T	40·87	219
D " (Dippen Hall Cottage)	M. Birkbeck, Esq.	5	1 0	345 T	43·55	226
" Castle	Mr. H. Dowding	8	1 0	300	40·70	...
D " (Short Heath Lodge)	Col. G. Chrystie	5	1 0	365 T	42·85	234
D " (Great Down, Seale)	Mrs. Kitchin	8	1 0	470	38·23	168
D Guildford (Piccard's Rough)	H. A. Powell, Esq., M. D.	5	6 0	325 T	40·17	170
D " (Briarfield)	Miss M. E. Swaine	5	2 4	...	39·99	187
D " (Newlands Corner)	Mr. H. Tann	5	1 6	550 T	43·42	199
D " (Hillside)	Miss H. S. Pitman	5	1 0	250 T	41·39	210
D " (Kair, Epsom Road)	Miss Johnston	5	0 11	...	43·07	212
D " (Maori Road)	J. H. Billing, Esq.	5	1 0	230	42·88	187
D " (Craigie, Merrow)	Miss Lomer	5	0 9	250 T	40·48	179
D " (Burpham)	W. H. Burbidge, Esq.	5	0 8	...	42·84	178
D " (Temple Court)	Arthur H. Bowles, Esq.	8	4 0	264 T	43·61	173
High Clandon	F. B. Eastwood, Esq.	5	0 6	500 T	43·37	...
Horsley West	J. E. Fisher, Esq.	7	0 6	240	47·25	160
D " Towers	Capt. Hon L F King-Noel	8	1 2	285 T	48·27	169
" (Woodcote Lodge)	Sir H. E. Roscoe, F. R. S.	5	0 6	650	51·32	...
D § Pirbright Camp	Q.-M.-Sergt. Elwick	5	1 0	201 T	38·52	178
D Frimley Green	F. W. Talbot, Esq.	5	8 0	220 T	34·69	155

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which .01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
WEST SURREY—(con.)						
Frimley Green (Ridgemount)	C. C. Haviland, Esq....	5	0 9	350	42·17	220
D Woking	Rev. F. Wilson	5	0 8	78 T	40·52	170
D Pyrford (Pyrford Croft)	H. W. Page Phillips, Esq.	5	1 6	...	44·83	196
D Horsell (Lindisaye)	H. Horncastle, Esq.	5	4 2	120 T	40·04	177
" (")	"	5	0 9	120 T	39·98	...
" (Kettlewell Hill)	Claude Marzetti, Esq....	6	0 9	115	40·56	...
D Camberley (Park Road)	Mr. J. Bryan.....	5	1 0	255 B	38·69	197
D Chobham (The Elms)	Mrs. Brown	5	2 3	98	45·26	183
Chertsey (Ottershaw)	R. H. Otter, Esq.	5	1 0	200 T	37·76	192
D Bagshot (Hall Grove)	Mr. W. Burgess.....	8	1 0	229 T	41·28	201
Chertsey (Long Cross)	F. A. Baker, Esq.....	5	3 0	200 T	36·34	...
D Windlesham (Erlwood).....	E. S. Currey, Esq.	5	1 0	216 T	41·90	202
D " (Westwood).....	Col. G. A. Curzon	5	1 0	300 T	40·20	180
Weybridge (Heath Field).....	Miss A. T. Gardiner ..	5	1 0	52	38·18	185
D " (West Oaks)	A. Whittet, Esq.	5	1 0	36 T	36·43	179
D " (St. Mary's Lodge) ..	W. Talbot Agar, Esq....	5	4 6	100	38·60	194
D "	Maj.-Gen. Battersby ...	5	0 10	40	36·74	172
D Virginia Water (Lyne Grove) ...	T. J. Hare, Esq.	5	0 11	150 T	39·34	205
D " " (St. Ann's Heath) ..	Rev. J. Peck	8	1 1	120	38·14	180
EAST SURREY.						
D Lyden Croft [Edenbridge]	Surg.-Gen. C. Planck ..	8	0 8	212 T	40·36	188
Dorking (Fir Tor)	F. Taylor, Esq.	5	1 0	260	45·50	...
D " (Rose Hill)	H. Belfield, Esq.	5	1 3	250	46·19	191
D " (High Street)	Mr. J. Beetham Wilson	5	0 7	235 T	47·16	174
" (West Street)	Mrs. W. A. Marsh.....	8	26 0	224 T	41·60	170
D " (Denbies)	Mr. J. Beesley	5	0 9	610 T	50·04	174
Brockham (North Lodge)	H. R. Kempe, Esq.	8	0 9	160 T	42·08	...
D Reigate (Hartswood).....	R. W. Clutton, Esq....	5	1 0	174	37·70	215
D " (Woodhatch Lodge) ..	C. B. Haywood, Esq....	5	1 0	270 T	37·88	182
D " (Ringley Mead)	R. L. Hesketh, Esq.	5	1 0	345 T	41·98	214
Earlswood (Sewage Farm)	F. T. Clayton, Esq., C.E.	8	1 0	196 T	39·93	173
" (Hooley Lane)	Mr. E. A. Sturdy	5	1 3	...	42·48	...
Red Hill (Hurstleigh)	Mrs. Stephenson.....	5	1 0	300	42·18	...
D " " (Oxford Road)	late W. H. Tyndall, Esq.	8	1 0	300 T	40·99	195
Reigate (Aldersyde)	H. Rosling, Esq.	5	1 2	...	42·37	190
" (Holmfels)	T. Jackson, Esq.	5	1 2	200 T	41·88	184
" (Wray Lodge)	A. Rosling, Esq.	8	1 0	316 T	41·31	182
" (Northcote)	F. C. Pawle, Esq.	5	1 0	360	43·45	193
" (Castle Grounds)	F. T. Clayton, Esq., C.E.	5	1 6	350 T	42·77	186
D " (Leith Cottage).....	Miss Pym	5	1 0	300 T	43·48	197
" (Laglands)	J. Welch, Esq.	5	1 2	375 T	43·40	189
D " (Nutwood).....	H. E. Gurney, Esq.	5	0 9	440 T	40·82	197
D Nutfield Priory	Mrs. Fielden	8	1 2	468 T	40·07	202
" "	Mr. J. Moffat	8	1 2	431 T	41·49	198
D " (Holmesdale)	C. T. Maw, Esq.	8	2 0	500 T	39·48	204
D Betchworth (Sandhills).....	C. J. Whittington, Esq.	8	3 0	250 T	41·02	172
D " (The Holmes) ..	F. R. Rushton, Esq....	5	0 8	322 T	46·42	197

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
EAST SURREY—(con.)						
Reigate (Hatherlow Observatory)	S. T. Klein, Esq.	5	0 9	405	40·86	204
Dorking (High Ashurst)	Mr. G. Bond	5	3 0	550	44·37	...
Merstham (Rockshaw)	F. C. Bayard, Esq.	5	1 0	475	42·76	195
„ (Harp's Oak Cottage)	„ „ „	5	1 0	454	43·38	199
Upper Gatton	F. Druce, Esq.	5	1 0	601	45·25	204
Leatherhead (Downside)	A. Tate, Esq.	5	1 0	250	45·97	...
Chaldon Rectory	F. C. Bayard, Esq.	5	1 0	542	43·91	172
Chipstead (Shabden Park)	„ „ „	5	1 0	550	45·31	202
Caterham Asylum	Dr. P. E. Campbell	5	1 0	610	46·78	204
„ Valley (Bradenhurst)	Henry Haes, Esq.	5	1 0	510	46·26	189
Kenley (Hazelea)	Mrs. Carr Dyer	8	1 0	281	42·09	212
Warlingham (Egremont)	H. Rogers, Esq.	5	1 0	614	46·65	190
Ashted (D'Abernon Chase)	Sir W. Vincent, Bart.	5	1 0	280	42·48	176
Cobham (Hatchford)	W. M. Chinnery, Esq.	8	1 0	170	42·49	181
Oxshott	W. H. Dines, Esq.	5	1 0	206	39·63	175
Banstead (Burgh Heath Reservoir)	W Vaux Graham Esq CE	5	1 0	570	48·56	...
„ (The Hall)	F. C. Bayard, Esq.	8	1 0	488	46·15	175
„ (Benhilton)	„ „ „	5	1 3	125	37·51	183
Chelsham (Fairchildes)	A. S. Daniell, Esq.	8	1 0	600	43·11	...
„ „ „	Mr. G. Mansfield	5	0 10	600	43·09	...
Epsom (Water Works)	W Vaux Graham Esq CE	5	3 1	149	39·60	160
Sanderstead (Red House)	F. C. Bayard, Esq.	5	1 0	320	40·14	197
Esher (Sewage Works)	„ „ „	5	1 0	42	34·66	195
Addington (Hares Bank)	„ „ „	8	1 0	331	40·83	186
„ (Park Farm)	„ „ „	5	1 0	268	43·49	189
„ Hills	„ „ „	8	0 9	473	39·27	205
Wallington (Cotswold)	„ „ „	5	4 1	140	42·64	193
Sutton (Sewage Works)	C. C. Smith, Esq., C.E.	8	1 0	94	37·64	190
„ (Water Works)	W Vaux Graham Esq CE	5	1 0	157	39·40	189
Carshalton (Sewage Works)	Baldwin Latham Esq CE	5	1 0	118	44·06	164
Beddington (Riverside)	Royal Meteorological Soc	5	1 0	120	40·34	185
Croydon (Duppas House)	Baldwin Latham Esq CE	5	1 0	158	38·74	190
„ (Waddon New Road)	G. Corden, Esq.	5	1 0	146	40·39	188
„ (Brimstone Sew. Works)	F. C. Bayard, Esq.	5	1 0	130	38·28	162
„ (Park Hill Rise)	H. F. Parsons, Esq., M.D.	5	1 3	240	37·84	191
„ (Windmill Road)	A. Malden, Esq.	5	1 6	174	37·41	181
„ (Ashburton Road)	J. E. Clark, Esq.	5	1 0	188	39·04	197
Worcester Park (Parkside)	A. V. Pott, Esq.	5	1 0	80	38·95	181
„ „ (Manor Lodge)	F. C. Bayard, Esq.	5	1 9	120	37·50	177
Beddington Corner (Millgreen Rd)	„ „ „	5	5 0	77	42·47	167
New Malden (Sewage Works)	„ „ „	5	1 0	45	30·87?	158
Morden (Steel Hawes)	Miss R. Hames	5	1 7	97	35·42	186
Thames Ditton (Weston Green)	Mr. T. H. Potter	8	1 0	35	36·28	195
Surbiton (Seething Wells)	H. E. H. Wrinch Esq. CE	10	0 6	34	35·14	168
„ (Vronvelin)	F. J. Barclay, Esq.	5	1 0	50	36·64	183
South Norwood (Woodvale)	F. C. Bayard, Esq.	5	1 0	216	37·56	187
West Molesey	H. E. H. Wrinch Esq. CE	5	1 0	32	35·19	174
Kingston (County Hall)	E. Underwood, Esq.	5	0 9	31	36·82	169

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which .01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	1903 inches.	
EAST SURREY—(con.)						
D Kingston Sewage Works	F. C. Bayard, Esq. ...	5	1 0	25	38.91	184
D „ (Union Street)	Mr. T. Davis	8	3 0	...	35.73	167
D Anerley (Town Hall)	F. C. Bayard, Esq. ...	8	40 0	191	26.13	164
D Wimbledon (Raynes Park)	C. H. Cooper, Esq., C.E.	5	1 0	50	36.54	202
D „ (Sewage Works).....	„ „ „	5	1 3	55	35.89	178
D „ (The Downs).....	F. C. Bayard, Esq.....	5	1 1	162	36.47	191
D „ (The Windmill).....	„ „ „	5	1 0	172	37.24	205
D „ Common(The Priory).....	H. J. Hunt, Esq.	5	0 6	...	35.13	...
Upper Norwood (Fox Hill Gdns.)	W. H. R. Ryves, Esq..	5	0 9	300	35.56	...
D Richmond (The Terrace)	F. C. Bayard, Esq. ...	8	1 6	109	36.12	179
D „ (The Old Palace).....	Rev. A. Welsh Owen.	9	0 9	...	37.67	...
D† „ (Kew Observatory) ...	Dr. C. Chree, F.R.S. ...	11	1 9	19	38.18	195
WEST KENT.						
D Hawkhurst (Sandhurst Rectory)	Rev. G. Ridout	5	1 3	208	37.58	194
Tenterden (Summerhill)	Mrs. Wilkin	8	1 0	149	33.37	195
„ „ „	„ „ „	5	1 0	150	34.88	195
Benenden (Pullington)	Major H. Neve	5	1 0	330	37.54	188
D „ (East End)	J. Ellis Mace, Esq.....	8	1 2	193	35.09	180
D§ Tenterden	„ „ „	8	1 5	190	32.65	197
D§ „	„ „ „	8	1 5	190	32.40	190
D „ (West Cross)	J. Munn Mace, Esq. ...	5	1 0	170	33.06	167
„ (Little Westwell) ..	Mrs. Hilder ..	5	1 0	140	32.21	...
„ (Ashbourne Mills) ..	A. Pinyon, Esq.....	5	1 6	45	33.72	...
D Woodchurch	Rev. A. Welch	5	5 0	107	34.75	151
Cranbrook (Swattenden)	Miss Appach	8	1 2	350	37.22	176
„ (Hartley)	G. Pile, Esq.	5	4 0	405	36.81	...
„ „ „	„ „ „	5	1 0	290	39.08	197
Biddenden (Sandpit Wood)	J. Ellis Mace, Esq.....	5	1 0	222	35.29	...
Goudhurst (Scotney Castle)	E. W. Hussey, Esq....	5	4 4	203	36.87	...
D „ Vicarage	Rev. J. S. Clarke	5	1 1	412	33.69	205
„ (Maypole).....	G. Parker Hinds, Esq..	8	1 8	419	37.18	179
D Cranbrook (Camden Lodge)	Mr. A. Habbitts.....	5	1 0	276	37.94	181
D Ashford (Bethersden)	W. H. Mold, Esq.....	5	4 0	111	32.89	182
D Tunbridge Wells (Langton Green)	W. L. Sutton, Esq. ...	5	1 0	430	36.73	178
§ „ „ (Bredbury) ..	F. G. Smart, Esq.....	5	1 0	416	42.41	193
D „ „ (Didmarton) ...	E. Weldon, Esq.	8	5 6	378	38.52	177
„ „ (Ivy Chimneys).....	Norman W. Grieve, Esq.	8	1 0	280	37.59	...
D† Speldhurst Rectory	Rev. D. D. MacKinnon	5	1 0	320	35.19	184
D „ (Harwarton)	A. Griffith-Boscawen, Esq. MP	8	1 4	310	39.73	161
D† „ (Etherton Hill).....	E. W. Winton, Esq....	5	1 5	288	42.19	184
D Tunbridge Wells (Pembury).....	W. H. Maxwell, Esq. C.E.	8	1 8	181	38.17	172
Tonbridge (Colebrooke)	W. A. Smith, Esq.....	5	0 10	350	39.03	179
„ „ „ (Snowdon)	„ „ „	5	1 0	350	37.92	179
Staplehurst (Pagehurst Farm)...	J. Norris, Esq.	5	1 4	310	41.12	189
D Chiddingstone Rectory	Rev. J. T. Pearse	5	1 0	170	37.01	186
Tonbridge (Penshurst Place) ..	Lord De Lisle.....	5	1 0	...	38.40	...
D „ „ (Park) ...	Mr. J. M. Sturgess ...	5	0 4	265	38.64	199
„ „ (Mabledon Park).....	J. F. W. Deacon, Esq.	5	1 2	...	35.88	...

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in.	feet.	inches.	
WEST KENT—(con.)						
D Tonbridge (Primrose Hill)	G. J. Kimmins, Esq....	5	0 10	175 A	38·91	183
D „ (Beech Hurst)	W. C. Punnett, Esq....	5	1 6	102 A	38·12	170
„ { „ „ } Snowdon	„ „ „ „ ..	5	1 6	102 A	38·01	170
„ { „ „ } M	„ „ „ „ ..	8	4 0	105 A	38·42	...
D Ashford (Westwell Vicarage) ...	Rev. H. H. D'Ombrain	5	1 0	272	34·77	162
D Edenbridge (Falconhurst)	Rt. Hon. J. G. Talbot, MP	5	0 6	350	41·63	178
D Hadlow	F. W. E. Shrivell, Esq.	5	1 0	100	36·18	201
D Ulcombe Place	A. O. Walker, Esq. ...	5	1 0	350 T	34·81	172
D Maidstone (Linton Park)	Mr. C. Pratt	5	0 8	...	35·32	173
D „ (Rumwood, Langley)	Mr. W. J. Gould	5	1 9	...	37·41	195
D „ (Lower Tovil)	Lawrence Green, Esq..	5	1 0	30 L	30·38	173
D „ (W.W., Barming) ...	W. J. Ware, Esq., C.E.	8	1 0	30 A	33·77	160
„ (Long Rede, „) ...	Rev. T. W. Carr	8	3 2	280 T	33·99	158
D „ (The Vicarage)	the late Rev. Canon Joy	8	1 6	46	35·33	180
D „	T. F. Bunting, Esq., C.E.	8	8 0	31 T	37·56	167
D East Malling (Broadwater)	C. B. Mercer, Esq. ...	5	1 6	169	37·42	195
D West Malling (St. Leonards) ...	G. Phillips, Esq.	5	1 0	...	38·56	176
D Detling (The Croft)	R. Cooke, Esq.	5	1 2	330 T	38·37	225
Maidstone (Allington)	Messrs. G. Bunyard & Co.	5	1 4	150 B	35·55	...
D Westerham (The Fishponds) ...	F. C. Bayard, Esq. ...	5	1 0	380	42·84	169
D „ Hill Estate	„ „ „ „ ..	5	1 0	539	42·78	179
D† Sevenoaks (River Hill)	Major J. M. Rogers ...	8	4 0	535	37·00	176
„ (Plaxtol)	H. Stonham, Esq. ....	...	...	...	34·80	...
„ (Bitchet Wood)	Admiral G. S. Bosanquet	5	1 0	580	39·24	...
„ (The Rectory)	Rev. T. S. Curteis....	5	1 0	497	38·81	...
„ (St. John's Hill)	W. W. Wagstaffe, Esq.	5	1 10	380	41·92	187
D† „ (Riverhead Vic.)	late Rev. Canon Burn Murdoch	5	0 6	300 T	37·98	159
D „ (Chevening Gardens)	Mr. C. Sutton	5	1 0	360	46·17	187
D Ightham (Belmont Lodge)	Burleigh D. Kilburn Esq	5	1 4	380	41·24	193
† Knockholt (Kent Waterworks) ..	F. C. Bayard, Esq. ...	5	24 6	812	34·38	...
„ („ „)	„ „ „ „ ..	5	1 0	785	43·93	...
D Ash (Pettings House)	C. J. G. Hulkes, Esq...	5	1 0	540 T	40·69	186
D West Wickham (Wickham Court) ..	F. C. Bayard, Esq. ...	5	1 2	300	40·26	166
D Hayes (Hayes Place)	„ „ „ „ ..	8	1 0	350	39·89	174
D† Orpington (Kent Waterworks) ...	„ „ „ „ ..	5	1 0	220	37·51	168
D Farningham Hill	„ „ „ „ ..	5	3 0	300	40·03	196
D „ (Mount Pleasant) ...	Allanson Bailey, Esq...	5	1 0	200	40·20	211
Chatham (Luton W.W.)	W. Coles Finch, Esq....	5	3 0	88 A	32·52	173
§ „	Meteorological Council.	8	1 3	137	35·20	167
Meopham	Jesse Garratt, Esq. ...	5	1 1	290	36·11	...
D Rochester (Knights Place)	J. Pye, Esq.	5	3 0	320	36·53	202
Strood Water Works	W. Banks, Esq., C.E..	5	3 0	112	31·57	177
D Frindsbury (The Shrubbery) ...	Warwick Stunt, Esq...	5	3 0	80	30·56	165
„ (Manor Farm)	F. Baker, Esq.	5	1 0	100	32·12	...
D Bromley Common (Elmfield) ...	Rev. J. P. Faunthorpe..	5	0 9	235 A	37·69	184
Bickley (The High Field)	J. Batten, Esq.	5	1 2	295	38·79	184
D Bromley (The Palace)	F. C. Bayard, Esq. ...	5	1 0	187	37·62	188
D „ (Widmore Road)	Miss Scott	5	1 0	230	34·38	169

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which "01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
WEST KENT—(con.)						
Chislehurst (Foxbury)	H. F. Tiarks, Esq.	8	4 6	250	37·97	213
„ (Hawkwood)	F. C. Bayard, Esq.	5	1 0	300	36·49	166
Southfleet (Kent Waterworks) ...	„ „ „ „ ..	5	1 0	82	34·75	191
Wilmington („ „ „ „) ...	„ „ „ „ ..	5	1 0	25	33·82	172
Sidecup (Hatherley Road)	Dr. L. Burrell „	5	1 2	170 T	38·96	191
„ (Park Road)	S. A. Sharman, Esq.	5	1 0	230	37·35	181
Beckenham (Wickham Road) ...	E. Scovell, Esq.	5	1 2	156 T	36·71	191
Dartford (West Hill House)	F. C. Bayard, Esq. ...	5	1 3	100	34·52	139
Higham (Oakleigh)	C. Lake, Esq.	8	1 2	25	28·95	142
Greenhithe (H.M.S. Worcester). ..	Capt. D. Wilson-Barker	5	...	36	25·75?	...
Cooling (Broomy Farm)	Mr. J. Filmer	5	1 0	10	31·68	165
Hoo St. Mary	H. Pye, Esq., Junr. ...	5	5 6	146 T	30·30	188
Cliffe Lodge	E. W. Wood, Esq.	5	1 0	30	34·09	174
Erith (Crossness)	MFitzmaurice EsqCMG	14	0 6	16 T	32·72	166
EAST KENT.						
§Dungeness	Meteorological Council.	8	1 3	75 T	25·26	199
§Littlestone-on-Sea	„ „ „ „ ..	8	1 0	...	27·38	181
Dymchurch Rectory	Rev. C. E. Plater „	8	1 6	5	29·86	...
Hythe	Messrs. Mackeson & Co.	8	0 7	12 T	34·73	199
„ (Hillcrest Road)	J. B. Jordan, Esq.	5	1 0	190 T	32·86	208
„ (Sandling Park)	Lawrence Hardy EsqMP	8	1 0	268	38·89	197
„ (Hillhurst Farm)	G. F. Deedes, Esq. ...	5	1 6	280 T	38·14	221
Sandgate	A. R. Bowles, Esq., C.E.	5	1 0	52 T	31·98	186
§Folkestone (Sanatorium)	M. Yunge Bateman, Esq.	5	1 0	101 T	35·35	189
„ (Limes Road)	J. Duncan Walker, Esq.	...	...	...	36·21	206
„ (Radnor Park)	J. W. Stainer, Esq. ...	5	4 8	129 T	33·80	178
„ (Cherry Gardens) ...	H. Turner, Esq.	5	1 6	230 T	37·81	202
„ (Capel Lodge)	E. Norton, Esq., M.D..	5	1 0	470 T	36·67	190
„ (Lower Standen, Capel)	H. Turner, Esq.	5	2 11	250	35·97	196
Hythe (Paddlesworth)	Mrs. Dixon	8	1 0	612 T	57·98	...
Lyminge (Greenham)	Guy G. Croft, Esq. ...	5	1 0	360 T	40·29	...
Dover (Water Works)	H. E. Stilgoe, Esq., C.E.	5	1 6	200 T	37·97	188
Kearsney (Chilton Farm)	„ „ „ „ ..	5	1 6	127 T	41·93	173
„ Abbey	C. W. Curtis, Esq. ...	5	1 0	94 T	44·00	...
Ashford (Beavor Green)	T. Nickalls, Esq. ...	5	1 0	155 T	33·19	175
Deal and Walmer W. W.	A. Mantle, Esq.	12	1 0	110 T	37·19	...
„ „ „ „ „	„ „ „ „ „ ..	5	1 0	110 T	37·48	177
Wye (Bilting House)	Mr. A. H. Briggs	5	1 3	158	42·18	190
Deal (Sewage Works)	Baldwin Latham EsqCE	5	1 0	11 T	40·25	218
Eastry (Great Walton)	W. V. Lister, Esq. ...	5	1 0	25 T	34·08	177
Sandwich (Word)	W. Elvin Napier, Esq..	5	1 0	32	35·21	183
Sheldwich	Rev. B. S. Malden	5	1 0	249 T	41·15	191
Selling (Harefield)	S. Neame, Esq.	5	4 0	219 B	40·89	190
Sandwich (St. George's Golf Club)	W. Ryder Richardson Esq	...	1 1	...	32·15	190
Canterbury (Irrigation Works)..	C. Terry, Esq., C.E. ...	5	3 3	15 T	33·65	181
Sittingbourne (Sharsted Court).	A. J. Rayfield, Esq. ...	5	1 6	277 T	35·17	155
Ospringe (Lorenden)	W. C. Stunt, Esq. ...	5	1 2	180 B	34·45	155

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
EAST KENT—(con.)						
D Ramsgate (Thyra Villas)	late E. J. Bentley, Esq.	5	0 6	...	31·61	184
D Broadstairs	P. Johncock, Esq.	5	0 7	55	34·91	180
Herne Bay (Eddington)	Miss Hawksworth	5	1 0	4 ?	33·36	...
„ „ (Water Works)	J. W. Thorp, Esq.	5	0 6	122 T	30·40	...
D Reculver	Allington Collard, Esq.	5	5 2	27 T	29·60	174
D St. Peter's	Rev. H. C. V. Snowden	5	0 9	140 T	32·37	182
D Margate (Westlands)	J. Stokes, Esq.	5	1 0	55	26·92	182
Kingsgate (White Ness)	Mr. R. Silk	5	3 6	98 L	31·08	165
D Leysdown (Newhouse)	C. A. Till, Esq.	5	1 2	50	32·16	175
WEST SUSSEX.						
§ Bognor	Royal Meteorological Soc	8	1 0	14	32·68	199
D „ (Lidsey Lodge)	H. Neale, Esq.	8	1 2	...	35·43	168
Littlehampton (Surrey House)...	A. J. White, Esq.	5	1 8	20 T	30·41	...
„ (Dorset House)	G. H. Beecheno, Esq. ...	12	2 0	30	31·20	...
§ Worthing (Ellesmere)	late C. Kelly, Esq., M.D.	5	1 0	26 T	32·03	...
§ „ (Corporation Obs.) ..	„ „ „ „ „ „ „ „ „ „	8	1 0	34	32·17	189
West Thorney	H. Padwick, Esq.	5	1 0	23 T	36·09	...
D Arundel (Yapton)	W. A. Hounsom, Esq. ..	5	1 0	24 T	33·05	167
„ („ Drove Farm). ..	„ „ „ „ „ „ „ „ „ „	5	1 0	14 T	29·98	164
Angmering	Rev. J. B. Örne	5	1 3	44	31·68	...
Tortington	J. A. Travers, Esq. ...	14	1 6	25 T	37·95	...
D Chichester (Sewage Works)	Baldwin Latham Esq CE	5	1 0	10 T	39·88	175
D „ (Westgate Meadow)...	G. A. Tyacke, Esq. ...	8	0 6	40	37·59	187
D Arundel (Clapham Rectory) ...	Rev. A. H. S. Barwell	5	1 0	150 T	37·07	193
„ (Patching)	J. Drewitt, Esq.	5	1 0	180	38·04	180
D „ („)	Mrs. Joad	5	0 10	130 T	38·06	213
D „ (Warningcamp)	C. A. Crafer, Esq.	5	1 0	25	43·23	192
D West Bourne [Emsworth]	Rev. L. B. Birkett	5	0 8	50 T	41·20	188
D Funtington	J. A. Greenwood, Esq.	5	1 0	95 T	41·53	178
D West Stoke Rectory	Rev. W. F. Shaw	5	1 0	176 T	43·84	172
D Steyning	Col. Ingram	5	1 0	80 T	39·48	169
„ (Crescent Road)	Mr. H. J. Hide	5	1 0	80 T	40·43	180
Chichester (Forest Side Vic.) ...	Mrs. J. C. Parson	5	1 0	341	44·81	...
D „ (Watergate)	W. M. Christy, Esq. ...	5	1 0	236 T	45·55	192
„ (West Dean Park) ...	Mr. W. H. Smith	10	1 6	190	47·74	...
„ (Chilgrove)	J. W. Woods, Esq. ...	5	0 6	284 T	49·53	...
D Compton [Petersfield]	Rev. H. M. Langdale ...	5	1 0	255 T	47·55	170
Petworth Park	Mr. E. W. Pull	5	1 0	182	44·81	164
Cowfold (The Laurels)	Mr. S. Ford	5	1 6	373	33·19	...
Midhurst (Lynch Farm)	G. Eames, Esq.	5	0 8	160 T	48·31	166
D „ (St. Ann's)	Maj.-Gen. Paxton	8	1 8	120 T	43·64	180
D „ (Borden Wood)	E. Lamb, Esq.	8	1 0	260 T	47·20	205
„ (Hollycombe)	J. C. Hawkshaw, Esq. ..	8	6 6	550	51·04	...
Billingshurst (Hawkhurst Court)	B. de F. Osmaston, Esq	5	1 0	120	38·36	...
D Horsham (Denne Park)	Mr. H. Harris	5	4 0	240 T	38·93	173
Slinfold (Rapkyns)	W. Duncan Knight, Esq.	5	1 0	170	37·19	164
Fernhurst (Blackdown House)...	F. Philipson Stow, Esq.	5	1 10	488 T	46·38	...
D Horsham (Selehurst)	W. E. Hubbard, Esq. ..	5	1 0	305	41·56	186

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
WEST SUSSEX—(con.)						
Horsham (Manor House)	H. Padwick, Esq.	8	0 10	140 †	43·04	173
D „ (Richmond Road)	M. L. Craven, Esq. ...	5	1 2	170	40·83	205
D „ (Wimblehurst)	Miss F. E. Allcard ...	5	1 0	200 †	38·82	201
Lynchmere (Shottermill)	Rev. C. Holland.....	5	4 0	400	53·24	...
Crawley	A. Thomson, Esq.	5	1 0	230	38·27	...
EAST SUSSEX.						
+Beachy Head	Miss Brodie Hall.....	5	1 0	515 †	24·16	...
East Dean (Hill Side)	E. N. Smith, Esq.	5	1 0	250 †	29·50	151
+Eastbourne (Wilmington Square)	R. Sheward, Esq.	8	0 6	39	32·92	186
„ (Burlington Place) ..	Miss K. A. Orr	5	0 10	20	30·63	183
D § „ (Osborne House) ...	Miss Hood	5	1 0	12 †	32·25	178
D „ (Glenthorne)	Miss Woodd	8	1 6	86 †	33·42	196
„ (Arundel Road)	J. C. Wright, Esq.....	5	0 4	70	34·98	...
D „ (Cemetery)	Miss Brodie Hall	5	4 0	160 †	31·23	166
„ (Staveley Cross) ...	J. Weston, Esq.	5	1 6	110 †	30·65	...
Jevington (Church Farm)	E. C. Stileman, Esq., C.E.	8	0 9	261 †	33·97	...
D Litlington (Plough & Harrow Inn)	„ „ „	8	1 0	19 †	35·28	164
D Willingdon (Hill Cottage) ...	„ „ „	8	1 0	599 †	34·27	164
D § Brighton (Old Steine)	A. Newsholme, Esq., MD	5	1 0	32 †	33·03	187
D „ (W. W. Goldstone Bottm)	J. Johnston, Esq., C.E.	8	0 7	140 †	30·98	173
D „ („ Lewes Road)...	„ „ „	8	3 6	88 †	35·29	180
D „ („ Upper Portslade)	„ „ „	8	1 3	167 †	34·55	162
D „ („ Patcham)	„ „ „	5	1 6	207 †	38·34	185
D „ („ Race Hill) ...	„ „ „	8	1 0	466 †	36·29	181
Bexhill (The Grange)	Miss A. Scrivens	8	4 0	143 †	28·63	...
§ St. Leonards (West Marina) ...	H. Colborne, Esq.....	8	1 0	21 †	32·10	188
§ „ „ (Gensing Gardens).	„ „ „	8	1 0	179 †	32·30	196
D Polegate (Alciston)	R. Matthews, Esq.....	5	1 4	172	39·61	209
D Hailsham	Rev. F. Clyde Harvey..	5	1 0	105	37·90	164
D Falmer	R. R. Verrall, Esq. ...	5	3 0	312 †	38·80	203
D Lewes (Fairhall, Southover)	Miss Mathew	5	1 0	45	39·96	186
D „ (Bedford Lodge).....	Mrs. Kemp	5	1 0	85 †	34·59	204
D „ (Saxonbury)	A. Hillman, Esq.	5	1 0	75 †	38·08	192
Hailsham (Magham Down)	W. Bede, Esq. ....	...	...	100	37·16	181
D Ringmer (Downlands)	R. R. Davis, Esq.	5	0 8	120	38·95	174
D Hastings	P. H. Palmer, Esq., CE	10	5 6	240	32·02	170
„ (Filsham Res.)	„ „ „	5	0 10	91	33·13	174
„ (Halton Res.)	„ „ „	5	0 10	301	32·02	170
„ (Fairlight Res.)	„ „ „	5	0 10	510	34·17	168
„ (High Beech Hollington)	Miss Lewis	5	1 0	320 †	34·32	183
D „ (Guestling Rectory) ...	Rev. E. N. Bloomfield.	5	1 5	125 †	34·11	177
D Hassocks (Pyecombe)	Mr. F. S. Mitchell	5	0 7	392	41·37	183
Clayton Rectory.....	Rev. T. H. R. Shand...	5	1 6	201 †	42·58	182
Hurstpierpoint (Danny Park) ...	Mr. J. Bunney	8	1 3	180	47·08	...
D Winchelsea (The Friars)	Major R. C. Stileman..	5	1 2	115 †	27·61	158
D Battle (Whatlington)	Miss H. Gripper.....	5	1 3	90 †	33·75	172

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which 101 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
EAST SUSSEX—(con)						
Udimore (The Hammonds)	J.G.Mair-Rumley, Esq.	8	1 0	144 ∇	28·08	159
Playden (East Guldeford Lane).	G. Pile, Esq.	5	1 0	...	30·81	...
d Burgess Hill (Silverdale Road) .	F. H. Phillips, Esq. ...	8	0 10	162 ∇	37·98	196
„ „ (Ote Hall).....	Mrs. Woods	5	1 6	...	40·48	...
d Heathfield (Summerlands)	Dr. A. Brown.....	5	1 0	500 ∇	41·50	187
d „ (Tottingworth Park).	Mr. J. Masson.....	5	1 0	500 ∇	42·88	181
Cuckfield (Bolney Vicarage) ...	Rev.T. Austen Holcroft	5	0 11	...	39·26	...
d Uckfield (Sheffield Park) ...	Mr. W. T. Moore	5	1 0	...	35·17	180
d Haywards Heath (Abbots Leigh)	Mr. R. Inglis.....	5	1 0	190	39·92	180
„ „ Asylum	The Medical Supt.....	5	1 1	281	37·29	...
d Bodiam Station (Ewhurst Rec.)..	Rev. W. Marshall	5	1 1	135	35·66	175
d Robertsbridge (Salehurst Vic.)..	Rev. E. J. Sing	5	0 9	110 ∇	40·02	199
d Buxted Park	Mr. H. C. Prinsep.....	8	1 0	94	37·83	179
„ (Strawberry Hall).....	C. Rintoul, Esq.....	5	1 0	180	37·04	160
d Maresfield (Forest Lodge).....	the late Capt.W. Noble	8	1 2	247 ∇	38·21	194
§ Cuckfield (Workhouse)	Meteorological Council.	...	1 0	389	35·62	164
d Lindfield (Wood Knoll)	L. Weedon, Esq.	5	1 0	188 ∇	38·94	210
Etchingham (Shoyswell Manor).	I. Seligman, Esq.	4	3 0	320	38·28	...
Bodiam (South Park)	L. M. Jackson, Esq. ...	5	1 1	208	37·61	...
d Nutley Vicarage	Rev. H. J. Peckham ...	5	1 0	386 ∇	38·01	195
d „ (The Hall)	Miss Cook	5	0 10	417	37·00	189
„ (Chelwood Beacon)	H. Clarke Jervoise, Esq.	5	1 3	530 ∇	41·54	172
Handcross (The Warren)	Leicester M Reed, Esq.	5	0 10	430 ∇	40·61	...
d Crowborough (Jarvis Brook).....	Crowborough Water Co.	5	1 0	325 ∇	44·92	207
d „ (Beechcroft)	R. L. de Zoete, Esq. ...	5	0 11	750	46·43	186
d „ (Uckfield Lodge)...	J. J. S. Driberg, Esq... 8	1 0	796 ∇	45·68	204	
d Haywards Heath (Brook House)	H. R. G. Clarke, Esq..	5	1 0	220	39·35	169
d Balcombe (The Gables)	Mr. G. J. Warren	8	1 3	352	42·30	198
Ticehurst House.....	Mr. J. D. Jordan	5	4 9	423 ∇	38·16	180
d „ (Whiligh).....	G. J. Courthope, Esq... 5	1 0	440	40·19	202	
d Wadhurst (Lower Cousley Wood)	F. Wilkin, Esq.....	5	1 0	416 ∇	35·31	176
Balcombe (Stockcroft)	R. Newton, Esq.	5	1 1	341 ∇	42·67	189
d „ (Highley Manor)	Mr. J. Coles	8	1 6	422 ∇	38·85	179
Crowborough (Steel Cross House)	J. C. Stenning, Esq. ...	5	1 1	534 ∇	46·15	205
d „ (Renby Grange) ...	Miss Emily Aston	5	1 7	390 ∇	42·89	201
Forest Row (Hindleap Lodge) ...	Rt. Hon. J. Bryce, M.P.	5	1 6	620	40·01	155
„ „ (Charlwood Farm) .	A. Hoare, Esq.	5	1 0	250 ∇	39·41	...
Frant (Eridge Castle)	Mr. A. Wilson	5	2 0	400	47·67	158
d Crawley Down (The Grange) ...	T. H. W. Buckley, Esq.	5	0 9	430	42·37	179
Worth (South Hill)	P. E. Ravenshaw, Esq.	8	1 6	558 ∇	47·05	217
d East Grinstead Station	Mr. G. Mitchell	8	2 2	410 ∇	39·40	182
„ „ (Halsford Park)..	W. V. K. Stenning, Esq.	5	1 3	365 ∇	46·79	176
d Glen Andred [Groombridge] ...	Mrs. Boardman	8	1 0	320	42·12	177
HAMPSHIRE.						
ISLE OF WIGHT.						
d Ventnor	J. S. Ineson, Esq.	10	2 0	70	35·32	180
§ „ (Consumption Hospital)	Royal Meteorological Soc	5	1 0	75	37·71	192

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
HAMPSHIRE—(con.)						
ISLE OF WIGHT—(con.)						
Brading Vicarage	Rev. E. Summers	5	1 3	50 ?	39·09	...
Totland Bay (Aston House).....	J. Dover, Esq.	8	1 0	145 A	35·36	166
Carisbrooke (Rainsgrove).....	Baldwin Latham Esq CE	5	1 0	180 A	38·54	189
" (Rowborough)	" " " "	5	1 0	193 A	40·42	189
Newport (Grammar School)	C. D. Vibert, Esq.	5	1 0	45	38·06	186
Ryde (W.W., Knighton)	J. T. Harvey, Esq., C.E.	8	2 0	68 A	41·77	161
" (New Lodge)	Capt. W. A. Dobie.....	5	1 1	147	36·71	173
"	Mr. T. Cole Flower ...	12	9 0	35	42·90	...
" (Town Hall)	C. Mathew, Esq.	8	45 6	144 A	36·56	170
" (Beldornie Tower)	Percy C. Hall, Esq. ...	5	1 0	30 I	31·67	172
Wootton (Fernhill)	C. G. Brodie, Esq.	8	0 6	118 I	40·74	173
Osborne (Newbarn Cottage).....	R. Scott, Esq.	8	0 8	172 A	36·49	189
Cowes (Royal Yacht Squadron)..	Mr. H. S. Benzie	8	4 6	20	31·17	164
Bournemouth (Clarendon Court).	G. Galpin, Esq.	5	1 0	130 I	37·17	...
" (South Cliff)	C. Dales, Esq.	5	1 0	41	35·25	207
" (Pleasure Gardens)	" " " "	5	1 0	41	46·80	209
" (Vale View)	" " " "	5	1 0	150	40·96	209
" (Wellington House)	Messrs. Primavesi Bros	5	1 0	100 I	31·68	187
" (Kempsey, Bath Rd.)	E. L. M. Colville, Esq. ...	8	1 0	121 I	39·18	189
" " " "	" " " "	5	1 0	121 I	38·78	189
Christchurch (Southbourne-on-Sea)..	C. S. Pringle, Esq. ...	8	1 0	100 I	36·51	178
Milford-on-Sea	R. Bruce, Esq., D.P.H.	5	5 6	40	34·01	153
" (Keyhaven)	A. C. G. Heygate, Esq.	5	1 0	10	36·82	145
Christchurch (Winkton Lodge)..	Miss Lassell	5	0 9	34 A	31·28	179
" (Heron Court).....	The Earl of Malmesbury	8	0 6	25	41·10	175
Portsmouth (Fort Cumberland)..	P. Murch, Esq., C.E. ...	8	0 9	16 A	31·39	147
" (Milton)	Dr. Fraser	5	1 0	18 A	35·18	181
North Hayling	F. Padwick, Esq.	5	0 8	10	35·99	155
Ringwood (Burley Park)	Rev. W. Esdaile.....	5	...	200 ?	45·80	172
" (Bisterne).....	Rev. C. Mills	8	0 11	45 I	43·43	177
Fareham (Belvoir House)	E. Woakes, Esq., M.D.	5	0 11	20	32·14	143
Porchester (Noel Cottage).....	Miss Montgomerie Frost	5	1 0	...	32·66	167
Havant (Farlington)	H. Ashley, Esq., C.E. ...	5	1 0	77 I	31·02	164
" (").....	M " " " "	5	1 0	77 I	30·78	...
"	" " " "	5	1 0	25 I	31·28	155
"	M " " " "	5	1 0	25 I	31·30	...
Emsworth (Redlands)	F. Jacomb Hood, Esq.	5	1 0	90 I	40·51	162
Southampton (Cadland)	H. L. Meyer, Esq. ...	8	4 6	52 I	43·72	187
Lyndhurst (Cuffnells)	R. G. Hargreaves, Esq.	...	1 0	200	44·86	...
Southampton (Netley)	Major C. B. Martin ...	8	0 5	37 A	49·93	173
" (" Lake Ho.)	Col. Pennington	8	1 0	54 A	42·64	210
Cosham (Purbrook Grange)	Miss F. A. Deverell ...	8	0 9	100 ?	38·12	155
Lyndhurst (Fritham House) ...	F. E. Chapman, Esq. ...	5	1 0	420	44·52	184
† Southampton (Ordnance Surv. Off.)	Col. D. A. Johnston, C.B.	5	1 0	79 A	43·20	185
" (Thornhill Park) ...	Col. F. Willan	5	1 8	220 I	38·36	167
" (Totton)	W. F. Harold, Esq. ...	5	4 0	85	42·29	201

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which 101 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
HAMPSHIRE—(con.)						
Southampton (Anglesea Rd., Shirley)	A. Spooner, Esq.	5	1 1	83	40·18	...
„ (Tatchbury Manor) ..	C. F. Wilson, Esq.	5	1 0	...	43·19	181
„ Common Reservoir M	W. Matthews, Esq., C.E.	5	1 0	193	36·45	...
Wickham (The Croft)	Rev. Stanhope Rashleigh	5	0 11	80	37·45	185
Botley (Botley Hill)	Lady Jenkyns	5	1 6	36	40·87	194
„ (Beecherot, Curdridge) ..	Miss Pasley	8	1 6	100	42·39	183
„ (Fairfield, „) ..	Rev. J. B. Wheeler ...	5	1 6	102	41·98	166
Horndean (Blendworth Lodge) ..	Mrs. Long	8	0 10	217	46·20	191
„ (St. Catherines)	Miss Barnes	8	0 8	417	42·55	181
Fordingbridge (Oaklands)	Mrs. Westlake	8	1 0	135	39·76	161
Hambleton (Rosecroft)	Mr. L. Dawes	5	2 6	200	42·22	192
Bishops Waltham (Swanmore House)	W. H. Myers, Esq., M.P.	8	1 0	390	43·11	179
„ „ (Hill Place)	Major W. A. Daubeney.	8	0 9	260	42·57	190
„ „ (Northbrook Ho.) ..	H. W. Trinder, Esq.	5	1 0	136	44·03	170
„ „ (Wintershill Hall) ..	J. S. Moss, Esq.	5	1 6	253	41·99	...
Droxford (Fir Hill)	Capt. Mackenzie Grieve	5	3 6	212	40·31	180
Chandlers Ford (Fryern)	Miss Grace Stuart	5	1 3	200	42·63	...
East Meon (Westbury House) ..	Col. Le Roy Lewis	5	2 6	296	45·72	170
Ampfield Vicarage	Rev. Vere Awdry	5	3 0	230	42·89	187
Otterbourne (Elderfield)	G. Norsworthy, Esq.	5	1 0	137	45·43	197
„ (W. W., Shawford) ..	W. Matthews, Esq., C.E.	5	1 0	113	39·06	216
„ „ „ „ „ M	„ „ „ „ „	5	1 0	113	39·31	...
Petersfield (Fairley)	A. W. Leachman, Esq., MD	5	0 7	202	47·82	183
Romsey (Timsbury)	Baldwin Latham Esq. CE	8	1 8	96	40·39	199
Twyford (Pumping Station)	„ „ „ „ „	8	1 9	139	44·40	167
West Dean	Rev. E. Wells	5	1 0	137	41·11	199
East Liss (Newlands)	E. B. Falwasser, Esq. .	5	1 0	390	46·68	188
Colmer Rectory	Rev. A. C. Hervey	5	1 1	560	42·24	...
Alresford (Ovington Rectory) ..	Rev. H. F. La M. Stowell	5	1 0	221	42·29	174
West Liss (Berry Grove)	Mrs. Latter	5	1 3	250	48·78	200
„ (Hawley)	Rev. G. A. Rideout ...	5	1 0	480	43·84	183
Greatham (King's Holt)	Mrs. Chase Parr	5	1 7	279	44·31	161
„ (Manor House)	F. Coryton, Esq.	7	0 7	250	44·87	...
Horsebridge (Bossington)	W. H. Deverell, Esq. ...	8	0 9	92	41·61	192
Winchester (Harestock)	Col. H. S. Knight	5	1 0	302	46·20	198
Liphook (Fowley)	E. A. Lee, Esq.	5	0 10	296	46·51	198
„ (White Hill Chase) ..	Col. R. H. Maude	5	1 0	300	45·40	192
Grayshott [Hindhead]	Mrs. Lyndon	5	1 0	660	48·50	214
Headley (Eveley)	Mr. T. Carter	5	1 3	295	47·12	169
Liphook (Bordon Camp)	Lt.-Col. W. S. Gordon	...	1 0	264	44·36	156
Swarraton Rectory	Rev. W. L. W. Eyre ...	5	1 0	310	44·10	197
Alton (Ashdell)	F. Crowley, Esq.	8	3 6	433	46·85	180
„ (Eagles Nest)	„ „ „ „ „	5	52 4	505	30·79	...
„ (Holybourne)	Capt. H. C. Bigge, R.N.	5	1 3	390	43·95	180
„ (Shalden Manor)	J. G. Wood, Esq.	8	3 0	594	50·80	197
Long Parish	C. R. Durnford, Esq. ...	5	1 2	210	40·59	180
Andover (The Knoll)	G. H. Westbury, Esq. ..	5	0 10	196	46·00	196
Tidworth House [Ludgershall] ..	Mr. G. A. Inglefield ...	5	1 8	357	37·63	193

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which -01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in.	feet.	inches.	
HAMPSHIRE—(<i>con.</i>)						
D Warren Corner [Farnham]	F. Wilkin, Esq.	5	1 0	575 T	38·98	186
Basingstoke (Hoddington Ho.)...	Lord Basing	8	1 0	378 T	46·47	195
Oakley	Rev. F. G. Hume	5	1 6	400	45·13	187
D Basingstoke (Chapel Hill).....	G. Stephens, Esq.	5	1 0	328 T	37·81	173
D „ (Sherborne St. John).....	Rev. D. W. Chute.....	5	1 2	267 T	43·41	201
D Winchfield (Elvetham Park) ...	Mr. G. B. Mitchison ...	8	1 0	217 T	40·70	215
D Farnborough (The Grange)	Mrs. Holt	5	1 0	232 T	45·38	184
D „ (The School)	Rev. G. C. Carter	5	1 6	257 T	40·56	188
D Hartley Wintney	W. G. Machin, Esq. ...	5	1 2	222 T	38·95	195
„ Grange	F. Walkinshaw, Esq. ...	8	1 0	221 T	40·51	187
D Kingsclere (Tower Hill House)...	Dr. R. Maples.....	5	3 0	327 T	44·32	198
Strathfield Turgiss.....	Mrs. Griffith	5	2 6	200 T	41·08	...
D Strathfieldsaye Gardens	Mr. A. G. Nichols	5	1 8	166	40·52	185
D Heckfield (Highfield Park)	F. B. Marson, Esq. ...	5	1 3	262	38·06	192
„ (Park Corner)	J. Martineau, Esq. ...	5	1 2	257	38·80	174
BERKSHIRE.						
D Sandhurst Lodge	Sir W. J. Farrer	8	2 9	263	41·14	171
D Wellington College	S. A. Saunder, Esq. ...	5	1 0	283 T	39·59	180
Finchampstead (West Court) ...	C. E. Harris, Esq.	5	1 0	180	38·01	195
Mortimer (Wokefield Park)	A. Palmer, Esq.	5	4 0	180 T	37·84	177
D Newbury (Sandleford Priory) ...	Mr. R. H. Butcher ...	8	2 0	381 T	42·64	182
D „ (Greenham Lodge) ...	Mr. C. Dalby	8	1 9	300 T	44·79	191
D Aldermaston Wharf	J. T. Strange, Esq. ...	5	1 0	181 T	37·80	203
D Sunningdale (Lynwood)	G. Rodie Thompson, Esq.	5	1 0	266 T	42·49	189
D Ascot (Winkfield Manor)	C. A. Ferard, Esq.	5	1 0	240 T	40·94	196
Shinfield (Clares Green)	W. Haynes, Esq.	5	4 6	160 T	39·68	185
D Wokingham (Staverton)	H. C. Mylne, Esq.	5	1 0	220 T	38·97	199
D Beenham House	H. Waring, Esq.	8	2 2	320	37·56	192
D Bracknell (Warfield).....	Rev. B. C. Littlewood.	5	0 6	199 T	38·74	203
Old Windsor (The Friary)	Mr. J. Williams.....	5	1 0	100	38·89	...
D Windsor (Royal Gardens).....	Mr. T. Edwards.....	5	1 0	...	36·41	199
D Reading (Englefield).....	Mr. J. Coombes	5	1 1	...	40·37	195
D „ (Calcot Place).....	General Swettenham...	5	1 4	176 T	38·81	205
D „ (Ellerslie)	Rev. A. Cheales.....	5	1 0	195 T	38·48	179
„ (University College) ...	Mr. C. Foster.....	5	3 6	150 T	37·85	166
D „ (Forbury Gardens).....	J. Bowen, Esq., C.E....	5	1 5	145 T	38·92	207
„ (Earley)	M. J. Sutton, Esq. ...	8	1 6	150 T	37·11	...
D Newbury (Welford Park) <i>old g.</i>	Mr. C. Ross.....	5	1 0	335 T	44·05	198
D „ „ „ <i>new g.</i>	„ „	5	1 0	341 T	45·85	198
D „ (Weston)	R. Osmond, Esq.	5	1 4	335 T	39·94	200
D Frilsham House	Mr. W. E. Austen.....	5	1 0	370	37·22	173
D Yattendon Court	Mr. R. Maker.....	5	1 0	450 T	39·98	171
D Lambourn (East Garston)	Mr. J. H. Spackman...	5	2 6	395 T	41·82	200
D Maidenhead (Heywood Park) ...	Greville H. Palmer, Esq.	5	1 0	100	39·34	202
D „ (The Firs, Castle Hill).....	J. W. Duncan, Esq. ...	5	1 0	170	39·78	183
D „ (Isis Cottage)	O. King, Esq.	5	1 0	80	40·53	194
Farnborough Rectory	Rev. J. B. H. Whitehurst	5	3 0	713 T	47·42	203

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
BERKSHIRE—(con.)						
Bisham Vicarage	Rev. Wm. Farrer	10	1 9	100	43·62	...
D Cookham Vicarage	Rev. R. W. Rogers ...	5	1 3	90 T	37·75	169
D Temple House [Marlow]	Mr. G. Groves	5	1 0	106	44·86	217
D Wantage (Letcombe Regis)	S. W. Silver, Esq.	5	0 9	...	39·28	182
D Didcot (Upton)	J. F. Fry, Esq.	5	2 3	240 T	39·40	188
Wantage	W. Hanson, Esq., C.E.	5	1 0	304	39·07	183
D „ (Ardington)	Miss G. Elliot	3	0 10	292 T	41·09	226
D Wallingford (Woodlea)	G. F. Slade, Esq.	5	0 11	...	38·26	203
„ Castle	E. J. Hedges, Esq. ...	5	1 0	175 T	36·93	...
D Little Wittenham	J. Latham, Esq.	5	2 0	187	35·93	187
D Long Wittenham (Manor Ho.) ..	Admiral Clutterbuck ...	12	1 0	170 T	36·42	183
„ „ (Lovegrove's Cott.) ..	Rev. F. C. Clutterbuck	5	1 0	165	35·39	...
Faringdon	Mr. C. Luker	5	1 0	333 T	38·66	...
Abingdon (Park Road)	A. Pettipher, Esq.	5	1 0	150 T	35·44	185
D „ Union	Mr. J. Fray	5	1 0	196	33·95	185
„ (Sewage Works)	G. Winship, Esq., C.E.	5	0 6	169	34·53	...

DIVISION III.—SOUTH MIDLAND COUNTIES.

MIDDLESEX.

Hampton (Southwark W. W.) ...	J. W. Restler, Esq., C.E.	5	2 0	...	33·53	...
D Sunbury (Hanworth Road)	W. B. Bryan, Esq., C.E.	8	0 6	50 T	36·29	198
Teddington (Hampton Road) ...	T. Gale, Esq.	5	1 3	52 T	33·90	180
D Staines (Belle Vue)	J. Gundry, Esq.	5	1 0	51 T	40·12	205
„ (Cambria House)	C. Ashby, Esq.	5	0 10	50 ?	39·50	165
D Twickenham (Sewage Works) ...	F. W. Pearce, Esq. ...	5	1 7	37 T	33·68	177
„ „ „ „ „ M „ „ „ „ „	„ „ „ „ „	5	1 7	37 T	33·79	...
D Acton (Newburgh Road)	Miss Baker	5	1 6	86 T	36·82	189
Ealing (Public Buildings)	C. Jones, Esq., C.E. ...	5	9 0	114	37·27	166
„ (Gordon Road)	J. Box, Esq.	5	10 0	85 T	34·76	176
„ (Castle Bar Road)	T. Simpson, Esq.	5	1 0	152	39·03	167
„ (St. Stephen's Road) ...	H. W. Peal, Esq.	8	2 4	159 T	35·87	172
D „ (Grange Park)	H. M. Baker, Esq.	5	1 6	98 T	34·46	185
D Uxbridge (Cowley)	H. Judson, Esq.	5	1 0	90 T	39·12	174
Perivale (Sewage Farm)	C. Jones, Esq., C.E. ...	5	12 0	56	38·03	168
D Willesden Reservoir	H. F. Rutter, Esq., C.E.	5	2 6	199 T	35·34	173
D „ Green (Strode Road) ..	Miss Lamport	5	1 0	150	37·32	182
„ (Stonebridge Farm) ...	O. C. Robson, Esq., C.E.	10	8 0	99	37·19	...
D Highgate (North Hill)	E. J. Lovegrove, Esq., CE	5	3 10	302	37·41	172
D Child's Hill (Helenslea)	A. J. Woodhouse, Esq.	5	1 6	245 T	35·22	167
D Harrow	J. P. Bennetts, Esq., C.E.	5	1 0	215	36·78	187
D Hornsey (High Street)	E. J. Lovegrove, Esq., CE	8	4 3	97	35·98	163
D „ „ „ „ „ „ „ „ „ „ „	J. Francis, Esq., C.E..	5	4 0	109	35·70	177
D Muswell Hill	Miss Abethell	5	0 10	310 T	37·63	170
D „ „ „ „ „ „ „ „ „ „ „	E. J. Lovegrove, Esq., CE	8	4 8	216 T	35·12	154
Wealdstone House	K. R. Cobb, Esq.	5	0 11	236 T	35·93	...
Finchley (Etchingham Park) ...	Mrs. J. W. Scott	5	1 2	295 T	37·88	...

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground.		Height Above Sea Level	
			ft.	in.	feet.	inches.
MIDDLESEX—(con.)						
Finchley (Etchingham Park) ...	Mrs. J. W. Scott	8	1	3	295 T	37·95 ...
§ Uxbridge (Harefield)	Meteorological Council.	5	1	0	338	38·03 151
▮ Pinner (Moss Cottage)	Mrs. Birkett	5	1	0	209	37·38 171
„ Green (Northwold)	Miss Stanley Smith ...	8	0	6	200 ?	37·84 172
▮ Harrow Weald (Hill House) ...	A. Crossman, Esq.	5	3	6	284	38·16 206
▮ North Finchley	G. B. Shoults, Esq. ...	5	0	6	295 T	38·52 184
▮ Friern Barnet (Sewage Works) ..	Baldwin Latham Esq. CE	5	1	0	156 T	33·48 171
▮ Ponders End (Bylock Hall)	F. W. Freir, Esq.	5	1	0	...	36·61 178
„ „ „	W. B. Bryan, Esq., C.E.	8	1	6	45 T	34·41 160
▮ Enfield (Old Park)	A. L. Ford, Esq.	5	1	9	156 T	35·78 168
„ „ (Southbury Road)	J. Francis, Esq., C.E. ...	5	4	0	109 T	35·00 186
„ „ (Carisbrooke)	J. McEwan, Esq.	5	1	0	204 T	37·26 177
„ „ (The Ridgeway)	W. B. Bryan, Esq., C.E.	8	0	6	223 T	38·61 187
New Barnet (Camlot)	Mrs. Paget	5	1	0	...	39·54 165
▮ Rammey Marsh [Waltham Abbey]	W. B. Bryan, Esq., C.E.	8	1	6	60 T	35·50 162
▮ Potters Bar (Little Heath)	Henry Ellis, Esq.	5	4	8	375	39·34 188
HERTFORDSHIRE.						
▮ Eastbury [Northwood]	H. Langford Lewis, Esq.	5	1	3	360 T	37·33 193
„ „ „ (Easby)	Mrs. Sandford Fawcett	8	0	10	400 T	37·02 175
▮ Rickmansworth (Moor Park) ...	Lord Ebury	5	2	0	340	39·01 210
▮ Elstree (Aldenham House)	Mr. E. Beckett	10	4	9	305	37·74 176
▮ Watford (Frogmore)	A. P. Blathwayt, Esq.	5	1	0	182 T	39·55 181
„ „ (Colne Valley W.W.) ...	J. Hopkinson, Esq.	5	1	0	220	37·69 196
„ „ (London Orphan Asylum)	Rev. Dr. Cockrem	5	1	0	230 T	38·10 191
„ „ (St. Alban's Road)	H. Ruddie, Esq.	5	1	0	...	37·67 ...
▮ „ „ (Weetwood)	J. Hopkinson, Esq. ...	5	1	0	269 T	39·88 198
„ „ „ („)	M „ „ „	5	1	0	269 T	39·52 ...
Barnet (Gas Works)	„ „ „	8	0	9	212	38·51 175
„ „ (Summerhill)	F. A. Milne, Esq.	5	...	...	400	41·43 ...
„ „ (Hadley)	H. E. Freir, Esq.	5	0	11	400	39·83 209
▮ Northaw (Northacre)	late Rev. F. W. Poland	5	1	0	392	39·04 203
St. Albans (Frogmore)	J. Hopkinson, Esq. ...	5	0	10	218	38·02 191
▮ Broxbourne (Stafford House) ...	G. J. Newbery, Esq.	5	1	0	118 T	42·19 191
▮ Hemel Hempstead (Apsley Mills)	Messrs. J. Dickinson & Co.	24	0	9	260	40·24 179
St. Albans (Bone Hill)	J. Hopkinson, Esq. ...	5	1	0	336 T	38·09 194
„ „ (Hill End)	G. Goodchild, Esq. ...	5	1	0	290 T	35·35 166
„ „ (County Museum) ...	J. Hopkinson, Esq. ...	5	1	0	389 T	38·75 192
„ „ (Gorhambury)	Mr. W. Newberry	5	1	0	425 T	36·34 181
▮ Hoddesden (Fielde's Weir)	W. B. Bryan, Esq., C.E.	8	3	8	95	36·34 173
▮ † Gt. Berkhamstead (Rose Cottage)	W. E. Milner, Esq. ...	5	1	0	334 T	38·28 196
„ „ „ („)	„ „ „ „	5	1	0	334 T	38·21 ...
▮ † „ „ „ (Rosebank) ...	E. Mawley, Esq.	8	1	0	401 T	37·88 191
„ „ „ („)	„ „ „ „	8	1	0	401 T	37·39 ...
„ „ „ (Fairhill)	Miss M. Hopkins	5	1	0	548 T	38·22 182
„ „ „ (Gt. Gaddesden)	Rev. W. Tyrwhitt Drake	8	1	0	426 T	38·11 186
Gilston Park	Mr. E. Leach	8	0	6	175 T	41·72 166
▮ Hatfield (Holwell House)	Wilfrid E. Laurie, Esq.	5	1	6	250 T	33·19 156

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which .01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
HERTFORDSHIRE—(con.)						
Hertford (Bayfordbury)	H. W. Clinton Baker, Esq.	8	1 2	250	35·65	191
„ (Sewage Works)	W. B. Bryan, Esq., C.E.	8	6 0	125	33·71	...
d Tring (Wigginton)	Rev. H. J. E. Burrell..	5	1 0	710 ∇	44·09	159
„ (Pendley Manor)	Mrs. Williams	5	2 0	420	44·24	209
„ (Cowroast)	Gordon C. Thomas, Esq.	5	3 8	394 ∇	42·33	168
§ Harpenden (Rothamstead)	A. D. Hall, Esq.	5	0 9	420 ∇	37·35	186
§ „ { „ }	„ „ „	8	0 9	420 ∇	36·27	182
§ „ { „ }	„ „ „	72x87	0 9	420 ∇	38·69	...
d Ware (Red House).....	J. Francis, Esq., C.E..	5	4 0	115 ∇	35·88	203
d „ (Fanham's Hall)	Miss V. M. Croft	8	1 0	235 ∇	36·20	189
d Welwyn (Bridge House)	B. W. Thomas, Esq., MD	5	2 3	216	38·88	185
d „ (Danesbury)	Mr. R. F. Sawford.....	8	1 0	400	36·54	174
d „ (Datchworth Rectory)..	Rev. A. Amos.....	5	1 0	372 ∇	37·35	165
d Much Hadham	T. W. Mott, Esq.	5	1 0	212	37·65	177
d Kensworth [Dunstable]	Miss Jones	5	1 6	630 ∇	42·11	176
d Knebworth Manor House	Rev. S. R. Wigram ...	5	1 0	420	37·19	175
d § Bennington House.....	Rev. Dr. J. D. Parker..	5	1 0	406 ∇	35·58	218
d „ (Eileen Cottage).....	A. B. Legard, Esq.....	5	1 0	408	35·92	179
d Buntingford (Hamels Park).....	Mr. E. Wallis	5	1 0	400 ∇	35·42	161
d Hitchin (Preston)	R. de V. Pryor, Esq....	8	2 5	480 ∇	35·60	197
d „ (Wratten).....	W. Lucas, Esq.	5	2 1	238 ∇	37·56	198
„ (The Maples)	W. Hill, Esq.....	8	1 1	220 ∇	36·03	169
d „ (The Chilterns)	F. Ransom, Esq.	5	0 9	300 ∇	36·55	184
„ (High Down)	J. Pollard, Esq.	5	1 1	422 ∇	35·57	187
d Buntingford (Hillside)	G. Melville Smith, Esq.	5	1 0	330 ∇	37·28	198
d Weston Park	M. R. Pryor, Esq.....	5	0 8	470 ∇	36·98	203
d Buntingford (Throcking Rectory)	Rev. C. W. Harvey ...	5	1 0	487 ∇	36·36	201
d Baldock (High Street)	Dr. Langston Day.....	5	1 0	214 ∇	33·69	176
d Royston (Therfield Rectory).	Rev. J. G. Hale	5	4 3	510 ∇	36·78	201
„ (Union Workhouse) ...	H. Warren, Esq., C.E.	5	1 0	217	34·02	171
„ (Melbourne Street).....	J. E. J. Phillips, Esq..	8	0 11	201 ∇	34·42	175
BUCKINGHAMSHIRE						
d Eton (Tangier Island)	C. Sainty, Esq.	5	1 0	67 ∇	35·71	156
d Slough (Langley)	R. H. Major, Esq.....	8	0 10	85 ∇	36·40	176
† „ (Upton)	R. Bentley, Esq.	8	3 0	80 ∇	33·94	...
d† „ { „ }	„ „ „	5	2 0	78 ∇	35·86	185
Burnham (Burnham Cottage) ...	G. J. Williams, Esq....	5	3 0	162	37·03	...
d Taplow Court	W. H. Grenfell, Esq. MP	8	1 0	217 ∇	38·88	171
d Farnham Royal (Broomlands)...	F. C. Moscrop-Young Esq	5	1 0	200 ∇	37·96	190
Greenlands [Henley-on-Thames]	Hon. W. F. Smith, M.P.	8	1 3	116	41·23	176
d Hedsor	Lord Boston	8	1 0	170 ∇	42·33	183
d Beaconsfield (Gerrard's Cross)...	R. C. Sikes, Esq.	5	1 0	286 ∇	41·00	189
d Marlow Mills	S. H. Wright, Esq. ...	8	2 0	105	43·15	210
d Wooburn (The Chestnuts)	F. W. C. Read, Esq....	5	3 0	...	39·68	179
High Wycombe ..	H. S. Wheeler, Esq....	8	0 9	253 ∇	39·78	...
d Chalfont St. Giles (The Stone)...	Col. R. W. Phipps.....	5	1 4	270 ∇	41·58	191

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued.)

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
BUCKINGHAMSHIRE—(con.)						
D Amersham (The Plantation).....	G. Weller, Esq.....	8	1 0	464 ∇	40·39	191
D „ (Rumseys)	G. M. H. Weller, Esq.	8	0 10	309 ∇	44·37	162
Great Missenden	Mr. W. Douglas	5	1 0	400	44·36	...
D Wendover (Halton Gardens) ...	Mr. R. C. Sanders.....	5	1 10	400	39·57	208
Bulbourne [Tring]	Gordon C. Thomas, Esq.	5	2 3	401 ∇	40·46	216
Mentmore	Mr. J. MacGregor	5	1 2	...	38·73	...
Oving House	Mrs. Yates Thompson..	5	1 6	515 ∇	35·58	...
D Winslow (Addington Manor) ...	Lord Addington	8	1 0	309 ∇	34·94	185
„ („ „) M	„	5	1 0	309 ∇	34·86	...
D Buckingham (Adstock Fields)...	J. E. S. Weston, Esq...	5	0 9	352 ∇	33·30	180
D „ (The Vicarage).....	Rev. P. P. Goldingham	5	2 0	255 ∇	35·65	153
D Wolverton (St. George's Vic.)...	Rev. W. L. Harnett ...	5	1 0	270 ∇	31·22	185
D „ (The School House)...	H. J. Hipsley, Esq....	5	1 0	264	32·19	185
D Newport Pagnell	F. Littleboy, Esq.....	5	2 0	196 ∇	31·79	164
Olney (Filgrave Rectory).....	J. C. Tarver, Esq.....	8	0 8	330	33·22	...
OXFORDSHIRE.						
Caversham (Eastfield)	C. M. Powell, Esq.....	5	1 0	180 ∇	39·24	177
„ (Cane End House) ...	D. Vanderstegen Esq..	5	0 4	400 ?	41·26	167
D Goring (Elmeroft).....	Major E. Gambier Parry	5	0 10	150	36·81	204
D Henley-on-Thames (Greys)	Howell Davis, Esq. ...	5	4 0	350 ∇	40·89	174
D „ „ „ (Highmore Vic.)	Rev. F. R. Harnett ...	5	1 0	500 ∇	40·87	201
„ „ „ (Henley Park).	Martin J. Sutton, Esq.	5	0 8	410 ∇	38·09	...
D „ „ „ (Assenton)	Mr. J. Ratty	5	1 0	281	37·43	159
D Dorchester (Manor House)	Col. A. Blunt.....	5	0 9	169 ∇	36·05	184
D „ (Bishops Court)	T. Latham, Esq.	5	2 0	169	34·33	209
D Abingdon (Culham Vicarage) ...	Rev. F. C. Clutterbuck	5	1 0	200 ∇	35·56	197
D „ („ College).....	J. S. Davis, Esq.	8	0 11	222 ∇	34·03	188
D Watlington (Pyrton Manor).....	E. Hamersley, Esq....	5	1 0	321 ∇	38·49	193
D Nuneham Park Gardens	Mr. C. E. Munday.....	8	3 0	280 ∇	38·96	204
Wheatfield Rectory	F. A. M. Spencer, Esq.	5	1 3	250	37·16	213
D Toot Baldon (Potland)	D. Clinkard, Esq.	5	1 0	288	34·74	192
Thame (Tythrop House)	Miss Wykeham	8	1 2	260	33·90	...
D Oxford (Magdalen College)	E. Chapman, Esq., M.P.	5	1 0	186 ∇	35·14	177
„ („ „)	„ „ „	5	33 11	223 ∇	31·93	...
† „ (Radcliffe Observatory) ..	Dr. A. A. Rambaut, FRS	8	1 8	210 ∇	35·95	160
D† „ („ „) ..	„ „ „ ..	11	2 4	210 ∇	37·70	179
† „ („ „) ..	„ „ „ ..	10	22 0	230 ∇	36·15	164
† „ („ „) ..	„ „ „ ..	10	112 0	320 ∇	26·98	170
D „ (Norham Road).....	Rev. C. B. Mount	10	1 2	206 ∇	36·98	169
D „ (Banbury Road)	Miss Tawney	5	1 1	211	36·04	167
D „ (Headington Hill)	Miss Davenport	5	0 10	354	36·87	180
D „ (Elsfield)	H. Parsons, Esq.	5	1 0	330 ∇	36·88	189
Stanton St. John	Miss Thomson	8	1 0	340	36·99	173
„ „ „ (Woodperry) ..	J. Thomson, Esq.	6	1 0	399 ∇	38·07	202
Woodstock (Hampton Poyle Rec.)	Rev. S. T. Gwilliam ...	5	1 0	201 ∇	34·89	...
D Chipping Norton (Lyneham).....	R. de M. Pratt, Esq....	5	1 7	351 ∇	38·20	195
„ „ (Sarsden)	J. M. Blair, Esq.	8	1 3	490 ∇	38·73	181

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in	feet.	inches.	
OXFORDSHIRE—(con.)						
D Chipping Norton (Kingham) ...	Mr. T. Phipps	5	3 0	442	38·99	186
Bicester (National School)	Mr. W. H. Piggott ...	9	0 6	238	35·94	...
D „ (Middleton Park)	The Earl of Jersey	5	2 6	325 A	38·30	198
Steeple Aston (Hill House)	B. S. Ogle, Esq.	5	...	400	41·41	202
D „ „ (The Grange)	Mrs. Bradshaw	8	1 0	400 T	39·10	199
D Swerford	Mr. W. Hall	5	1 0	500 T	37·07	222
D Adderbury	G. H. Norris, Esq.	5	1 1	338 A	37·99	198
D Bloxham Grove	W. H. Warriner, Esq. ...	8	3 10	387 A	37·77	165
D Banbury (Sibford Ferris)	J. Lamb, Esq.	5	1 0	575 A	36·20	180
D „ (Bodicote)	J. F. Starkey, Esq. ...	8	1 3	388 A	36·87	190
D „ (Ark House School) ...	A. J. Beale, Esq.	5	1 0	310	39·19	193
NORTHAMPTONSHIRE.						
Brackley (East Hill)	C. A. Markham, Esq. ...	5	1 0	425 T	38·10	205
D Grimsbury [Banbury] W.W. ...	W. E. Wood, Esq.	5	1 3	320 T	34·22	166
Thorpe Mandeville	C. A. Markham, Esq. ...	5	1 0	530	36·45	167
Towcester (Bradden Rectory) ...	„ „ „	5	3 6	404	32·67	206
„ (Stoke Bruern Park) ..	Mr. W. Batchelor	5	1 0	320	33·33	...
„ (Easton Neston)	Mr. E. Slarke	8	1 0	340 T	31·48	189
D Blisworth (Crieff House)	A. Westley, Esq.	5	5 0	330	31·25	179
D „	T. W. Millner, Esq. ...	5	1 6	300 A	30·82	179
„ (Milton House)	C. A. Markham, Esq. ...	...	...	...	28·42	...
D Lichborough Hall	E. Grant, Esq.	5	1 10	500	34·68	193
D Daventry (Fawsley)	The Lady Knightley ..	5	1 0	477 T	30·80	170
D Castle Ashby	R. G. Scriven, Esq. ...	5	1 0	263 A	32·90	213
Great Houghton	C. A. Markham, Esq. ...	...	...	...	34·07	187
Little Houghton	„ „ „	5	2 2	270	33·36	172
Northampton (Berry Wood)	„ „ „	8	1 4	399	33·17	175
„ (Balmoral Road) ..	B. Burrows, Esq.	5	1 0	240	32·27	...
D „ (Dallington Avenue) ..	C. A. Markham, Esq. ...	5	1 0	265 A	28·79	181
§ „ (Gt. Billing Rec.) ..	„ „ „	8	1 6	275 A	31·41	189
D „ (Kingsthorpe)	Sidney Law, Esq.	5	1 0	280	34·09	173
Althorp House	Miss Chowler	8	3 10	310 A	28·50	...
Great Brington	C. A. Markham, Esq. ...	5	2 9	448	30·71	165
D Sywell Hall	T. A. Dickson, Esq. ...	5	1 0	371 T	34·77	189
D Pitsford (Sedgebrook)	C. A. Markham, Esq. ...	5	1 0	311 A	32·06	168
„ „ „	„ „ „	5	1 0	311 A	31·97	...
D Mears Ashby	Rev. J. B. Fawssett ...	5	6 5	339	33·52	206
D Wellingborough (Swanspool) ...	N. P. Sharman, Esq. ...	5	0 2	155	30·14	179
D „ (Croyland Abbey) ..	E. Sharman, Esq.	5	0 5	...	29·33	193
Watford Court	C. A. Markham, Esq. ...	9	1 2	380	36·58	177
D Ravensthorpe (Coton Mill)	G. S. Eunson, Esq. ...	5	1 0	355	32·60	203
Scaldwell	Capt. R. Soames	5	1 0	404 A	32·74	...
D Burton Latimer Rectory	Rev. W. B. Jacques ...	5	1 0	280	28·61	182
Hazelbeech	C. A. Markham, Esq. ...	5	2 6	560	35·54	170
D Kettering (Sewage Works)	T. R. Smith, Esq., C.E. ...	8	1 0	199 A	28·71	177
D „	P. Wallis, Esq.	8	1 3	300	30·34	188
D „ (Headlands)	C. W. Lane, Esq.	5	1 0	288 A	29·47	190

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which .01 or more fell.	
		Diameter	Height		1903		
			Above Ground.	Above Sea Level			
			ft.	in.	feet.	inches.	
NORTHAMPTONSHIRE—(con.)							
D Kettering (W.W., Cransley)	T. R. Smith, Esq., C.E.	8	0	6	275 ∇	28.98	164
Thrapston (Islip)	J. Edmonds, Esq.	5	1	6	145 ∇	28.46	...
Welford (Salford House)	J. Gee, Esq.	5	1	3	430 ?	32.55	209
Aldwinkle St. Peter	C. A. Markham, Esq. ...	5	0	11	175	29.85	172
Desborough	" " "	5	1	0	453	34.35	188
D Barnwell (Lilford Hall)	Mr. E. Wilson	5	1	0	...	29.45	164
D Oundle (Hemington Vicarage)...	Rev. F. C. Newbery ...	5	1	1	...	30.85	194
§ "	C. A. Markham, Esq. ...	5	3	4	105 ∇	27.93	...
§ "	Meteorological Council.	5	1	0	140	28.93	...
D Corby (Weldon Grange)	J. Rooke, Esq.	8	1	0	342 ∇	30.16	205
D Rockingham Castle	Mr. W. Nobes	5	4	4	300 ∇	34.30	175
Kingscliffe (Fineshade).....	C. A. Markham, Esq. ...	5	0	9	200	33.53	...
Peterborough (Thorpe Hall).....	Col. C. I. Strong	6	1	0	30	26.52	...
Stamford (Collyweston).....	Baldwin Latham Esq CE	5	1	0	315 ∇	29.07	...
D§ " (" House).....	Miss Tasker	5	1	0	281 ∇	26.93	196
D " (Easton).....	Neville Day, Esq.	5	0	9	271 ∇	31.00	182
D " (St. Martin's).....	Mr. T. Booth	5	6	0	107 ∇	31.76	162
HUNTINGDONSHIRE.							
St. Neots (Waresley Park)	H. Warren, Esq., C.E.	5	0	11	190	31.65	191
D " (Great Paxton)	Rev. A. G. Cane	5	1	0	100 ∇	28.09	155
Offord D'Arcy	W. Priestley, Esq.	5	0	9	51 ∇	29.49	167
Hemingford Grey Vicarage	H. Warren, Esq., C.E.	5	1	0	25	27.48	171
D Huntingdon (Brampton)	Miss May Bird	5	1	1	39 ∇	29.85	174
"	W. Lucas, Esq. ....	...	...	...	...	26.43	...
" (Hinchbrook Gardens).....	Mr. J. Barson.....	10	6	0	74 ∇	30.96	...
St. Ives (Slepe House)	H. Warren, Esq., C.E.	5	1	0	25	27.55	176
Catworth.....	" " "	5	0	9	210	29.37	209
Whittlesea Mere	A. Lunn, Esq., C.E. ...	8	1	6	...	25.61	...
BEDFORDSHIRE.							
D Luton (Pumping Station).....	A. J. L. Evans, Esq., C.E.	5	1	0	343 ∇	35.81	196
D Shillington	Kilham Roberts, Esq. ...	5	1	0	182 ∇	33.70	195
D Holwell Bury [Hitchin]	Henry Kenneth, Esq. ...	5	0	10	180 ∇	34.14	169
D Ampthill (Higham Bury).....	E. J. Jekyll, Esq.	5	1	0	310 ∇	35.69	205
" (Silsoe)	H. Trethewy, Esq.	5	1	0	214 ∇	34.86	177
D Woburn (Crawley Farm)	H. M. Freear, Esq. ...	8	1	0	292 ∇	34.47	179
" (Fruit Farm, Ridgmount).....	R. Lewis Castle, Esq. ...	5	0	8	270 ∇	35.43	190
D Stotfold [Baldoek].....	Dr. J. E. de Lisle	5	1	0	220 ∇	34.58	198
Biggleswade (Old Warden)	Mr. W. C. Modral	8	1	2	90	36.44	...
D Potton (Wrestlingworth)	H. J. King, Esq.	5	1	0	119 ∇	31.61	176
Sandy (The Lodge)	Viscount Peel.....	5	1	0	...	31.76	184
D Bedford (Ampthill Road)	Thomas Pearse, Esq. ...	5	0	10	100	32.35	172
" (De Parys Avenue).....	W. Godfrey, Esq.	5	1	0	...	30.17	...
Goldington (Castle Mills).....	W. H. Rogers, Esq. ...	5	1	0	90 ∇	25.93	...
Great Barford House.....	J. Arnold Whitchurch Esq	5	1	5	120 ∇	30.10	162
D Sharnbrook (Colworth Gardens).	Mr. J. Hoad	5	2	0	250	33.68	171

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
CAMBRIDGESHIRE.						
D Odsey [Ashwell]	H. G. Fordham, Esq.	5	1 0	256 A	32·84	186
" " " "	" " " " " "	5	1 0	256 A	32·38	185
D Foxton House	A. P. Humphry, Esq.	5	0 8	60 T	32·51	186
Abington Pigotts	H. Warren, Esq., C.E.	8	0 8	130	31·08	179
Whittlesford (Sawston Vicarage)	Rev. C. E. Crump	5	1 0	86 T	31·68	190
D Harston	Mrs. C. M. Baldwin	5	0 8	47	32·18	182
Wimpole Hall	H. Warren, Esq., C.E.	5	1 0	141	30·47	169
D Gamlingay (Old Woodbury) ..	Col. J. D. Gregson	5	1 0	213	32·00	182
Carlton	G. H. Long, Esq.	5	1 0	340 T	33·22	166
D " Hall	A. S. Nice, Esq.	5	1 6	290	35·13	181
D Longstowe Rectory	Rev. J. P. Sharp	5	1 3	227 T	36·08	202
Trumpington	C. Parsons, Esq.	5	1 0	60	33·26	172
D " (Gilmerton)	Smith Nutter, Esq.	8	4 0	54	30·26	188
Granchester Mill	H. Warren, Esq., C.E.	5	5 0	31 A	31·75	163
Bourn Lodge	" " " " " "	5	2 1	170	32·48	175
D Cambridge (Fulbourne Pumping Sta.) ..	W. W. Gray, Esq., C.E.	5	1 0	37 A	32·86	191
D " (W. W. Cherryhinton) ..	" " " " " "	5	1 0	35 A	31·51	189
D " (Sidney Street)	W. E. Pain, Esq.	8	60 0	92 A	30·65	186
" (Pinehurst)	C. F. Foster, Esq.	5	0 10	36	31·87	176
" West	F. Skinner, Esq.	5	1 0	25 T	33·21	...
§ " Observatory	H. J. Bellamy, Esq.	8	0 10	84 A	30·52	159
" (Quy Hall)	H. Warren, Esq., C.E.	5	0 5	61	30·47	178
Lolworth Rectory	" " " " " "	5	0 11	...	31·88	164
Burwell	" " " " " "	5	2 0	58	29·19	158
Conington Hall [St. Ives]	" " " " " "	8	0 5	50	31·15	188
Cottenham (Bernard House)	A. Bull, Esq.	5	1 6	30 T	27·96	151
Soham	T. Everett, Esq.	5	1 0	25 T	28·69	...
D Stretham (Dimocks Cote)	Mr. H. Nightingale	5	13 7	...	28·13	151
D " Engine	Mr. J. Housley	9	4 9	13 A	27·57	151
" (Orchard House)	H. Warren, Esq., C.E.	8	5 0	42	30·21	169
D " Ferry (Elford Farm) ..	Mr. C. Wright, Junr.	8	4 6	...	28·01	151
D Ely (The Palace)	Rev. G. Bullock Webster ..	5	1 0	64 T	30·56	217
Chatteris (Holwood Farm)	H. Warren, Esq., C.E.	5	0 10	12	29·71	159
Littleport (Highfield House) ..	H. G. Martin, Esq.	8	2 7	67 T	27·65	142
Chatteris (Aylesby House)	A. H. Ruston, Esq.	8	0 6	45 ?	28·23	177
D " (The Priory)	H. F. Fryer, Esq.	5	0 7	31	30·10	146
" (Horseway Lock)	A. Lunn, Esq., C.E.	8	15 0	...	21·14?	...
Stanground Sluice	" " " " " "	8	1 6	...	24·38	...
March	" " " " " "	9	2 0	...	29·09	159
Upwell (Marmont Priory Lock) ..	" " " " " "	8	1 1	...	25·36	164
" (Euximoor House)	H. West, jun., Esq.	5	0 8	15 ?	29·40	159
D Thorney (Bedford Office)	A. J. Forrest, Esq.	8	3 6	9 A	24·96	166
D Wryde House)	S. Egar, Esq.	5	1 0	7 T	27·34	180
D Wisbech (Bank House)	A. Peckover, Esq., LL.D.	8	0 8	6	28·48	158
" (Monica Road)	H. Warren, Esq., C.E.	8	1 2	6	29·70	...

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which .01 or more fell
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
ESSEX.						
d Grays Sewage Works	A. C. James, Esq., C.E.	8	2 3	12 A	30·77	169
d Orsett	W. Powell, Esq.....	8	3 0	73 T	31·74	166
d East Ham	W.B. Bryan, Esq., C.E.	8	0 11	17	32·29	151
d Shoeburyness	Superintendt. of Expts.	8	0 9	13 A	29·52	158
\$' " M	" "	5	2 5	14 A	28·94	...
d West Ham (Abbey Mills).....	M Fitzmaurice Esq CMG	8	1 0	11 A	36·35	177
d Barking Cemetery	E. H. Lister, Esq.....	5	1 0	18	33·25	168
d Southend (Corporation Obsy.) ...	E. J. Elford, Esq., C.E.	8	0 6	89 A	27·67	...
d " (Water Works)	C. S. Bilham, Esq. ...	8	1 0	112 A	31·66	171
d " (" " Eastwood)	" " " " " " " "	8	1 0	50 A	31·71	167
d " (York Road)	Charles Clarke, Esq....	5	2 6	85	29·82	...
d Wanstead (Red Bridge)	W. B. Bryan, Esq., C.E.	8	8 0	33	35·44	165
d Romford (North Ockendon)	Rev. R. T. Crawley ...	5	1 3	100 T	31·15	184
d Manor Park (Albany Road).....	A. J. Wilmshurst, Esq.	5	3 0	...	36·36	...
d Lea Bridge	W. B. Bryan, Esq., C.E.	8	0 6	23 A	33·66	172
d Leyton (Lea Bridge Road)	C. E. Jones, Esq., C.E.	5	1 0	49 A	36·27	175
d Upminster Hall	Captain G.H.T.Swinton	5	1 0	121 T	30·40	174
d " " " " " " " " M	" " " " " " " "	5	1 0	121 T	30·12	...
d Walthamstow (Ferry Lane).....	W.B.Bryan, Esq., C.E..	8	0 10	30	35·79	171
d Woodford (Hagger Lane)	" " " " " " " "	8	0 8	176 A	36·64	160
d Foulness (The Lodge)	B. C. Hall, Esq.....	5	1 2	6	31·03	160
d Billericay (Burghstead Lodge)..	General Branfill.....	5	1 0	310 A	33·79	175
d " (Norsey Manor)	Burnett Tabrum, Esq..	5	0 9	270 T	36·62	177
d " (Ramsden Hall)	T. W. Bacon, Esq.....	5	0 9	260 A	36·80	178
d Wickford (Runwell Hall).....	Col. H. Kemble	5	1 0	75 T	34·32	168
d Havering Grange	G. P. Hope, Esq.	5	1 0	255 T	35·49	236
d " -atte-Bower	Mrs. Pemberton Barnes	5	1 0	...	33·46	182
d " " " (Fernside).	Benjamin Smith, Esq..	5	1 0	341	35·21	203
d Buckhurst Hill Reservoir.....	W. B. Bryan, Esq., C.E.	8	1 7	275	37·00	162
d " House	" " " " " " " "	8	34 0	305 A	36·35	159
d " (Ardmore)	Mrs. Howard	8	1 3	...	42·08	...
d Chingford Mill	W.B. Bryan, Esq., C.E.	8	0 6	40 A	36·82	171
d Brentwood (Shenfield Rectory)...	Rev. Canon Quennell...	5	0 7	305	38·88	188
d Loughton (High Beech)	W.B. Bryan, Esq., C.E.	8	1 0	376 A	38·34	156
d Southminster	H. Murton, Esq.	5	1 1	85 A	31·33	...
d Ingatestone (Fryerning)	A. E. Christy, Esq. ...	5	1 0	291 A	34·18	...
d " " FurzeHall)	E. H. N. Wilde, Esq..	5	1 0	285 T	34·93	...
d Waltham Abbey.....	W. B. Bryan, Esq., C.E.	8	5 0	66 A	35·70	156
d " " (Gunpr. Factory)	The Superintendent ...	5	2 0	64	36·25	168
d Epping (The Hemnalls)	J. Nicholl, Esq.	8	0 8	345	40·80	151
d Bradwell-on-Sea (BradwellHall)	J.C.Chillingworth, Esq.	5	1 1	27	30·67	152
d " " (Down Hall) ...	D. S. Hodge, Esq.....	5	1 0	20	29·26	159
d Danbury Rectory	Rev.J.BridgesPlumptre	5	1 0	365 T	32·58	176
d Writtle (Melbourne).....	E. Rosling, Esq.	5	0 9	140 T	31·72	164
d "	Miss Usborne	5	2 6	100	37·91	...
d Chelmsford (High Street).....	F. Chancellor, Esq. ...	8	1 0	86 A	33·75	175
d " (County Hortie. School)	C. W. Aylett, Esq. ...	5	1 0	...	33·08	...
d " (Spergula)	J.C. Thresh, Esq., M.D.	5	1 0	136 T	34·36	165

DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Ram. 1903	Day, on which "or more fell"
		Diameter.	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
ESSEX—(con.)						
d Chelmsford (Springfield Place)....	Miss Jackson	5	0 11	143 ∇	34·67	223
" (Roxwell)	R. W. Christy, Esq....	5	1 0	190 \dagger	34·52	...
Abbees Roding Rectory.....	Rev. L. Capel Cure ...	8	1 5	300	35·50	...
Clacton-on-Sea (Jay Wick).....	J. Russell, Esq.....	6	3 0	15	27·99	...
d§ " "	Mr. A. W. Shadick ...	5	1 2	55 ∇	26·49	162
Great Clacton (Clay Hall)	Philip Smith, Esq.....	5	2 0	40 \dagger	29·21	170
Witham (Little Braxted Hall)...	A. G. Taber, Esq.....	5	1 0	50	32·99	175
d " (Terling Vicarage).....	H. C. Boutflower, Esq..	5	1 0	115 \dagger	31·96	179
d Great Leighs (Hole Farm)	Miss J. A. J. Barclay..	5	1 0	120	30·82	175
d " " (Lyons Hall)	J. H. Tritton, Esq. ...	5	3 0	140 ∇	32·27	165
d " " (" ")	Rev. F. Owston "	5	0 6	130 ∇	33·33	166
Layer Breton Rectory	Rev. F. Owston	5	1 0	88 ∇	29·81	177
d Fingringhoe (Ballast Quay Farm)	T. B. Grubb, Esq.	5	2 0	47	32·84	171
d Colchester	H. Goodyear, Esq., C.E.	8	17 0	82 \dagger	28·02	150
d " (Hill House, Lexden)	S. F. Hurnard, Esq....	5	1 0	90 \dagger	29·93	170
" (" " ") M	Mr. W. Bird	5	1 0	90 \dagger	29·71	...
" (Home Farm, ")	W. J. Holloway, Esq..	8	1 0	125 \dagger	29·05	...
d Dunmow (Bigods Hall).....	H. S. Tabor, Esq.	5	1 0	240 \dagger	31·72	161
d Braintree (Bocking, Fennes).....	Mrs. Courtauld	8	2 3	212 ∇	32·88	152
" (" Place).....	Capt. J. Nicolls Harrison	8	0 10	290 ∇	32·74	146
Dunmow (Saling Grove)	C. R. Baker, Esq.	5	1 0	...	31·42	151
Ardleigh	H. F. Hills, Esq.	5	1 0	168 \dagger	34·31	146
Earls Colne (Chalkney House)...	G. Hempson, Esq.....	5	1 0	113 \dagger	33·01	181
d Manningtree (Bradfield Lodge)..	O. Bendall, Esq.	5	30·85	194
" (Lawford).....	K. Hempson, Esq.....	5	0 5	80	31·66	206
d Harwich (Hill House, Ramsey)..	Mr. H. Knights	5	0 9	80 \dagger	30·79	174
" (")	Mr. W. Bevan	5	1 0	40	27·80	161
d " (Coastguard Station)...	Royal Meteorological Soc	5	1 0	144	27·81	180
§ Halstead	J. D. Tremlett, Esq....	5	0 11	54	31·20	171
d Dedham (Dalethorpe)	Rev. T. S. Raffles	5	0 7	134	33·33	190
Langham Rectory	T. F. Miller, Esq.	5	0 9	245	32·95	...
Great Maplestead (Monk's Lodge)	Rev. Canon F. H. Fisher	5	3 0	300	36·42	191
d Saffron Walden (Debden Rec.)..	Rev. G. F. Tamplin ...	5	3 6	208 \dagger	33·43	168
d " " (Newport)	S. Leverett, Esq.	5	1 0	201 ∇	35·27	192
d " "	Mr. J. Vert	5	1 0	155 \dagger	34·84	198
d " " (Audley End)..	The Misses Burke	5	1 3	200 \dagger	34·90	207
Bulmer Lodge [Sudbury].....						
SUFFOLK.						
d§ Felixstowe (West View)	S. Alexander, Esq.....	5	1 0	70	29·36	167
d Erwarton Hall [Harwich]	J. A. Hempson, Esq....	8	0 6	75	31·54	175
East Bergholt (Ackworth House)	A. Harwood, Esq.	8	1 6	145	31·82	199
d Ipswich (Museum).....	F. Woolnough, Esq. ...	8	0 10	74	32·19	199
d " (Woolverstone Park) ...	C. H. Berners, Esq. ...	8	1 0	100 \dagger	31·19	184
d " (Orwell Park)	Mr. J. Wallis	8	1 0	60 ∇	31·83	187
d " (Rookwood, Copdock)..	F. L. Bland, Esq.	5	0 6	170 \dagger	31·93	189
d Alderton Rectory	Rev. C. G. Archer	8	2 2	...	28·12	159
d Sudbury (Friars Street)	E. Ransom, Esq.	5	1 7	93 \dagger	31·68	210

DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which "01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
SUFFOLK—(con.)						
D Sudbury (Newton Road)	J. Alexander, Esq. ...	5	1 6	130 T	31·50	191
Ipswich (Bishop's Hill)	Miss D. E. Biddell	5	1 0	104 T	33·17	...
D „ (Clare Lodge)	late E. R. Turner, Esq. CE	5	1 0	178 T	30·68	196
§ Hollesley Bay	C. G. Freer-Thonger Esq	8	1 0	32	27·55	163
Boyton Rectory	Rev. A. Washington	8	2 3	17	28·96	154
D Cavendish	S. J. Garrett, Esq.	5	1 0	...	32·79	191
Lavenham Hall	H. Taylor, Esq.	5	2 3	220	31·81	...
D Woodbridge Abbey	Major R. J. Carthew	8	1 2	48 T	30·02	183
D „ „	„ „ „	8	6 0	43	29·70	183
D „ (Melton Asylum) ..	Dr. S. G. Longworth	8	1 4	74 T	27·76	171
D Rendlesham Hall	Lord Rendlesham	5	1 0	88 T	29·89	169
D § Haverhill (Great Thurlow)	A. Boa, Esq.	5	1 0	241 T	31·93	219
Clare (Stansfield)	J. Slater, Esq.	5	1 0	300 T	35·34	...
D „ (Hawkedon Rectory)	Rev. B. P. Oakes	5	3 4	305 T	33·14	204
Cockfield Rectory	Rev. Edwin Hill	5	0 9	305 T	32·76	187
Ash Bocking Vicarage..... old g.	Rev. M. B. Cowell	5	1 0	231 T	32·51	171
„ „ „ „ „ new g.	„ „ „ „ „	5	3 4	231 T	31·46	171
Parham (The High House)	H. R. Smith, Esq.	5	1 0	93	28·56	...
D Aldborough (Aldringham Ho.)	F. Garrett, Esq.	8	4 5	50 B	27·46	180
D Great Glemham	Col. A. Bloomfield	5	0 10	80 T	37·08	171
Framlingham College	S. Featherston, Esq. ...	8	1 0	140	26·40	...
D Little Saxham	Rev. H. I. Kilner	8	0 10	220	28·87	182
D Bury St. Edmunds (The Acacias)	Ernest Stork, Esq.	5	0 10	154	30·78	181
D „ „ „ (Westley)	R. Burrell, Esq.	5	1 0	226 T	31·53	175
D „ „ „ (Fornham St. Martin)	Rev. J. S. Pratt	5	1 0	100	27·71	156
„ „ „ (Hengrave)	Mr. W. Nichol	5	1 2	91	28·51	...
D Bacton	C. H. Woods, Esq. ...	5	1 6	186 T	30·00	179
Darsham (Sibton)	Col. T. M. Ward	5	2 6	94	26·81	177
Westleton (St. Helens)	J. R. Grimsey, Esq. ...	8	2 0	67 T	29·36	158
D Ixworth (Walsham-le-Willows)	Miss M. C. Martineau ..	5	1 0	...	30·86	183
Stradbroke Vicarage	Rev. Canon W. Tate	5	1 3	172 T	30·26	...
D § Southwold	A. C. Herbert, Esq. ...	8	1 0	44 T	27·22	200
Ixworth (Barningham)	Miss A. K. Lingwood ..	8	1 0	136	27·34	...
D Elveden Hall	Lord Iveagh, K.P.	5	1 0	130	30·66	219
D Halesworth (Rumburgh)	Rev. W. Linton Wilson ..	5	3 0	148 T	27·51	190
§ Brandon (North Court Lodge)	Meteorological Council ..	6	2 0	40	26·87	...
D Beccles (Sotterley Hall)	Miles Barne, Esq.	5	0 11	50	29·05	187
D „ (Waveney House)	Clifford Smith, Esq. ...	5	4 2	...	28·74	235
D † Lowestoft (Belle Vue Park)	C. W. Edwards, Esq. ...	5	1 0	86 T	24·56	174
† „ „ „ „ „ M	„ „ „ „ „	8	1 0	84 T	24·81	...
D § „ (The Clyffe, Corton)	R. J. Colman, Esq. ...	5	1 0	62 L	25·98	161
„ (Lound Pumping Station)	J. Hawksley, Esq., C.E.	8	1 0	34	25·86	...
Fritton [Yarmouth]	H. E. Buxton, Esq. ...	8	0 10	40	26·96	184
D Burgh Hall [Yarmouth]	H. P. Frederick, Esq. ...	8	0 6	45 T	25·52	178
D Burgh Castle Rectory	Rev. Canon G. Venables ..	5	0 7	40	25·08	177
NORFOLK.						
Thetford (King's Road)	W. Simpson, Esq.	5	1 0	46 T	28·98	175
„ („ House)	H. F. Killick, Esq. ...	5	1 0	50	28·92	...

DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
NORFOLK—(con.)						
▷ Santon [Brandon]	A. W. Preston, Esq....	5	0 10	32	30·82	182
Ellingham [Beccles]	H. Youngman, Esq. ...	5	3 0	...	26·89	...
▷ § Geldeston [„]	E. T. Dowson, Esq. ...	5	1 0	38 ∞	26·95	190
§ „ [„]	„ „ „ „ „ „ „ „ „ „	8	1 0	38 ∞	26·20	...
▷ Long Stratton (The Beeches, Fritton)	Miss Wainwright	5	0 10	120 †	29·78	213
▷ Raveningham Hall [Beccles] ..	N. H. Bacon, Esq.	8	1 3	...	27·83	183
▷ Saxlingham Nethergate	Mrs. Pitt.....	8	1 2	...	28·23	179
▷ Wymondham	J. B. Pomeroy, Esq. ...	8	1 3	118 ∞	30·57	217
Watton	R. Martin Esq.....	5	1 0	166 †	33·00	209
▷ Hingham	G. K. Dobbs, Esq.....	5	1 1	188	31·80	207
Norwich (Dunston Hall)	A. W. Preston, Esq....	...	...	...	29·96	...
▷ Denver	„ „ „ „ „ „ „ „ „ „	8	1 0	80 ∞	29·11	171
▷ Stoke Ferry (Wereham)	G. Read, Esq.....	5	2 3	66	32·39	176
Keswick Old Hall	E. Knight, Esq.....	5	1 0	...	31·18	203
Hethersett (Thickthorn)	Miss V. Evans-Lombe.	5	0 9	100 †	29·29	243
Outwell Sluice	A. Lunn, Esq., C.E....	9	...	16	27·95	169
▷ Moulton	A. W. Preston, Esq....	4	...	...	28·58	184
Emneth	F. M. Bland, Esq.....	6	1 0	6	28·88	153
§ Yarmouth (Sailors' Home)	Meteorological Council.	8	4 0	12	25·12	184
▷ „ (Market Place).....	W. C. Steward, Esq....	5	1 0	...	25·43	198
Norwich (Postwick Hall)	Miss M. Cross	5	1 1	5	29·17	199
„ (Carrow House)	Miss Colman	5	1 3	35 ∞	29·92	...
▷ § „ (Brundall)	A. W. Preston, Esq....	5	1 0	66 ∞	29·44	208
▷ „ (Ipswich Road)	J. H. Willis, Esq.....	5	1 0	110 †	30·03	203
▷ „ (Newmarket Road)	A. W. Preston, Esq....	8	1 2	89 ∞	33·64	228
▷ „ (Heigham)	„ „ „ „ „ „ „ „ „ „	5	3 2	37 ∞	29·31	188
▷ Acle.....	„ „ „ „ „ „ „ „ „ „	5	0 6	51	25·21	189
▷ Swaffham	W. H. Plowright, Esq.	5	5 0	250 ∞	30·09	179
„ (Homewood)	F. Everett, Esq.	5	2 6	210	34·35	187
▷ Honingham	A. W. Preston, Esq....	...	...	...	29·83	222
▷ Sprowston (Oak Lodge).....	T. Cozens Hardy, Esq.	5	1 0	101 ∞	28·32	211
East Dereham.....	G. H. Cooper, Esq. ...	8	3 0	161	31·52	...
▷ Yarmouth (Ormesby St. Michael)	J. Hawksley, Esq., C.E.	8	1 0	21 ∞	24·46	193
▷ Sporle	A. W. Preston, Esq....	...	...	...	32·66	213
▷ Swaffham (Dunham).....	„ „ „ „ „ „ „ „ „ „	5	1 1	320	32·88	209
▷ Salhouse	„ „ „ „ „ „ „ „ „ „	8	1 0	50	27·22	180
Wiggenhall (Outlet Syphons) ..	A. Lunn, Esq., C.E....	8	1 6	...	29·05	157
▷ Bylaugh Park Gardens	Mr. G. Beeton	5	1 0	130 †	33·22	185
▷ Grimston (Manor House)	W. S. Freuer, Esq. ...	5	0 10	90	33·27	200
▷ Reepham (Whitwell Vicarage) ..	F. W. Freeman, Esq....	8	1 6	130 †	29·80	210
Cawston Rectory	Rev. T. H. Marsh	5	1 0	135 †	29·52	210
Aylsham (Woodgate)	R. J. W. Purdy, Esq..	5	1 0	100 †	28·91	178
▷ North Walsham (Dilham)	A. W. Preston, Esq....	5	0 8	...	29·63	236
▷ „ „ (Worstead) ..	R. Cross, Esq.	8	1 0	...	29·20	201
▷ Stalham (East Ruston Grange) ..	W. S. Horn, Esq.	5	1 0	20 †	25·42	188
▷ § Hillington School	Rev. H. Ffolkes.....	5	3 6	93 ∞	35·64	202
Sandringham House	Mr. T. H. Cook	5	1 1	121 †	32·33	...
Fakenham (Pensthorpe)	A. W. Preston, Esq....	5	2 6	153	30·31	...

DIVISION IV.—EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which 01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
NORFOLK—(con.)						
West Rudham	W. S. Freuer, Esq. ...	5	0 10	...	34·02	...
d Holt.....	A. W. Preston, Esq. ...	5	1 3	...	28·85	182
Cromer (Northrepps Hall)	Mrs. R. Gurney.....	5	0 4	200	29·09	213
„	W. H. Archer, Esq. ...	8	1 0	197 T	24·20	238
Blakeney	C. I. Temple Lynes, Esq.	5	1 3	29	26·85	193
Wells (Holkham Hall)	Earl of Leicester, K.G.	12	4 0	39	30·50	...

DIVISION V.—SOUTH WESTERN COUNTIES.

WILTSHIRE.

Landford (Northlands)	Mrs. Wigram	5	1 10	167 A	41·25	189
Downton College	<i>Press-cutting</i> .....	...	...	...	43·39	...
d Donhead St. Mary (Charlton Ho.)	Lord Wynford	5	0 7	514	45·42	199
d Berwick St. John (Ferne)	Col. A. H. Charlesworth	5	1 0	500	43·76	203
d Broadchalke Vicarage	Rev. E. J. Satterthwaite	5	1 0	300 T	45·06	174
Longford Castle	The Earl of Radnor ...	5	1 0	136 T	43·29	194
d Alderbury	Rev. Canon Hutchings. ...	5	0 8	263 A	39·76	175
Tisbury (The Academy)	J. Bristol, Esq.	5	0 9	380 T	46·34	...
d East Knoyle	E. H. Miles, Esq.	5	1 3	560 T	42·54	200
Salisbury (Ardath)	T. Awdry, Esq.	5	1 0	225 A	39·01	178
d „ (Brown Street)	T. H. Baker, Esq.	5	1 0	155	41·51	209
d „ (De Vaux Lodge)	H. Peniston, Esq.	5	1 0	150	40·46	196
d „ (Wilton House)	T. Challis, Esq.	8	0 5	180 A	44·82	205
§ Winterslow (Roche Court)	T. T. S. Metcalfe, Esq. ...	5	1 0	459 T	43·78	210
d§ „ („ „) <i>new g.</i>	„ „ „ „	5	1 0	459 T	40·01	210
Mere (Dews House)	Miss E. B. Rutter	5	1 7	384	42·80	...
„ Vicarage	Rev. J. A. Lloyd	5	3 0	370	43·12	...
d „ (Charnage)	A. R. White, Esq.	5	1 0	426 T	43·07	194
d Maiden Bradley	The Duke of Somerset. ...	8	1 6	626 T	53·59	220
d Warminster (Rye Hill)	S. E. Jefferys, Esq.	8	2 0	466 T	46·60	210
Salisbury Plain (Chitterne House)	R. Hayward, Esq.	11	4 0	319 T	37·81?	173
d „ „ (Shrewton)	F. J. Wardale, Esq. ...	5	0 9	320	47·39	209
d Orcheston (Elston Hill)	H. W. Green, Esq. ...	5	1 6	380 T	45·23	225
d Warminster (Downside)	Mrs. Stent	8	2 3	393	46·32	208
„ (Rock Villa)	J. Wallis Titt, Esq. ...	5	4 0	400 T	56·07	...
d Ludgershall (Conholt Park)	G. Knowles, Esq.	5	1 0	750 T	47·77	223
d „ (Collingbourne Kingston)	Baldwin Latham Esq. CE	5	1 0	470 A	43·30	178
d Trowbridge (Water Works, Biss)	W. W. Gray, Esq., C.E. ...	5	1 0	311	48·15	190
d „ (Wingfield)	T. H. Clark, Esq.	5	1 0	190	43·95	189
d „ (Rood Ashton)	Mr. W. Strugnell	8	1 6	250	45·82	189
d Devizes (Chirton)	Mr. T. Selfe	5	3 0	385	41·41	203
d Bradford (The Chantry)	Dr. Beddoe, F.R.S. ...	5	0 9	125	41·57	184
d „ (Winsley Manor)	E. W. Knatchbull, Esq. ...	5	0 6	400	43·28	202
d „ (Bearfield House)	G. A. R. FitzGerald, Esq. ...	5	1 10	290 T	43·25	177
d „ (Holt)	A. J. Beaven, Esq. ...	5	3 0	120	43·75	210
d Devizes (Wilts Co. Asylum)	Dr. Ireland Bowes	8	2 3	385 A	39·83	190
d Buttermere Rectory	Rev. W. E. Burkitt ...	5	3 0	847	48·71	182
d Shalbourne (West Court)	Mr. T. Barns	5	1 0	640 ?	46·29	200

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which 101 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
WILTSHIRE—(con.)						
Bishops Cannings	Rev. C. W. Hony	5	1 0	446 ∇	41.18	198
Devizes (Shepherd's Shore)	Mr. J. Carter	5	1 0	555 ∇	42.80	195
Chippenham (Lacock)	Mr. W. Brinkworth ...	5	0 11	202 ∇	41.67	196
„ (Langley Burrell)..	Rev. A. B. Mynors ...	8	1 2	250	44.25	207
„ (Kington Langley)..	H. H. Palairret, Esq. ...	5	1 0	270	43.28	209
Marlborough (Preshute House)...	Mr. G. E. Mew	5	0 9	...	44.00	181
§ „ (College)	Royal Meteorological Soc	5	1 0	450	44.50	211
„ (Mildenhall)	Rev. Gordon Soames ...	5	1 0	456	43.44	189
Calne (High Street)	H. Wilkins, Esq.	5	3 6	244 ∇	40.89	182
„ (Compton Bassett)	Capt. J. Heneage	8	1 0	385 ∇	41.81	242
Yatesbury	Rev. E. D. Guillebaud.	5	0 9	564 ∇	46.08	182
Ramsbury	M. P. McDonald, Esq..	5	1 0	398 ∇	40.83	193
Wootton Bassett	H. Bevir, Esq.	5	1 6	422 ∇	39.80	201
New Swindon	H. J. Southwell, Esq. ...	8	0 11	378	39.93	190
Malmesbury	Royal Meteorological Soc	5	1 0	236	40.32	197
„ (Charlton)	Lady Victoria Howard	8	0 6	...	39.53	182
Highworth (Hannington Hall)...	A.D. Hussey-Freke, Esq	5	1 0	375	38.41	194
DORSETSHIRE.						
§ Portland Bill (High Light)	Dorset Field Club	8	1 0	...	31.55	200
Weymouth (Wyke Regis)	Mrs. Pretor.....	5	0 9	158 ∇	34.90	164
§ „ (The Nothe)	Dorset Field Club	5	1 0	79	33.07	172
Swanage (Royal Victoria Hotel)	H. B. Vincent, Esq. ...	5	1 11	26 ∇	37.28	170
Corfe Castle (Smedmore)	Col. A. M. Blake	5	1 2	210	34.68	175
East Fleet (Fleet House)	Dorset Field Club	5	1 1	48	34.88	170
Chickerell (Montevideo)	Mrs. Richardson.....	5	1 0	150	35.25	194
West Lulworth Vicarage	Rev. W. Percy Schuster	5	1 0	128 ∇	38.05	158
Abbotsbury (New Barn)	J. C. P. White, Esq. ...	5	1 6	111 ∇	32.70	175
Winterbourne Steepleton.....	H. Stilwell, Esq.	8	1 0	316 ∇	49.24	200
Wareham (Castle Gardens)	S. W. Bennett, Esq. ...	5	2 6	18	41.77	184
„ (Binnegar Hall)	O. C. Farrer, Esq.	5	1 0	65	42.38	188
Winterbourne Herrington.....	R. B. White, Esq.	5	3 1	200	46.66	171
Dorchester Water Works.....	G. J. Hunt, Esq.	8	1 2	315 ∇	47.04	206
„ (Wollaston House) ...	Capt. J. E. Acland.....	5	1 0	200 ∇	47.25	203
Poole (Parkstone)	late R. H. Barnes, Esq.	5	0 11	198 ∇	40.90	203
„ („)..... new g.	„ „ „	5	1 0	198 ∇	41.74	203
„ („)..... Poole Road)...	W. Symes, Esq.	5	1 3	160	40.56	192
Lyme Regis (Colway Cottage)...	Dr. J. Spurr	5	1 0	250	39.50	212
Bridport (Coneygar)	H. Gordon, Esq., C.E..	5	1 0	110 ∇	45.26	179
Piddletown	Dorset Field Club	5	1 0	190	45.95	167
Bere Regis Vicarage.....	Mr. A. Lucas	5	1 0	160	41.58	183
„ „ (Bloxworth Rectory).	Rev O.P. CambridgeFRS	5	1 3	205 ∇	43.65	161
„ „ „ („ House)...	Mr. F. G. A. Lane.....	5	1 6	118	45.22	162
„ „ „ (Longthorns)	Mr. S. Smart	5	1 2	...	48.02	200
Maiden Newton (Cattistock Lodge)	E.S. Wilmot-Sitwell Esq	5	1 6	350	52.02	210
Sturminster Marshall (Bailie Ho.)	Rev. J. Cross	5	0 6	85	42.39	190
Wimborne (Codford).....	G.H. Batterbury, Esq. MD	5	0 9	69 ∇	46.11	203
„ (Park Homer)	Mrs. L. Paget	5	0 6	...	43.91	

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ".01 or more fell.	
		Diameter	Height Above Ground.	Height Above Sea Level	1903		
			ft.	in.	feet.		inches.
DORSETSHIRE—(con.)							
D Beaminster Vicarage.....	Rev. A. A. Leonard ...	5	1	0	216 T	49·25	198
D „ (Fleet Street)	J. Andrews, Jun., Esq.	5	1	0	200 T	48·50	196
D Broadwindsor Vicarage.....	Rev. G. C. Hutchings..	5	0	7	540 T	51·32	205
D „ (Blackdown House).....	C. E. M. Pinney, Esq..	5	0	9	515	51·77	225
D Winterbourne Houghton	Rev. H. H. T. Bassett.	8	0	6	450	46·88	168
D Cerne Abbas (Melbury).....	Mr. R. Rintoul	5	1	6	500	51·34	170
D Chedington Court	Mr. H. Birkinshaw ...	5	1	0	605	49·02	191
D Chetnole	Col. E. F. Chadwick...	5	1	0	227 T	49·00	192
D Wimborne (Chalbury Rectory)...	Rev. G. H. Billington..	5	2	0	338 T	39·91	178
D „ (Horton Vicarage) ...	Rev. G. Wellington ...	5	1	0	135 T	42·96	177
D Verwood Manor	W. R. Fryer, Esq.....	5	3	0	180	43·61	175
D Holwell (Westrow)	Mr. G. Coffin	5	1	0	252	45·67	189
D Iwerne Courtney (Shroton)	Admiral R. Stopford ...	5	1	2	200 T	42·85	173
D Sturminster Newton (Riverside).	A. R. Hallett, Esq.	5	5	0	200	39·42	173
D Sherborne (Castle).....	Mr. T. Turton	5	1	0	195	41·81	203
D Shaftesbury	Royal Meteorological Soc	5	1	0	722	39·56	214
D Buckhorn Weston.....	Rev. W. Hughes D'Aeth	5	1	0	285	35·28	204
D Gillingham	S. H. Stephens, Esq....	5	1	2	244 T	41·41	197
D Bourton (Chaffeymoor).....	Captain G. Izat, R.N..	5	2	0	425 T	43·85	178
SOUTH DEVON.							
D Salcombe (Sandhills).....	W. H. Pike, Esq.	5	1	0	118	35·46	206
D „	Royal Meteorological Soc	5	1	0	111	38·06	220
D South Huish	W. Balkwill, Esq.....	5	5	6	68 T	41·11	...
D Kingsbridge (Westcombe)	T. W. Latham, Esq....	5	0	9	100	45·08	209
D Revelstoke (Membland)	Mr. G. Baker.....	5	1	0	180 T	44·07	205
D Dartmouth (Redlap House)	L. Karslake, Esq.	5	1	1	220 T	37·28	207
D Plymstock (Thorncot, Hooe) ...	J. Little, Esq.	5	2	0	113 T	49·31	235
D Brixton (Kitley Gardens)	Mr. G. Matthews	8	1	0	50	48·75	203
D Plymouth (The Hoe).....	H. V. Prigg, Esq., C.E.	8	0	10	117 T	45·76	229
D „ (Freedom Fields)	„ „ „	8	0	10	208 T	51·02	231
D „ (Drake's Reservoir)...	F. Howarth, Esq., C.E.	5	1	0	149 T	48·08	217
D Devonport (Rowdens Res.)	H. Francis, Esq., C.E.	5	1	0	201 T	45·33	222
D Ivybridge (Langham Hill)	Miss Glanville	5	1	0	400 T	56·47	227
D „ (Blackadon Asylum)...	H. V. Prigg, Esq., C.E.	5	1	0	607	60·20	247
D South Brent (Great Aish).....	Miss Kingwell	5	1	0	500 T	75·84	236
D Bere Ferrers	Rev. F. T. W. Wintle.	5	1	0	100	61·76	230
D Bickley (Roborough Reservoir)...	F. Howarth, Esq., C.E.	5	1	0	548 T	57·31	244
D Torquay (Princess Gardens) ...	F. March, Esq.	5	1	0	12	40·46	197
D „ (Cary Green)	„ „ „	5	1	0	12	41·15	198
D Lee Moor Clay Works	T. Martin, Esq.	8	1	6	950 T	72·52	...
D Buckfastleigh (Bossell Park) ...	J. Hamlyn, Esq.....	5	1	0	250	72·51	216
D Yelverton	Dr. H. J. S. Liddell ...	5	7	0	627 T	71·22	230
D Sheepstor	M F. Howarth, Esq., C.E.	5	1	0	1024 T	66·14	...
D „ (Red Stone)	„ „ „	5	1	0	760 T	69·17	242
D „ (Burrator)	„ „ „	5	1	0	755	48·62	242

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain.	Days on which .01 or more fell.
			Height Above Ground.	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
SOUTH DEVON—(con.)						
D Sheepstor (Head Weir)	F. Howarth, Esq., C.E.	5	1 0	720	56·80	243
D Dartmoor (Lowery)	H. Francis, Esq., C.E.	5	1 0	890 T	67·69	232
D „ (Deancombe Farm) ...	F. Howarth, Esq., C.E.	5	1 0	830 T	55·37	200
D „ (Leather Tor Farm)...	„ „ „	5	1 0	910 T	67·38	232
„ (Siwards Cross)	M „ „ „	5	1 0	1200 T	76·57	...
„ (Cramber Tor)	M „ „ „	5	1 0	1435 T	66·06	...
D Kingskerswell (Barton Hall) ...	H. Langford Brown, Esq.	8	1 2	360 T	36·51	196
D „ (South Hill)	E. A. Foster, Esq. ...	5	1 0	270 T	41·28	203
D Abbotskerswell (Court Grange)..	Hon. Mrs. Marcus Hare	5	1 1	180 B	52·71	211
D Ashburton (Holne Vic.)	Rev. J. Gill	5	1 6	650 B	77·96	246
D§ „ (Druid House)	Fabyan Amery, Esq.	5	1 0	572 T	66·51	214
Newton Abbot (The Chestnuts)..	E. D. Wylie, Esq.	5	0 6	100 T	38·35	170
D „ „ (Tuplins)	W. G. Aspland, Esq.	5	1 0	22 T	41·25	205
Kingsteignton (Teignbridge Ho.)	F. H. Plumptre, Esq.	5	1 2	27 T	42·61	200
Teignmouth (Bitton Street)	W. C. Lake, Esq., M.D.	5	1 0	70	40·57	210
D „ (Woodlands)	W. B. Harris, Esq. ...	8	1 2	98	36·79	199
„ (Bank Street)	Mr. G. Rossiter	5	1 0	20 T	36·95	192
„ (Bonnieliff)	Capt. J. Horner	5	1 0	260 T	38·96	240
„ (Coombe Bank)	P. A. Gore, Esq.	5	1 0	100	38·61	...
D§ Tavistock (Statsford, Whitechurch)	E. E. Glyde, Esq.	5	1 0	594 T	63·73	251
D „ (Public Library)	Mr. J. Quick	8	20 0	283 T	54·49	235
† Princetown	H. Francis, Esq., C.E.	5	1 0	1390 T	102·40	...
§ „	Royal Meteorological Soc	5	1 0	1395	102·32	220
Dawlish	R. Clarke, Esq., C.E.	5	1 0	18 T	39·50	219
Dartmoor (Leeden Tor)	M F. Howarth, Esq., C.E.	5	1 0	1270 T	62·65	...
„ (N. Hessary Tor, No. 1)	„ „ „	5	1 0	1625 T	65·90	...
† „ (Cowsic Valley)	H. Francis, Esq., C.E.	8	1 6	1352 T	88·65	...
† „ (Black Dunghill) No. 5	„ „ „	8	1 0	1590 T	64·30	...
† „ (Beardown Tor) No. 3	„ „ „	8	1 0	1550 T	60·50	...
† „ (White Tor)	„ „ „	8	1 0	1640 T	64·80	...
† „ (Devil's Tor)	„ „ „	8	1 0	1785 T	64·75	...
† „ (Cowsic Head)	„ „ „	8	1 0	1580 T	76·25	...
D Chudleigh (Ideford Rectory) ...	Rev. G. J. Ford	4	1 0	300 T	43·29	216
Milton Abbot (Endsleigh)	Mr. F. Yole	5	1 0	180 T	64·64	...
D Dawlish (Mamhead Rectory) ...	Rev. W. C. Plenderleath	5	1 0	467 T	49·83	228
D Starcross (Cofton Vicarage)	Rev. C. F. Benthall ...	5	1 9	60	36·32	186
D Exmouth (Nidderdale)	Mrs. Herbert Stewart..	5	1 0	51	34·48	186
D „ (Filter Beds)	S. Hutton, Esq., C.E. ...	8	8 6	195	37·02	187
D Chudleigh (Tottiford)	S. C. Chapman, Esq., C.E.	8	4 0	718 T	50·79	217
„ (Trusham)	Rev. O. H. Cary	5	0 6	322 T	46·82	208
D Budleigh Salterton (Syon House)	H. W. Drummond, Esq	5	1 0	...	36·08	192
„ „ (Squabmoor)	S. Hutton, Esq., C.E. ...	5	1 0	267	39·55	...
„ „ (Oak Hill, E. Budleigh)	H. J. Thurgood, Esq. ...	5	0 9	100 T	37·13	178
D „ „ (Bicton)	Mr. J. Mayne	5	1 0	90	36·62	209
D Kenton (Southtown House)	Major Courtenay	8	2 6	56 T	45·49	225
Coryton	Mr. T. M. Symons	5	2 0	285	54·81	220

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height above Ground.	Height above Sea Level		
			ft. in.	feet.	inches.	
SOUTH DEVON—(con.)						
D Polapit Tamar [Launceston] ...	R. C. Coode, Esq.	5	1 0	315 A	52·16	240
Yeolmbridge	Mrs. Boyd-Wallis	5	4 10	260 T	49·24	209
D Christow (W. W., Kennick).....	S. C. Chapman, Esq. C.E.	8	1 0	842 A	52·18	221
„ (Laployd)	„ „ „	5	1 0	1030 A	45·27	...
„ (Blackingstone)	„ „ „	5	1 0	1090 A	42·93	...
§ Sidmouth (Sidmount)	Royal Meteorological Soc	5	1 0	149 A	36·39	211
D § Rousdon [Lyme Regis]	Hon. Lady Peek.....	5	1 0	516 A	39·32	206
§ „ [„ „]	M „ „ „ „	3	1 0	516 A	38·47	...
D Cleveland [Lyme Regis]	Mr. C. W. Bloye	5	1 11	465 A	39·44	208
Exeter (St. Thomas).....	E. N. Snow, Esq.	5	0 6	...	42·65	180
D „ (Heavitree)	R. H. Cecil Baker, Esq.	8	1 2	175 B	40·89	174
„ (Devon & Exeter Inst.)...	J. E. Coombes, Esq. ...	5	13 7	155 A	38·41	191
D „ (Manston Terrace)	Miss Dymond	5	1 0	166 B	38·83	194
D „ (Elmfield)	W. B. Heberden, Esq. CB	5	4 0	100	36·23	188
D Ottery St. Mary	Mr. H. D. Badcock.....	5	4 0	170 T	44·34	204
Brampford Speke Station	Mr. A. Tucker	5	1 0	83	38·27	176
D Crediton (Stockleigh Pomeroy)...	Rev. T. H. Philpott ...	8	1 0	340	42·56	209
Honiton (Combe Raleigh).....	Major H. W. M. Shewell	5	1 0	615 T	48·15	...
D § Cullompton	T. Turner, Esq.	5	1 0	202 T	42·73	218
D Tiverton (Broomhill).....	Mrs. Dickinson	5	1 0	380	46·86	224
D „ (Highfield).....	G. W. Hanson, Esq....	5	1 10	450 T	53·17	258
D „ (St. Peter Street)	Miss Gill.....	5	6 0	270 B	47·08	225
Uffculme.....	Rev. Preb. Gowring ...	5	1 0	280	41·75	197
D Otterford (Otterhead)	R. Lewis Lloyd, Esq. ..	5	1 0	735 A	50·24	229
D Bampton (Huntsham)	H. Acland Troyte, Esq..	8	1 0	640	57·75	217
D „ (Wonham)	Mrs. J. R. Holland ...	5	1 0	530	55·34	237
NORTH DEVON.						
D Okehampton (Oaklands)	General Holley	5	1 0	521 T	59·37	208
D Petrockstow (Heanton Satchville)	Mr. A. Eames	5	1 0	332 A	50·18	216
D Torrington (Enfield)	G. M. Doe, Esq.....	5	1 0	336 A	52·06	236
D „ (Stevenstone)	Mr. W. Gillies	5	1 0	420	56·31	231
D „ (Little Silver).....	Mr. P. H. Griffin	5	1 0	395	53·65	228
D Parkham (Melbury Moor).....	Baldwin Latham Esq CE	5	1 0	623	65·14	269
D „ („ Reservoir)...	„ „ „ „	5	1 0	516 A	67·75	268
D Romansleigh Rectory	Rev. J. H. Thompson..	5	1 0	590 T	49·49	251
Chittlehamholt Vicarage	Rev. H. L. Pigot	5	1 0	500	48·87	...
D Hartland Abbey.....	Mr. G. Sleep	5	1 6	222 T	49·64	206
Alverdiscott (The Firs).....	F. A. Trevan, Esq. ...	5	2 6	330 T	50·98	225
D Abbotsham (Riccard's Down) ...	Mrs. Hibbert	5	1 0	87 A	48·44	225
D § South Molton (Castle Hill School)	Mr. W. H. Reeve	8	1 0	363	53·45	267
D „ „ („ „ Gardens)	Mr. W. H. Pearson ...	12	3 6	317	54·22	236
„ „	F. Day, Esq. ...	5	1 6	450 T	58·65	217
D Bideford (Gammaton W. W.)...	Baldwin Latham Esq CE	5	1 0	335 A	54·57	215
„ (Webbery)	C. Boyd, Esq.	5	1 10	300 T	50·18	223
„ (Rectory)	Rev. T. Newton Leeke.	5	1 0	132 T	53·01	217
„ (Horwood House)	Rev. J. Dene	5	1 0	288 T	40·70	232
Northam (St. Helens) ...	Miss L. Bowles	5	0 6	67 T	40·90	186

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

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STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which .01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
CORNWALL—(con.)						
D Talland (Polperro)	H. E. Butler, Esq.	5	1 0	120	49·82	235
D St Austell (Trevarna)	W. M. Coode, Esq. ...	5	0 6	300 A	59·31	248
Par Station (Torfrey)	W. G. Mills, Esq.	4	0 5	300	56·52	220
D Empacombe [Devonport]	J. Sandercock, Esq. ...	5	0 6	20 T	45·30	224
D Cremyll [Devonport]	W. Wonnacott, Esq. ...	5	20 0	25	45·24	229
D St. Germans (Trethill)	Capt. J. D. A. Roberts.	5	2 0	200 B	44·50	215
D Looe (Morval)	Miss Florence Tremayne	5	1 0	138	55·51	222
„ (Bray St. Germans)	Mrs. George Sneyd ...	5	1 0	550	50·37	250
D Lostwithiel (Lanwithan)	Miss Foster	6	1 0	80	60·13	232
D Menheniot (Coldrenick House)...	E. Jago, Esq.	5	1 4	...	61·18	241
D St. Wenn Vicarage	Rev. A. S. Rashleigh...	8	1 3	428 A	56·69	252
D† Liskeard (Trevillis)	L. C. Foster, Esq.	5	1 0	320 A	53·22	238
D „ (Dean Terrace)	S. W. Jenkin, Esq., C.E.	5	1 1	375 A	60·36	243
D† „ (Oak Park)	L. J. Bateman, Esq. ...	5	1 2	410 A	66·62	250
Saltash (Pentillie Castle)	Mr. W. T. Johnson ...	5	2 4	150 B	65·74	229
D St. Mellion Rectory	Rev. F. T. Wintle	5	1 0	400 T	61·17	233
D Bodmin (Treledan)	H. D. Foster, Esq. ...	8	1 0	290	67·58	261
D „ (Springfield)	Rev. Prebendary Every	5	0 9	480 T	67·66	250
Liskeard (St. Cleer Down)	S. W. Jenkin, Esq., C.E.	5	1 1	620 T	54·25	...
D Callington (Pencrebar)	Miss G. L. Horndon ...	5	1 9	450 T	52·87	242
D St. Mabyn (Pencarrow)	Mr. A. C. Bartlett	5	1 0	...	56·51	252
Callington (Drakewalls)	Mr. C. A. Wadge	5	4 0	650 T	61·57	215
D Launceston (Landue)	Miss S. E. Tregoning...	5	0 11	225 T	58·02	239
D Altarnon Vicarage	Rev. A. H. Malan	5	1 0	620 B	76·21	271
D Launceston (Tamar Terrace) ..	Captain L. Ching, R.N.	5	0 10	446	55·10	238
Egloskerry (Tregeare)	E. G. B. Lethbridge, Esq.	5	0 6	568	59·14	...
North Tamerton (Ogbeare)	Mr. J. S. Bray	5	5 0	460 T	52·11	207
Bude	J. Arthur, Esq.	5	1 0	16 B	42·27	...
Stratton (Poughill)	Cornwall County Council	...	...	200	45·98	...
SOUTH SOMERSET.						
Chard (Tatworth)	Rev. H. Stuart King ..	5	1 3	347 A	61·33	198
Cricket St. Thomas	Mr. S. Lyon	5	1 0	444	52·65	196
D Crewkerne (Bincombe House) ..	Miss Sparks	5	1 2	293 T	45·32	205
D „ (Merefield House)	J. Tompsett, Esq.	8	6 6	243 A	47·72	202
D Yeovil (West Coker)	Major Aldworth	5	1 0	260 T	40·89	199
D „ (Gas Works)	E. Howell, Esq.	5	10 0	110 T	37·38	180
D South Petherton (Yeabridge) ..	Miss E. F. Blake	8	0 9	100	39·26	195
D Ilminster (Ilton Vicarage)	Rev. R. B. Poole	8	0 10	103 A	42·76	225
D Taunton (Blagdon Reservoir) ..	H. T. Coles, Esq.	8	1 6	590 A	48·98	167
„ (Leigh Reservoir)	„ „ „	8	1 6	525 A	47·01	167
D „ (Leigh Court)	A. Eastwood, Esq.	8	1 0	350 T	45·76	201
D „ (Ashleigh)	W. A. Gunner, Esq. ...	5	1 0	78 B	34·57	205
D „ (Linden Grove)	H. Le B. Gunner, Esq.	5	1 0	...	35·14	206
D Wellington (The Avenue)	F. J. Burnett, Esq. ...	5	0 10	254 T	40·86	208
Temple Combe Rectory	Rev. J. C. Fox	5	0 6	215	41·21	217
Milverton (Olands)	Rev. P. P. Broadmead.	5	1 0	330 T	47·18	209
D „	Miss F. E. Bere	5	1 0	...	45·80	221

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
SOUTH SOMERSET—(con.)						
Taunton (Staplegrove)	C. Lewis, Esq.	8	0 9	30	40·86	...
d Langport (Huish Episcopi)	W. Kelway, Esq.	8	1 1	...	33·00	160
d North Cadbury Rectory	Rev. H. A. Boys	8	1 3	256 π	37·76	215
d Taunton (The Mount, Halse) ...	Miss Caroline Smith ...	5	1 1	254	43·65	205
d Wincanton	Rev. Walter Farrer ...	5	1 0	300	42·53	215
Cothelstone House	C. E. J. Esdaile, Esq. ...	5	1 0	430	44·13	228
d North Petherton (The Old Rectory)	E. C. Curtis, Esq.	8	0 6	136 π	40·11	216
Winsford	Rev. Preb. Anderson ..	5	1 2	630	70·97	171
Bridgwater (Nurseries)	H. Corder, Esq.	5	0 6	30 ?	37·92	201
d „ (Ashford)	F. Parr, Esq., C.E. ...	5	1 5	104 π	40·31	181
„ (Fiddington)	E. R. Case, Esq.	8	5 0	120	37·28	166
d Exmoor (Simonsbath)	Rev. J. S. Martin	8	1 0	1100 π	86·65	262
d Holford (Woodlands House) ...	Miss I. L. Joseph	5	0 9	391 \uparrow	46·64	202
Dunster (Alcombe)	Rev. J. Utten Todd ...	5	1 0	...	43·87	190
Stockland Bristol Manor House.	Rev. H. A. Daniel	5	1 0	65	38·81	187
d Bridgwater (Pawlett)	H. A. Smith Spark, Esq.	5	1 0	45 ?	37·74	173
d „ („) Snowdon „ „ „	„ „ „	5	1 0	45	36·54	173
NORTH SOMERSET.						
Castle Cary (Pitcombe Vicarage)	Rev. D. E. Norton	5	1 2	310 \uparrow	44·25	...
d Somerton (Butleigh Court)	R. Neville Grenville Esq.	8	1 2	80	38·43	186
Bruton (King's School)	D. E. Norton, Esq.	5	1 2	240	43·72	...
d Glastonbury (Street)	W. S. Clark, Esq.	8	0 6	100	38·62	209
„ (Wells Road)	J. Spire, Esq.	8	7 0	94 π	36·43	193
Cranmore (Southill House)	S. Poyntz-Wright, Esq.	5	1 0	635 \uparrow	50·69	212
d Shepton Mallet (Charlton)	F. H. Berryman, Esq. ..	5	1 0	481 π	48·15	196
d „ „ (Field House) ...	„ „ „	5	1 0	500	51·43	197
d „ „ (Grammar School)	William Aldridge, Esq.	5	1 0	475	50·40	225
d „ „ (Sewage Farm) ..	C. Hale, Esq.	5	0 9	310 π	51·65	213
d Wells (The Deanery Gardens) ...	Mr. A. King	5	1 0	170 π	46·07	209
d Cranmore (Cranmore Hall)	Rt Hon Sir RHPaget, Bt.	8	1 0	600 \uparrow	53·91	223
d Frome (Mells)	Miss E. G. Horner	5	1 0	344 π	49·47	211
d „ (Orchardleigh)	Rev. W. A. Duckworth	8	0 10	303 \uparrow	50·23	191
Downside Abbey	Rev. F. P. Whiteside ...	8	0 11	600 \uparrow	58·34	202
d Chewton Mendip (The Priory) ...	The Earl Waldegrave ..	5	1 5	550 \uparrow	59·22	222
„ „ (Waldegrave Ho.)	J. Hansford Hill, Esq. ..	10	4 6	450	57·88	218
Ston Easton	H. E. Hippisley, Esq. ...	5	3 0	480 π	56·05	213
E. Harptree (Sherborne Reservoir)	Bristol Water Works ...	5	1 0	338 \uparrow	52·28	202
d „ „ (Harptree Court)	W. W. Kettlewell, Esq.	5	1 0	346 π	58·00	207
Axbridge (Loxton Rectory) ...	Rev. J. E. Page .....	...	...	...	45·13	188
„ (Winscombe Court) ...	Rev. R. F. Follett	8	1 0	180 \uparrow	44·55	...
Blagdon (Nordrach-on-Mendip).	R. Thurnam, Esq., M.D.	5	0 4	862 π	61·41	244
Radstock (Camerton Court)	Miss Jarrett	5	1 6	340 π	53·50	182
d „ (High Littleton Vic.) ..	Rev. A. M. Foster	5	0 10	442 π	48·66	210
d Axbridge (The Down, Winscombe)	J. Grubb, Esq.	5	1 0	295 \uparrow	49·07	210
d Hutton Rectory	Rev. W. F. Rose	5	1 0	75 ?	40·75	198
d Pensford (Sutton Court)	Sir E. Strachey, Bt. M.P.	8	1 0	280	51·60	222
d Churchill (Springfield)	S. B. Pumphrey, Esq. ..	5	1 1	...	41·11	194

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which "01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
NORTH SOMERSET—(con.)						
Weston-spr.-Mare (Leycroft Ho.)	C. Brown, Esq.	8	1 0	15	37·57	187
" " " (Beaufort Rd.)	W. A. Fussell, Esq. ...	8	5 0	23 †	40·23	198
" " " (Worle)	Dr. St. J. Kemm	5	1 0	...	37·45	206
Bath (Combe Hay Manor)	F. G. Smart, Esq.	5	1 0	...	50·80	212
Wroughton (The Rectory)	Rev. G. M. Ashdown...	5	5 0	68	42·65	193
" (West Hay)	Miss Harrison	5	2 0	100 †	44·06	178
Chew Magna	Bristol Water Works...	5	1 0	160 †	50·50	208
Pensford Vicarage	Rev. H. H. Tripp	5	1 0	245 †	45·63	...
Bath (Royal Institution)	The Librarian	6	8 0	75	43·86	196
" (Henrietta Park)	Dr. W. H. Symons	5	1 0	67 †	42·57	195
" (Statutory Hospital)	" " "	5	1 0	520	50·16	202
" (Kingswood School)	" " "	5	1 0	620 †	43·23	188
" (Hampstead, Combe Park)	" " "	5	1 0	165 †	42·73	175
" (Fairley, Weston)	C. H. B. Hambly, Esq. ...	5	1 6	200	42·43	202
" (" ")	" " "	5	1 6	200	42·52	...
" (Charlcombe)	J. Dent Young, Esq. C.E. ...	8	2 0	325 †	42·10	191
Batheaston	Col. Linley Blathwayt. ...	5	1 0	166 †	41·91	199
"	" " "	5	1 0	166 †	42·27	...
" Reservoir	J. Dent Young Esq., C.E. ...	5	2 0	248 †	45·77	205
Yatton (Chelvey)	Bristol Water Works...	7	0 10	56	41·95	172
Barrow Gurney Reservoir	" " "	5	1 0	320 †	47·27	209
Long Ashton Estate Office	H. B. Napier, Esq. ...	8	1 0	134 †	43·72	185
Flax Bourton (Tyntesfield)	Antony Gibbs, Esq. ...	5	1 7	320 †	38·26	194
Clevedon (The Knoll)	Miss Woodward	5	1 0	120 †	39·01	187
" (Water Works)	E. Button, Esq.	5	0 9	28 †	40·27	195
Bristol (Coronation Road)	H. C. Martin, Esq.	5	0 10	50	39·37	...
Wraxall Rectory	Rev. H. Vaughan	5	0 11	191	45·44	194
Abbots Leigh	Sir Henry Miles, Bart. ...	5	1 0	333 †	46·15	201
Failand House [Bristol]	Miss Agnes Fry	5	1 0	385 †	44·44	204
" " "	" " "	12	2 10	385 †	40·83	203

DIVISION VI.—WEST MIDLAND COUNTIES.

WEST GLOUCESTERSHIRE.

	Monkwood Reservoir [Bath] . . .	J. Dent Young Esq., C.E.	5	1	0	365	†	42-94	210
D	Bristol Docks (Underfall Yard) .	W. W. Squire, Esq., C.E.	8	19	6	45	⌘	36-52	194
	„ (Small Street)	Bristol Water Works...	12	33	10	52		42-61	182
D	Clifton (Harley Place)	Miss Hooper	5	1	5	260		41-23	217
D	„ (Durdham Down)	the late J. H. Dix, Esq.	9	3	0	310		43-43	203
D	„ (Pembroke Road)	R. F. Sturge, Esq. . . .	8	0	10	215		43-65	209
D§	„ College	D. Rintoul, Esq.	8	1	2	230		42-82	197
D	„ (Stoke Bishop)	H. L. P. Lowe, Esq. . . .	8	1	0	230	†	40-93	175
D	Fishponds (The Grove)	H. H. Harding, Esq. . . .	5	1	0	160	†	40-81	207
	Westbury-on-Trym (CoteHouse)	Mrs. Ames	8	1	3	243	⌘	44-11	199
	Pucklechurch	Rev. S. G. Gillum.	5	0	10	374	†	41-34	192
	Avonmouth (Bristol Docks)	W. W. Squire, Esq., C.E.	12	3	2	12		41-00	182
D	Filton	F. W. Gayner, Esq. . . .	5	2	0	200		37-94	199

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which 101 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
W. GLOUCESTERSHIRE—(con.)						
d ChippingSodbury(FramptonCotl)	J. Marsh, Esq.	5	1 0	180 π	39.20	194
d " " (StanshawesCt)	R. N. Hooper, Esq. ..	5	1 3	280 π	41.56	215
d " " (The Ridge) ...	P. Burges, Esq.	5	1 4	357 π	40.62	175
d Patchway (Over Court Park) ...	R. C. C. Lippincott, Esq.	5	0 11	147 π	43.87	223
d " " (" " Garden)..	" " "	8	1 0	137 π	41.53	223
Badminton	Mr. W. Nash	5	1 0	407	48.06	214
d Wickwar Rectory	Rev. Canon R. J. Lyon	5	1 0	260 π	40.79	191
Alderley	Gen. R. Hale	5	1 0	310 π	45.62	..
Tortworth Court	The Earl of Ducie	8	1 0	264	43.26	209
Dursley	John Richards, Esq. ...	5	1 0	251 π	45.34	196
d Berkeley (Castle Gardens)	Mr. R. Shore	5	1 6	62 π	42.51	175
d " (Sharpness Docks).....	F. A. Jones, Esq., C.E.	5	3 9	50	41.78	196
d Amberley (Highlands)	Mrs. Blackwell	8	0 10	550 π	44.12	182
d " (Glen View)	C. C. Pratt, Esq.	5	1 2	600 π	42.69	189
d Woodchester (Culver House) ...	Mrs. Davidson	5	1 0	372 π	43.48	184
Chalford (Hyde House).....	Piers F. Legh, Esq. ...	5	1 6	545 π	43.15	220
d Lydney (Clanna)	Captain W. B. Marling	5	1 0	260 π	50.26	202
d " (Priors Mesne)	Surgeon-Gen. H. Cook.	5	1 0	500 π	51.72	225
d Stroud (Stanley Park)	Capt W. J. Paley Marling	8	1 0	365 π	43.16	190
d " (Upfield).....	Miss Stanton	5	1 0	226 π	39.90	209
d Stonehouse (Wycliffe College)...	W. A. Sibly, Esq.	5	1 0	124	39.25	211
" (Parklands).....	W. Grey Robinson, Esq.	8	2 6	110 π	37.34	206
d Whitminster	F. A. Jones, Esq., C.E.	5	1 0	32 π	39.61	206
Haresfield Court	Mr. S. Pearce.....	5	1 0	100	39.32	199
d Harescombe Grange	Miss Hutton	5	1 0	550 π	40.85	247
d Westbury-on-Severn (Chaxhill).	Mrs. S. J. Grant....	5	3 0	122 π	39.50	190
Quedgeley House	Col. Curtis Hayward...	5	1 0	65 π	38.05	192
d Birdlip Hill	A. S. Helps, Esq.	5	1 0	800 π	39.83	200
d " " new g.	" " " "	5	1 0	800 π	41.22	200
d Witcombe Reservoir	R. Read, Esq., C.E. ...	8	3 0	297 π	40.37	180
Mitcheldean (Blaisdon).....	P. Stubbs, Esq.	5	1 0	117 π	42.40	216
" " (" ")..... M	" " " "	5	1 0	117 π	42.28	...
d Gloucester (Hempsted)	F. A. Jones, Esq., C.E.	5	1 0	72 π	36.34	198
" (Gloucester Park) ...	T. B. Fox, Esq. ....	...	...	...	37.74	246
d " (Belgrave Road)	W. Piffe Brown, Esq. ...	5	1 0	52 π	35.44	200
" (Denmark Road).....	A. J. Stephens, Esq. ...	5	1 0	53	33.57	..
d " (Llanthony Lock) ...	E. D. Marten, Esq., C.E.	5	1 2	39 π	35.96	193
" (Churcham)	L. H. Hall, Esq.	5	2 1	90	36.61	195
d " (Wotton Asylum)	R. B. Smyth, Esq., M.D.	8	0 9	88 π	35.35	186
d Dowdeswell.....	J. S. Pickering, Esq., C.E.	5	0 10	357	41.88	187
d Gloucester (Maisemore Lock) ...	E. D. Marten, Esq., C.E.	5	1 1	39 π	35.39	215
d Cheltenham (Northfield)	J. S. Pickering, Esq. C.E.	8	5 0	637 π	35.71	203
d " (Hewletts Res.) ...	" " " "	8	1 6	419 π	38.88	203
" (" ").....	A. W. Agg, Esq.	6	0 6	660	34.75	...
d " (Sandford)	J. S. Pickering, Esq. C.E.	5	2 8	210	36.27	177
" (Kemerton Lodge)...	Rev. Percy Burd	5	1 0	211	35.37	200
d " (Heath Lodge)	Rev. M. A. Smelt	8	1 0	206	37.96	211
"	Royal Meteorological Soc	5	1 0	188	35.83	208

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued*).

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DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
HEREFORDSHIRE—(con.)						
d Credenhill	R. M. Whiting, Esq....	5	1 0	280 T	37·64	197
d Malvern Hills (Upper Wych) ...	Baldwin Latham Esq CE	5	1 0	1006 T	33·70	164
d Hereford (Burghill Court)	Miss E. D. Woodhouse	5	0 10	293 T	35·71	212
d Hope-u-Dinmore (Hampton Ct.)	J. H. Arkwright, Esq..	8	1 2	212 B	44·66	193
Huntington Court.....	E. Radclyffe Crump, Esq.	5	1 1	833 T	54·26	247
d Pembridge (Dilwyn).....	T. L. Hall, Esq.	5	0 8	290 T	36·93	204
d Kington (Lynhales)	S. Robinson, Esq.	8	1 0	566	43·73	194
d „ (Gravel Hill)	Col. G. F. Pearson.....	5	0 8	540 T	47·50	238
d Pembridge (Marston)	H. Langston, Esq.....	5	1 5	347 T	37·93	204
Bromyard (Rowden Abbey).....	H. J. Bailey, Esq.....	5	4 2	455 T	35·86	205
d „ (Buckenhill).....	R. Phipps, Esq.....	8	1 9	213	38·04	204
Leominster (Farm)	Miss Southall	5	1 6	268	37·12	216
SHROPSHIRE.						
d Ludlow (Ashford)	Rev. J. Selwood Tanner	5	1 2	265 T	36·36	212
d „ „ (House)	W. Downes Hall, Esq.	5	0 5	315 T	41·29	217
d „ (The Sheet)	Rev. R. P. Dansey.....	5	1 0	370 T	43·28	205
d Bromfield (Priors Halton).....	Miss Keddie	5	3 0	300	43·69	206
d „ (Oakly Park)	Mr. T. Reason	5	1 0	300	40·07	237
d „ Vicarage	Rev. W. Selwyn	5	1 0	300 T	41·04	209
d Clunbury Vicarage	Rev. W. Clark Maxwell	5	1 0	497 T	40·71	196
d Craven Arms (Stokesay Vicarage)	Rev. W. M. D. La Touche	5	1 0	371 T	40·72	205
Bishops Castle (Totterton)	W. H. Whitaker, Esq.	5	0 7	700	41·20	...
d „ „ (Castle Street) ...	E. Griffiths, Esq.	5	2 0	720 B	37·87	208
„ „ (Lydham Manor)	A. H. Sykes, Esq.....	8	1 6	740	39·15	...
„ „ (More Rectory)...	Rev. Ridley Relton ...	6	1 0	600 T	38·77	...
Bridgnorth (Coton Hall)	E. M. Wakeman, Esq.	5	1 0	460	34·71	200
d Church Stretton	Rev. R. P. Dansey ...	5	1 0	645 T	47·73	232
d „ „ (Caradoc Lodge)	The late Preb. Elliot...	...	...	...	42·76	215
d Bridgnorth (Hookfield House)...	Rev. Preb. F. Burd ...	5	0 11	273	35·06	232
d „ (Cantreyn Bank) ...	Rev. H. M. Stallybrass	6	3 9	320 T	40·31	176
d „ (Aldenham Park) ...	H. J. Wyley, Esq. ...	5	3 9	430 T	33·98	189
Church Stretton (Preen Manor)...	C. B. Sparrow, Esq. ...	5	1 0	700 T	36·41	190
d „ „ (Woolstaston)...	Mrs. E. D. Carr	5	1 0	800 T	43·57	240
d Much Wenlock (Willey Park)...	Lord Forester	5	1 0	502 T	37·75	206
d Pontesbury (Somerville)	Mr. W. R. Croft	5	1 6	355 T	35·16	191
Minsterley (Hampton Hall)	J. Whitaker, Esq.....	...	1 0	630 T	45·90	...
d „ (Wallop)	Mrs. Severne	8	1 6	700 T	53·48	223
d Shifnal (Hatton Grange)	Rt Hon Col. Kenyon-Slaney MP	5	4 4	251	32·80	236
d „ (Neachley).....	Col. Hon. F. Bridgeman	5	1 6	280 T	33·97	211
d „ (Haughton Hall)	Mr. W. J. Brooke	5	3 0	355 T	33·89	181
d Shrewsbury (The Abbey House)	Miss F. Rouse Boughton	8	1 3	171 T	30·29	184
„	W. Chapple Eddowes Esq	8	1 3	174 T	34·24	168
d „ (Highfield)	T. M. Howells, Esq. ...	5	4 6	250	33·23	180
§ „ (Roden).....	Royal Meteorological Soc	8	1 0	209	33·07	192
d „ (Fitz Rectory).....	Rev. W. Brewster ...	5	1 2	238 T	35·30	247
d „ (Fitz Manor)	Major J. F. Horner ...	5	1 4	253 T	35·09	224
d Newport (Aston Hall)	Col. R. Leeke.....	5	0 9	280	34·51	209

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ".01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
SHROPSHIRE—(con.)						
Newport (Agricultural College)..	P Hedworth Foulkes Esq	5	1 0	210	30·84	193
" (Edgmond).....	J. Bodenham, Esq. ...	8	1 0	261 T	33·41	208
" (")..... weekly	" " " "	5	1 0	261 T	33·78	...
" Wem (The Rectory)	Hon. Rev. G. H. F. Vane	5	1 0	270 T	34·13	260
" Cheswardine (Knighton Res.) ...	G. R. Jebb, Esq., C.E.	8	0 3	351 T	36·19	217
" Oswestry (The Mount Reservoir)	G. W. Lacey, Esq., C.E.	5	1 0	698 T	57·97	214
Market Drayton (Buntingsdale)..	Mrs. Tayleur	8	3 0	276 T	36·04	...
Ellesmere (The Grange)	C. H. Ashton, Esq. ...	5	0 10	...	40·34	182
STAFFORDSHIRE.						
" Netherton (Lodge Farm Res.) ...	G. R. Jebb, Esq., C.E..	5	1 0	445 T	30·66	169
" Dudley (Shavers End)	H. A. Hill, Esq., C.E..	5	1 0	744 T	29·00	199
" Wombourne (The Bratch)	Baldwin Latham Esq CE	5	0 9	271	33·47	242
" Wednesbury (Ocker Hill).....	G. R. Jebb, Esq., C.E.	5	0 8	474	27·13	185
" Walsall	E. B. Marten, Esq., C.E.	8	4 0	463 T	35·43	214
" " Sewage Farm	R. H. Middleton, Esq. CE	8	0 11	376 T	30·78	193
" " (Wednesbury Sewage Wks.)	T. Wicks, Esq.	5	2 8	381 T	30·18	195
" Wolverhampton (Graiseley) ...	R. E. W. Berrington, Esq	5	0 9	506 T	30·95	177
" " (Town Hall) ...	G. Green, Esq., C.E....	5	15 6	481 T	30·42	222
" " (West Park) ...	" " " "	5	1 0	432 T	30·42	199
" " (Wrottesley) ...	Mr. E. Simpson	8	1 0	500	29·71	192
" Patshull Park.....	The Earl of Dartmouth	8	1 3	273	32·54	191
" Tamworth (Bonehill House).....	Col. G. Chichester	5	1 0	289 T	30·37	187
" Bloxwich (Sneyd Res.)	G. R. Jebb, Esq., C.E..	5	1 0	507 T	30·80	170
" Hammerwich (Cannock Chase Res)	" " " "	5	1 0	475 T	31·25	199
" Weston Park [Shifnal].....	The Earl of Bradford...	5	1 6	400 T	30·65	189
" Brewwood (Belvide Res.)	G. R. Jebb, Esq., C.E.	8	1 0	367 T	30·06	..
" Lichfield (Walsall Road)	W. L. Catlin, Esq. ..	8	1 8	271 T	31·71	185
" " (Maple Hayes)	A. O. Worthington, Esq.	5	0 11	380	30·87	...
" Penkridge (Rodbaston)	H. Ward, Esq.	5	1 0	324 T	32·45	196
" Hednesford (Scout House)	H. A. Hill, Esq., C.E..	5	1 0	750 T	30·12	177
" Shugborough	The Earl of Lichfield..	5	1 0	260	34·89	236
" Burton (Rangemore).....	Mr. W. Bennett.....	5	5 6	424 T	32·67	219
" " (Trent Cottage).....	J. L. P. Barber, Esq...	5	1 0	150	30·87	207
" " (Hamilton Road)	M. L. Nicholas, Esq. ...	5	1 6	270	31·82	213
" " (Shobnall)	Messrs. Bass & Co. ...	5	4 6	156 T	30·59	178
" " (Hoar Cross)	F. W. Lycett, Esq.	8	4 0	400 T	36·99	180
" Stafford	W. Fred. Wright, Esq.	5	2 6	258 T	31·76	183
" " (West Bank, Doxey) M	Leslie Wilson, Esq. ...	5	0 9	280 T	30·57	...
" Salt Vicarage.....	Rev. S. W. Jones	8	0 8	273	34·14	208
" Eccleshall (Walton Hall)	H. A. Wiggin, Esq. ...	5	1 3	344 T	36·58	197
" Uttoxeter (Brook House)	Mr. J. J. Gibbons	5	1 0	283 T	38·29	194
" Market Drayton (Old Springs)...	F. E. Harding, Esq. ...	5	1 0	423 T	35·33	214
" Maer Hall Gardens	Mr. J. Harris	5	1 6	390 T	38·32	226
" Cheddale (The Heath House).....	J. C. Philips, Esq.	5	1 0	647 T	39·23	212
" Longton (The Meir)	G. D. Harrison, Esq. C.E.	5	1 0	618 T	33·80	193
" Newcastle (Madeley Vic.).....	Mr. W. Pye	5	1 0	347 T	36·35	193
" Betley Hall [Crewe]	Col. J. A. Macdonald...	5	0 8	270	38·53	208

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
STAFFORDSHIRE—(con.)						
D Stoke (Hartshill)	J. W. Knight, Esq. ..	5	1 0	485 A	39·32	206
„ (Stanley Reservoir).....	E. B. Smith, Esq., C.E.	5	3 7	550 T	34·26	168
D Alstonfield Vicarage	Rev. A. B. Purchas ...	5	1 0	905	41·58	215
D Leek (Wall Grange)	G. D. Harrison, Esq. C.E.	5	1 0	458 A	43·06	227
Knypersley [Congleton]	E. B. Smith, Esq., C.E.	5	3 1	550 A	52·80	172
WORCESTERSHIRE.						
D Blockley (Upton Wold).....	E. W. Arkell, Esq. ...	5	0 10	...	40·96	186
Northwick Park.....	The Lady Northwick...	8	1 6	410 A	38·16	...
Shipston (Tidmington House) ...	Miss Staunton	5	1 1	...	38·38	...
Upton-on-Severn (Willow Bank)	J. S. Cowley, Esq.....	5	1 3	50 P	35·21	196
D „ „ (The Eades) ..	Major E. W. Tennant..	5	0 9	100 T	34·75	203
„ „ (Earl's Croome)	A. Marston, Esq.	5	1 2	100 T	34·30	191
Evesham (Lansdowne)	R. Burlingham, Esq....	5	5 0	108 T	31·31	...
Gt. Malvern (British Camp Res.S.)	H. P. Maybury, Esq. C.E.	5	1 7	670 A	38·34	186
„ „ („ „ „ N.)	„ „ „	5	0 11	673 A	38·35	182
D „ „ (Church Street)....	„ „ „	5	1 0	330 A	37·12	189
D§ „ „ (Belle Vue House)...	A. Mander, Esq	5	4 0	520	39·23	202
„ „ (Madresfield Rect.)..	Rev. G. S. Munn	5	1 4	124 A	37·66	176
D „ „ („ Court)...	Mr. W. Crump	8	2 6	125 T	35·34	190
Worcester (Boughton Park).....	Mrs. Isaac	5	0 5	82 T	38·10	207
D „ (Diglis Lock)	E. D. Marten, Esq., C.E.	5	1 0	49 A	36·30	224
„ (Belmont Road)	G. B. Wetherall, Esq..	5	1 3	180 T	32·52	208
D „ (Water Works)	T. Caink, Esq., C.E. ...	5	0 9	56 A	28·84	190
D „ (Bevere Lock)	E. D. Marten, Esq., C.E.	5	1 1	52 A	31·09	199
D „ (Hawford Lodge)	F. Ames, Esq.....	5	1 1	70	37·37	191
Martley	Rev. J. F. Hastings ...	5	1 0	290 T	32·81	212
D Droitwich (Holt Lock)	E. D. Marten, Esq., C.E.	5	1 1	55 A	34·54	184
Redditch (Oakenshaw)	E. M. Coleman, Esq....	5	1 0	560 T	40·25	...
D Tenbury (Rochford)	Rev. J. Tomson	5	1 0	317 A	34·64	189
D Bromsgrove (Tardebigge Res.)...	F. A. Jones, Esq. C.E.	5	3 0	433 T	34·12	207
D „ (Stoke Reformatory)	Mr. J. Salter	5	5 4	225	31·71	174
D „ (Barnt Green)	D. B. Grubb, Esq.....	5	1 0	494 A	40·71	211
D Stourport (Lincombe Lock).....	E. D. Marten, Esq., C.E.	5	1 0	62 A	33·51	193
D Bromsgrove (Lower Bittal Res.)	F. A. Jones, Esq., C.E.	5	3 0	430 T	34·41	167
D Bewdley (Beaucastle)	Alderman Baker.....	5	0 9	450 T	32·31	186
D Kidderminster (Prospect Hill)...	Mr. J. T. Cowderoy ...	...	5 3	161 A	32·47	189
Stourbridge (Pedmore)	E. B. Marten, Esq., C.E.	8	0 11	350 A	35·93	202
„ (Longlands) .....	„ „ „	...	...	...	32·48	207
D Northfield (Longbridge)	Mrs. F. Impey	5	0 9	560 T	38·64	179
D „ (West Heath House).	A. J. Brown, Esq.....	5	1 0	...	36·30	217
Kings Heath (Cambridge Road)	J. H. Webb, Esq., C.E.	5	10 0	526 A	33·95	187
D „ „ (Brandwood House)	G. F. Lyndon, Esq. ...	5	1 0	550 T	35·88	210
Selly Oak Cemetery	Mr. W. Garden	5	1 4	540 T	35·60	168
Stechford (Ely Cottage)	H. H. Newark, Esq....	5	1 3	360 B	34·83	213
Moseley (Prospect Road)	Rev. F. O. Lane.....	5	1 0	550	34·40	...
Dudley (Trindle House)	E. B. Marten, Esq., C.E.	8	1 0	575	35·57	196

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea level	1903	
WARWICKSHIRE.						
Long Compton (Weston Park)...	H. A. Warriner, Esq...	8	3 0	510 †	35·18	176
Shipston (Honington Vicarage)...	Rev. E. Boddington ...	5	0 10	215 †	31·44	176
Farnborough	Miss Prater	5	1 0	515 †	32·93	197
Burton Dassett Vicarage	Mrs. Westacott	5	16 6	...	29·43	...
D Stratford-on-Avon (Atherstone-on-Stour)	Rev. F. Smith	12	4 0	135	30·81	159
„ „ (Avonfield)	G. W. Everard, Esq....	5	0 10	120 †	27·83	142
D „ „ (Shottery Hall)...	R. Carter, Esq.	5	0 8	140 †	28·82	182
Alcester (Ragley Hall)	The Marquis of Hertford	5	1 0	260 †	31·83	203
Snitterfield	Stratford Corporation..	5	1 0	304 †	31·16	163
D Warwick (Barford Rectory).....	Miss S. S. Parker	8	0 11	167 †	28·42	183
D Leamington (Radford House) ...	C. E. G. Hatherell, Esq.	5	1 2	300 ?	27·69	179
„ (Binswood Avenue)	Rev. A. Corbet	5	0 9	...	30·84	...
Warwick (Hatton Vicarage) ...	Rev. H. Trethewy.....	5	1 0	384 †	33·28	199
Milverton (Latmos)	Rev. E. Healy	5	1 2	191 †	28·39	...
Leamington (Cubbington).....	Mrs. Robins	6	1 0	280 †	30·22	...
D Kenilworth (The Spring)	W. Evans, Esq.....	5	1 0	312 †	32·50	189
Rugby (Temple Observatory) ...	Rev. Denys E. Shorto..	5	1 1	383 †	30·27	179
„ (Bilton Grange).....	W. H. G. Southcomb, Esq	5	1 0	490	28·34	...
D Coventry (City Hospital)	E. H. Snell, Esq., M.D.	8	1 0	269 †	32·75	185
D „ (Priory Row)	J. Gulson, Esq.	8	1 3	279 †	36·87	201
„ (Kingswood)	R. B. Caldicott, Esq....	8	1 0	340 †	34·37	...
D „ (Keresley Grange).....	Miss Rotherham	5	0 10	413	35·06	254
D Birmingham (Sheldon Rectory)...	Mrs. Jones-Bateman...	8	1 0	323	41·18	191
D „ (Edgbaston)	A. Cresswell, Esq.....	8	1 0	525	33·83	177
„ (Botanic Gardens)...	Mr. T. Humphreys ...	5	5 2	505 †	31·64	189
D „ (The Crescent)	J. J. Gilbert, Esq.....	5	21 0	495 †	31·25	160
„ („ „) ...M	„ „ „ „	5	7 0	480 †	33·49	...
D Bedworth Cemetery	Mr. D. Bosworth	5	1 0	385 †	30·94	153
Nuneaton (Chilvers Coton Vic.)...	Rev. R. Chadwick	5	1 6	283 †	30·36	...
D Witton Reservoir	E. Antony Lees, Esq...	5	2 6	347 †	29·88	194
D Whitacre (Birmingham W.W.)...	„ „ „ „	5	1 5	269 †	33·35	229
D Sutton Coldfield (The Park).....	Mr. H. Harland.....	5	1 0	371 †	32·41	191
D Atherstone	Baldwin Latham Esq CE	5	1 0	286 †	30·12	184

DIVISION VII.—NORTH MIDLAND COUNTIES.

LEICESTERSHIRE.

Lutterworth (Walcote).....	Major Corbet Smith ...	5	0	6	290	31·62	193
Fleckney	J. B. Putt, Esq.....	5	1	0	411 †	30·28	...
D Kibworth Beauchamp	E. V. Phillips, Esq. ...	5	2	6	355 †	28·30	156
Hallaton Hall	S. N. Bankart, Esq. ...	8	1	3	366	36·97	...
Horninghold House	A. Cross, Esq.	5	1	6	380	30·61	...
„ „ „ „ „ float g.	„ „ „ „ „	6	2	0	380	28·40	...
D Glen Parva (S. Wigston Sew. Fm.)	Mr. W. G. J. Clark ...	8	0	5	231 †	28·35	151
D Leicester (Town Hall Square) ...	E. G. Mawbey, Esq., C.E.	5	0	6	211 †	25·25	170
D „ („ „ „ „) ...	„ „ „ „ „	7	2	0	213 †	25·20	170
„ (Humberstone Asylum)	J. E. M. Finch, Esq., M.D	8	1	0	244 †	26·98	200

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.	
		Diameter	Height above Ground.		Height above Sea Level		1903
			ft.	in.	feet		inches.
LEICESTERSHIRE—(con.)							
D Thornton Reservoir	F. Griffith, Esq., C.E..	8	1	2	371 $\frac{1}{2}$	30·58 171	
D Thurcaston Rectory	Rev. T. A. Preston ...	5	1	0	253 $\frac{1}{2}$	28·27 179	
D „ (Cropston)	F. Griffith, Esq., C.E..	8	1	0	246 $\frac{1}{2}$	32·59 180	
D Syston	S. K. Daniels, Esq. ...	5	1	6	180 $\frac{1}{2}$	29·30 169	
D Swithland (The Brand)	F. Griffith, Esq., C.E..	8	1	0	172 $\frac{1}{2}$	31·83 185	
Ratcliffe-on-Wreake College ...	Rev. J. Cremonini	5	1	0	288 $\frac{1}{2}$	27·33 ...	
D Barrow-upon-Soar	Mrs. C. Stuart Thomson	5	1	8	...	30·57 184	
D Charnwood Forest (Blackbrook Res.)	A. H. Walker, Esq., C.E.	8	1	0	310	33·33 167	
D Whitwick (Mt. St. Bernard's Abbey)	Rev. C. Hipwood	5	1	3	588	36·02 184	
D Loughborough (Nan Pantan Res.)	A. H. Walker, Esq., C.E.	8	1	0	269 $\frac{1}{2}$	32·76 196	
D „ (The Widenings)	Adrian Young, Esq. ...	5	0	7	150 $\frac{1}{2}$	32·71 195	
D „ (Sewage Farm)	A. H. Walker, Esq., C.E.	8	1	0	134 $\frac{1}{2}$	30·38 179	
Burton-on-the-Wolds	Lord Percy St. Maur ...	6	0	9	...	30·78 172	
D Prestwold Hall	Hussey Packe, Esq. ...	8	0	9	209 $\frac{1}{2}$	31·09 200	
D Waltham-le-Wolds	Mr. G. Higgins	5	1	0	568	31·66 179	
D Belvoir Castle	W. H. Divers, Esq. ...	8	1	0	260 $\frac{1}{2}$	30·76 200	
RUTLAND.							
D Uppingham (Ridlington)	N. W. Wortley, Esq. ...	5	4	7	527	34·09 171	
Tinwell (Glebe Farm)	H. Edwards, Esq.	5	1	1	...	29·88 161	
D Toilethorpe Hall [Stamford]	C. O. Eaton, Esq.	8	0	8	161 $\frac{1}{2}$	28·21 157	
D Market Overton	Miss Grace Wingfield...	8	0	11	475 $\frac{1}{2}$	33·04 181	
D Stocken Hall	Lady Francis Cecil ...	5	1	0	365 $\frac{1}{2}$	33·15 175	
SOUTH LINCOLNSHIRE.							
(HOLLAND AND KESTEVEN.)							
D Market Deeping (Wilsthorpe) ...	J. C. Gill, Esq., C.E. ...	8	3	10	55 $\frac{1}{2}$	28·35 167	
Spalding (Pode Hole)	Mr. W. Grigg	12	1	0	20 $\frac{1}{2}$	30·75 ...	
Grantham (Stainby)	Rev. W. A. H. Thorold	5	0	9	496	31·27 ...	
D „ (Denton Manor)	Sir C. Welby, Bt., M.P.	5	4	0	275 $\frac{1}{2}$	31·89 186	
D „ (Little Ponton Rect.)	Rev. P. R. Worsley ...	5	1	0	250 $\frac{1}{2}$	32·17 191	
D „ (Saltersford)	H. Preston, Esq.	5	0	6	188 $\frac{1}{2}$	29·91 169	
D „ (Guildhall)	F. J. Morris, Esq.	5	13	6	202 $\frac{1}{2}$	28·59 160	
D „ (High Street)	Messrs. R. & W. Bird..	5	1	0	...	28·57 154	
Horbling (The Hall)	Mr. C. E. Smith	8	1	3	35 $\frac{1}{2}$	28·32 195	
D Boston (Black Sluice, Skirbeck) ..	F. S. Robins, Esq., C.E.	8	1	3	11 $\frac{1}{2}$	29·71 184	
D „ (Grand Sluice)	J. H. Johnson, Esq., C.E.	8	8	0	18	30·08 168	
D „	W. H. Wheeler, Esq. C.E.	5	1	0	25 $\frac{1}{2}$	29·69 142	
D§Sleaford (Rauceby Hall)	Maj.-Gen. M. Willson, CB	5	0	6	125 $\frac{1}{2}$	31·67 196	
D Leake (Lade Bank Engines)	J. H. Johnson, Esq., C.E.	8	1	0	10 $\frac{1}{2}$	28·85 145	
D Stubton [Newark]	G. Nevile, Esq.	5	4	6	99 $\frac{1}{2}$	29·57 174	
D§Fulbeck	Rev. V. F. Willson ...	5	0	8	180 $\frac{1}{2}$	28·33 186	
Leadenham Rectory	Rev. V. E. Skrine	5	1	2	150	27·84 173	
Sleaford (Bloxholm)	Mr. W. Lumsden	5	1	6	20	26·96 140	
§Temple Bruer	Miss A. S. Morley	5	1	0	300?	30·80 176	
Navenby Rectory	Rev. Canon G. T. Harvey	5	1	0	218 $\frac{1}{2}$	30·66 ...	
D Carlton-le-Moorland	J. Brocklebank, Esq. ...	5	1	2	49	28·19 176	

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea level	1903	
			ft. in.	feet.	inches.	
SOUTH LINCOLNSHIRE						
(HOLLAND AND KESTIVEN)— <i>con.</i>						
Lincoln (Branston)	A. S. Leslie Melville, Esq.	5	1 3	122 ∇	31·36	171
D „ (Boultham)	Mr. F. Terrill	5	1 0	19 ∇	32·42	170
D „ (Doddington Rectory) ..	Rev. R. E. Cole	5	1 2	92 ∇	29·07	170
„ (Skellingthorpe Hall) ...	A. H. B. Coupland, Esq.	5	1 0	...	27·88	149
NORTH LINCOLNSHIRE.						
(LINDSEY.)						
D Carrington Grange	Mr. T. J. Ward	5	6 0	15 ∇	30·47	176
Kirkstead	Mr. R. H. Brett	5	1 3	...	26·20	...
Woodhall Spa	C. J. Williams, Esq., M.D.	5	1 0	37 \uparrow	27·55	...
§ Horncastle (Mareham-le-Fen) ..	Meteorological Council.	5	1 0	35	28·07	193
D „ (Revesby)	J. Shaw, Esq.	5	2 0	135 ∇	30·50	145
D Skegness	S. Coetmore Jones, Esq.	8	1 6	11 ∇	34·24	235
D Spilsby (Hagnaby Priory)	Miss Pocklington	8	1 8	47 ∇	31·84	175
„ (East Keal Manor)	A. M. Wilson, Esq. ...	8	1 0	181 ∇	32·11	186
D „	Dr. J. W. Walker	5	1 0	160 \uparrow	35·30	200
D „ (Ashby Road)	J. Jarvis Rainey, Esq..	5	1 0	160 \uparrow	31·94	185
D „ (Hagworthingham)	Mr. R. Wright	5	1 1	252 ∇	34·89	181
D „ (Dalby Grange)	J. H. Wright, Esq. ...	5	1 4	250	37·65	205
D Horncastle (Bucknall)	W. Carter, Esq.	5	1 6	50	26·36	148
D „	H. K. Maynard, Esq. ...	5	1 5	110	30·97	191
D Lincoln (St. Botolphs)	A. M. Swift, Esq.	5	1 2	25 ∇	28·23	153
„ (St. Catherines)	J. H. Teague, Esq.	5	5 6	33 \uparrow	31·64	...
D „ (Brayford Wharf)	Mr. J. W. Horton	5	5 8	28 ∇	28·96	190
„ (Station)	Great Central Rly. Co.*	9	3 6	26	28·02	153
D „ (The Close)	C. J. Bromhead, Esq. ...	8	1 0	185	29·96	191
„ (D'Isney Place)	A. H. Leslie Melville Esq.	4	1 0	215 \downarrow	29·77	187
D Horncastle (Hemingby)	Rev. E. S. Bengough ..	5	1 0	158	30·24	169
Alford (The Burial Ground)	Mr. E. Hodgson	5	1 0	29 ∇	28·04	160
Scampton House	Mrs. E. Sandars	5	1 11	...	31·14	...
D Aisthorpe Hall	J. Billiat, Esq.	5	1 0	77	33·52	182
Willingham-by-Stow	R. C. Bacon, Esq.	5	1 6	70 \uparrow	30·56	194
Louth (Westgate)	Dr. F. Fawcett	5	0 9	120 ∇	35·02	180
Market Rasen	Mr. W. B. Jevons	5	0 8	84	30·46	...
„ „	Great Central Rly. Co..	9	3 6	100	29·05	146
§ „ „ (Tealby)	Meteorological Council.	5	4 0	251	34·48	169
D Yarborough (The Rectory)	Rev. S. Bateman	5	0 9	42 ∇	30·00	178
Gainsborough	Great Central Rly. Co..	9	...	76	27·01	161
Stockwith	„ „ „ „ ..	9	3 6	21	28·26	180
D § Caistor (Hundon Manor)	Mr. Thomas Ford	5	1 0	180	31·36	199
„ (Cabourne)	Rev. R. Thomas	5	1 2	280 \uparrow	34·39	...
Brigg	Great Central Rly. Co..	9	3 6	16	26·03	162
D „	A. Atkinson, Esq., C.E.	8	1 2	11 ∇	30·28	227
D Grimsby (Irby-on-Humber)	H. B. Parker, Esq.	5	1 0	175	32·71	218
D „ (Abbey Road)	W. J. Wood, Esq.	5	3 0	23	32·10	192
„	Great Central Rly. Co..	9	15 0	42	27·27	144
Barnetby	„ „ „ „ ..	9	3 6	51	26·97	184

* 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.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
NORTH LINCOLNSHIRE						
(LINDSEY)— <i>con.</i>						
D N. Level Engine [Thorne]	Mr. J. Turner.....	5	2 3	...	26·31	182
D Burton on Stather Vicarage	Rev. F. A. Jarvis	5	1 6	212 †	30·03	170
Thornton Curtis.....	Rev. C. B. Goodacre ...	8	1 4	...	29·69	...
D Horkstow	E. J. Turton, Esq.....	5	0 10	75	28·57	174
Ferriby Sluice	A. Atkinson, Esq., C.E.	5	1 0	18 †	27·86	153
New Holland	Great Central Rly. Co..	9	3 6	18	26·71	186
NOTTINGHAMSHIRE.						
D Kingston Hall [Loughborough]..	Mr. W. H. Cooke.....	5	0 8	130	33·85	193
D Plumtree(Normanton-on-Wolds)	T. A. Hill Esq.	8	1 0	170 †	31·86	202
Cropwell Bishop (CropwellGrove)	H. Smith, jun., Esq....	5	1 1	160 †	28·15	...
Bingham (Whatton Manor)	Capt. M. H. Hall	5	3 0	104 †	30·00	189
D Nottingham (Beeston Fields) ...	G. Fellows, Esq.	5	0 9	206 †	35·00	203
D " (The Castle)	A. Brown, Esq., C.E..	8	1 2	192 †	32·37	210
D " (")	" " " "	8	7 6	268 †	28·49	180
D " (CarisbrookHo.,ThePark)	W. Bradshaw, Esq. ...	5	2 0	247	34·12	222
D " (Talbot Street).....	N. S. Ferris, Esq.	5	2 0	250	33·80	173
Radcliffe-on-Trent	T. Yates, Esq.	5	1 0	...	31·17	170
" " " (TheChestnuts)	Mr. J. Green	8	1 0	...	31·43	...
D Nottingham (Stoke Bardolph) ...	Mr. A. A. Avis ...	8	10 0	83	28·57	180
D\$ " (Strelley)	T. L. K. Edge, Esq. ...	8	1 0	396 †	32·81	193
D\$ " (" Hall)	" " " "	5	1 0	379 †	31·64	197
\$ " (")	" " " "	5	1 0	379 †	32·24	...
D " (Mapperley Hill) ...	E. Powell, Esq.	8	0 10	400 †	32·07	153
D " (Bassford)	S. Moore, Esq.	8	1 0	169 †	31·77	192
D " (BurtonJoyceW.W.)	" " " "	8	0 9	64 †	31·75	211
Bulwell (Springfield).....	G. W. Walker, Esq....	5	0 9	166 †	32·28	...
D " (Bestwood)	S. Moore, Esq.	8	1 2	317 †	33·80	180
D Eastwood Colliery	Mr. E. Lindley	5	1 0	245 †	34·40	186
D Hucknall Torkard (Forge Mills)	J. D. Walker, Esq....	5	4 3	200 ?	30·47	182
D Gonalston Rectory.....	Rev. F. H. Paley	5	1 0	84	32·10	196
D Papplewick (Water Works)	S. Moore, Esq.	8	0 10	317 †	34·66	184
D " Hall	F. A. Smith, Esq.	5	0 9	325 †	36·73	166
Annesley (Selston W.W.).....	MessrsG. & F.W.Hodson	5	1 0	475 †	34·32	173
Southwell (Westhorpe Hall) ...	General Warsand	5	1 0	150 †	28·64	...
D Farnsfield	Dr. C. Wills	5	1 0	210 †	35·00	210
Sutton-in-Ashfield W.W.	MessrsG. & F.W.Hodson	5	1 1	462 †	34·69	169
Mansfield (W.W. Rainworth)...	" " " "	5	1 0	360 †	34·24	172
D "	Mr. P. J. Shacklock ...	5	1 0	330	39·08	210
D North Collingham	E. Turton, Esq.....	5	1 0	...	30·36	167
D South Scarle	Rev. E. C. Shawfield...	5	1 4	52	27·48	155
D Ollerton (Boughton W.W.).....	S. Moore, Esq.	8	0 7	141 †	31·23	176
" (Thoresby Gardens) ...	Mr. A. Simmons	8	0 9	125	32·34	...
D Worksop (Welbeck Gardens) ...	T. Warner Turner, Esq.	5	1 0	196 †	29·34	155
"	Great Central Rly. Co..	9	3 6	127	27·81	179
D " (Osberton Gardens) ...	Mr. W. Allsop	5	4 0	70	29·59	171

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ".01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
NOTTINGHAMSHIRE—(con.)						
Retford	Great Central Rly. Co..	9	3 6	52	26.74	170
D „ (Morton Hall)	W. H. Mason, Esq. ...	5	1 0	140	28.08	187
„ (Babworth Hall)	Col. H. Denison	5	0 6	92	30.22	...
D\$ Worksop (Hodsock Priory)	H. Mellish, Esq.	8	1 0	56	27.95	190
\$ „ („ „)	„ „	5	1 0	56	27.56	...
The Gardens [Bawtry Hall] ..	L. T. Baines, Esq.....	5	1 3	31	27.42	...
D\$ Bawtry (Hesley Hall)	B. I. Whitaker, Esq....	8	0 11	61	26.63	173
DERBYSHIRE.						
D Melbourne Vicarage	Rev. Canon Singleton ..	5	2 0	177	36.04	181
D „ (The Hollow)	Mr. W. Garratt	5	1 0	182	29.80	168
D Chellaston	H. Chambers, Esq.....	5	1 0	170	32.03	213
Willington (W.W. Milton)	Messrs G. & F. W. Hodson	5	1 0	134	30.30	169
Findern (The Longlands)	Rev. B. W. Spilsbury..	5	0 9	186	27.61	...
„ (Mill Hill Farm)	G. L. Spilsbury, Esq...	6	1 6	243	29.80	...
D Etwall (Blakeley Lodge)	Mr. R. Giles	5	1 0	190	28.59	157
Mickleover (County Asylum) ..	R. Legge, Esq., M.D...	5	3 0	300	31.24	193
D „ Manor	Mr. J. Campbell	5	2 0	280	30.22	163
D Derby (Wild Street)	Messrs. J. Davis & Son	5	1 0	174	33.02	200
D† „ (Midland Railway)	J. Sayers, Esq.	5	1 5	156	31.23	206
D\$ „ (Royal Infirmary)	W. G. Carnt, Esq.....	5	0 9	195	32.02	212
D „ (Arboretum)	J. Ward, Esq., C.E. ...	8	1 0	196	30.73	199
D „ (Duffield Road)	Dr. W. G. Copestake...	5	8 0	192	31.03	211
D Breadsall Lodge	Miss Thompson	5	1 3	340	31.88	212
D „ Priory	A. Victor Haslam, Esq..	5	1 6	380	33.37	191
„ „ „ M	„ „ „	5	1 6	380	31.23	...
D Duffield (Castle Hill House)	Messrs. J. Davis & Son	5	...	...	32.93	204
Hazelwood (Chevin)	Sir J. G. N. Alleyne, Bart.	5	4 0	503	34.51	191
D Ashbourne Water Works	Mr. J. W. Twigg	5	1 0	582	40.48	214
„ (Yeldersley Hall) ..	E. B. F. Wright, Esq..	5	1 0	635	39.77	213
D\$ Belper (Quarry Bank)	J. Hunter, Esq., C.E....	5	0 8	255	36.47	203
D „ (Highfield)	M. Hunter, Esq., C.E..	8	0 8	310	36.38	214
D Codnor (Cross Hill)	A. F. Pine, Esq.....	5	1 0	372	36.72	180
Wirksworth	Thomas Gibbs, Esq. ...	5	1 0	500	38.32	213
D Alderwasley	A. F. Hurt, Esq.	5	1 0	537	39.93	224
Matlock Bath	Mrs. Chadwick	5	1 1	500	42.68	...
D „ (The Gables)	Mrs. R. Wildgoose.....	5	1 0	459	43.30	226
Darley Dale (Whitworth Inst.)..	Whitworth Inst. Trustees	5	1 8	360	41.50	...
D „ Hall	A. Clay, Esq.....	5	1 0	400	40.18	228
Stretton (Lindway Res.)	The Reservoir Keeper...	5	4 3	447	26.83	180
Hardwick Hall	Mr. Wilson	8	2 6	594	41.62	212
D Grassmoor Colliery	Mr. J. Norman	5	19 10	370	23.22	146
D Chatsworth Gardens	W. Chester, Esq.	8	5 5	404	40.07	219
Chesterfield (Gas Works)	Chesterfield Corporation	5	1 0	279	33.86	183
„	Great Central Rly. Co..	9	3 6	246	32.28	172
D „ (Linacre Reservoir). ..	Chesterfield Corporation	8	1 0	490	39.51	198
D „ „ „	„ „ „	5	1 0	490	38.73	198
D „ (Tapton Grove)	Mr. W. R. Bloxham ...	5	3 3	400	31.50	171

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in.	feet.	inches.	
DERBYSHIRE—(<i>con.</i>)						
§ Buxton (Devonshire Hospital)...	Royal Meteorological Soc	5	1 0	988	59·99	256
D „ (Portobello Bar)	W. H. Grieves, Esq. C.E.	8	1 0	1600	67·31	258
D „ (Stanley Moor)	„ „ „	8	1 0	1340	61·97	255
D „ (Burbage Edge)	„ „ „	8	1 0	1400	63·45	256
Comb's Moss	Great Central Rly. Co..	9	3 6	1669	41·71	...
„ Reservoir	„ „ „	9	3 6	710	44·02	242
Chapel-en-le-Frith	„ „ „	9	3 6	965	45·22	242
D Totley Hall	W. A. Milner, Esq. ...	5	0 10	700	41·47	169
Killamarsh (Norwood)	Great Central Rly. Co..	9	3 6	226	29·57	203
D Norton [Sheffield]	Col. Creswick, C.B. ...	6	0 8	700	40·54	231
Bamford	E. Sandeman, Esq., C.E.	5	0 10	508	45·15	226
Hayfield (The Dympus)	G. H. Hill, Esq., C.E., &)	5	1 3	1450	48·42	..
„ (Edale Cross)	H. Sowerby Wallis Esq)	5	1 3	1760	46·82	...
„ (Oaken Clough)	„ „ „	5	1 3	1300	43·32	...
„ (Tunstead Clough)	„ „ „	5	1 3	960	43·34	...
„ (Broad Clough)	„ „ „	5	1 3	1420	48·43	...
„ (Cluthers Rocks)	„ „ „	5	1 3	1730	54·07	...
„ (Upper House)	„ „ „	5	1 3	1170	43·75	...
„ (Kinder Top)	„ „ „	5	1 3	2020	58·38	...
„ (Park Hall Moor)	„ „ „	5	1 3	1260	39·43	...
„ (Sandy Heys)	„ „ „	5	1 3	1500	49·18	...
„ (Leygatehead Moor) ...	„ „ „	5	1 3	1550	44·84	...
„ (Mill Hill)	„ „ „	5	1 3	1730	52·45	...
Glossop (Corporation W.W.) ...	Mr. J. Garner	12	4 6	733	44·34	...
Woodhead Station	Great Central Rly. Co..	9	3 6	878	58·07	232

DIVISION VIII.—NORTH WESTERN COUNTIES.

CHESHIRE.

D Audlem Vicarage	Rev. H. S. Cotton	5	1 4	200	35·35	192
D Baddiley (Nantwich W. W.) ...	Baldwin Latham Esq CE	5	1 0	231	36·17	198
D Nantwich (Dorfold Hall)	J. A. Saner, Esq., C.E.	8	1 6	190	36·69	183
D „ („ „) <i>new g.</i>	„ „ „	8	1 0	190	37·42	186
D „ (Reaseheath Hall) ...	„ „ „	8	1 0	130	37·59	207
Eaton Hall Gardens	Mr. N. F. Barnes	6	3 0	72	34·32	181
D Sandbach (Malkins Bank)	Mssrs Brunner Mond & Co	5	3 8	244	33·18	199
Eccleston	E. Wells, Esq.	5	1 1	94	34·42	202
„ Rectory	A. G. Robins, Jun., Esq.	5	6 0	83	31·46?	173
D Congleton (Buglawton Vic.)	Rev. W. Besant	8	5 0	352	36·29	209
Bosley Reservoir	Great Central Rly. Co..	9	3 6	590	35·41	213
„ Minns	„ „ „	9	3 6	1210	36·78	216
Macclesfield (Wincle)	E. B. Smith, Esq., C.E.	5	3 0	500	42·25	185
§ Chester (Hawarden Bridge)	Meteorological Council	8	1 0	20	31·99?	168
D „ (Christleton Hall)	Mr. J. Weaver	5	1 2	142	34·35	210
„ (Water Works)	A. Bell, Esq.	5	0 10	85	34·59	237
„ (Northgate Station)	Great Central Rly. Co..	9	3 6	84	35·79	214

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which '01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level	1903	
			ft in.	feet.	inches.	
CHESHIRE—(con.)						
d§ Chester (Parkgate Road)	Rev. J. C. Mitchell.....	5	1 0	60 A	36·76	216
d " (The Nurseries)	Messrs. Dicksons	5	1 0	62 A	34·35	205
d " (Hoole Lodge)	Lt.-Col. J.H. Hamersley	5	1 0	108 A	35·22	232
d Middlewich.....	MssrsBrunnerMond&Co	5	3 10	138 A	32·24	205
" (Bostock Hall)	Col. France Hayhurst..	5	2 6	157 A	36·12	168
d§ Macclesfield (The Park)	Mr. J. Dale.....	5	1 0	501 T	40·71	218
"	Great Central Rly. Co..	9	3 6	539	47·12	229
d Chelford (Astle Hall)	G. Dixon, Esq.	5	1 0	250 T	38·79	214
" (" ")	M " " " " " " " " " "	8	1 0	250 T	37·76	...
Northwich	Great Central Rly.&Co.	9	3 6	76 T	31·40	181
d§ " (Highfield)	J. A. Saner. Esq., C.E..	8	3 4	118 A	35·52	227
d " (") Snowdon	" " " " " " " " " "	8	1 0	116 A	35·76	227
d " (Winnington).....	MssrsBrunnerMond&Co	5	3 8	80 A	35·26	222
d " (Lostock Gralam) ...	" " " " " " " " " "	5	3 6	75 A	33·22	226
d Macclesfield (Swanscoe Park) ..	T. C. Horsfall, Esq. ...	5	1 0	676 A	42·52	231
d Neston (Hinderton) ..	Reginald Bushell, Esq.	5	1 0	215 A	38·04	210
" { " }	M " " " " " " " " " "	8	1 0	215 A	38·08	...
" { " } Lodge) ...M	" " " " " " " " " "	5	1 0	145 A	37·07	...
Bollington (Sponds Hill)	Great Central Rly. Co..	9	3 6	1279 T	31·97	...
d Hooton Grange	W. H. Jones, Esq.....	5	1 0	110 A	37·53	203
d Wilmslow (Parksyde)	E. Pearson, Esq.	8	1 0	253 A	37·77	203
" (Poplar House)	J. Holden, Esq.	5	1 0	237 A	36·64	204
Whaley Bridge	Great Central Rly. Co..	9	3 6	602 T	46·36	226
d Disley (Lyme Park).....No. 1	T. Molyneux, Esq.....	9	3 8	720 A	53·68	205
d " (" ").....No. 2	" " " " " " " " " "	12	2 9	674 A	39·59	205
d Runcorn (Weston Point)	J. A. Saner, Esq., C.E..	8	2 4	18	40·37	187
d West Kirby (Greenfield)	H. Bell, Esq	5	1 0	75 T	34·17	226
d Thelwall (Millington House) ...	L. W. Reynolds, Esq..	5	1 0	85 A	37·25	233
Altrincham (Norman's Place)....	A. Griffiths, Esq.	5	8 0	150 T	40·42	...
" (Barrington House).	C. E. Newton, Esq ,C.E..	8	3 0	105	36·88	...
§ Hoylake (District Council Office)	T. Robinson, Esq.....	5	1 0	33 A	34·71	202
§ Birkenhead (Bidston Obs.)	W. E. Plummer, Esq..	8	1 0	189 A	34·42	224
d Northenden (Wythenshawe).....	T. E. Tatton, Esq. ...	5	1 0	114 T	37·06	211
" { " }... M	" " " " " " " " " "	8	1 9	114 T	36·13	...
Marple Top Lock	Great Central Rly. Co..	9	3 6	523 T	36·77	209
" Aqueduct	" " " " " " " " " "	9	3 6	321 T	34·22	219
d New Brighton (Rutland House)..	W. Bell, Esq.....	5	1 0	130 B	36·08	194
Godley Reservoir	G. H. Hill, Esq., C.E..	12	2 0	500	36·20	...
Newton	Great Central Rly. Co..	9	3 6	396 T	37·15	233
Mottram Station.....	" " " " " " " " " "	9	3 6	452 T	32·33	206
" (Hill End)	" " " " " " " " " "	9	3 6	680 T	41·26	228
d Broadbottom (Harewood Lodge).	Col. Sidebottom	5	1 0	440	38·92	214
d Hadfield (Millbrook).....	Mr. S. H. Daxon	8	3 10	442 T	44·26	230
" { " }.....	" " " " " " " " " "	12	4 0	442 T	44·87	230
Arnfield Reservoir.....	G. H. Hill, Esq., C.E..	12	2 6	550	45·95	...
Rhodes Wood Reservoir	" " " " " " " " " "	12	1 0	520	48·39	...
Torrside Reservoir	" " " " " " " " " "	12	1 6	680	50·02	...
Staleybridge (Swineshaw).....	" " " " " " " " " "	8	3 0	884 A	54·77	...
Woodhead Reservoir	" " " " " " " " " "	12	0 10	660	53·87	...

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
SOUTH LANCASHIRE.						
D Garston (Grassendale Park).....	Miss E. C. Abraham ...	5	1 0	35 T	38·42	206
D Aigburth (Kelton).....	Joshua Sing, Esq.	5	1 0	150 T	39·33	22
D „ (Holmfild)	Miss Maxwell.....	5	1 0	100 T	37·59	234
D Warrington (Howley)	T. Longdin, Esq.	10	0 10	19 T	37·36	215
D „ (Central Station) ...	Great Central Rly. Co..	9	3 6	59 T	36·07	197
D „ (Training College)...	Miss F. G. Timewell ...	8	0 9	34 T	36·20	212
D Liverpool (St. John's Gardens) .	J. A. Brodie, Esq., C.E.	5	0 9	47 T	36·79	208
D „ (Smithdown Road) ...	„ „ „	10	0 9	135 T	39·62	228
D „ (Rathbone Road)	„ „ „	10	1 0	199 T	38·90	205
D „ (Hope Street)	George Jevons, Esq. ...	5	1 6	...	38·09	181
D „ (Huyton Vicarage) ...	Mrs. E. M. Sanderson..	5	0 11	116 T	42·26	237
D „ (Knotty Ash)	W. M. Reade, Esq. ...	5	1 0	100	40·43	...
D „ (Newsham Park)	J. A. Brodie, Esq., C.E.	10	1 0	140	38·70	221
D „ (Breeze Lane)	„ „ „	5	0 9	135 T	42·23	216
D „ (Huskisson Station) ...	Great Central Rly. Co.	9	3 6	40 T	37·92	207
D Heaton Mersey [Stockport]	W. B. Leigh, Esq.....	5	3 11	218 T	34·06	215
D Heaton Moor [Stockport]	F. W. Jordan, Esq., M.D.	5	1 0	235	36·85	224
D Manchester (Withington) No. 1	J. King, jun., Esq. ...	5	1 3	110 T	35·85	215
D „ („) No. 2	„ „ „	8	1 6	110 T	35·83	215
D „ („).....	J. H. Casartelli, Esq... 5	1 7	117 T	37·39	209	
D „ (Urmston Sewage Works)	Mr. Ogden	8	2 3	72 T	39·42	232
D „ (Lady Barn, Fallowfield)	Miss C. Herford.....	5	1 0	122 T	35·78	225
St. Helen's (Eccleston Hill).....	J. J. Lackland, Esq., C.E.	12	2 9	268 T	39·34	193
Denton Reservoir	G. H. Hill, Esq., C.E..	12	2 0	324 T	34·96	...
Gorton „	„ „ „	12	2 0	263 T	35·74	...
Manchester (Piccadilly)	Great Central Rly. Co..	9	40 0	194 T	34·83	198
D „ (Fairfield)	„ „ „	9	6 0	312 T	38·65	220
D „ (Oldham Road)	Dr. J. Niven	5	1 0	191 T	38·70	193
§ „ (Whitworth Park)...	Meteorological Council.	8	1 5	126	37·87	233
Eccles (Worsley New Hall)	Mr. W. B. Upjohn ...	8	8 0	100 T	38·44	191
Blundellsands (Park Corner) ...	T. M. Reade, Esq. C.E.	5	1 0	33 T	35·41	...
D Manchester (Moston).....	J. T. Warren, Esq. ...	5	1 0	300 T	41·76	217
D „ (Cheetham Hill).....	WB Worthington Esq. CE	5	1 0	264 T	44·72	215
Ashton (Waterhouses)	Great Central Rly. Co..	9	3 6	345 T	39·39	214
§ Prestwich Asylum.....	Meteorological Council.	8	1 0	295	45·22	229
D „ Reservoir	G. H. Hill, Esq., C.E..	12	2 0	356 T	40·77	...
Oldham (Gas Works)	„ „ „	5	4 0	600 T	49·15	...
D „ (Honeywell Lane)	Great Central Rly. Co..	8	...	553	44·84	229
D „ (Brushes Clough) <i>old g.</i>	C. J. Batley, Esq., C.E.	5	4 0	930 T	56·00	225
D „ („) <i>new g.</i>	„ „ „	5	5 0	955 T	57·23	225
D Ormskirk (Aughton Springs) ...	C. E. Maples, Esq. ...	5	1 0	138 T	38·65	210
D Wigan Waterworks	W. Bolton, Esq.	8	1 6	225 T	42·46	215
D† Downholland (Barton Moss).....	J. Baxendell, Esq.....	5	0 9	14 T	37·99	215
D† Bolton (The Park)	W. W. Midgley, Esq..	5	1 0	390 T	51·26	242
† „ (Heaton Reservoir)	RHSwindlehurst Esq. CE	5	1 3	520	51·67	260
D „ (Ash Lawn, Heaton). ...	Mrs. F. Taylor	5	1 0	406	53·05	242
D „ (Smithills Hall)	Col. R. H. Ainsworth...	8	1 2	510 T	58·51	232
Horwich (Wallsuches)	C. E. Barr, Esq.	5	1 0	630 T	49·68	...

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
SOUTH LANCASHIRE—(con.)						
Horwich (Montcliffe)	C. E. Barr, Esq.	5	4 2	901 †	46·71	...
† „ (Lower Rivington) ...	J. Parry, Esq., C.E.	5	1 0	440	47·80	229
† „ (Lower Knoll)	„ „ „ „	8	1 4	742	52·14	...
„ (Wildersmoor)	Col. R. H. Ainsworth... ..	8	1 2	1220	58·14	...
D† Milnrow (Piethorne, Kitchliffe)... ..	C. J. Batley, Esq., C.E.	5	4 6	767 †	57·48	234
D† „ („ Coldgreave)	„ „ „ „	5	4 2	894 †	52·46	227
† „ („ Norman Hill)	„ „ „ „	5	4 6	1076 †	48·25	223
† „ („ Rooden Res.)	„ „ „ „	5	4 6	1131 †	48·21	223
Rochdale (Deeplish Hill)	J. H. Lancashire, Esq.	5	1 0	475 †	51·60	224
D† „ (Park Observatory) ...	Dr. Henry	8	0 6	472	53·65	234
D „ (Fieldhead)	S. S. Platt, Esq., C.E.	8	12 0	484 †	51·67	219
D „ (The Crescent)	T. H. Hayle, Esq., M.B.	5	40 5	513 †	50·55	247
D† „ (Ashworth Moor)	J. Diggle, Esq., C.E.	5	1 2	907 †	54·36	220
Bury (Gin Hall)	J. Cartwright, Esq.	8	1 0	475	53·24	237
„ („ „)	„ „ „ „	8	1 0	475	54·86	237
D Ormskirk (Rufford)	G. Hobkirk, Esq.	5	0 8	39 †	40·75	182
† Bolton (Belmont)	RHSwindlehurst EsqCE	5	0 9	800	65·24	245
† Rivington (Brown Hill)	J. Parry, Esq., C.E.	8	1 4	843	47·10	...
† „ (Stoneshouse) ...No. 1	„ „ „ „	8	1 4	623	50·92	231
† „ („ „) ...No. 2	„ „ „ „	10	1 4	623	50·83	...
† „ (Hurst Hill)	„ „ „ „	8	1 10	1029	48·48	...
† „ (Great Hill)	„ „ „ „	8	1 8	1240	54·87	...
† „ (Coppice Stile)	„ „ „ „	8	1 8	879	54·88	...
† „ (Gamekeeper's)	„ „ „ „	8	0 8	850	55·65	...
† „ (Higher Hill)	„ „ „ „	8	1 4	733	45·06	...
Southport (Birkdale)	J. Baxendell, Esq.	5	1 0	27 †	41·20	...
D Rochdale (Nayden Dean Filters). ..	J. Diggle, Esq., C.E.	5	1 8	761 †	57·14	225
„ („ „) old g.	„ „ „ „	5	1 7	948 †	51·54	...
„ („ „) new g.	„ „ „ „	5	1 3	948 †	54·22	...
„ (Spring Mill Whitworth) ..	W. Tomlinson, Esq.	8	1 7	720	63·73	211
D „ (Cowm, „)	„ „ „ „	8	1 7	760	62·27	212
D „ (Facit)	T. S. Smithson, Esq.	5	0 6	855 †	63·92	247
† Southport (Hesketh Park)	J. Baxendell, Esq.	5	1 0	38 †	39·62	...
D† „ („ „) M.O.g. „ „ „ „	„ „ „ „	8	1 0	38 †	39·33	216
† „ („ „) Rec. g. „ „ „ „	„ „ „ „	11	1 5	39 †	39·52	220
† „ (Lord Street Station). ..	Great Central Rly. Co.	9	3 6	21 †	33·70	195
Entwistle	RHSwindlehurst EsqCE	5	1 0	700	65·80	224
Littleborough (Hollingworth) ...	Rochdale Canal Compy†	10	1 5	650	47·80	...
„ (Windy Bank) ...	„ „ „ „	10	1 6	605 †	46·08	...
† „ (Blackstone Edge)	„ „ „ „	10	1 9	1225 †	43·10	...
„ (Canal Summit) ...	„ „ „ „	10	1 10	700	43·80	...
„ (Chelburn)	„ „ „ „	10	1 3	800	48·70	...
„ (Byron Edge)	„ „ „ „	8	1 5	1250 †	56·00	...
„ (Lenches)	„ „ „ „	10	1 10	806	54·00	...
Walsden (Calf Lee)	„ „ „ „	10	1 6	960	52·06	215
„ (Warland)	„ „ „ „	8	1 5	1250 †	52·93	...
„ (Whiteholme)	„ „ „ „	8	1 5	1250 †	53·52	...

† Returns supplied by C. R. Dykes, Esq.

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
SOUTH LANCASHIRE—(con.)						
Walsden (Rishworth)	Rochdale Canal Compy.	8	1 5	1300 T	52·54	...
„ (Broadhead)	„ „ „	8	1 5	1300 T	40·62	...
Chorley (Crooke Hall)	Carlton Cross, Esq. ...	5	2 6	265 T	44·92	187
Todmorden W.W. (Ramsden Moor)	W. Tomlinson, Esq. ...	5	1 0	1326 T	51·15	...
D „ „ (Res.)	„ „ „	8	1 0	980 T	63·64	218
† Haslingden (Holden Wood)	J. Cartwright, Esq. ...	8	1 0	670	63·36	228
† „ (Calf Hey)	„ „ „	8	1 0	800	61·53	228
D „ „ (Hazelwood)	Dr. Harrison	5	1 9	750 T	64·84	220
„ „ (Springfield Lodge)	J. Stott, Esq.	5	1 0	770	59·79	...
D „ „ Vicarage	Rev. A. Spencer	8	1 6	820 T	61·15	233
„ „ (Mitchells House Res.)	C. Harrison, Esq.	5	1 6	990	54·91	196
D Over Darwen (Sunnyhurst Hey.)	R. W. S. Saville, Esq. ..	8	1 8	925 T	46·13	256
D „ „ (Earnsdale Res.)	„ „ „	8	1 8	705 T	56·71	258
„ „ (Hoddlesden) No.1	W. Stubbs, Esq., C.E. ..	8	4 0	680	61·43	234
„ „ (Daisy Green) No.1	„ „ „	8	1 0	969	57·05	224
„ „ („ „) No.2	„ „ „	8	1 0	969	57·48	224
„ „ (Pickup Bank) No.1	„ „ „	8	1 0	720	56·79	224
„ „ („ „) No.2	„ „ „	8	1 0	720	57·10	224
Rawtenstall Cemetery	A.W. Lawson, Esq., C.E. ..	8	1 0	572	63·23	232
Preston (Brindle Rectory)	Rev. J. Kinton Jacques ..	4	3 6	480	51·31	...
D „ (Walton-le-Dale W.W.)	T. W. Elliott, Esq. ...	5	0 10	320	49·72	230
Blackburn (Guide Reservoir) ...	W. Stubbs, Esq., C.E. ..	8	1 0	650	44·02	220
„ (Witton)	„ „ „	8	2 6	315 T	52·28	216
„ (Store Yard)	„ „ „	8	30 0	373 T	44·76	230
„ (Water Works Office)	„ „ „	8	60 0	436 T	38·82	224
„ (Corporation Park) ...	„ „ „	8	0 6	584 T	52·08	239
„ (Pumping Station) ...	„ „ „	8	6 0	600 T	50·42	220
Accrington (Milnshaw Park) ...	Accrington Corporation ..	5	1 6	464 T	49·63	215
D† Rawtenstall (Cloughbottom Res.)	J. Cartwright, Esq. ...	8	1 0	1025	61·90	228
† „ (Clough Bridge Res.)	„ „ „	8	1 0	930 T	54·88	262
D Preston (Corporation Offices) ...	T. Cookson, Esq.	8	18 8	148 T	44·61	206
Causeway Side (Burnley W.W.)	W. Williamson, Esq. ...	8	2 0	1116	57·11	...
Sheddin („ „)	„ „ „	8	2 0	960	57·39	...
CantClough, S.Side („ „)	„ „ „	8	2 0	900	57·80	256
„ „ N.Side („ „)	„ „ „	8	2 0	900	54·88	256
RamsClough Head („ „)	„ „ „	8	2 0	1260	52·66	...
Rishton Reservoir	Leeds & L'pool Canal Co. ...	...	...	467	42·04	...
D Huncoat (Burnley Road Res.) ...	C. Harrison, Esq.	9	1 6	620 T	50·20	213
Burnley (Yorkshire Street)	W. Williamson, Esq. ...	8	40 0	420 T	47·17	240
„ (Swinden, Upper)	„ „ „	8	12 0	820 T	56·23	251
„ („ Lower)	„ „ „	8	2 0	745 T	56·15	251
„ (Extwistle Moor)	„ „ „	8	2 0	1310 T	59·73	...
D „ (Gawthorpe Hall)	A. Ford, Esq.	8	0 9	316 T	54·30	202
D Preston (Haighton)	J. J. Myres, Esq., C.E. ..	5	1 2	255 T	49·94	205
Alston	T. Cookson, Esq.	8	1 2	320 T	47·00	...
Nelson (Coldwell Reservoir)	C. E. Newton, Esq., C.E. ..	8	2 0	950 T	41·77	...
Worthdale (Watersheddles)	W.H. Hopkinson Esq. C.E. ..	5	1 0	1115 T	68·19	...
§ Stonyhurst College	Rev. W. Sidgreaves ...	11	1 0	376 T	58·96	231

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which '01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
SOUTH LANCASHIRE—(con.)						
n§ Stonyhurst College	Rev. W. Sidgreaves ...	11	1 10	377 T	58·94	231
§ " " " " M	T. Cookson, Esq.	11	1 0	376 T	58·14	...
Knowle Green (Preston W.W.) M	" " " "	8	1 2	400 T	52·62	...
Loud-scales { " " } M	" " " "	8	1 2	400 T	49·39	...
Spade Mill { " " } M	" " " "	8	1 2	400 T	54·70	...
Jeffrey Hill (" ") M	" " " "	8	1 2	900 T	62·34	...
d Beaton Fell (Barnsfold Res.) ...	J. J. Myres, Esq., C.E.	5	1 6	506 T	46·76	216
Barrowford Reservoir	Leeds & L'pool Canal Co.	8	1 0	473	57·68	...
Foulridge (Canal Office)	" " "	8	1 0	497	59·27	...
" (Cragg Nook Hill) ...	" " "	8	1 0	690	57·68	...
" (Upper Reservoir) ...	" " "	8	1 0	582	55·63	...
Clitheroe (Downham Hall)	R. Assheton, Esq.	10	1 6	464	57·12	...
d Chatburn (Middlewood)	W. K. Wilkinson, Esq.	5	1 3	363	60·27	192
NORTH LANCASHIRE.						
Kirkham (Weeton)	C. Arthur, Esq.	10	1 0	95 T	47·21	...
d Barton (Anderton Fold)	W. H. Mason, Esq. ...	5	0 6	90 T	47·14	224
† Blackpool Hospital	F.J.H.Coutts, Esq.M.D.	5	1 0	59 T	45·41	236
d St. Michael's-on-Wyre Vicarage	Rev. P. J. Hornby	5	1 0	26 T	45·90	231
d Garstang (Bruna Hill)	Sydney Wilson, Esq....	5	0 6	90 T	47·59	227
" (Holme Ho., Bleasdale)	Messrs. A. & S. Wilson	5	1 0	650 T	68·39	...
" (Barnacre Reservoir)...	C. Arthur, Esq.	5	1 0	617 T	57·69	...
" (Grizedale Reservoir)..	" " " "	5	1 0	519 T	51·70	...
" (" Stake House)	" " " "	5	1 0	775	58·34	...
n§ Fleetwood	M. S. Gaulter, Esq. ...	5	1 4	30	42·02	216
Pilling (Smallwood Hey) .....M	Mr. E. Curwen	5	0 9	12 T	45·71	...
d Garstang (Forton)	J. H. Bonny, Esq.....	5	1 6	65 L	48·66	233
Wyresdale (Abbeystead)	J. C. Mount, Esq., C.E.	8	1 0	366 T	57·59	197
d Hampson-in-Ellel	W. G. Welch, Esq. ...	5	1 6	145 T	49·68	233
Quernmore (Old Gauge Basin) M	J. C. Mount, Esq., C.E.	8	1 0	963 T	61·20	...
Wyresdale (Wardstone) .....M	" " " "	8	1 0	1440 T	86·25	...
Quernmore (Brow Top).....	" " " "	8	1 0	552 T	58·17	213
d Heysham House.....	Miss Tomlinson	5	1 6	80	58·71	242
Lancaster (Blea Tarn Reservoir).	J. C. Mount, Esq., C.E.	8	1 0	330	49·94	236
n§ " (Greg Observatory) ...	W. French, Esq.	8	1 0	318	48·81	235
Caton (Escowbeck)	A. Greg, Esq.....	12	1 6	150 T	52·63	234
" Vicarage	Rev. W. J. Locke	5	1 0	160 T	56·07	...
"	F. Storey, Esq.	5	1 0	250	56·27	236
n§ Morecambe	Mr. T. B. Lamb.....	8	1 0	24 T	51·84	227
d Wray Vicarage	Rev. C. L. Reynolds...	5	1 0	165 T	58·57	236
d Bolton-le-Sands.....	Rev. A. R. Tomlinson.	5	1 0	70	48·83	206
Melling (Hornby Castle)	Col. W. H. Foster, M.P.	8	1 8	100	59·21	202
d Barrow-in-Furness	W. Fergusson, Esq. ...	11	1 6	36 T	45·86	228
Arkholme (Storrs Hall)	F. F. Pearson, Esq. ...	5	1 0	220	60·57	...
d Yealand Conyers	W. O. Roper, Esq.....	5	1 0	250	59·57	257
d Ulverston (Urswick School Ho.).	J. Dobson, Esq.	5	1 3	140 T	51·13	228
d Cartmel (Flookburgh)	R. Harrison, Esq.	5	1 0	75	50·85	210
d Lindal (Berkune Mines)	F. A. Ainslie, Esq. ...	5	7 0	215 T	52·59	203

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground		Height Above Sea Level	
			ft.	in.	feet.	inches.
NORTH LANCASHIRE—(con.)						
D Cartmel (Carke)	W. R. Nash, Esq.	5	1	0	75	52·51
D „ (Holker)	VCW Cavendish Esq MP	8	4	8	155	63·18
D Grange-over-Sands (Belmont) ..	Dr. W. M. Burman ...	5	1	0	180	57·83
D „ „ „ (Eggerslack)	Miss Arkwright	5	2	4	140	62·85
D Ulverston (Poaka Beck)	W. Fergusson, Esq. ...	11	1	6	512	71·23
Cartmel (Pit Farm)	W. R. Nash, Esq.	5	1	0	122	56·54
D „ (Aynsome)	J. Stewart Remington Esq	8	2	0	137	61·50
„ (Broughton Hall)	Col. D. Ainsworth	5	2	8	225	59·69
Newby Bridge (Backbarrow) ...	„ „ „	5	2	6	100	58·60
D Colton	Mrs. A. Christopherson	5	1	0	226	69·50
„ „ „	„ „ „	8	1	0	226	68·84
D Finsthwaite Vicarage	Rev. S. Inman	8	1	2	250	71·54
D Broughton-in-Furness	C. P. Chambers, Esq. ..	5	1	3	101	63·17
D Blawith Vicarage	Rev. J. Ashburner	5	0	10	185	74·56
D Cartmel Fell Vicarage	Rev. W. Summers	5	2	3	220	72·91
D Hawkshead (Tower Bank, Sawrey)	Major Alcock-Beck ...	5	1	0	342	82·39
D Duddon Valley (Seathwaite Vic.)	Rev. S. R. M. Walker.	5	1	0	330	96·10
Monk Coniston Park	Mr. W. G. Wilson	5	1	2	305	101·63
Hawkshead (Black Fell)	Mrs. S. A. Marshall, Esq.	5	1	6	1055	94·05
D Skelwith Fold [Ambleside]	„ „ „	5	1	0	333	99·44
„ „ [„]	„ „ „	5	1	0	333	102·93

DIVISION IX.—YORKSHIRE.

WEST RIDING (SOUTHERN).

D Sheffield (W.W., Gleadless) ...	Mr. R. Rodinson	8	0	8	700	39·66
D „ (Stumperlow Hall) ...	H. J. Dixon, Esq.	5	1	0	700	43·03
D „ (Redmires Res.)	L.S.M. Marsh, Esq., C.E.	10	5	0	1110	47·66
„ „ „ „ „ weekly	„ „ „	8	4	0	1110	47·63
D „ (Tylecote, Ranmoor) ...	J. Dixon, Esq.	5	1	0	610	39·09
D „ (Rivelin)	L.S.M. Marsh, Esq., C.E.	10	4	0	564	41·57
„ „ „ „ „ weekly	„ „ „	8	4	0	564	41·21
D „ (Crookes)	„ „ „	10	2	0	629	34·97
„ „ „ „ „ weekly	„ „ „	8	2	0	629	34·97
D „ (West Street)	C. J. Barker, Esq.	8	32	0	336	32·02
D „ (Weston Park)	E. Howarth, Esq.	8	1	0	430	38·07
„ (Victoria Station)	Great Central Rly. Co..	9	3	6	188	29·96
D Rotherham (Ulley Res.)	G. W. Jennings, Esq. ...	5	1	0	184	24·50
Sheffield (Tinsley Locks)	Great Central Rly. Co..	9	...	...	117	28·65
D Tickhill (Sandbeck Park) ...	Mr. G. Summers	8	1	0	150	27·50
D Rotherham (Moorgate Grange) ...	C. E. Chrimes, Esq. ...	5	1	0	262	28·26
Tickhill	G. G. Phillips, Esq. ...	8	1	0	61	29·40
Rotherham (Thrybergh)	W.H.R. Crabtree Esq CE	8	1	0	184	25·81
D Sheffield (Chapelton)	Mr. D. Bell	8	5	0	582	33·50
Doncaster (Firsby Reservoir) ...	W.H.R. Crabtree Esq CE	8	1	3	189	27·83
D „ (Wadworth Hall)	Rev. J. C. Ross	8	1	0	190	28·50
D Bolsterstone (Waldershaigh) ...	G. D. Thorp, Esq.	8	3	1	950	38·89

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which 91 or more in.
		Diameter.	Height Above Ground.	Height Above Sea Level.	1903	
			ft. in.	feet.	inches.	
W. RIDING (SOUTHERN)-(con.)						
D Wentworth Woodhouse	Mr. J. Hughes	5	0 10	360 T	33·57	169
D Swinton (Council Offices)	R. Fowler, Esq., C.E. ...	8	1 0	126 T	27·15	200
D Mexborough	G Fenwick Carter Esq CE	5	2 0	198 T	24·35	185
Wortley	Great Central Rly. Co..	9	3 6	548 T	36·25	209
Elsecar	" " " "	9	3 6	181 T	26·44	152
Langsett Moor (Pike Lowe).....	J. H. Taylor, Esq., C.E.	5	1 0	1358 T	65·01	...
" " (Ewden Height)	" " " "	5	1 0	1099 T	54·67	...
" " (Range Moor)	" " " "	5	1 0	1040 T	63·39	...
D " " (Upper Midhope)	" " " "	5	1 0	912 T	54·26	237
D Langsett	W. Watts, Esq., C.E. ...	8	4 3	960 T	48·17	195
D " "	" " " "	8	4 9	802 T	45·16	194
D Hoyland (King Street).....	J. W. Wilson, Esq. ...	5	1 0	330 T	31·13	175
D Wath-upon-Deerne (Chapel St.)	Dr. F. J. Burman	8	3 0	188 T	28·34	176
Worsborough	Great Central Rly. Co..	9	3 6	225 T	30·65	183
D Stainborough (Wentworth Castle)	W. Fisher, Esq.	8	2 6	520 T	36·91	170
Doncaster	Great Central Rly. Co..	9	3 6	32 T	25·51	161
" (Pumping Station) ..	WHR Crabtree, Esq CE	8	1 2	30 T	28·22	162
D " (Magdalens)	Mr. C. Parkin	5	4 9	46 T	27·18	158
Dunford Brdg. (Up. Windleden) M	H. Dearden, Esq., C.E.	12	2 2	1100	67·84	...
" " (Dearden Res.) M	" " " "	12	1 6	1244 T	66·38	...
" " Station	Great Central Rly. Co..	9	3 6	954 T	60·45	241
D " " Reservoir	H. Dearden, Esq., C.E.	12	2 0	1111 T	65·81	242
Penistone	Great Central Rly. Co..	9	3 6	717 T	40·49	230
" (Hazlehead)	" " " "	9	3 9	868 T	56·18	219
D " (Ingbirchworth Res.)	J. H. Taylor, Esq. C.E.	8	1 3	853 T	49·51	210
D Barnsley (Church Street)	Dr. F. J. Sadler	5	5 2	355 T	33·15	208
" (Beckett Square)	J. H. Taylor, Esq., C.E.	8	1 0	306 T	33·15	170
"	Great Central Rly. Co..	9	3 6	317 T	28·68	...
" (Cawthorne)	Rev. C. T. Pratt	5	1 6	340 T	38·09	200
D Doncaster (Kirk Bramwith)	H. A. Brundell, Esq. C.E.	5	1 0	17 T	28·44	202
D Hemsworth Hall	F. G. Leatham, Esq. ...	5	1 0	250 T	27·72	196
D Ackworth (Nostell Priory)	Mr. J. Easter	5	4 0	...	28·84	164
Goole (Swinfleet)	Mr. G. Harrison	5	5 6	...	30·85	...
D "	W. E. Grayburn, Esq.	5	1 0	18 T	29·57	209
WEST RIDING (CENTRAL).						
Greenfield (Chew Mount)	G. H. Hill, Esq., C.E..	7	0 7	...	64·80	...
" (Yeoman Hey)	" " " "	7	0 7	759	57·10	...
Holmbridge (Yateholme)	O. J. Kirby, Esq., C.E.	7	1 0	861 T	74·10	...
" (Holme Styes)	L. Hinchcliffe, Esq. ...	7	2 0	830 T	63·30	...
" (Boshaw Whams)	" " " "	7	2 0	930 T	63·90	...
" (Bilberry Reservoir) ..	" " " "	7	2 0	820 T	69·70	...
Saddleworth Station	L. K. Jones, Esq.	5	4 2	630 T	48·86	...
Strinesdale [Oldham]	C. J. Batley, Esq., C.E.	5	4 0	815 T	46·61	224
Meltham (Harden Moss)	J. W. Schofield, Esq. ...	8	1 2	1212 T	61·76	...
" (" ") new g.	" " " "	8	1 0	1212 T	58·34	...
Wessenden Head	" " " "	8	1 0	1270 T	58·13	...

DIVISION IX.—YORKSHIRE.—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
W. RIDING (CENTRAL)—(con.)						
Wessenden (Hollin Bank Moss).	J. W. Schofield, Esq...	8	1 0	1360 T	44·50	...
„ (Great Butterley).....	„ „ „ „	8	1 0	1110 T	60·59	...
„ (Bobus).....	„ „ „ „	8	1 0	1200 T	59·77	...
D Standedge (Castleshaw, Broadhead)	C. J. Batley, Esq., C.E.	8	4 6	876 T	50·89	236
† „ („ Cudworth)	„ „ „ „	5	4 6	1410 T	39·66	233
„ (Redbrook Res.) <i>old g.</i>	L. K. Jones, Esq.	8	1 8	1150	60·95	...
„ („ „) <i>new g.</i>	„ „ „ „	8	1 6	1150	60·36	...
Meltham (Brow Grains)	J. W. Schofield, Esq....	8	1 0	900 T	59·54	...
D† Denshaw (Ox Hey)	C. J. Batley, Esq., C.E.	8	4 6	1030 T	54·95	238
† „ (New Year's Bridge)...	„ „ „ „	8	4 0	1012 T	56·35	238
† „ (Ready Con Dean).....	„ „ „ „	8	4 0	1414 T	56·36	238
Meltham (Royd Edge)	C. L. Brook, Esq.	8	1 0	585 T	65·90	...
D „ (Harewood Lodge).....	„ „ „ „	8	1 0	514 T	59·28	234
„ Grange	J. W. Schofield, Esq....	8	1 2	850 T	55·57	...
Marsden (Deer Hill)	„ „ „ „	8	1 0	1149 T	58·91	...
„ („ „)	„ „ „ „	8	1 0	1149 T	61·92	...
D Slaithwaite (Blackmoorfoot).....	„ „ „ „	8	1 0	800 T	59·70	243
D „ (Inglewood)	J. Woodhead, Esq.	5	1 0	550 T	57·50	218
D Chapelthorpe (Crigglestone).....	H. T. Burbury, Esq....	5	1 0	306 T	30·30	191
D Wakefield (Walton Hall).....	E. Simpson, Esq.	5	1 0	140 T	25·79	161
Huddersfield (Bankfield, Golcar)	J. R. Sykes, Esq.	5	1 0	400 T	49·49	204
D „ (Cemetery)	Mr. J. Firth	8	4 0	400 T	44·92	238
D „ (Dalton)	J. W. Robson, Esq.	8	1 0	350 T	39·19	215
† Rishworth (Ringstone Res.).....	C. Clemesha Smith EsqCE	5	1 0	990 T	56·33	231
„ (Stott Hall).....	„ „ „ „	5	1 0	935 T	59·47	212
† „ (Great Walden Edge)	„ „ „ „	5	0 10	1135 T	60·52	244
D Mirfield (Cote Wall)	J. Watson-Kaye, Esq..	8	1 2	200	36·10	213
Ossett (Lowood House).....	Dr. G. S. Greenwood...	5	1 0	300 T	32·84	...
§ Wakefield Prison	Mr. A. Clyde	5	1 0	96 T	30·42	200
„ (Field Head)	C. Clemesha Smith EsqCE	8	1 6	250 T	33·16	184
D „ (Stanley Grange)	H. S. Haworth, Esq....	5	1 0	235 T	29·23	198
Elland.....	P. H. Whitwam, Esq..	8	1 0	307 T	35·89	...
Batley (Staincliffe Reservoir) ...	O. J. Kirby, Esq., C.E.	7	1 0	492 T	30·41	...
D „ (Woodwell Dépôt)	„ „ „ „	8	1 0	301 T	29·22	161
Ardsley Reservoir	C. Clemesha Smith EsqCE	5	1 2	395 T	30·58	197
Sowerby Bridge (Brockwell Triangle)	W. Cyril Empson, Esq.	8	1 0	500 T	53·73	...
D „ „ (Haugh End) ...	J. S. Rawson, Esq.	5	0 8	450 T	55·11	234
D Fielden Hospital [Todmorden]...	Mr. F. Rogers	5	1 0	650 T	58·71	227
D Sourhall Hospital [„ „]...	„ „ „ „	5	1 0	1020 T	66·20	210
Halifax (Bents, Norland)	M. J. S. Rawson, Esq.	5	0 8	800 T	46·13	...
D§ „ (Bermerside Observatory)	J. Gledhill, Esq.	8	0 6	500	41·52	219
D „ (Hall Ings, S. Ofram)...	Rev. G. E. Aspinall ...	5	0 7	750 T	39·99	221
„ (Thorpe)	M. J. S. Rawson, Esq.	8	0 8	345 T	56·80	...
D „ („ „)	„ „ „ „	5	0 8	345 T	56·42	225
D „ (Public Library)	J. Whiteley, Esq.	8	1 0	625 T	44·25	219
„ (Albert).....	R. J. Hartley, Esq., C.E.	5	1 0	795 T	45·56	...
„ (Gibbet)	„ „ „ „	5	6 0	568 T	45·08	...
„ (Ramsden Wood).....	„ „ „ „	8	1 2	816 T	49·64	...

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
W. RIDING (CENTRAL)—(con.)						
D Mytholmroyd (Ewood Hall).....	Mrs. Riley	5	1 6	500 T	53·42	229
Hebden Bridge (Falling Royd).. (Summerfield)...	A. R. Crossley, Esq.... J. Hoyle, Esq.	4 5	1 0 0 8	479 T 800 T	56·29 53·49	227 232
Halifax (Castle Carr)	R. J. Hartley, Esq., C.E. ....	...	...	1060 T	57·03	...
„ (Midgley Moor) M	„ „ „	7	0 6	1350 T	61·02	...
„ (Warley Moor)..... M	„ „ „	7	0 6	1325 T	58·25	...
„ (Ogden) M	„ „ „	8	1 3	990 T	52·91	...
„ (Ovenden Moor) .....	„ „ „ .....	...	...	1375	60·34	...
„ (Widdop) .....	„ „ „ .....	...	...	1050	59·51	...
„ (Walshaw Dean)..... M	„ „ „	8	0 3	1380 T	54·48	...
D South Milford Rectory	Rev. F. J. Young	5	1 2	70 T	31·84	215
§ Garforth	Meteorological Council. ....	...	...	...	30·08	198
D Pudsey	Dr. W. Lovell Hunter.	5	1 0	521 T	35·42	207
Bradford (Horton).....	Mr. A. E. Chilton	5	5 0	450 T	45·21	231
„ (Queensbury).....	R. J. Foster, Esq.	8	2 2	1050	46·35	208
„ (Brayshaw Reservoir).. D „ (The Exchange).....	J. Watson, Esq., C.E.. H. A. Johnson, Esq., C.E.	5 8	1 0 65 6	982 T 395 T	46·75 51·20	236 223
„ (Thornton Moor)	J. Watson, Esq., C.E.	5	1 0	1218 T	54·77	276
„ (Stubden) old g.	„ „ „	8	1 0	1075 T	62·80	251
„ („) new g.	„ „ „	8	1 0	1075 T	57·51	251
„ („ Reservoir) ...	„ „ „	5	1 0	1071 T	54·14	249
„ (Nan Scar, Oxenhope) M	„ „ „	5	1 0	1101 T	68·59	...
„ (Stairs Top) M	„ „ „	5	1 0	1401 T	52·22	...
„ (Leeming Reservoir) M	„ „ „	5	1 0	850 T	55·37	...
„ (Doe Park) old g.	„ „ „	8	1 0	810 T	59·55	246
„ („) new g.	„ „ „	5	1 0	811 T	53·86	246
„ (Manningham Lodge).. „ (Leeshaw Res.) M	J. Priestman, Esq. J. Watson, Esq., C.E.	5 5	1 0 1 0	507 875 T	42·38 71·77	227 ...
„ (Chellow Dean)	„ „ „	5	1 0	645 T	38·90	221
„ („ Heights).....	„ „ „	5	1 0	848	48·07	226
„ (Hewenden Res.) old g.	„ „ „	5	1 0	700 T	54·38	256
„ („) new g.	„ „ „	5	1 0	701 T	48·87	256
„ (Heaton Res.) old g.	„ „ „	8	1 0	530 T	41·44	218
„ („) new g.	„ „ „	5	1 0	531 T	40·09	217
Leeds (Wortley Res.)	T. Hewson, Esq., C.E.	8	0 9	307 T	33·70	209
„ (Knostrop)	„ „ „	8	0 9	72 T	30·42	195
D „ (Holbeck)	Messrs. J. Rhodes & Co.	10	32 0	127 T	26·60	174
D „ („ W. Works Depot)	T. Hewson, Esq., C.E.	8	0 9	93 T	29·90	194
D „ (Museum).....	H. Crowther, Esq.	10	46 0	177 T	30·10	196
„ (Woodhouse Moor).....	T. Hewson, Esq., C.E.	8	0 9	307 T	32·93	209
„ (Elmet Hall, Roundhay).. „ (Weetwood Reservoir) ...	Mr. J. Purvis	5 8	1 6 0 9	400 T 328 T	40·50 32·03	202 211
„ („ Lodge).....	J. P. Reay, Esq.	5	0 9	400 T	30·19	181
D „ (Allerton Hill)	T. Fenwick, Esq., C.E.	5	0 7	418 T	32·25	235
Shipley (Crag End)	Leeds & L'pool Canal Co.	8	1 0	304	37·68	...
Oakworth (Oldfield)	W. H. Hopkinson Esq. C.E.	5	1 0	1008 T	59·11	...
Bingley (Gilstead Filters)	J. Watson, Esq., C.E.	5	1 0	572 T	38·23	230
D Keighley (The Knowle)	W. Clough, Esq.	5	1 0	385 T	49·71	229

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
W. RIDING (CENTRAL)—(con.)						
d Adel (Lawns Wood)	Mr. S. R. Dyson	5	1 0	475 T	35·48	199
Bingley (Sunnydale)	J. Watson, Esq., C.E. ..	5	1 0	825	48·46	...
d Skipton (Silsden)	Mr. A. Elder	5	1 0	432 T	49·33	224
„ („ Gill Grange) ...	J. Watson, Esq., C.E. ..	5	1 0	883	41·36	...
„ („ Reservoir)	„ „ „ ..	5	1 0	560 T	35·79	200
„ (Cringles Reservoir) ...	„ „ „ ..	5	1 0	760 T	41·37	200
„ (Craven Herald Office) ...	E. Townsend, Esq.	8	3 0	360	43·36	228
„ (Hawthorne Cottage) ...	Leeds & L'pool Canal Co.	8	1 0	380	43·23	...
Gargrave (Banks Hill Bank Newton)	„ „ „ ..	8	1 0	545	45·60	...
„ (Ray Bridge Hill)	„ „ „ ..	8	0 10	459	41·55	...
„ (Great Scaunber Hill) ...	„ „ „ ..	8	0 9	676	44·90	...
Winterburn (Long Hill)	„ „ „ ..	8	0 9	705	46·09	...
„ (Brown Hill)	„ „ „ ..	8	1 0	961	56·26	...
d Malham Tarn	old g. Mr. T. Coulthard	5	1 0	1296 T	73·65	258
d „ „	new g. „ „	8	1 0	1296 T	73·01	258
WEST RIDING (NORTHERN).						
Adel (Eccup, South)	T. Hewson, Esq., C.E. ..	8	0 9	390 T	34·32	209
„ („ East)	„ „ „ ..	8	0 9	375 T	35·70	211
d Harewood House	Countess of Harewood. ..	5	0 10	300	38·75	232
d Otley (Danefield)	J. E. Sharpe, Esq.	5	0 9	393 T	38·60	218
„ (Sewage Works) ..	„ „ „ ..	5	0 9	169 T	37·38	...
d „ (Farnley Hall Gardens) ...	Mr. J. Snell	8	0 11	400 T	38·35	224
Harewood (Arthington)	T. Hewson, Esq., C.E. ..	8	0 9	139 T	46·19	200
d Ilkley (Eaton Road)	A. Wilson, Esq.	5	1 0	395 T	49·60	238
d „	G. W. Worfolk, Esq. ...	5	20 0	312 T	46·85	215
Pannal (Kirkby Overblow)	A. Rowntree, Esq.	5	0 9	340 T	34·31	210
Leathley (Lindley Wood S)	T. Hewson, Esq., C.E. ..	8	0 9	312 T	43·03	244
„ („ „ N)	„ „ „ ..	8	0 9	320 T	42·42	244
d Ilkley (Hollingley)	J. E. Sharpe, Esq.	5	0 9	665 T	44·29	217
d York (Mount Villas)	J. S. Rowntree, Esq. ...	5	1 0	70	32·99	237
d „ (Burton Croft)	G. Crawhall, Esq.	5	0 10	48 T	30·20	209
„ („ „)	M „ „ „ ..	...	...	...	30·18	...
§ „	Meteorological Council. ..	8	1 0	57	30·31	207
d „ (Cherry Hill)	Mrs. H. Richardson ...	5	1 6	50	30·72	207
Slaidburn (Knowlmore Manor) ..	W. Peel, Esq.	5	1 0	417 T	80·61	...
„ (Hareden Brook) ...	M T. Cookson, Esq.	8	1 2	540	87·15	...
„ (Langden Brook) ...	M „ „ „ ..	8	1 2	556	87·20	...
„ (Whiteholme)	W. K. Wilkinson, Esq. ..	5	1 3	475 T	71·82	206
Skipton (Chelker Reservoir) ...	M J. Watson, Esq., C.E. ..	5	1 0	730 T	44·09	...
Fewston (Timble Ings)	T. Hewson, Esq., C.E. ..	8	0 9	912 T	50·23	239
„ („)	„ „ „ ..	8	0 9	720 T	41·14	213
„ (Swinsty E.)	„ „ „ ..	8	0 9	460 T	45·56	236
„ („ W.)	„ „ „ ..	8	0 9	425 T	47·30	236
„ (South)	„ „ „ ..	8	0 9	525 T	43·56	249
„ (North)	„ „ „ ..	8	0 9	525 T	41·16	249
„ (Spinksburn)	„ „ „ ..	8	0 9	636 T	43·54	234
„ (Blubberhouses)	„ „ „ ..	8	0 9	575 T	50·30	256

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
W. RIDING (NORTHERN)-(con.)						
D Wetherby (Ribston Hall)	Mr. J. McClelland	5	1 2	130 π	37·64	222
D Bolton Abbey Estate Office	A. Downs, Esq.	5	1 2	350	47·51	214
Harrogate (Ten Acre Reservoir).	E. W. Dixon, Esq., C.E.	8	1 6	620 Γ	37·07	207
" (Bonny Cap)	" " "	8	1 6	710 Γ	41·41	229
" (Wonderful House)	" " "	8	1 6	725 Γ	41·03	190
" (Wilson's Farm)	" " "	8	1 6	630 Γ	39·26	232
" (Beaver Dyke Res.)	" " "	8	0 11	575 Γ	38·90	230
\$ " (Harlow Hill)	G. Paul, Esq.	5	1 0	480	39·55	226
" (Irongate)	E. W. Dixon, Esq., C.E.	8	1 6	455 Γ	36·03	208
D " (The Stray)	Mr. G. W. Gledhill ...	5	1 0	380	37·97	221
D " (Park Parade)	" " "	5	1 0	400	39·23	221
" (Scargill)	E. W. Dixon, Esq., C.E.	8	1 0	646	41·68	230
Slaidburn (Dunsop Houses)	W. Stubbs, Esq., C.E..	8	1 0	450 Γ	83·43	224
" (Middle Knoll)	M " " "	8	2 6	1298 π	76·30	...
" (Brennand)	" " "	8	1 0	820 π	86·34	235
" (Whitendale)	" " "	8	1 0	830 π	89·94	230
" (Cabin Hill)	M " " "	8	3 1	1559 π	75·10	...
" (Baxton Fell)	M " " "	8	2 6	1540 π	77·40	...
D Goldsborough Hall	Mr. R. Goodall	5	1 0	...	38·81	221
Barden Reservoir	old g. J. Watson, Esq., C.E..	8	1 2	746 π	56·89	272
" "	new g. " " "	5	1 2	746 π	56·80	272
" " (Upper)	" " "	5	1 0	1250 π	50·84	271
D Nun Monkton	H. Horsfield, Esq.	5	0 6	45	30·32	194
Slaidburn (Croasdale Fell)	Henry Backhouse, Esq.	8	1 0	1175 Γ	88·19	...
" (Lamb Fell)	" " "	8	1 0	1225 Γ	99·28	...
" (Halstead)	" " "	8	1 0	875 Γ	71·52	...
" (Crutchember Fell)	" " "	8	1 0	1230 Γ	76·74	...
West End (Hard Ing)	T. Hewson, Esq., C.E.	8	0 9	1030 Γ	54·07	242
" " (Meagill Lane)	" " "	8	0 9	762	45·59	252
" " Garden	" " "	8	0 9	787 Γ	60·48	207
" " (Rocking Hall)	" " "	8	0 9	1225 Γ	58·08	240
" " (Thruscross) ... No. 1	" " "	8	0 9	900 Γ	46·58	262
" " (") ... No. 2	" " "	8	0 9	910 Γ	41·67	258
" " (Lane Head)	" " "	8	0 9	938 Γ	49·23	247
Burnsall (Thorpe Fell)	M J. Watson, Esq., C.E..	5	1 0	1661 π	48·69	...
" (Sandbed Beck)	M " " "	5	1 0	676 π	50·50	...
D " Rectory	Rev. W. J. Stavert ...	8	4 7	503 π	57·03	242
Washburn Dale (Ray Bank) ...	T. Hewson, Esq., C.E..	8	0 9	1137 Γ	53·76	238
" " (High House) ..	" " "	8	0 9	1112 Γ	49·23	223
" Head	" " "	8	0 9	1275 Γ	43·61	212
D Knaresborough (Farnham)	R. Elmhirst, Esq.	5	1 0	170 π	32·53	222
D Settle (The Terrace)	J. W. Shepherd, Esq..	8	1 2	525 π	60·28	236
† Grimwith Reservoir	old g. J. Watson, Esq., C.E..	8	1 0	890 π	55·91	237
† " "	new g. " " "	5	1 0	893 π	54·02	...
Pateley Moor (Smaden Head) ...	T. Hewson, Esq., C.E..	8	0 9	784 π	45·60	231
Low Bentham	Messrs. R. C. & G. L. Ford	5	1 5	234 Γ	55·74	...
Dallow Moor (High Skeldon) ...	T. Hewson, Esq., C.E..	8	0 9	674 π	48·95	241

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which .01 or more fell.
		Diameter	Height above Ground.	Height above Sea Level.	1903	
			ft. in.	feet.	inches.	
W. RIDING (NORTHERN)-(con.)						
Dallow Moor (High Skeldon) ...	T. Hewson, Esq., C.E..	5	0 9	674 π	49.28	241
" " (Harper Hill)	" " "	8	0 9	859 π	48.41	227
" " (" ")	" " "	5	0 9	858 π	47.72	227
Ripon (South Lodge)	Mrs. G. Simpson	6	1 0	126	38.81	199
D " (The Red House)	F. D. Wise, Esq.	5	1 0	120	38.64	186
D " (W.W. Lumley Moor) ...	Mr. G. Craggs	8	0 6	572 \uparrow	52.01	195
" (" " ") ^{new g.}	" " "	6	0 6	600	51.10	195
Ramsgill (Raygill House)	J. Watson, Esq., C.E..	5	1 0	925 \uparrow	69.92	215
"	" " "	5	1 0	450 \uparrow	63.14	195
D Arncliffe Vicarage	Rev. W. A. Shuffrey...	8	3 0	734 \uparrow	81.92	232
D " (Amerdale)	J. Hammond, Esq. ...	8	1 6	742 \uparrow	78.09	256
D Ingleton Vicarage	Rev. J. Turner	5	0 6	500	59.78	246
" (Kingsdale Head)	Mr. T. Middleton	5	0 10	994 π	79.36	...
Nidderdale (High Riggs)	J. Watson, Esq., C.E..	5	1 0	1010 \uparrow	60.45	215
" (East Gill Head)... M	" " "	5	1 0	1710 π	71.58	...
" (Rain Stang)	" " "	5	1 0	1470 \uparrow	57.85	...
" (Angram)	" " "	5	1 0	1150 \uparrow	68.91	203
" (New Houses)	" " "	5	1 0	755 \uparrow	65.44	232
Kirkby Malzeard (Drovers' Inn)..	T. Hewson, Esq., C.E.	8	0 9	576 π	43.34	237
" " (" ") ..	" " "	5	0 9	576 π	45.51	236
" " (Hawset)	" " "	8	0 9	820 π	52.29	244
" " (Hambleton Hill) ..	" " "	8	0 9	1106 π	60.08	...
" " (Bagwith Brae). ..	" " "	8	0 9	703 π	47.27	238
" " (" ") ..	" " "	5	0 9	703 π	48.78	238
" " (Stone & Ears Wham) ..	" " "	8	0 9	1118 π	56.63	...
D Ripon (High Bank, Mickley) ...	Miss Harrison	5	1 6	225 \uparrow	41.97	211
Masham Moor (Benjy Guide) ...	T. Hewson, Esq., C.E..	8	0 9	1412 π	67.78	...
" " (W. Somerside)... ..	" " "	8	0 9	928 π	62.64	189
" " (" ")	" " "	5	0 9	928 π	57.85	189
" " (High Sour Mire) ..	" " "	8	0 9	884 π	62.72	159
" " (" ")	" " "	5	0 9	884 π	46.81	160
" " (Leighton)	" " "	8	0 9	542 π	58.67	199
" " (" ")	" " "	5	0 9	542 π	47.31	200
" " (Low Houses)	" " "	8	0 9	693 π	55.25	193
" " (" ")	" " "	5	0 9	693 π	54.57	193
" " (Roundhills Res.) ..	E. W. Dixon, Esq., C.E.	8	0 6	743 π	49.37	229
" " (" Farm)	" " "	8	0 6	975	53.33	231
D Oughtershaw Hall	Miss Woodd	8	1 6	1175 \uparrow	93.54	244
D Sedbergh (Brig Flatts)	J. Handley, Esq.	5	1 2	300 \uparrow	70.45	251
D " (Akay)	C. E. Taylor, Esq.	5	1 0	400 \uparrow	74.85	249
D " (Cemetery)	Mr. J. Anderson	5	1 0	374 π	72.39	247
" (Thorns Hall)	Miss Sedgwick	5	1 0	400 \uparrow	73.21	233
EAST RIDING.						
§ Patrington (Spurn Head)	Meteorological Council.	8	1 0	27	26.79	167
D "	W. B. Pugh, Esq.	5	2 6	46 π	30.90	142
D Hull (Pearson Park)	H. B. Witty, Esq.	5	0 10	6	29.35	187
D " (Springhead)	F. J. Bancroft, Esq., C.E.	5	1 7	15 \uparrow	28.92	227

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft in.	feet.	inches.	
EAST RIDING—(con.)						
D Cottingham (Water Works).....	F. J. Bancroft, Esq., C.E.	5	1 1	26 T	27·49	175
D Skipwith.....	Rev. C. D. Ash	5	2 6	25	29·03	196
D Beverley (East Riding Asylum).	Dr. Macleod	5	1 0	175 T	33·21	214
„ (New Walk)	W. Evans, Esq., C.E....	5	3 0	40	31·09	214
„ (Hull Bridge).....	„ „	5	2 6	11 T	29·33	...
Market Weighton (Dalton Hall)	Mr. J. Allsop	5	1 6	150 T	30·82	172
D Hornsea (Elim Lodge)	T. B. Holmes, Esq. ...	8	1 3	30 B	30·90	195
Brandesburton (Hempholm).....	W. Evans, Esq., C.E....	5	2 6	11 T	28·75	209
Middleton-on-the-Wolds	late Rev. H. D. Blanchard	5	1 0	156	30·02	170
D Pocklington (Warter)	J. Coxon, Esq.	5	1 10	230 T	33·94	185
D Catton Rectory [York]	Rev. H. L. Puxley.....	5	0 4	50 T	31·73	158
§ Driffield (York Road)	W. F. Lovel, Esq.	5	1 0	76 T	29·98	194
D „ (Lockwood Street)	W. H. Blakeston, Esq.	8	1 0	60 T	31·43	207
Wetwang	Rev. E. M. Cole	5	1 0	235 T	28·48	190
D Thixendale.....	Rev. W. H. Fox	10	0 10	425 T	37·19	232
D Lowthorpe (The Elms)	H. Onslow Piercy, Esq.	5	1 0	63 T	29·56	205
Hunmanby (Holly Bank).....	Miss Suter	5	1 2	...	31·06	...
NORTH RIDING.						
D Easingwold (Marton Vicarage) ..	Rev. F. S. Newman ...	5	3 3	200 T	30·84	159
Terrington Hall.....	Mr. T. Suffield	5	1 5	300 T	32·25	245
D Malton (Longster's Garden).....	E. K. Spiegelhalter, Esq.	5	1 0	50	33·20	179
D „	M. B. Slater, Esq.	10	0 10	139 T	30·00	169
D Hovingham (Wiggantherpe) ...	Mr. J. S. Upex	5	1 0	350 T	32·62	221
D Gilling (Grimstone Manor)	W. R. I. Hopkins, Esq.	5	0 8	400 T	33·82	216
D Baldersby	W. Gregson, Esq.	5	1 0	101 T	33·28	210
§ Ampleforth Abbey.....	Meteorological Council.	...	1 0	350	32·73	180
D Thirsk (Sowerby)	C. M. Swarbreck, Esq..	5	1 0	105 T	31·77	205
D „ (The Hall).....	Reginald Bell, Esq. ...	5	1 2	110 T	31·25	198
D „ (Mount St. John)	A. J. Walker, Esq. ...	5	1 0	523 T	33·14	194
D Pickering	Dr. J. L. Kirk	5	1 0	150	29·55	218
D Bedale (Burneston)	Rev. J. T. Hartley ...	5	3 9	110 T	32·25	212
D „ (Thorp Perrow).....	Mr. W. Heath	5	1 0	176	36·48	155
„ (Park House).....	Miss M. Greenwood ...	5	1 1	180	35·27	234
„ (Newton House) ..	Mr. W. Paylor	5	2 6	125	33·29	...
Aysgarth Vicarage.....	Rev. F. W. Stow	3	1 0	643 T	53·86	...
„ „	„ „ „	12	1 0	648 T	53·92	...
D „ „	„ „ „	8	1 0	648 T	53·86	225
D Leyburn (Bolton Hall)	Mr. F. Scrivener	8	1 0	420	43·20	180
„ (Thornburgh House)...	W. Farrer, Esq.....	5	0 10	680 T	44·95	227
D Seamer (Irtton)	W. Millhouse, Esq. C.E.	8	1 0	94	32·73	184
Scarborough (Osgodby).....	„ „	8	1 0	166 T	27·89	...
§ „	Royal Meteorological Soc	5	1 0	63	29·75	226
D „ (Scalby)	J. W. Rowntree, Esq...15	0 11	150	35·09	225	
D Bedale (Ivy Cottage, Fencote)...	Mr. W. Culverwell ...	5	1 6	125 T	31·50	194
D Northallerton (The Lodge)	W. Stead, Esq., C.E....	8	1 0	127 T	30·59	201

DIVISION IX.—YORKSHIRE—(*continued*).

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain.	Days on which '01 or more fell.
			Height Above Ground.	Height Above Sea Level.	1903	
			ft. in.	feet.	inches.	
NORTH RIDING—(<i>con.</i>)						
d Northallerton (Osmotherley).....	T. Yeoman, Esq.	8	0 8	650	29·97	164
Richmond (The Grove)	G. Roper, Esq.	5	1 3	415 T	46·01	172
§ Northallerton (Rounton Grange).	Royal Meteorological Soc	8	1 0	249	31·88	219
§ Ravenscar	" " " "	5	1 0	620 T	30·79	201
Fylingdales Vicarage	Rev. R. J. Cooper	5	0 5	120	29·77	...
d Ingleby Manor	Lord De L'Isle	5	0 11	440 T	41·66	213
d " Greenhow Vicarage.....	the late Rev. J. Hawell	5	1 0	448 T	38·24	221
d East Layton Hall	Mrs. Proud	11	1 0	575 T	37·04	176
d Stanwick Park [Darlington]	Mr. W. Higgle	5	1 1	300 T	36·80	216
d Forcett Park ["]	J. Shaw, Esq.	5	1 6	351 T	38·99	231
d Great Ayton (Easby Hall)	J. J. Emerson Esq., LL.D.	5	1 0	355	37·21	213
Whitby (Royal Crescent)	T. Newbitt, Esq.	8	1 6	145 T	29·74	166
d " (Mulgrave Castle)	Mr. J. Corbett	5	1 0	410 T	34·18	211
d Guisborough (Lockwood Beck Res)	W. I'Anson, Esq., C.E.	8	1 0	632 T	41·03	203
" " " " " M	" " " "	8	...	...	40·63	...
d Middlesbrough (Ormesby)	Mr. W. Sanderson.....	5	1 0	100 T	31·66	222
d " (Albert Park)	J. M. Parnaby, Esq. ...	8	1 0	30	29·79	192
d Hury Res. [Barnard Castle].....	D. D. Wilson, Esq. ...	8	1 0	866 T	49·07	235
d Grassholme Res. [Middleton] ...	" " " "	8	1 0	936 T	54·17	225
d Mickleton	Dr. H. R. Mill	8	1 0	...	43·75	209
" (Lime Kiln Pasture) 1	" " " "	8	1 0	1175 T	51·85	...
" (" " ") 2	" " " "	8	1 0	1175 T	48·90	...

DIVISION X.—NORTHERN COUNTIES.

DURHAM.

d Darlington (Hurworth Grange)..	Mrs. J. E. Backhouse...	5	1 0	161 T	32·09	205
d " (Elcott, Hurworth)..	Rev. W. E. Stewart ...	5	1 0	121 B	31·35	224
d " (Cleveland Parade)..	W. W. Willmott, Esq.	5	1 3	160 T	32·12	206
" (Public Park).....	Mr. J. Morrison	5	1 3	...	32·57	210
" (Hummersknott) ...	Mr. J. Short	5	1 0	200	31·65	...
d Barnard Castle (County School)..	E. Wells, Esq.	5	1 6	540 T	38·98	224
Stockton (Rimswell)	W. Anderson, Esq., C.E.	5	1 0	100 T	27·07	219
" (Ropner Park)	Mr. W. A. Jenkins ...	5	1 7	61 T	26·33	172
West Hartlepool (Lynn Street)..	Mr. H. Lamb.....	5	63 0	84	22·13	187
d " " (Bradgate).....	G. H. Baines, Esq.	5	1 0	100	31·72	219
Hartlepool (Hurworth Burn) ...	T. Fenwick, Esq., C.E.	5	1 2	360	32·51	...
d " (Hart Reservoir).....	" " " "	8	1 2	164	28·61	166
d Wolsingham	Mr. A. Mitchell	5	1 0	464 T	41·88	220
Eastgate (All Saints' Vicarage)..	Rev. J. G. B. Knight...	5	0 9	768	55·35	235
d Wearhead Station	Mr. R. Rust	5	0 6	1104	77·41	189
d " <i>new g.</i>	" " " "	5	1 0	1100	71·89	189
§ Durham Observatory	Meteorological Council.	12	4 0	340	30·81	193
d § Ushaw (St. Cuthbert's College)..	Rt. Rev. Mgr. Corbishley	5	0 9	600 T	34·84	203
d Weardale W.W. (Tunstall) ...	R. Askwith, Esq., C.E.	8	1 2	724 T	42·80	205
" " (Waskerley 6)	" " " "	8	4 2	1229 T	39·05	...

DIVISION X.—NORTHERN COUNTIES—(continued.)

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which '01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
DURHAM—(con.)						
Weardale W.W. (Waskerley 3)	R. Askwith, Esq., C.E....	8	4 6	1433 π	45·82	...
" " (" 4)	" " " ...	8	4 7	1321 π	40·87	...
" " (" 5)	" " " ...	8	4 2	1244 π	41·31	...
D " " (")	" " " ...	8	0 11	1179 π	42·95	229
" " (" 2)	" " " ...	8	4 5	1367 π	40·14	...
" " (" 1)	" " " ...	8	4 4	1317 π	39·09	...
D " " (Smiddy Shaw)	" " " ...	8	1 3	1128 π	43·33	220
Seaham (Dalton Pumping Sta.)..	A. B. E. Blackburn, Esq.	8	1 0	345 π	34·11	205
Fence Houses (Chilton Moor) ...	V. W. Corbett, Esq.	5	1 4	186 \uparrow	34·94	...
D Seaham Harbour	Mr. G. H. Aird	8	1 6	141	32·39	193
" Vicarage	Rev. A. Bethune	5	0 6	80 \uparrow	29·02	...
" Hall	Mr. R. Draper	5	1 0	106 π	34·42	...
Sunderland (Ryhope Pumping Sta.)	A. B. E. Blackburn, Esq.	8	1 1	228 π	33·03	204
D " (W. Hendon Ho.) No. 5	T. W. Backhouse, Esq.	5	1 0	130 π	33·15	218
" " (" " ") No. 6	" " " " " " " "	5	1 0	130 π	33·55	195
D " (Fever Hospital)	H. Scurfield, Esq., M.D.	5	1 0	105	33·63	187
" (Claxheugh Grove) ...	J. P. Cornett, Esq.	5	2 6	90	33·53	...
D " (The Cedars)	W. F. Vint, Esq.	5	0 6	115 \uparrow	34·60	195
" (Cleaton Pumping Sta.)	A. B. E. Blackburn, Esq.	8	1 0	216 π	32·30	190
D Gateshead (Eighton Cottage) ...	Miss Favell	5	3 7	515	32·91	212
D Ryton-on-Tyne	J. P. Dalton, Esq.	5	1 0	258 \uparrow	33·68	223
D " " (Balgonie House)	J. W. Smith, Esq., M.D.	5	1 6	...	31·59	182
NORTHUMBERLAND.						
D Corbridge (Howden Dene)	J. H. Straker, Esq. ...	5	0 9	200 \uparrow	35·38	226
D Bardon Mill (Beltingham Vic.)..	Rev. H. C. Newbery ...	5	1 0	320	44·27	222
Newcastle (Clifton Road)	E. L. Merz, Esq.	5	1 0	315	30·80	...
" (Lit. and Phil. Soc.)..	H. Richardson, Esq. ...	8	55 0	160	36·63	...
§ " (Northumberland Rd.)	N. H. Martin, Esq. ...	8	45 0	200	29·94	221
" (Claremont Road) ...	Mr. G. Bone	4	2 0	240 \uparrow	32·91	187
D " (Leazes Park)	F. J. Edge, Esq., C.E... 5	5	1 0	255 π	32·95	175
D " (Town Moor)	A. Wright, Esq.	5	2 0	201 π	34·46	207
" (Wellburn, Jesmond).	W. H. Holmes, Esq.	5	1 6	163 \uparrow	34·25	181
§ North Shields (Dockway Square)	Meteorological Council.	8	1 4	100	32·91	200
D Tynemouth	J. Walker, Esq., C.E... 5	5	1 8	65 π	33·49	215
Stamfordham Vicarage	Rev. G. Evans-Gwynne	5	0 6	422	38·76	...
Whittle Dean (Newcastle W.W.)	G. Smith, Esq.	10	...	...	28·59	...
Whittington ( " " )	" " " " " " " "	...	...	...	33·78	...
Burnside ( " " )	" " " " " " " "	...	...	...	31·63	...
N. Tyne (Green Crag) (" ")	" " " " " " " "	10	0 6	800 π	44·59	...
Hallington (" ")	" " " " " " " "	10	0 6	469 π	36·56	...
" (Fawcett) (" ")	" " " " " " " "	10	0 6	563 π	36·43	...
" (Cheviot) ( " " )	" " " " " " " "	...	...	...	33·36	...
Gunnerton Burn (Campbell) (" ")	" " " " " " " "	10	0 6	676 π	41·73	...
Colt Crag ( " " )	" " " " " " " "	...	...	...	33·28	...
D Scots Gap (Wallington)	Rt Hon Sir G. Trevelyan Bt	8	2 9	446 \uparrow	40·05	249
D Angerton Hall	Mr. R. Elliott	5	1 0	320 π	42·07	194

DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
NORTHUMBERLAND—(con.)						
d Morpeth (Bothalhaugh Garden) ..	Hon. & Rev. W. C. Ellis	5	0 10	35 ?	35·78	217
" (" " ") M	" " " "	5	0 10	35	35·54	...
d " (" " ")	" " " "	5	0 10	137	34·39	217
" (" " ") M	" " " "	5	0 10	135	34·44	...
d Scots Gap (Rothley Crag)	J. Daglish, Esq.	5	0 6	665 T	39·02	175
Morpeth (Longhirst Hall)	Sir J. Joicey, Bart., M.P.	7	1 0	168	34·25	...
§ " (Cockle Park) ..	J. H. J. Farquhar, Esq.	8	1 0	325 T	35·21	215
d Font Res. (Tynemouth W.W.) ..	F. R. Hull, Esq., C.E.	10	0 5	620 T	35·29	231
Rededale (Horsley)	G. Smith, Esq.	8	1 0	600	37·86	...
Rothbury (Brinkburn Priory) ..	Mrs. Hugh Fenwick ...	8	1 2	257 T	37·61	...
d§ " (Crag-side)	Lord Armstrong	8	1 0	405 T	40·49	204
Redewater (Blakehope)	G. Smith, Esq.	8	1 1	830	39·83	...
" (Chattlehope)	" "	8	1 0	830	52·72	...
" (Cateleugh)	" "	8	1 0	794	45·29	...
Alwinton (Biddleston Hall)	P. Dodds, Esq.	5	1 0	820 T	39·37	188
§ Alnwick Castle	Meteorological Council.	5	0 4	178	39·71	222
d Howick Hall	Earl Grey	8	0 10	121 T	36·63	214
Ilderton (Lilburn Tower)	A. B. Collingwood, Esq.	10	6 0	300 T	36·03	...
d " (" " Cottage)	Mr. N. D. Cowans	8	1 0	340 T	37·62	200
Wooler (St. Ninians)	Dr. R. Walker	8	0 10	176 T	37·17	...
Kirknewton (Hethpool)	V. W. Corbett, Esq. ...	5	1 4	420 T	38·25	242
Bamburgh	Mr. R. W. Clark	5	1 0	75 L	31·61	...
d Pawston [Coldstream]	B. P. Selby, Esq.	8	1 0	328 T	30·80	187
Beal (Barmoor Castle)	T. Hodgkin, Esq., D.C.L.	8	3 6	400	35·55	177
CUMBERLAND.						
d Millom (Leyfield)	Cedric Vaughan, Esq. CE	5	1 2	81 T	53·27	252
d Ravenglass (The Grove)	A. Watt, Esq.	5	1 2	84 T	49·93	201
d Eskdale	Rev. W. Slater Sykes..	5	0 9	180 T	80·19	217
d Seascale (Whinthwaite)	Dr. R. Hellon	5	1 0	52 T	43·30	203
d Gosforth (Bolton Hall)	Col. J. R. Bain, M.P....	5	1 8	135	55·15	233
" (Steelfield Hall)	W. H. Watson, Esq....	10	3 6	200	53·18	...
Sprinkling Tarn	Dr. H. R. Mill	4	0 6	1985	189·30	...
Styehead Tarn	" " " "	4	0 6	1472 T	194·60	...
The Stye A	" " " "	4	0 6	1077 T	222·10	...
" B	" " " "	4	1 0	1077 T	223·40	...
" C	" " " "	4	1 0	1077 T	221·05	...
" D	" " " "	4	1 0	1077 T	188·85	...
Borrowdale (Seathwaite)	" " " "	4	0 6	422 T	173·70	...
" (" ")	" " " "	5	1 0	422 T	173·14	...
d§ " (" ")	Royal Meteorological Soc	5	1 0	423 T	166·09	257
" (" ")	late S. A. Marshall, Esq.	5	1 0	...	173·55	...
Ullscarf	G. H. Hill, Esq., C.E..	7	1 8	2100 T	174·30	...
d Cleator (The Flish)	D. Ainsworth, Esq. ...	5	1 11	208 T	60·78	217
" Moor Water Works ..	R. Robertson, Esq., C.E.	5	1 0	395 T	74·48	213
Helvellyn (Birkside)	G. H. Hill, Esq., C.E..	7	1 3	1900 T	114·60	...
Wythburn	" " " "	7	1 4	580 T	115·90	...
Borrowdale Vic.=Rosthwaite ...	Rev. E. A. Penson.....	5	1 0	330 T	136·15	...

DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which '01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level	1903	
			ft. in.	feet	inches.	
CUMBERLAND—(con.)						
D Buttermere (Hassness)	Mr. R. Johnston	5	1 0	355	143·97	254
D Borrowdale (Grange)	Mr. J. Threlkeld	5	0 9	271 T	121·17	243
Armboth Fells (The Pewitts).....	G. H. Hill, Esq., C.E..	7	1 6	1650 T	132·00	...
Helvellyn (Whiteside)	" " "	7	1 6	2100 T	114·00	...
Thirlmere (Dale Head Hall) ...	" " "	7	1 5	620 T	113·70	...
D Whitehaven (Irish Street)	Dr. Welby P Anson ...	5	1 1	21 T	52·05	230
D Keswick (Barrow House)	Miss E. G. Langton ...	8	0 6	282 T	94·04	228
Distington (Gilgarran)	Mr. A. Kydd	5	4 9	470 T	53·49	228
Ullswater (Hallsteads)	late S.A. Marshall, Esq.	5	2 0	497 T	87·48	259
Keswick (Deer Close)	John Marshall, Esq. ...	7	1 9	300 T	85·23	262
" (Derwent Island) <i>old g.</i>	" " "	5	0 7	280	81·80	265
" " " <i>new g.</i>	" " "	5	0 6	290	77·78	265
D " (Eskin Place)	J. Postlethwaite, Esq..	8	6 4	298 T	83·40	237
D " (York City & Co. Bank)	Mr. R. W. Mayson ...	5	1 6	265 T	76·86	243
D " (Shu-le-crow)	A. Mitchell Dawson, Esq.	5	0 7	296 T	84·57	252
D " (Crosthwaite School)...	Mr. H. Swinburn	5	1 0	254 T	76·99	243
D Cockermouth (Ullock)	J. H. Walker, Esq. ...	5	1 0	313 T	65·49	244
Matterdale (Bank House).....	Rev. V. Nanson	5	1 5	1020 T	96·90	249
D Workington (Winscales)	Mrs. J. A. Trench	5	1 0	440 T	50·04	212
D Cockermouth (Whinfell Hall)...	Mrs. F. M. Peile.....	5	2 0	255 T	76·20	251
D " (Brandlingill).....	Col. F. R. Sewell	5	1 0	320 T	80·28	259
D Bassenthwaite (Bassenfell)	Mrs. S. G. Rathbone ...	8	1 0	384	58·98	234
D Cockermouth (Higham)	Miss Hoskins	5	1 0	478 T	59·80	233
D " (Broughton Grange)	G. S. Wilson, Esq. ...	5	1 3	209 T	52·83	238
Penrith (Nandana)	G. Varty-Smith, Esq..	5	3 0	650 T	47·65	261
" (Fell Lane, Fir Bank) ..	T. Lester, Esq.	5	1 0	575 T	49·81	229
" (Greystoke)	H. Walker, Esq.	5	1 3	650	64·69	...
D " (Belle Vue).....	Mr. M. Rowe	5	4 0	680 T	55·26	252
" (Ennim)	Mrs. Hamlet Riley ...	8	0 6	660	61·38	185
" (Inglewood)	H. F. Thompson, Esq..	5	1 0	550 T	50·34	210
D Bassenthwaite (Armathwaite Hall)	T. M. Hartley, Esq. ...	8	1 0	305	57·16	249
D Maryport (Netherhall)	late H.P. Senhouse, Esq.	8	0 6	27 T	48·77	203
D Penrith (Nunwick Hall)	Mrs Heywood Thompson	5	1 0	298 T	46·02	228
Melmerby	Rev. W. Y. Craig	5	0 6	583 T	46·13	...
§ Aspatia	Meteorological Council.	8	1 0	251	54·57	203
D Wigton (Brookfield)	J. J. Jopling, Esq.....	5	0 9	124 T	58·17	228
Wreay Vicarage.....	Rev. A. R. Hall	5	2 0	310 T	49·66	226
D Silloth	A. C. Allen, Esq.	8	1 0	22 T	45·75	209
D Geltsdale.....	J Campbell Boyd, Esq CE	5	1 2	924 T	52·41	239
Carlisle (Cemetery)	S. Cartmell, Esq.	8	4 0	114 T	47·24	236
" (Rickerby)	Miles MacInnes, Esq..	8	1 2	52 T	38·09	...
" (Stanwix)	Sir Benjamin Scott ...	8	1 6	100 T	41·74	195
D " (Newby Grange)	T. H. Hodgson, Esq....	5	0 8	64 T	37·16	221
§ " (Scaleby)	Royal Meteorological Soc	5	1 0	112	47·10	248
D Brampton (Denton House)	Miss B. Gardhouse.....	5	1 5	541 T	46·07	234
" (" ") ... M	" " "	5	1 4	541 T	46·64	...

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which "01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
WESTMORLAND.						
Kirkby Lonsdale	J. R. Picard, Esq.	7	0 8	215 T	65·16	...
D " " (Casterton)	R. A. Clarke, Esq.	8	1 0	305	67·17	246
D " " (Barbon Manor)	A. Ford, Esq.	5	1 3	650 T	62·73	228
D " " (")	Miss Wilkinson	5	1 0	310 T	65·45	217
Milnthorpe (Eversley)	T. A. Argles, Esq.	8	0 3	170	58·59	228
D " (Beathwaite, Levens)	W. H. Crewdson, Esq. ..	5	1 3	120 T	62·50	221
Kendal (Natland Vicarage) ..	Rev. W. Kewley	5	1 3	160	54·94	234
" (Helm View)	W. Thomson, Esq., C.E. ..	5	0 10	140 T	70·90	224
D " (Holmcroft)	R. Rhodes, Esq.	5	1 3	176 T	68·42	247
D " (Ivy Garth)	R. J. Nelson, Esq.	5	1 6	146 T	67·96	233
" (Ellergreen)	Mr. J. Wray	5	1 6	270 T	80·56	242
D Bowness (Lindeth Howe)	R. H. J. Hill, Esq.	5	1 0	200 T	78·25	247
D " (Fallbarrow)	H. E. Rawson, Esq.	8	1 0	135 T	79·50	241
Windermere	late S. A. Marshall, Esq. ..	5	1 0	290 T	75·07	251
D " (Holehird)	W. G. Groves, Esq.	5	1 0	483 L	85·68	248
D Ravenstonedale	Rev. R. W. Metcalfe ..	5	1 2	800 T	79·05	233
D Ambleside (Skelwith Bridge) ...	A. J. Adams, Esq.	5	1 8	190 T	122·00	244
Little Langdale (Fell Foot) ...	late S. A. Marshall, Esq. ..	5	2 2	380	141·36	...
D Ambleside (Gale House)	G. A. Johnston, Esq. M.D. ..	5	1 0	250 T	95·92	253
" (Lesketh Howe)	Mrs. Benson	5	2 6	175 T	103·64	267
D Elterwater Hall	J. Robinson, Esq.	5	1 1	243	118·30	262
Rydal (The Stepping Stones) ...	Gordon Wordsworth Esq ..	5	1 3	190	110·01	272
D Loughrigg (Silverthwaite)	Miss A. Sharp	5	1 0	292	98·17	265
D Dungeon Ghyll	late S. A. Marshall, Esq. ..	5	1 0	310	153·47	288
" " "	M " " "	5	1 0	311	151·38	...
Mickleden	M " " "	5	1 6	490	173·34	...
D Grasmere (High Close)	F. M. T. Jones Balme, Esq ..	8	0 9	553 T	123·11	252
D " (The Wray)	Miss G. M. Simpson ...	5	1 0	221 T	124·45	266
D Kirkby Stephen (Redmaine Ho.) ..	Mrs. T. Mason	5	1 4	574 T	55·10	243
D Shap Vicarage	Mrs. Collinson	5	1 0	854 T	71·68	239
Grisedale (Ruthwaite Lodge) M	Mr. J. Munro	8	1 6	1750	130·63	...
D Patterdale Hall	" " "	5	1 3	490 T	127·70	269
" (Greenside Mine)	W. H. Borlase, Esq. ...	7	1 6	1000 T	139·86	...
D Appleby (Castle Bank)	C. R. Rivington, Esq. ...	5	1 2	440 T	50·86	235
Ullswater (Swarth Fell)	Dr. H. R. Mill	5	1 3	1000 T	83·80	...
" (Sharrow Bay)	Mr. G. Robinson	5	0 7	600	70·18	...
D Great Strickland (Greencroft) ...	Mrs. Whiteside	5	2 0	648	60·63	234
D Morland [Penrith]	Miss M. Markham	5	1 0	456 T	51·16	249
Lowther Castle [Penrith]	Mr. F. Clarke	8	4 0	760 T	54·06	230
D Cliburn Rectory [Penrith]	Mrs. Burton	5	1 10	459 T	43·24	176

MONMOUTH.

D\$ Rumney (Witla Court).....	H. Heywood, Esq.....	5	1	0	176	52.55	243
D Marshfield (Llwynarthan)	the late F.G. Evans, Esq.	5	1	1	72 π	49.42	204
Caldicot Level (Porton).....	Togarmah Rees, Esq. CE	5	1	3	27 π	36.80	189

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which .01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in.	feet.	inches.	
MONMOUTH—(con.)						
d Portskewett (Sudbrook)	W.K. Laurence, Esq. CE	8	0 10	22 T	42.16	188
§ Newport (Friar Street Yard) ...	Meteorological Council.	...	...	...	48.91	220
§ „ (Ynis-y-bro)	„ „	5	1 0	115	44.81	222
§ „ (Pantyreos Res.) .....	„ „	...	...	...	69.68	226
d „ (W.W., New Mills) ...	Baldwin Latham Esq CE	5	1 0	371 T	57.00	243
d „ („ Llanvaches) ...	„ „ „	5	0 10	514 T	52.32	233
d „ (Wentwood)	„ „ „	5	1 0	481 T	57.49	239
d Chepstow (Piercefield Park)	H. Clay, Esq.	5	1 6	310	47.13	185
d „ (Itton Court)	E. Curre, Esq.	8	4 6	390	54.59	219
d Llanfrechfa Grange	F. J. Mitchell, Esq. ...	5	4 0	326 T	54.71	212
d Tredunnoch	Rev. C. T. Salusbury ...	5	2 3	170 T	48.80	206
d§ Newport (W.W., Newchurch) ...	Baldwin Latham Esq CE	5	0 10	496 T	58.56	241
d Abersychan (The Hawthorns) ...	J. W. Mulligan, Esq. MD	5	1 0	755 T	71.79	231
d Tredegar (The Willows)	G. A. Brown, Esq., M.D.	8	1 0	1024 T	83.08	219
d Monmouth (School House)	E. H. Culley, Esq. ...	5	1 4	76 T	43.97	211
d „ (The Hendre)	Mr. T. Coomber	8	1 0	176 T	37.97	212
d Abergavenny (Larchfield)	Dr. J. Glendinning ...	5	1 0	240 T	48.87	210
„ (Dyne House)	Dr. S. H. Steel	5	1 5	220 T	53.05	216
„ („ „) ... M	„ „ „	5	1 5	220 T	52.57	...
d „ (The Chain)	W. Baker Gabb, Esq. ...	5	1 3	300	53.63	212
d Monmouth (Pentwyn)	Rev. Canon Harding ...	5	1 0	191 B	43.24	189
d Llantilio Court	Sir H. Mather-Jackson Bt	6	0 11	207	48.43	189
d Llantillio Pertholey	Mr. J. Winfield	6	2 0	...	51.37	...
d Pandy (Trewyn)	P. B. Barneby, Esq. ...	8	0 9	444 T	58.53	204
GLAMORGAN.						
Cowbridge (Fonmon Castle)	O. H. Jones, Esq.	8	1 2	130	41.89	204
d Barry W. W. (Biglis)	E. W. Waite, Esq., C.E.	5	1 0	20 T	46.09	214
„ „ (Merthyr Doran) ..	„ „ „	5	1 0	300 T	47.33	...
„ „ (Pencoedtre)	„ „ „	5	1 0	200 T	49.13	...
d „ „ (Dinas Powis Res.) ..	„ „ „	5	1 0	165 T	46.62	211
d Lower Penarth	E. I. Evans, Esq., C.E.	5	1 0	67 T	46.45	251
d Penarth	„ „ „	5	1 1	128 T	45.54	211
d Cardiff (Cogan Pill, Llandough) ..	C. H. Priestley, Esq. C.E.	5	1 0	121 T	51.80	236
„ „ (Trade Street)	„ „ „	5	1 0	45	51.96	220
d „ „ (Roath Park)	E. Walford, Esq., M.D.	5	0 4	50	54.97	256
d „ „ (Ely)	C. H. Priestley, Esq. C.E.	8	1 0	53 T	54.74	238
d Llandaff (Howell's School)	Miss A. G. Winny	5	1 4	81 T	51.42	...
d Cardiff (New Filters, Heath) ...	C. H. Priestley, Esq. C.E.	5	1 0	132	54.07	214
„ „ (Llanishen Res.)	„ „ „	5	1 0	155	52.42	230
d „ „ (Lisvane)	„ „ „	5	1 0	150	48.88	228
d Porthcawl	Cambrian Natural Obsr	...	...	...	47.78	...
d Cowbridge (Ash Hall)	E. Tudor Owen, Esq. ...	8	1 2	315 T	54.99	228
d Llantrisant (Talygarn)	G. L. Clark, Esq.	5	4 3	250	70.63	235
d Oystermouth (Newton)	Rev. Secretan Jones ...	5	0 9	279 T	53.88	216
d§ Port Talbot (Margam, Twyn-yr-hydd)	G. Lipscomb, Esq.	5	1 0	180 T	51.18	225
d Gilfach Goch (Gilfach House) ...	W. W. Hood, Esq. ...	8	10 0	700 T	75.77	215
d Pontypridd (The Reservoir)	W. Jones, Esq.	5	1 0	300	71.58	198

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which of or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in.	feet.	inches.	
GLAMORGAN—(con.)						
Pontypridd (Maesderwen, Graig)	T. Bowen, Esq.	5	10 0	425 T	70·20	220
d Caerphilly (Ystrad Mynach) ...	Col. Morgan Lindsay...	8	0 5	315 T	68·44	212
Swansea (Le Mayals)	J. E. Stevens, Esq. ...	8	1 0	220 T	56·34	...
d „ Harbour	A. O. Shenck, Esq., C.E.	12	14 9	46	56·27	223
„ (Killay House)	M. B. Williams, Esq. ...	5	0 6	265 T	58·26	219
d „ (The Knoll).....	E. H. Perkins, Esq. ...	8	1 0	150 T	58·13	239
d „ (Glanmor Crescent) ...	T. Travers Wood, Esq. ...	5	1 0	235 T	57·14	231
Llwynypia (Glyncornel)	W. W. Hood, Esq. ...	10	4 0	495 T	112·74	224
d „ („)	„ „ „ „ „ „	8	3 3	494 T	96·17	225
Briton Ferry	H. A. Clarke, Esq. ...	5	1 0	33 T	59·24	214
Morrison (Glanravan)	Ll. J. Naysmith, Esq. ...	5	1 0	53 T	63·36	239
d Ystradyfodwg (Fever Hospital)..	J. D. Jenkins, Esq., M.D.	5	1 0	590 T	94·38	221
d Neath	E. C. Pole, Esq.	5	1 0	204 T	61·81	246
d „ (Fairy Land)	Major E. Ll. Green ...	5	1 9	175 T	58·38	245
d „ (Ynys-y-gerwn)	A. T. Williams, Esq. ...	8	2 6	80	69·33	202
d Glyncorwg	T. F. Brown, Esq., C.E.	5	4 6	717 T	110·82	229
d Rhondda (Pont Lluest Wen Res.)	W. Jones, Esq.	5	1 0	1255	80·53	212
Blaenrhondda (Craig Carn Mosyn)	O. Thomas, Esq.	5	1 0	1501	91·60	...
d Mountain Ash (Maesydderwen)..	M. Morgan, Esq.	5	1 0	483 T	72·73	250
d „ „ (Darranlas Res.)..	W. G. Thomas, Esq. ...	5	1 0	540	86·18	242
„ „ (Clydach Res.) ...	„ „ „ „ „ „	5	1 0	937	99·67	191
d Treherbert (Bute Colliery)	Sir W. T. Lewis, Bt. ...	5	1 0	670	108·30	244
d „ (Tyn-y-waun).....	O. Thomas, Esq.	5	1 0	801	110·46	253
„ „ „ „ „ „	„ „ „ „ „ „	5	1 0	801	112·74	...
d Gorseinon (Penllergaer).....	Sir J. T. D. Llewelyn, Bt.	5	3 0	240 T	61·84	228
d Aberdare (The Mardy)	Sir W. T. Lewis, Bt. ...	5	2 0	431 T	77·75	228
„ (Abernant)	Evan Jones, Esq.	5	4 6	430	72·77	...
d Felindre (Lliw Reservoir).....	R. H. Wyrill, Esq., C.E.	8	1 3	426 T	68·01	245
Merthyr (Pentrebach)	E. N. Lewis, Esq.	5	1 0	488 T	79·28	200
d Dowlais (Gwernllwyn)	R. C. Harrison, Esq. ...	5	1 6	1084 T	73·97	240
d Ystalyfera (Wern School)	Mr. J. Williams.....	5	1 3	240 T	81·84	234
CARMARTHEN.						
d Llanelly (Old Market Yard) ...	G. Watkeys, Esq., C.E.	5	10 0	35 T	55·03	225
d „ (New Road)	J. F. Young, Esq.	5	0 10	53 T	53·93	246
d „ (Cwmlledi W.W.).....	G. Watkeys, Esq., C.E.	5	3 0	240 T	62·44	254
d Carmarthen (The Friary).....	L. M. Bowen-Jones, Esq.	5	1 5	62 T	61·27	227
d Llandilo (Golden Grove Gardens)	Mr. F. Surman	6	1 6	90 T	72·52	214
„ (Cae-glas)	J. Lewes Thomas, Esq.	5	0 11	217 T	68·37	...
„ (Dynevov Castle)	Lord Dynevov	8	1 0	202 T	75·34	243
d Llandovery (Tonn).....	F. H. Perkins, Esq. ...	5	1 2	230 T	63·07	250
d Llanwrda (Dolaucothy).....	Gen. Sir J. Hills-Johnes	5	2 6	498 T	78·06	243
PEMBROKE.						
Pembroke (Stackpole Court).....	The Earl of Cawdor ...	6	1 6	60 T	48·40	226
d St. Ann's Head	Meteorological Council.	8	0 8	150	41·74	221
d Pembroke Dock (County School)	G. H. West, Esq.	5	...	85	53·39	239
d Haverfordwest (Picton Castle)...	Sir C. E. G. Philipps, Bt.	5	0 10	138	55·60	232
d „ (High Street) ...	E. Picton Phillips, Esq.	5	1 0	95 T	56·69	229
d „ (Portfield).....	„ „ „ „ „ „	5	1 0	220	57·39	239

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ".01 or more fell.	
		Diameter	Height Above Ground.		Height Above Sea Level		1903
			ft.	in.	feet.	inches.	
PEMBROKE—(con.)							
d St. David's	Dr. W. P. Propert.....	5	1	0	216	44·26	219
d Castle Malgwyn [Llechryd] ...	Mr. H. Baldwin.....	5	1	0	...	58·67	216
CARDIGAN.							
d Strata Florida (Hafod).....	T.J. Waddingham, Esq	5	1	0	580 T	77·14	257
§Aberystwith (N. Parade)	A. Thomas, Esq.	8	2	0	18	48·66	234
d „ (Gogerddan)	Sir Pryse Pryse, Bart..	5	1	1	80 B	61·21	194
BRECON.							
d Nanthir Reservoir [Aberdare] ...	O. Williams, Esq., C.E.	5	1	0	860 A	81·75	268
„ „ „ [„] M	„ „ „	5	1	0	860 A	82·40	...
d†Ebbw Vale "W.W."	No.1 T. J. Thomas, Esq., C.E.	5	1	0	1413 A	82·48	252
† „ „ „ „	No.3 „ „ „	5	1	0	1480 A	90·98	...
† „ „ „ „	No.2 „ „ „	5	1	0	1466 A	86·98	...
† „ „ „ „ (Blaen-y-Cwm) No.7	„ „ „	5	1	0	1375 A	72·79	...
† „ „ „ „ „ No.6	„ „ „	5	1	0	1553 A	69·09	...
d Taff Fechan (Pentwyn Res.) ...	T. F. Harvey, Esq., C.E.	5	1	0	1120	86·15	258
„ „ „ „ „ M	„ „ „	5	1	0	1120	86·07	...
Cardiff WW (Cwm Taff Fawr No.5)	C.H. Priestley, Esq. C.E.	5	1	0	1143 A	81·20	...
„ „ „ „ „ (Storey Arms, No. 4).	„ „ „	5	1	0	1430	95·49	...
„ „ „ „ „ (Cwm Taff Fawr No.1) M	„ „ „	5	1	0	2350 T	95·18	...
„ „ „ „ „ (Cantref Res., No. 2)	„ „ „	5	1	0	1120	93·74	259
d „ „ „ „ „ (Beacons Res., No. 6)	„ „ „	5	1	0	1340 A	113·16	255
„ „ „ „ „ (Nant Penig, No. 3)..	„ „ „	5	1	0	2000	108·46	...
d Taff Fechan (Neuadd Res.) No.1	T. F. Harvey, Esq., C.E.	5	1	0	1462	93·02	253
„ „ „ „ „ („ „) No.1M	„ „ „	5	1	0	1462	89·61	...
d „ „ „ „ „ („ „) No.4	„ „ „	5	1	0	1487	109·11	253
„ „ „ „ „ („ „) No.2M	„ „ „	5	1	0	1993	110·26	...
„ „ „ „ „ („ „) No.5M	„ „ „	5	1	0	1515	116·64	...
„ „ „ „ „ („ „) No.7M	„ „ „	5	1	0	2017	101·40	...
„ „ „ „ „ („ „) No.8M	„ „ „	5	1	0	1723	111·22	...
„ „ „ „ „ („ „) No.3M	„ „ „	5	1	0	1843	75·04	...
„ „ „ „ „ („ „) No.6M	„ „ „	5	1	0	2099	117·03	...
Crickhowell (Glannoney).....	J. Edwards, Esq.	5	1	2	279 T	67·67	162
„ „ „ „ „ (Glanusk Park).....	Lord Glanusk.....	5	1	0	290	58·68	207
d „ „ „ „ „ (Gwernvale)	E. Pirie Gordon, Esq...	5	1	0	393 A	57·02	225
„ „ „ „ „ (Penmyarth)	S.H. Cowper Coles, Esq.	5	1	0	330	51·32	229
†Talybont (Cui)	H. Jones Williams, Esq.	5	1	0	490 T	65·53	...
†Cantref Rectory	old g. Rev. J. J. Evans	5	1	0	630 T	67·49	...
„ „ „ „ „ new g. „ „ „	„ „ „	5	1	0	630 T	64·74	210
d†Llanfrynach (Tymawr).....	Col. Garnons Williams.	5	1	0	450 T	62·47	226
d Brecon (Pont ar Fran)	J. Hotchkis, Esq.	5	1	0	...	59·32	250
„ „ „ „ „ (Penoyre)	R. D. Cleasby, Esq. ...	...	...	...	...	62·13	...
d „ „ „ „ „ (Llandefaelog-fach)	Rev. D. L. Marsden ...	5	1	0	660 T	51·20	240
§Hay (Gwernyfed Park).....	Major T. Wood	5	1	0	375 A	44·47	220
d Llangammarch Wells	Dr. W. Black Jones ...	8	1	0	551 A	69·45	252
d Builth (Tyn-y-berllan).....	Dr. Baldock Fry	5	1	0	430 T	53·12	213
Abergwesyn Vicarage	Rev. T. Jones.....	5	1	0	904 A	98·38	...
d Brynwrn Hall [Newbridge] ...	Rev. W. Clifton-Mogg.	5	1	6	520 T	54·27	244
Llysdymanor [„]	Mrs. Lister Venables...	5	1	3	640 T	58·32	257

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level	1903	
RADNOR.						
D Welfield [Builth]	E. A. Thomas, Esq. ...	5	1 10	740 T	54·91	181
§Disserth Rectory	Meteorological Council.	5	1 0	712	61·26	242
Llandrindod Wells	Dr. Bowen Davies	5	7 0	711 T	46·26	235
Llandegley (Gwern-i-Arglwydd)	Mr. J. Campbell	5	2 0	1000	49·02	218
D New Radnor (Ednol).....	Mr. W. Jones.....	5	1 0	950	61·11	238
Rhayader (Nant-y-car)	M G. M. Yourdi, Esq., CE	5	1 0	1545	106·00	...
D " (Tyrmynydd)	" " "	5	1 0	832 T	87·01	251
D " (Nantgwillt) ...old g.	" " "	5	1 0	768 T	84·14	249
D " (")...new g.	" " "	5	1 0	764 T	86·97	249
" (Bwlchyrhendre) ...M	" " "	5	1 0	1585	82·80	...
D " (Claerwen)	" " "	5	1 0	1250	84·00	229
" Vicarage	Rev. L. H. Evans	5	1 0	720 T	67·31	238
" (Pryddellau)	M G. M. Yourdi, Esq., C.E.	5	1 0	1710	82·40	...
D " (Abergwyngy).....	" " "	5	1 0	1200	83·80	225
Knighton (Ystrad House).....	Robert Gray, Esq.....	5	1 0	550 T	47·70	...
MONTGOMERY.						
Llangurig(Ystrad-olwyn-fawr)M	Dr. H. R. Mill	8	1 0	950	68·40	...
Llandinam (Plas Dinam)	D. Bowen, Esq.....	5	4 0	504 T	54·45	236
D Newtown (Dolfor)	W. B. Pugh, Esq.....	5	2 6	1027	51·55	233
D Welshpool (Leighton Hall)	Mrs. F. Naylor	5	1 0	400 T	46·67	238
D " (Pool Quay Vic.).....	Rev. R. J. Roberts ...	5	1 0	230 T	41·79	231
D Meifod (Coed-y-maen)	A.W. Williams Wynn Esq	5	1 7	340 T	51·68	243
Garthbibio (Bwlch Tomlyd)...M	Dr. H. R. Mill	5	1 0	1370 T	107·40	...
Meifod (Tan-y-fron)	A. George, Esq.	5	1 0	310	42·45	...
D Lake Vyrnwy	E. D. Marten, Esq.C.E.	5	0 7	770 T	70·60	250
" " (Bryn Gwyn)	J. Parry, Esq., C.E. ...	...	...	1311 T	82·85	...
" " (Cynonysaf).....	" " " .....	...	...	750 T	80·84	241
" " (Tynchaf) .....	" " " .....	...	...	860 T	76·30	...
" " (Heol-y-ffridd)No.1	" " " .....	...	...	912 T	110·52	...
" " (" ")No.2	" " " .....	...	...	...	100·90	...
" " (Tynyfridd).....	" " " .....	...	...	1010 T	75·03	...
" " (Lluestwen).....	" " " .....	...	...	1667 T	105·88	...
" " (Llwynrhiw) .....	" " " .....	...	...	1428 T	118·43	...
" " (Craig-y-Gribbin)..	" " " .....	...	...	1100 T	87·13	...
" " (Eunant Bridge)...	" " " .....	...	...	830 T	100·12	...
" " (Carreg Goch).....	" " " .....	...	...	1750 T	106·81	...
" " (Fawnog).....	" " " .....	...	...	1315 T	79·66	...
FLINT.						
Hawarden	Great Central Rly. Co..	9	3 6	35	33·71	213
Flint (Soughton Hall, Northop).	John E. Bankes, Esq. ...	5	1 0	418	41·39	213
D " (Highfield, ")	Rev. Canon Atkinson ...	5	1 0	400	35·48	177
" (Plas Evan, ")	John Astbury, Esq. ...	5	5 3	...	38·12	...
Bodfari (Henblas)	Mrs. Scott Bankes	5	1 0	283 T	39·65	222
St. Asaph (Nantlys).....	P. P. Pennant, Esq. ...	5	1 0	173 T	37·42	196
D " (Penggern)	Sir W.G. Williams, Bart.	5	0 9	40	39·66	221
Bagillt Lead Works	Ishmael Roberts, Esq..	5	1 0	20	35·97	...

DIVISION XI.—MONMOUTH, WALES AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which "01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in.	feet.	inches.	
FLINT—(con.)						
D Rhyl	W. Hughes, Esq., C.E.	8	1 0	31 7	34·24	208
Prestatyn (Edlestone House) ...	T. J. Scott, Esq.	5	0 6	30	35·75	181
DENBIGH.						
D Llangadwaladr (Penygwely Res.)	G. W. Lacey, Esq., C.E.	5	1 0	1094 7	60·13	228
Llangollen (Plas-yn-Vivod)	Capt. J. C. Best, R.N..	5	2 6	635	53·49	208
Cerrig-y-Druiddion (Bwlch-y-beudy)	C. S. Mainwaring, Esq.	5	1 0	1050 7	66·04	218
Wrexham (Pack Saddle Res.) ...	F. Storr, Esq.	5	0 9	370 7	48·27	195
„ (Cae Llwyd Res.) ...	„ „	8	0 9	918 7	54·10	200
„ „ „ „ „ „	„ „	5	0 9	918 7	54·03	200
D „ (Broughton)	J. Hall, Esq.	5	1 0	500 7	47·80	223
Gresford (Trewythen)	Miss Howell Evans ...	5	1 0	350	37·98	201
D Rossett (Trevalyn Hall)	Capt. Griffith Boscawen.	5	1 0	58 7	35·57	203
Nantglyn (Pant-y-maen)	W. Barker, Esq.	8	1 0	1320 7	69·11	...
D Llangerniew (Hafodunos)	Col. Sandbach	5	1 0	512 7	72·23	233
Llannefydd (Rhyl W.W., S.)...M	L. G. Hall, Esq., C.E..	5	1 0	600	42·51	...
„ („ „ W.)...M	„ „ „	5	1 0	580	34·25	...
„ („ „ E.)...M	„ „ „	5	1 0	570	36·64	...
D „ (Plas Uchaf Res.) ...	„ „ „	5	1 0	485	42·54	182
D „ (Glascoed Reservoir).	„ „ „	5	1 0	360	41·23	228
D Llangyhanfal (Plas Draw)	Col. C. J. Bromhead, C.B.	5	1 0	419 7	45·29	226
Denbigh (Llyn Bran, Bylchau)..	W. Barker, Esq.	8	1 0	1428 7	71·02	...
D „ (Garn)	W. D. W. Griffith, Esq.	5	1 0	447 7	46·40	223
Trefnant (Maes Elwy)	Major R. F. Birch.....	5	2 0	170 7	39·60	196
Colwyn Bay (Bryn Euryn)	Mr. T. E. Hutchings...	5	1 0	125 7	38·15	211
MERIONETH.						
D Towyn (Peniarth)	W. R. M. Wynne, Esq.	9	1 0	25	61·19	211
D§ Llanbedr (Minafon)	H. G. Hollingworth, Esq.	5	1 2	33 7	58·15	232
D Bala (Eryl Aran)	Mrs. Burton	8	1 0	590 7	78·99	247
D Llanderfel (Palé Gardens)	Mr. T. Ruddy.....	8	1 0	606 7	70·44	258
Arenig (Bodrenig)	E. Jones, Esq.....	5	1 0	1100 7	61·74	209
D Tan-y-bwlch (The Gardens) ...	Mr. J. Roberts	5	1 0	50 ?	79·38	251
D Rhiwbryfdir = Oakley Quarries..	Mr. R. Roberts	5	10 0	1100	135·13	267
Corwen (Rug Gardens)	Mr. J. S. Higgins	5	1 4	500	47·40	200
CARNARVON.						
Bardsey Island	Hon. F. G. Wynn .....	...	...	...	44·17	...
D Criccieth (Talarvor)	Dr. J. Roberts	5	2 0	49 7	50·28	231
Dolwyddelan (Upper Nhadog) No. 2	J. R. Gethin Jones, Esq.	5	1 0	1600	187·00	...
„ (Tynddol) ... No. 1	„ „ „	5	1 0	600	140·42	...
Llandwrog (Glynllivon Park) ...	Hon. F. G. Wynn.....	5	1 0	100 7	57·02	...
„ „ „ Nursery) „ „	„ „ „	5	1 0	200 7	61·91	233
„ „ „ Garden). „ „	„ „ „	5	1 0	100 7	57·52	...
„ „ „ Fort) ... „ „	„ „ „	8	1 0	220 7	59·50	216
„ „ „ (Bodfean Hall)	„ „ „	5	1 6	168 7	57·91	...
Snowdon (Llydaw) No. 12	J. R. Gethin Jones, Esq.	5	1 0	1450	211·00	...
D Bettws-y-coed (Aberllyn)	Mssrs Brunner Mond & Co	5	5 6	674 7	74·18	220

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level	1903	
			ft. in.	feet.	inches	
CARNARVON—(con.)						
Lake Cowlyd	T.B.Farrington Esq.CE	8	1 3	1168 π	114·30	...
Carnarvon (Belan Fort).....	Hon. F. G. Wynn.....	5	1 0	26 \uparrow	48·55	...
Eigiau, Upper, No. 15	J. R. Gethin Jones, Esq.	5	1 0	2000	160·48	...
„ Lake, No. 3	„ „ „	5	1 0	1650	148·90	...
Lake Cowlyd (Upper Brwynog)No.16	„ „ „	5	1 0	1100	109·17	...
„ „ (Lower „)No.18	„ „ „	5	1 0	1000	91·69	...
Frith Rhos	No.17 „ „ „	5	1 0	1100	96·15	...
Llanbedr-y-Cennin (Plasdulyn).	E.P.Stephenson Esq.CE	8	1 0	509 π	75·34	...
„ „ „ (Llyndulyn)	„ „ „	8	1 6	1632 \uparrow	134·80	...
d Bethesda (St. Ann's Vicarage) ..	Rev. W. Morgan	5	1 6	500	78·21	251
§ „ (Penrhyn Quarry).....	Meteorological Council.	8	1 0	528	78·74	228
d Bangor (Penrhyn Castle Gdns.)..	Mr. W. Speed.....	6	1 0	150 \uparrow	50·81	245
d Llanfairfechan	Mr. W. Timmins	5	1 0	144	48·85	233
d§ Llandudno	Mr. W. Little.....	5	1 0	72 \uparrow	38·46	206
ANGLESEA.						
Llandwyn Island	Hon. F. G. Wynn	5	1 0	40 \uparrow	27·06	...
d Llangadwaladr (Bodorgan)	Mr. W. Pilgrim.....	8	1 0	...	48·04	187
Penmynydd Vicarage	Rev. H. D. Owen	5	5 0	300 \uparrow	48·25	230
§ Holyhead (Sailors' Home)	Meteorological Council.	8	1 0	48	45·02	231
Llanerchymedd Llwydiarth Esgob	T. Prichard, Esq.	5	1 0	175 \downarrow	53·82	256
d Lligwy	Lord Boston	5	1 0	170	49·23	191
ISLE OF MAN.						
Castletown (Langness)	Bd. of Northern Lights	...	...	...	70·55	192
„ (Derbyhaven)	A.W.Moore, Esq.C.V.O.	...	...	...	39·36	...
Santon Vicarage .....	„ „ „	...	...	250	36·33	241
d Douglas (Woodville).....	H. Story, Esq.	8	1 0	160 \downarrow	52·25	239
„ (Cronkbourne)	A.W.Moore, Esq.C.V.O.	8	0 10	138 π	54·41	238
„ (Clypse, Onchan)	„ „ „	8	1 0	439 \uparrow	53·83	...
„ (Baldwin) .....	„ „ „	...	...	...	62·82	...
Bishop's Court .....	„ „ „	...	...	80	48·54	177
Point of Ayre.....	Bd. of Northern Lights	3	4 6	...	32·97	181
ISLES OF SCILLY.						
§ St. Mary's	Meteorological Council.	8	1 6	77 \downarrow	39·87	228
d Tresco Abbey	T.A.Dorrien Smith, Esq.	11	3 0	40	40·48	214
JERSEY.						
d St. Helier (St.Louis Observatory)	Rev. M. Dechevrens ...	8	5 0	180	34·66	192
§ St. Aubins	Meteorological Council.	8	1 9	25	38·15	234
GUERNSEY.						
d St. Martin's (Les Blanchés)	B. T. Rowswell, Esq....	5	1 0	305 \uparrow	38·20	212
d St. Peter Port (Fort Road)	A. Collenette, Esq. ...	5	1 0	295 \downarrow	40·88	223
d§ „ „ (Villa Carey).....	Dr. F. Carey	8	0 6	180	36·59	209
§ „ „ („ „)... M	„ „ „	5	0 4	180	37·97	...
d L'Ancrese	J. S. Hocart, Esq.	5	1 0	33 \uparrow	37·03	206

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which 1 in. or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in.	feet.	inches.	
WIGTON.						
Mull of Galloway	Bd. of Northern Lights	...	...	...	32·72	158
Whithorn	Dr. J. F. Smith	5	2 3	207 7	54·68	231
„ (Cutroach)	J. G. Martin, Esq.	5	0 6	120 7	44·61	231
Garliestown (Galloway Ho.)	Mr. J. Day	5	4 6	20 7	50·48	210
Stoneykirk (Ardwell House)	Sir M. J. Stewart, Bt. MP	8	3 9	107 7	45·87	189
Port Patrick (Killantringan) ...	Bd. of Northern Lights	...	...	...	58·58	194
Loch Ryan Lighthouse .....	„ „ „	...	...	...	41·05	171
Corsewall	„ „ „	...	3 4	22 7	43·05	235
KIRKCUDBRIGHT.						
Little Ross	Bd. of Northern Lights	...	3 3	130 7	31·38	200
Kirkcudbright (Balmae)	The Countess of Selkirk	5	0 8	150	41·01	...
Auchencairn (Torr House)	W. Ovens, Esq.	5	0 8	50	61·40	...
Gatehouse (Cally)	Dr. Buchan, F.R.S.	5	1 0	120	57·78	234
Dalbeattie (Kirkennan)	Wellwood Maxwell, Esq.	5	0 9	30 7	60·37	247
„ (Little Richorn)	Mr. W. Kerr	5	0 9	35 7	57·15	215
Creetown (Cassencary)	JA Henryson-Caird, Esq.	5	0 8	40	54·03	...
Kirkpatrick Durham (Glenlair) ..	Major W. Maxwell	5	0 6	250 7	68·08	238
Cargen [Dumfries]	R. F. Dudgeon, Esq.	5	0 4	80 7	60·86	195
New Galloway (Ken Bridge) ...	J. B. Hough, Esq.	5	4 4	150 7	65·08	245
Dalry (Glendarroch)	Miss M. Barbour	5	0 11	192 7	73·77	256
„ (The Old Garroch)	T. R. Bruce, Esq.	8	1 0	432 7	86·97	255
Irongray (Drum Park)	J. E. Blair, Esq.	5	0 9	250	66·60	...
Glenhead of Trool	J. McMillan, Esq.	5	0 11	320	91·42	...
DUMFRIES.						
Dumfries (Ivy Bank)	Rev. W. Andson	8	0 10	70 7	50·45	240
Lockerbie (Castle Milk)	Mr. J. Troup	5	0 9	199	56·37	...
Canonbie (Byreburnfoot)	Mr. D. Crabbe	3	0 9	...	57·12	...
Lochmaben (Esthwaite)	W. J. Halliday, Esq.	5	1 0	166 8	51·84	253
Langholm (Westwater)	J. M. Elliot, Esq.	3	1 0	450	78·49	...
„ (Drove Road)	Mr. W. Jackson	5	0 9	270	70·71	224

DIVISION XII.—SOUTHERN COUNTIES (*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in.	feet.	inches.	
DUMFRIES—(con.)						
Moniaive (Glencrosh)	Miss McMillan	5	1 2	350	76·21	211
^d „ (Maxwelton House) ..	Rev. Sir E. Laurie, Bt.	8	1 6	400 π	70·39	244
Langholm (Ewes School)	Mr. J. C. Lyall	3	1 0	445 \uparrow	67·25	...
„ („ Burnfoot)	J. C. Little, Esq.	3	0 6	541 π	71·25	...
§ Durrisdeer (Drumlanrig Gardens)	Mr. D. Inglis	5	0 9	191	62·86	...
Moffat (Craigielands)	Mr. L. Fraser	5	0 9	360 \uparrow	67·67	...
^d „ (Auchen Castle)	Mr. W. McAdam	5	0 6	500	72·93	254
„ (Ericstane)	Mrs. J. J. Welsh	5	1 6	580 \uparrow	68·26	...
ROXBURGH.						
§ Hawick (Wolfelee)	Dr. Buchan, F.R.S.	5	0 10	587	54·73	214
^d „ (Branxholme)	J. G. Winning, Esq.	5	0 6	457 π	40·36	213
^d Jedburgh (Ancrum Bridge)	A. Johnston, Esq.	5	2 0	229	35·47	223
^d Lilliesleaf (Riddell)	Lieut.-Gen. J. Sprot ...	5	0 8	550 \uparrow	42·22	250
^d „ („)	Mr. J. Williamson	5	0 8	500 \uparrow	37·90	215
§ Kelso (Broomlands)	Dr. Buchan, F.R.S.	8	1 2	205	29·81	221
^d Melrose (Asylum)	Mr. A. C. Pattman ...	5	0 6	480 \uparrow	40·50	258
^d „ („)	„ „ „	5	1 0	480 \uparrow	39·10	258
Wooplaw [Galashiels]	J. Murray, Esq.	5	1 0	880 π	38·90	216

DIVISION XIII.—SOUTH EASTERN COUNTIES.

SELKIRK.

Meggat Head (Edinburgh W.W.) No.1	W. Anderson, Esq.	5	1 3	1496 π	82·95	...
^d Selkirk (Philiphaugh Gardens) ..	Mr. J. Hunter .....	...	4 6	460	39·90	235
^d „ (The Hangingshaw) ...	Miss Johnstone	5	0 6	670 \uparrow	46·17	196
Galashiels (Abbotsford Rd.)	Dr. R. Somerville	5	0 8	416 \uparrow	39·55	233
„ (Stantling Craigs) ...	Mr. W. Ross	12	1 3	800	40·40	...

PEEBLES.

Ravenscraig (Edinburgh W.W.) No.3	W. Anderson, Esq.	5	1 3	2258 π	84·58	...
Gameshope Loch („ „) No.4	„ „ „	5	1 3	1860 π	98·23	...
Loch Craig Head („ „) No.2	„ „ „	5	1 3	2627 π	78·88	...
Gameshope Farm („ „) No.5a	„ „ „	5	1 3	1538 π	115·92	...
„ „ „ („ „) No. 5	„ „ „	8	1 3	1538 π	112·65	...
Talla Linns Foot („ „) No.6a	„ „ „	5	1 3	966 π	90·97	...
„ „ „ („ „) No. 6	„ „ „	8	1 3	966 π	90·99	...
Quarter Hill („ „) No.7a	„ „ „	5	1 3	1196 π	67·99	...
„ „ „ („ „) No. 7	„ „ „	8	1 3	1196 π	65·61	...
Innerleithen (Leithen Lodge) ...	Mr. D. Clark	11	0 0	700 \uparrow	46·53	...
§ Stobo Castle	Dr. Buchan, F.R.S.	3	1 0	600	45·30	184
^d Peebles (Swinton Bank)	C. A. Ainslie, Esq.	8	4 0	600	42·49	245
^d West Linton (Rutherford House)	E. Cameron, Esq.	5	3 3	970 π	49·34	242
Eddlestone (Portmore Res.)	W. Anderson, Esq.	11	0 6	1000	43·39	229
§ N. Esk Reservoir [Penicuik] ...	Mr. W. Tod	11	0 6	1150 π	48·90	...

DIVISION XIII.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
BERWICK.						
d Earlston (Cowdenknowes)	Mr. J. Robertson	5	0 10	360 ∇	37·83	228
d Coldstream (The Hirsell)	Mr. J. Cairns	5	1 0	94 ∇	31·52	222
d§ Marchmont House	Mr. J. A. Wood	5	1 0	500 ∇	38·49	207
Whitsome Hill	John T. Craw, Esq.	3	0 6	250 ∇	32·60	...
Duns Castle	Mr. R. Aikman	5	1 0	500	38·92	...
„ (Manderston)	Mr. J. Hamilton	8	2 0	220 ?	35·14	...
West Foulden	J. Hewat Craw, Esq.	5	1 0	250 ∇	33·24	...
St. Abb's Head	Bd. of Northern Lights	8	4 3	200	31·73	...
HADDINGTON.						
Garvald (Donolly Reservoir) ...	H. Blackadder, Esq. ...	11	1 6	560 ∇	41·04	...
d Drummore [Musselburgh]	Mr. J. Robson	5	1 0	75 ∇	28·77	214
Whittinghame Gardens	Mr. J. Garrett	5	1 0	348 ∇	35·07	...
Dunbar (Barnsness)	Bd. of Northern Lights	...	...	...	31·97	167
§ Prestonkirk (Smeaton)	Dr. Buchan, F.R.S. ...	7	7 10	100	30·76	...
§ Aberlady Manse	Rev. J. Hart	5	0 11	15	29·89	...
North Berwick Reservoir ...	H. Blackadder, Esq. ...	11	1 6	150 ∇	31·94	...
„ „ (Fidra)	Bd. of Northern Lights	3	3 0	...	27·62	...
„ „ (Bass Rock) .....	„ „ „	...	...	...	28·59	...
MIDLOTHIAN.						
Stow (Burnhouse)	W. R. Ovens, Esq. ...	5	0 6	720	38·59	...
Moorfoot Hills (Bowbate)	W. Anderson, Esq.	11	0 6	2042	53·58	...
„ „ (Gladhouse Res.)	„ „ „	11	0 6	900	44·33	239
„ „ (Rosebery)	„ „ „	11	0 6	750	38·07	186
Pentland Hills (Crosswood)	„ „ „	11	0 6	950	48·94	...
Moorfoot Hills (Edgelaw)	„ „ „	11	0 6	654	35·73	175
Pentland Hills (Harper rig)	„ „ „	11	0 6	900	53·51	...
„ „ (Harehill)	„ „ „	11	0 6	1470	49·80	...
„ „ (Loganlea)	„ „ „	11	0 6	850	48·11	...
West Calder (Addiewell)	J. Fyfe, Esq.	5	0 6	600	41·76	...
Pentland Hills (Swanston)	W. Anderson, Esq.	11	0 6	550	36·98	...
„ „ (Glencorse Res.)	„ „ „	11	0 6	787	49·99	240
„ „ (Harlaw)	„ „ „	11	0 6	800	43·93	...
„ „ (Clubbiedean Res)	„ „ „	11	0 6	750	41·92	...
„ „ (Harbour Hill)	„ „ „	11	0 6	1112	57·01	...
Liberton (Alnwick Hill)	„ „ „	11	0 6	400	34·80	204
d§ Edinburgh (R. Obs., Blackford Hill)	Dr. Copeland	8	1 0	442 ∇	32·06	212
d§ Corstorphine House	T.N. Johnston, Esq. M.B.	5	1 0	165	36·50	246
d Musselburgh (Levenhall)	The Misses Husband ...	5	1 0	15 ∇	28·01	208
Edinburgh (George Square) ...	Surg.-Maj. W. G. Black	6	3 0	261 ∇	29·98	223
„ „ „	„ „ „	3	3 0	265 ∇	28·16	221
„ „ „	„ „ „	8	0 10	349	30·58	206
d „ „ (City Observatory)	W. Peck, Esq.	11	1 6	190 ∇	33·24	...
† „ „ (Charlotte Square)	Messrs. Leslie & Reid, CE	12	63 0	300	26·24	...
† „ „ „	„ „ „	8	1 8	22	30·94	209
§ Leith	Meteorological Council.	8	1 8	22	30·94	209

DIVISION XIII.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.	
		Diameter	Height Above Ground	Height Above Sea Level	1903		
			ft.	in.			feet.	inches.
MIDLOTHIAN—(con.)							
§ Leith (Navigation School).....	Dr. Buchan, F.R.S.....	5	0	5	76	33·90	226
D Davidson's Mains (Broomfield)...	Mr. C. Comfort	5	0	10	42 1	35·67	206
LINLITHGOW.							
D Whitburn (Polkemmet)	Lady Baillie	5	2	0	600 1	55·53	251
D Bathgate (Boghead House)	J. RobertsonDurhamEsq	5	2	0	500	52·97	193
Uphall.....	J. Fyfe, Esq.	5	0	10	380	45·52	...
Carribber Reservoir	M. John P. Lawrie, Esq...	5	0	7	340 1	46·89	...
Linlithgow (Nether Parkley) ...	Mrs. Henderson	5	0	3	300 1	47·70	...
D „ (Rockville).....	J. Storey, Esq.	5	1	6	...	48·43	198
Bo'ness (Neidpath Cottage)	Mr. J. Grant	5	3	0	220 1	38·59	...
D „ (Grange)	H. M. Cadell, Esq. ...	5	0	4	14	38·90	196

DIVISION XIV.—SOUTH WESTERN COUNTIES.

LANARK.

§ Leadhills.....	Dr. Buchan, F.R.S. ...	5	1 1	1300	82·48	232
Lanark (Rhyber Lodge)	R. Swann, Esq.	6	3 0	650	45·30	...
▷ Cleghorn.....	W. Elliott Lockhart, Esq.	3	0 3	720 1	51·11	233
Carluk (Mauldslie Castle)	Mr. D. Bryson	5	0 6	140	45·05	...
▷ Hamilton Water Works	Mr. W. H. Purdie.....	7	1 0	436 1	53·00	211
▷ „ (Laighstone Hall)	Rev. T. M. B. Paterson	5	1 9	260 1	51·12	218
§ Bothwell.....	Dr. Buchan, F.R.S. ...	5	0 9	150 1	49·24	209
Glasgow (Tollcross Park).....	J. Whitton, Esq.	5	0 6	85	55·27	231
„ Green	„ „ „	5	0 6	35	53·01	210
„ (Bellahouston Park).....	„ „ „	5	0 6	160	49·61	253
† „ (Botanic Gardens).....	„ „ „	5	0 6	110	49·45	200
„ (Alexandra Park)	„ „ „	5	0 6	141	50·39	244
„ (George Square)	„ „ „	8	6 0	40	48·52	215
„ (Kelvingrove Park) ...	„ „ „	5	0 6	48	52·10	226
„ (Ruchill Park)	„ „ „	5	0 6	220	52·18	228
▷ § „ (Belvedere Hospital) ...	Dr. J. Brownlee.....	5	1 1	54 1	51·76	236
§ „ Observatory	Prof. L. Becker	11	2 0	182	53·32	237
▷ Airdrie (Hillend Reservoir)	Mr. W. A. Ritchie.....	6	4 6	620 1	50·26	225
„ (Roughrigg Reservoir)...	Press-cutting .....	...	...	...	48·30	...

AYR.

Ballantrae (Glendrishag).....	P. Murdoch, Esq.	5	3 0	42	50·10	214
Barrhill (Dochroyle)	M. Mr. J. Scott	6	0 9	448 1	70·90	...
Colmonell (Clachanton).....	R. Aitken, Esq.	6	0 6	140 1	52·94	...
▷ § Girvan (Pinmore) ..	Hugh Hamilton, Esq... ..	5	0 6	187 1	63·25	265
▷ Barr Manse	Rev. G. Dods.....	5	1 0	330	61·73	232
Girvan (Glendoune Gardens) ...	Mr. J. Simons	5	1 0	150 1	53·99	182
Ailsa Craig.....	Bd. of Northern Lights	3	5 0	...	28·09	181
Loch Finlas.....	J. Young, Esq.	5	1 0	849	77·87	...
Girvan (Turnberry)	Bd. of Northern Lights .....	...	...	...	47·93	211
▷ § Dalrymple (Bow Hill)	A. Gillespie, Esq. ....	...	...	978	42·70	226

DIVISION XIV.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
AYR—(con.)						
d Maybole (Culzean Gardens)	Mr. D. Murray	9	3 0	200	50·35	18½
„ (Knockdon Farm)	A. Cross, Esq.	6	1 6	600	51·58	...
„ (Glenhead) ..	„ „ „ „	8	1 2	500	58·15	...
Ayr (Doonside)	W. H. Dunlop, Esq. ...	5	1 6	85	59·04	...
„ (Doonholm)	J. Kennedy, Esq.	5	1 0	90	55·31	...
d Mauchline (Catrine)	Messrs. J. Finlay & Co.	6	1 0	301 1	43·90	188
Muirkirk (Glenbuck)	Mr. W. F. Hamilton...	6	1 0	900	58·20	...
Kilmarnock (North Craig)	R. Blackwood, Esq. ...	12	1 0	319 7	60·60	...
d Dalry (Blair)	Mr. J. Cluckie	5	1 3	155 1	66·85	239
Dunlop (Dunlop House)	Maj. J. F. Dalrymple Hay	6	2 6	550 7	88·90	...
Paisley W. W. (Camphill)	J. Lee, Esq.	12	1 6	611	76·95	...
Shaws W. Works (Kelly Dam)...	D. Macalister, Esq., C.E.	6	1 0	640 ?	83·80	...
„ „ (Knockencorsan) ..	„ „ „	6	1 0	1040	82·10	...
RENFREW.						
Lochwinnoch (Garthland)	H. Macdowall, Esq. ...	5	0 11	150	84·36	208
„ (Castlesemple)	Mr. C. Jamieson .....	...	26 0	240	65·39	239
Gorbals Dist. W. W. (Ryat Lynn)	J. R. Sutherland, Esq. CE	8	0 5	310	72·95	...
„ „ „ (Waulk Glen) ..	„ „ „	12	0 5	280	71·25	...
„ „ „ (Middleton) ..	„ „ „	12	0 5	550	83·90	...
„ „ „ (Nether Cairn) ..	„ „ „	12	0 5	700	63·60	...
Paisley W. W. (Stanely)	J. Lee, Esq.	12	1 0	190	53·21	...
„ „ (Back Thornleymuir) ..	„ „ „	12	1 0	646	71·42	...
„ „ (Muirhead)	„ „ „	12	1 0	482 7	75·84	...
„ „ (Springside)	„ „ „	12	1 0	532 7	81·68	...
d Glasgow (Queen's Park)	J. Whitton, Esq.	8	0 9	144 7	55·52	227
„ (Maxwell Park)	„ „ „	5	0 6	69	52·02	216
Paisley (Crookston)	Major Hotchkis	3	0 5	...	58·50	173
d† „ (The Coats Observatory)	Dr. Buchan, F.R.S. ...	10	1 8	107	69·57	258
Shaws W. W. (Duchall Moor) ...	D. Macalister, Esq., C.E.	6	1 0	1150	101·70	...
„ „ (Creuch Hill)	„ „ „	6	1 0	1350	84·10	...
„ „ (Largs Road)	„ „ „	5	1 0	910	71·41	...
„ „ (Green Water) ...	„ „ „	6	1 0	788 7	97·90	...
„ „ (Gryfe Reservoir). ..	„ „ „	6	1 0	640 7	94·60	216
„ „ (Mansfield)	„ „ „	5	1 0	573 7	91·39	266
„ „ (Compensation Res.) ..	„ „ „	5	1 0	600	82·58	283
„ „ (Loch Thom)	„ „ „	5	1 0	643 7	81·76	283
„ „ (Shielhill)	„ „ „	6	1 0	962 7	98·60	...
„ „ (Darndaff Moor) ..	„ „ „	6	1 0	850	90·40	...
„ „ (Spango Burn) ...	„ „ „	6	0 9	757 7	92·90	...
„ „ (Hole Glen)	„ „ „	5	1 0	603	84·59	264
„ „ (New Yetts Dam) ..	„ „ „	5	1 0	800	94·16	263
d§ Greenock (Prospect Hill)	„ „ „	5	1 0	233	87·35	251
Bishopton (Ingliston)	D. Cross, Esq.	5	1 0	195	65·59	...
Langbank (East Bank Gardens)	A. Cross, Esq.	5	1 6	...	69·07	...

DIVISION XV.—WEST MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain	Days on which 101 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
DUMBARTON.						
n§ Dumbarton (Leven Shipyard) ...	Messrs W. Denny & Bros.	5	1 0	9 T	66·88	236
n Helensburgh (Fernigair House) ..	J. R. Wilson, Esq. ...	6	0 4	18	69·51	238
n " (Water Works) ...	" " " "	6	0 6	300	57·52	241
Arrochar (The Manse)	Rev. Dugald Macfarlane	5	1 0	14	86·23	...
" House	Mr. J. Thomson	6	1 3	50	103·85	...
STIRLING.						
Muiravonside Ho. [Linlithgow].	J. Stirling, Esq.	5	6 0	175	50·03	...
Strathblane (Mugdock Reservoir)	J. R. Sutherland, Esq. CE	8	0 6	320	53·20	...
" (Craigend Castle)	Capt. J. Kerr	5	0 9	543 T	67·43	...
" (Craigbarnet)	C. Stirling, Esq. ....	...	...	315	81·50	...
Kilsyth (Currymire)	Mr. G. J. Ramsay	5	1 2	200	67·62	215
n Falkirk (Inglewood, Laurieston)	W. Ballantine, Esq. ...	5	1 3	133 T	53·35	207
n " (Hospital)	David Ronald, Esq., C.E.	5	1 0	395 T	57·84	234
n " (Burgh Buildings)	" " " "	5	1 0	106 T	44·77	246
" (Kerse)	C. Brown, Esq.	8	1 0	18 T	50·20	...
" (")	" " " "	5	0 10	18 T	49·43	...
n " (Cauldhame)	David Ronald, Esq., C.E.	5	1 0	73 T	52·33	236
Little Denny Reservoir	C. Massie, Esq.	8	1 0	326	71·62	...
" " Filters	" "	8	1 0	243 T	65·44	...
Earlsburn Reservoir	" "	8	1 0	1202 T	73·02	...
St. Ninians (Faughlin)	" "	8	1 0	707 T	79·55	...
Stirling (Touch Reservoir)	C. Stirling, Esq. ....	...	...	755	64·55	...
" (Polmaise Gardens)	Mr. W. W. Ritchie ...	6	1 0	12	50·84	...
" (Victoria Place)	R. Kidston, Esq.	5	2 10	100	57·23	...
n§ Buchlyvie (The Manse)	Rev. J. A. Macdonald ..	5	1 3	118 T	74·76	285
Gargunnoch	C. Stirling, Esq.	5	5 8	85 T	64·43	...
Kippen (Garden House) .....	" " " "	...	...	...	74·54	...
Bridge of Allan	Laurence Pullar, Esq. ...	5	0 5	110	47·46	...
Ben Lomond	J. R. Sutherland, Esq. CE	...	...	1800	137·80	...
Glengyle .....	" " " "	...	...	380	129·50	...
BUTE.						
Arran (Pladda)	Bd. of Northern Lights	...	...	...	59·81	216
Holy Island (Lamlash)	" " " "	3	0 3	...	54·95	200
n§ Rothesay (Barone Cottage)	J. Kay, Esq.	5	1 0	116 T	61·57	251
n " (Crichton Road)	H. Lauder, Esq.	5	4 0	97	68·79	259
ARGYLL—(MAINLAND.)						
Kintyre, Mull of	Bd. of Northern Lights	...	...	279 ?	48·06	...
n " (Campbeltown, Witchburn)	Mr. A. Giffen	5	1 2	75	58·83	256
" (" Devaar) ...	Bd. of Northern Lights	...	3 4	75 ?	56·74	210
" (Killean Manse)	Rev. D. J. Macdonald ..	5	1 0	30 B	54·06	249
" (Largie Castle)	J. R. Moreton Macdonald, Esq.	5	1 0	160 T	55·65	...
" (Skipness Castle)	Mr. P. McLean ...	5	1 6	27 T	62·51	...
n Tighnabruaich	A. S. Cousland, Esq. ...	5	4 0	30 B	64·52	235
n "	" " " "	12	5 0	50 B	73·43	235

DIVISION XVI.—EAST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
CLACKMANNAN—(con.)						
Dollar (Home Farm, Dollarbeg).	James Bleloch, Esq. ...	5	0 9	265 T	52·61	241
§ „ (Academy)	Mr. A. Blackwood	9	1 0	178	47·88	200
KINROSS.						
Blairingone [Dollar]	Rev. J. F. Cameron ...	5	1 6	300 T	54·55	235
§ Cleish Castle	Dr. Buchan, F.R.S. ...	5	0 10	450 ?	43·25	...
▯ Loch Leven Sluice	Mr. Hay	8	0 7	360 L	52·19	202
▯ Kinross (Gellybank)	G. Henderson, Esq. ...	5	0 6	440 T	46·92	229
FIFE.						
Inchkeith	Bd. of Northern Lights ...	...	...	...	35·01	...
▯ Culross (West Grange)	J. J. Dalgleish, Esq. ...	5	0 2	116 T	47·02	221
▯ Dunfermline (Keavil)	L. Dalgleish, Esq. ...	5	0 2	150	38·13	222
Carnock (Luscar House) ... No. 1	A. Mitchell, Esq.	5	0 10	430 T	43·93	...
„ „ „ „ „ No. 2	„ „ „ „ „	5	0 10	430 T	43·86	...
„ „ (Craigluscar)	A. W. Bell, Esq., C.E. 12	0 4	280 T	42·23	...	...
Beath (Outh)	L. Dalgleish, Esq.	5	0 2	890	45·20	...
Isle of May	Bd. of Northern Lights ...	...	...	...	25·19	...
Kilconquhar (Balcarres)	Mr. E. Tate	5	0 6	300 T	41·09	220
▯ Carnbee (Ovenstone W.W.)	A. P. Watson, Esq. ...	5	1 0	168 T	35·09	184
§ Leslie (Lothrie Reservoir)	Dr. Buchan, F.R.S. ...	5	0 5	702	47·02	...
Strathmiglo	F. Troup, Esq., M.D. ...	5	2 0	200 T	47·81	206
▯ § Cupar (Fife & Kinross Asylum)	Dr. Turnbull	5	1 0	210	28·83?	178
„ „ (Clatto Reservoir)	Dr. A. Buchan, F.R.S. ...	...	...	...	37·86	...
▯ St. Andrews	Miss Macadam	5	1 0	55 B	38·78	225
Kilmany (Mountquhanie House)	D. Gillespie, Esq.	3	1 0	...	38·00	...
Balmerino	W. Fenwick, Esq.	5	1 6	60	34·56	...
▯ Tayport (Low Light)	J. Thompson, Jr. Esq. CE	5	1 0	27	33·25	182
PERTH.						
Aberfoyle	J. R. Sutherland, Esq. CE	8	0 6	60	79·15	...
Ochertyre [Stirling]	Capt. J. M. Dundas, R.N.	5	1 0	18	57·57	...
Dunblane (Kippenross)	A. H. Anderson, Esq. ...	3	1 3	240	56·63	...
„ „ (Kippendavie Lodge) ..	Felix Barnes, Esq. ...	8	2 9	300	62·10	...
▯ Doune (Gartincaber)	G. Burn Murdoch, Esq.	5	1 0	200 T	56·38	253
Sheriffmuir (Lynns Farm)	A. H. Anderson, Esq. ...	5	1 0	550	52·31	...
Glendevon (Glensherup)	A. W. Bell, Esq., C.E. 12	0 4	745 T	68·30	...	...
Loch Dhu	J. R. Sutherland, Esq. CE	8	0 6	325	118·70	...
Ledard .....	„ „ „	...	...	1500	77·40	...
Loch Drunkie	„ „ „	8	0 6	420	87·70	...
Loch Vennachar	„ „ „	8	0 6	275	72·00	...
▯ Lanrick Castle	Mr. J. Begg	3	1 0	...	65·00	200
Bridge of Turk	J. R. Sutherland Esq., CE	8	0 6	275	88·80	...
Loch Katrine (Tunnel Hill Top) ..	„ „ „	8	0 6	830	119·30	...
Between Glen Finlas & Ben Ledi. „	„ „ „	8	0 6	1800	65·90	...
Callander (Leny House)	J. H. Buchanan, Esq. ...	3	0 4	340 T	76·00	...
Braco (Nether Cambushinnie) ...	J. W. Stirling, Esq. ...	5	0 10	380 T	60·41	...
Glenfarg	M. Rev. J. W. Jack	5	1 0	480	51·83	...

DIVISION XVI.—EAST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which -01 or more fell.
		Diameter	Height above Ground.	Height above Sea Level	1903	
			ft. in.	feet.	inches.	
PERTH—(con.)						
Bridge of Earn (Ballendrick) ...	R. Richardson, Esq. ...	3	1 0	50	37·80	...
§ Balquhiddie (Stronvar)	J. Carnegie, Esq.	6	1 0	422 ↑	109·02	283
§ Crieff (Ochertyre)	Mr. G. Croucher	5	2 6	326 ↑	58·95	250
Locheearnhead (Ardvorlich)	Col. J. Stewart	5	1 0	325 ↑	107·06	249
Comrie (Clathick)	Dr. Buchan, F.R.S. ....	...	...	300	57·60	225
St. Fillans (Portmore)	Miss Mackintosh	5	0 6	333 ↑	91·84	249
Perth (Kinfauns Castle Gardens)	W. Fenwick, Esq.	5	1 3	20	36·16	203
† „ (Pitcullen House)	Henry Coates, Esq. ...	5	1 0	133	39·96	...
Killin (Auchmore House)	Mr. W. J. Burrell	5	1 0	400 ↑	91·40	...
Coupar Angus Station	Mr. J. Robertson	5	1 3	183 ↑	35·68	225
Dunkeld (Inverbraan)	late Canon Burn Murdoch	...	...	...	58·27	...
Blairgowrie (Ballintuim House).	Miss M. A. McDonald..	5	...	600	52·26	235
Pitlochry (Donavoured)	W. Maxwell, Esq.	5	0 7	400	45·19	205
Blair-Atholl	Mr. A. Cameron	5	1 0	420	46·97	228
FORFAR.						
Buddonness (Low Light)	J. Thompson, Jr., Esq. CE	5	1 0	17	31·61	171
§ Dundee (Harbour)	„ „ „	5	0 10	14	37·31	229
Broughty Ferry (Summerbank)..	Mr. K. Graham	5	5 6	25	34·49	201
§ Dundee (Eastern Necropolis) ...	Mr. J. Carnochan	3	0 4	199 ↑	34·65	...
§ „ („ „)	„ „ „	5	0 4	199 ↑	35·40	222
„ (Dens Works)	Messrs. Baxter Bros. ...	5	...	119 ↑	38·63	222
„ (Westgreen House)	J. Rorie, Esq., M.D. ...	5	0 10	216	37·00	...
„ (Camperdown Works)	Messrs. Cox Bros. ...	5	3 8	290	29·38	...
§ „ (Balruddery)	Mr. R. Cairns	5	1 0	266 ↑	38·94	215
Liff (Gray Cottage)	W. Fenwick, Esq.	5	0 11	260 ↑	37·99	204
Craigton	G. Baxter, Esq., C.E. ...	8	1 0	410	38·28	183
„	M „ „	11	3 0	481	38·22	...
„ (Hillhead)	„ „	11	3 0	570	38·75	...
Crombie Reservoir	M „ „	11	3 0	522 ↑	44·81	...
Arbroath (Waterworks)	P. C. Smith, Esq., C.E. ...	5	0 11	58 ↑	29·73	175
„ { „ }	M „ „ „	5	1 0	58 ↑	31·14	...
„ { „ } Tower	„ „ „	5	48 0	157 ↑	16·19	155
„ { „ } „ M	„ „ „	5	48 0	157 ↑	20·49	...
§ „ (Dishland Hill)	Mr. J. Campbell	5	0 11	69	29·53	191
Inverarity Manse	Rev. P. Stevenson	5	1 0	301 ↑	41·20	184
Glamis Castle	Mr. T. Wilson	5	1 6	250	40·44	181
Forfar (Lilyfield)	A. L. Fenton, Esq.	5	0 5	225 ↑	41·88	206
„ (Littlecauseway)	J. Watson Craik, Esq. ...	8	5 0	218	40·07	186
Rescobie (Pitscandly)	W. T. Farquhar, Esq. ...	5	5 10	280	35·68?	...
Kirriemuir (Lintrathen)	G. Baxter, Esq., C.E. ...	8	1 0	700	49·80	...
„ { „ „ Balnakeilly)	„ „ „	8	1 0	700	46·55	246
„ { „ „) M	„ „ „	8	1 0	700	44·40	...
„ { „ „ Creich Hill) M	„ „ „	8	1 0	1500	38·70	...
„ (Longdrum)	„ „ „	8	1 0	1142	50·30	...
„ (Glen Dye)	„ „ „	8	1 0	1408	51·40	...
„ (Barney)	„ „ „	8	1 0	1145	50·20	...
„ (Glen Damff)	„ „ „	8	1 0	1480	49·00	...

DIVISION XVI.—EAST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which .01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
FORFAR—(con.)						
d§ Kirriemuir (Lednathie).....	Mr. W. Morrison	5	1 0	720	61·15	261
Montroseness	Bd. of Northern Lights	3	1 0	10	28·94	...
Montrose (Melville Gardens) ...	S. L. Christie, Esq. ...	5	9 0	23 †	34·28	221
d§ „ (Sunnyside Asylum)...	J. Masson, Esq.	5	0 10	200	38·02	163
„ (Kinnaber W.W.).....	S. L. Christie, Esq. ...	5	1 0	38 †	37·06	194
Brechin (Stracathro Gardens) ...	Rt Hon J A Campbell, MP	5	1 0	240 †	39·64	...

DIVISION XVII.—NORTH EASTERN COUNTIES.

KINCARDINE.

Johnshaven (Brotherton)	Mrs. Scott	5	1 0	...	28·90	...
§ Laurecekirk (Johnstone Lodge)	Dr. Buchan, F.R.S. ...	...	...	...	45·65	...
d Fettercairn (The Burn)	Col. C. McInroy, C.B. ...	5	0 11	250	44·29	227
„ Manse.....	Rev. W. Anderson ...	5	0 2	230 †	40·28	...
Todhead	Bd. of Northern Lights	...	...	...	28·15	156
Crathes (Cross Roads, Durris) ...	J. Smith, Esq.	5	1 0	420 †	48·10	249
Durris House [Drumoak].....	Mr. A. Reid	5	0 6	200 †	49·60	...
d Banchory (Invercannie)	W. Dyack, Esq., C.E. ...	12	0 10	205	39·49	237
d Crathes (Pinewood)	J. Smith, Esq.	5	1 0	145 †	45·96	237
d „ (Woodbank Cottage).....	Mr. D. Murchison	5	0 6	165 †	44·31	234
Banchory (Hirn)	J. Smith, Esq.	5	1 0	287 †	40·58	221
Girdleness	Bd. of Northern Lights	7	4 0	75	31·92	...

ABERDEEN.

Braemar (Glenclunie Lodge) ...	A. Cross, Esq.	5	8 6	1400 †	60·65	...
d§ „	J. Aitken, Esq.	8	0 9	1114 †	43·91	242
Balmoral Castle Gardens	J. Michie, Esq.	8	0 10	920 †	41·74	...
d Cromar (Logie Coldstone School)...	J. B. Anderson, Esq. ...	5	1 0	608 †	38·74	263
d§ „ („ „ Loanhead)	Mr. A. Farquharson ...	5	1 0	743 †	35·66	232
§ „ (Tillypronie)	Mr. R. Littlejohn	5	1 0	1120 †	35·38	240
d Aberdeen (Cranford).....	D. McHardy, Esq. ...	5	1 0	120 †	40·00	253
§ „ (Duthie Park)	Dr. Buchan, F.R.S. ...	5	1 0	44	37·29	195
§ „ (King's College)	Meteorological Council.	8	2 0	48	36·32	233
Towie (Culquoich)	Col. J. Allardyce	5	0 6	800	38·90	...
d Strathdon Schoolhouse	J. B. Innes, Esq.	5	1 0	980 †	41·72	249
d „ (Estate Office)	C. Christie, Esq.	5	1 2	990	43·04	250
d Alford (Lynturk Manse)	Rev. J. B. Duncan.....	5	1 0	615 †	39·05	229
d Monymusk (The Manse)	Rev. Dr. Macpherson...	5	1 0	280 †	37·66	236
Ellon (Mains of Waterton)	T. F. Jamieson, Esq. ...	5	1 0	100	35·07	...
§ Haddo House	Mr. J. Forrest	5	0 8	180 †	36·20	236
New Deer Schoolhouse	H. Cowie, Esq.	5	1 0	397 †	36·08	218
Kinnairdhead	Bd. of Northern Lights	3	2 6	54	32·53	195

BANFF.

d Dufftown	J. Walker, Esq.	5	2 0	579 †	38·71	249
Aberlour	W. McGowan, Esq. ...	5	1 0	300 †	33·54	...
d Craigellachie (Cragganspey).....	J. Shearer, Esq.	3	1 0	320	34·66	176

DIVISION XVII.—NORTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain	Days on which ·01 or more fell.	
		Diameter	Height Above Ground.		Height Above Sea Level		1903
			ft.	in.	feet.			inches.
BANFF—(con.)							
D Keith Station	The Station Agent.....	5	1	0	364 †	38·44	221
D Banff (Earl Hill)	A. Ramsay, Esq.	5	1	0	115 †	32·99	209
Cullen House	Mr. J. F. Smith.....	5	1	0	100 †	35·90	...
ELGIN OR MORAY.							
Grantown	Mr. W. Duncan.....	5	1	1	712 †	35·41	203
D Carron (Bridgend Cottage)	Mr. D. Watters	5	1	0	366 †	33·88	201
Wester Elchies [Craigellachie]...	Mr. J. Milne	5	1	0	560 †	34·30	219
Kinloss	J. Mackessack, Esq. ...	5	1	3	23 †	25·91	...
D § Gordon Castle.....	Mr. C. Webster	8	1	0	107 †	35·08	214
D Duffus House	Sir A. Dunbar, Bart....	5	1	0	55 †	28·58	204
NAIRN.							
D Ardelach (Glenferness).....	Earl of Leven and Melville	8	1	6	750	40·88	179
D Cawdor (Budgate).....	J. Joss, Esq.	5	1	0	250 †	33·91	227
D „ Castle	The Earl Cawdor	8	4	0	225	32·41	185
Nairn (Delnies)	Mr. J. Penny	8	1	0	82	29·13	250
D „ (Achareidh).....	Miss A. Clarke	8	1	0	59 †	25·94	210
§ „ (School Ho.).....	Meteorological Council.	8	1	9	84	29·13	250

DIVISION XVIII.—NORTH WESTERN COUNTIES.

WEST INVERNESS.

D North Ballachulish (Alltshellach)	B. Chinnery-Haldane Esq	5	2 1	80	102·44	247
D Moidart (Kinloch moidart)	R. Stewart, Esq.....	5	1 3	25	82·52	249
† Ben Nevis Observatory.....	Dr. Buchan, F.R.S. ...	5	1 0	4407	216·75	277
† Fort William (Observatory) ...	Meteorological Council.	8	1 8	33	106·46	252
D Loch Shiel (Glenaladale)	Col. Macdonald	5	1 2	50 ?	134·45	264
D Arisaig House	Mr. W. Grant	5	1 0	20 ?	76·83	249
D Mucomir	Miss C. J. Sutherland..	5	1 0	154 †	84·67	244
D Loch Nevis (Inverie)	Mr. J. Huggins	5	0 6	10	108·26	257
D Glenquoich	Mr. D. Grant	8	1 2	569 †	151·83	266
D Glenelg Manse	Rev. A. Mactaggart ...	5	1 0	85 †	79·35	242
D Eigg (Kildonan).....	Mrs. Glendinning .....	...	1 0	35	67·04	216
D Skye (Armada, Ardvassar)	Rev. N. MacDougall ...	5	1 0	20 †	83·67	200
„ (Oronsay)	Bd. of Northern Lights	...	0 6	15 ?	62·79	212
„ (Strathaird)	Mr. K. Macdonald	5	1 4	180	104·11	...
„ (Kyleakin)	Bd. of Northern Lights	5	4 6	45	68·16	242
D „ (Scalpay Island)	Mr. D. Gunn	5	1 0	4	96·57	277
„ (Portree House)	A. H. Douglas, Esq. ...	5	1 5	100	67·98	...
Rona	Bd. of Northern Lights	3	1 3	180	43·07	224
Barra (Barrahead).....	„ „ „	7	3 0	613	33·36	202
D S. Uist (Askernish)	A. MacKintosh, Esq....	5	1 0	...	50·43	239
„ (Ushenish).....	Bd. of Northern Lights	3	1 0	178 ?	99·05	217
§ N. Uist (Monach)	„ „ „	8	5 6	20	49·51	218
D „ (Lochmaddy)	T. D. McGregor, Esq....	5	0 9	...	51·92	246

DIVISION XVIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Ram. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in	feet.	inches.	
WEST INVERNESS—(con.)						
Harris (Island Glass).....	Bd. of Northern Lights	7	4 2	35	63·49	209
d „ (Tarbert)	R. Sinclair, Esq.....	5	1 6	33 L	86·16	269
EAST INVERNESS.						
d Invergarry	Mrs. Ellice	5	0 6	...	94·52	186
§ Kingussie	Dr. Buchan, F.R.S. ...	5	1 0	828	40·91	221
d § Fort Augustus (St. Benedict's)...	Rev. C. von Dieckhoff..	5	1 6	68 A	65·98	242
d Alvey Manse	Rev. J. Anderson	5	1 0	760	38·81	215
Loch Ness (Killin)	British Aluminium Co.	5	1 0	1200	64·40	...
d „ „ (Whitebridge)	„ „ „	5	1 0	645	79·93	197
„ „ (Foyers).....	„ „ „	8	1 6	52	51·55	...
„ „ (Aberchalder)	„ „ „	5	1 0	700 T	45·99	...
d „ „ (Drumnadrochit)	Mr. A. Grant	5	1 0	138 A	47·84	254
§ Inverness (High School)	Dr. Buchan, F.R.S. ...	8	1 0	114	35·41	218
WEST ROSS & CROMARTY.						
Glenshiel (Cluanie Forest)	A. Cross, Esq.....	5	0 9	800 T	116·78	...
d Kintail (The Glebe)	Rev. R. MacKenzie ...	5	0 10	5 A	86·70	242
Applecross Gardens	Mr. D. McCowan	5	1 0	70 A	71·37	...
Strathconan (Dalbreac).....	Mr. D. McIver	5	1 0	450	59·71	...
d § Glencarron Lodge	Mr. D. D. Munro	5	1 0	504	108·35	264
d Loch Torridon (Bendamph)	Capt Hon L F King-Noel	5	0 5	20 A	108·26	253
§ Kinlochewe.....	Meteorological Council.	...	...	...	103·29	249
Braemore House.....	Lady Fowler	8	0 7	750	67·99	...
„ (Foich Lodge).....	„ „	8	0 7	100 T	51·76	...
Ullapool (Inverpollly Lodge).....	D. A. Lawson, Esq. ...	5	4 0	50 T	54·37	234
Stornoway	Bd. of Northern Lights	8	4 9	20	46·72	228
§ „	Meteorological Council.	8	1 0	24	62·07	275
„ (Tiumpanhead)	Bd. of Northern Lights	...	...	...	61·70	203
„ (Butt of Lewis)	„ „ „	8	4 6	65	50·57	223
EAST ROSS & CROMARTY.						
Contin (Kinnahaird).....	W. Ross, Esq. ...	5	1 2	74 T	34·46	...
d § Strathpeffer Spa (Eaglestone) ...	Dr. R. Fortescue Fox...	5	2 0	210	37·50	235
§ Evanton (Swordale House)	Dr. Buchan, F.R.S. ...	10	0 8	520	41·60	...
Cromarty	Bd. of Northern Lights	3	1 0	28	35·00	170
Kildary (Tarbat House)	Mr. C. Dyer	5	1 6	15	31·12	168
d Alness (Ardross Castle).....	Mr. W. Minty ..	5	1 0	450 A	54·20	264
d Fearn (Lower Pitkerrie)	R. Gordon, Esq., C.E..	5	1 0	95	28·84	193

DIVISION XIX.—NORTHERN COUNTIES.

SUTHERLAND.

d Dornoch	Rev. Dr. Grant	5	1 0	21	32·49	216
d Invershin	G. Young, Esq.	5	4 0	20 T	41·69	211
d § Dunrobin Castle.....	Mr. D. Melville	5	1 0	14 A	37·31	180

DIVISION XIX.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in.	feet.	inches.	
SUTHERLAND—(con.)						
§ Dunrobin Castle..... M	Mr. D. Melville	3	0 5	13 7	37·70	...
§ Lairg	Dr. Buchan, F.R.S. ...	...	1 0	390	47·08	236
Stourhead ...	Bd. of Northern Lights	5	1 6	155	27·99	264
D Altnaharra	Rev. G. Mackay.....	5	1 0	300 7	56·70	256
D Bettyhill	Mr. Evander Mackay...	5	1 0	100	40·63	177
Cape Wrath	Bd. of Northern Lights	7	4 8	330	37·85	204
CAITHNESS.						
§ Wick	Meteorological Council.	8	1 9	77	35·90	259
D Watten Station	Mr. J. Phimister	5	2 6	75 7	31·08	223
D Castletown (The Clett)	J. Calder, Esq.	5	1 0	100 8	42·35	268
Thurso (Holburn Head)	Bd. of Northern Lights	3	0 8	60 ?	44·95	166
Dunnet Head	" " "	3	1 0	320	34·69	174
Stroma.....	" " "	...	...	...	26·75	190
Pentland Skerries	" " "	7	3 9	40	30·98	161
ORKNEY.						
Hoy (Cantickhead)	Bd. of Northern Lights	3	1 0	52	32·51	200
" (Graemsay Sound, East=High)	" " "	5	0 4	17	50·42	209
" " " West=Low)	" " "	8	4 3	27	45·18	179
§ Pomona (Deerness)	Dr. Buchan, F.R.S. ...	5	1 0	161	39·30	183
" (Kirkwall)	James Begg, Esq.	3	0 9	20	43·64	177
Hellyar Holm.....	Bd. of Northern Lights	3	1 0	28	42·25	204
Auskerry	" " "	3	2 6	10	40·50	170
Shapinsay (Balfour Castle)	Mr. T. McDonald	5	0 6	50	39·93	...
Sanday (Start Point).....	Bd. of Northern Lights	3	1 0	15	33·08	...
Westray (Noup Head)	" " "	3	1 0	190	38·18	202
North Ronaldshay	" " "	3	0 4	10	45·71	167
SHETLAND.						
Sumburghead.....	Bd. of Northern Lights	...	...	...	49·10	...
§ " (Dunroseness) ...	Meteorological Council.	8	1 0	84	41·46	271
Bressay	Bd. of Northern Lights	3	1 0	62	54·30	204
§ Lerwick	Dr. A. Buchan, F.R.S.	5	1 0	30	45·04	200
Sule Skerry	Bd. of Northern Lights	3	0 6	40	25·62	172
D Fetlar (The Manse)	Rev. J. A. Campbell ...	5	1 0	30 1	41·14	237

IRELAND.

DIVISION XX.—MUNSTER.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height above Ground.		Height above Sea Level	
			ft.	in.	feet.	inches.
CORK.						
D Castletownshend (Glen Barrabane)	E. B. Coghill, Esq. ...	5	3	0	25 L	48·96 234
D Bandon (Ardnacarrig)	G. A. Armstrong, Esq.	5	1	0	126 T	60·45 240
§ Roche's Point	Meteorological Council.	8	1	9	32	43·40 266
D Passage West	C. H. Jacob, Esq.	8	4	0	287 T	50·79 236
D Cork (Villa Franca)	R. C. Sikes, Esq.	5	1	0	49 T	56·30 242
D „ (Queen's College)	Prof. A. Jack	8	1	0	60	54·31 252
D „ (The Palace)	Rt. Rev. Bishop of Cork	5	1	0	40 L	51·21 237
D „ (Wellesley Terrace)	W. Miller, Esq.	5	1	0	190 B	52·77 240
D Mallow (Summer Hill)	J. F. Williamson, Esq.	5	1	10	261 T	51·35 229
D „ (Longueville)	R. E. Longfield, Esq. ...	5	1	1	315 T	54·46 251
§ Doneraile (Carker House)	Meteorological Council.	5	1	6	267	47·24 181
KERRY.						
D Darrynane Abbey ..	D. O'Connell, Esq.	5	1	1	13 A	53·71 274
D Waterville (Iveragh Lodge)	late T. J. Wilmot, Esq.	5	1	0	86 A	52·49 240
Kenmare (Derreen)	Mr. W. Holbrow	5	1	0	74 L	90·99 248
§ Valencia (Glanleam)	Meteorological Council.	8	1	0	12	69·61 263
§ Cahirciveen	„ „ „	8	2	0	32	67·45 290
Mangerton	Ven. Archdeacon Wynne	8	3	6	1760	140·90 ...
Gap of Dunloe (Garrymeen)	„ „ „	8	3	0	75	91·50 ...
D § Killarney	E. Griffin, Esq., M.D. ...	5	0	10	178 T	64·64 254
WATERFORD.						
D Lismore (Ballygally)	R. Foley, Esq.	5	1	0	160 A	55·20 185
„ (Mocollop Castle)	Dr. H. W. Drew	8	4	9	180	53·88 ...
D Knockaderry	M. J. Fleming, Esq., C.E.	5	4	0	241 T	48·79 225
D Waterford (Whitfield Court) ...	Major H. Chavasse	5	0	7	67 A	52·99 220
D „ (Brook Lodge)	C. P. Bolton, Esq., C.E.	5	1	0	104 T	49·88 215
D „ (Tycor)	M. J. Fleming, Esq. C.E.	5	0	7	171 T	49·78 191
D Portlaw (Mayfield)	J. Anderson, Esq.	5	4	0	70	65·85 243
D „ (The Gardens, Curraghmore)	Mr. D. Crombie	5	0	9	95	69·39 232

DIVISION XX.—MUNSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which ·01 or more fell.
		Diameter	Height Above Ground		Height Above Sea Level	
			ft.	in.	feet.	inches.
WATERFORD—(con.)						
Portlaw (Milfort)	C. Morley, Esq.	5	2	2	200 T	63·16
d Glenam [Clonmel]	Miss Grubb.....	8	1	4	80 T	53·91
d Sheskin [Carrick-on-Suir]	J. Ernest Grubb, Esq... ..	8	1	2	542 T	63·74
TIPPERARY.						
v Clonmel (Bruce Villa)	J. H. Grubb, Esq.....	5	1	3	110 T	47·55
d§ Cahir (Bengurragh)	R. W. Smith, jun., Esq.	5	1	0	199	52·76
„ Abbey	Mrs. W. Rochfort	5	0	6	...	54·01
v Nenagh (Kilboy)	The Lady Dunalley ...	8	1	0	326	62·15
d Derry Castle [Killaloe]... ..	Mr. T. Manly.....	5	1	6	580 T	55·78
d Nenagh (Castle Lough)	A. Parker, Esq.....	5	1	3	120 T	49·66
d „ (Highlands)	John Mounsey, Esq. ...	5	1	2	470	41·80
d Ballingarry (Hazelfort)	Mrs. Fraser.....	5	1	0	...	40·83
LIMERICK.						
§ Foynes	Meteorological Council.	5	1	0	104	49·87
d Limerick (Roxborough).....	A. W. Shaw, Esq.	8	1	6	108 T	47·16
§ „ (Corbally)	Meteorological Council.	5	1	0	60	47·19
„ (Victoria Terrace)	J. Horan, Esq.	5	1	0	60 T	45·41
CLARE.						
d Carrigaholt Castle.....	W. C. V. Burton, Esq.	5	1	0	16	40·03
d Killadysert (Paradise Hill)	Rev. Canon H. Henn...	5	0	11	105 T	60·17
§ Newmarket-on-Fergus(Carrigoran)	Meteorological Council.	5	1	0	86	50·77
d Broadford (Hurdlestown).....	Colonel Bentley	5	1	0	167 T	46·60
d Killaloe	F Dudley Fletcher Esq CE	5	2	0	...	53·54
Ennis (Roslevan)	Mrs. Scott	5	1	11	40	47·70
d Miltown Malbay	M. Molohan, Esq.	5	1	0	400 T	59·57
§ Inagh (Mount Callan)	Meteorological Council.	5	1	0	480	74·17
d Lahinch (Moy House)	Miss Bowes.....	5	1	0	53	52·13
d Ennistymon House	H. V. Macnamara, Esq.	5	1	0	37 T	58·94
d „ Rectory	Rev. C. W. McDowell..	5	1	0	132	61·36

DIVISION XXI.—LEINSTER.

WEXFORD.

Wexford (Reclaimed Lands) ...	Mr. W. Thomas.....	8	1	3	below	42·72	...
d New Ross (Longraigue).....	J. W. Deane, Esq.....	5	1	0	210 T	50·25	219
d Wexford (Bann-aboo)	Col. Magrath	8	4	0	9	47·12	185
d Templeudigan (Ballindoney) ...	J. Budgen, Esq.	5	1	0	434 T	59·62	225
d Enniscorthy (Monart Rectory)...	Rev. W. F. A. Ellison..	5	0	11	150 T	49·11	232
d „ (Ballyhyland)	Mrs. Moffat.....	5	1	0	365 T	57·03	239
„ (Monksgrange).....	G. H. Orpen, Esq.	5	1	0	565 T	67·66	256
d Oulart (Wells)	C. M. Doyne, Esq.....	5	1	0	207 T	48·27	205
d Enniscorthy (Woodbrook)	Rev. Canon Blaeker ...	5	0	9	302 T	65·20	218
d Gorey (Courtown House)	The Earl of Courtown..	5	3	0	80 T	40·98	202

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
KILKENNY.						
D Rockenham [Waterford]	A. E. Graves, Esq.....	5	0 6	140 T	48·35	182
D Piltown (Bessborough)	Mr. J. G. Weston	8	3 6	80	50·66	232
D Callan (Clonard)	J. O'Connell, Esq., C.E.	5	1 0	290 ?	46·37	250
\$ Kilkenny Castle	Meteorological Council.	8	1 0	208	41·95	217
D „ (Sion Villa)	J. O'Connell, Esq., C.E.	5	1 0	198	41·57	234
„ („ „) weekly g.	„ „	5	1 3	198	41·42	...
„ (Lavistown House) ...	Miss Butler.....	5	2 5	180	40·22	202
Goresbridge (Barraghcore House)	H. de M. Fleming, Esq.	5	1 0	130 T	37·71	225
WICKLOW.						
D Laragh (Glendalough)	Wyndham H Wynne Esq	5	2 9	460 T	69·84	242
Roundwood (Vartry Lodge)	Spencer Harty, Esq., CE	5	1 0	720	53·97	...
„	„ „ „	5	1 6	800 T	44·74	...
„ (Knockatemple).....	„ „ „	5	1 6	760 T	46·13	...
Newcastle (Killadreenan)	B. H. Steede, Esq., M.D.	8	1 2	255 T	41·82	223
Tithewere	Spencer Harty, Esq., CE	5	1 6	1000 T	43·47	...
Annacarter	„ „ „	5	1 6	750 T	45·30	...
Greystones (Knockdolian).....	R Cathcart Dobbs Esq CE	5	1 2	68 T	36·16	202
D Bray (Fassaroe)	R. M. Barrington, Esq.	10	5 0	250	47·89	226
„ (San Remo)	Dr. E. E. Barrington..	10	4 0	100 ?	43·52	...
CARLOW.						
Bagnalstown (Fenagh House) ...	D. R. P. Beresford, Esq	5	1 0	340	43·61	210
„ („ „ „) M	„ „ „	5	1 0	340	39·59	...
D Carlow (Browne's Hill).....	W. Browne Clayton, Esq	5	1 0	291 T	44·62	225
QUEEN'S COUNTY.						
Abbey Leix (Blandsfort)	J. L. Bland, Esq.	5	3 0	532 T	47·03	251
D Mountrath (Ballyfin).....	J. McLaren, Esq.	8	1 0	600 T	53·27	254
KING'S COUNTY.						
D \$ Parsonstown (Birr Castle)	Earl of Rosse, K.P., FRS	8	1 0	183	40·93	233
\$ „ („ „ „)	„ „ „	8	0 10	183	41·12	230
D Banagher	Mr. J. Deegan	5	1 0	170	38·00	184
Tullamore	Rev. R. S. Craig	5	1 0	201 T	40·98	...
KILDARE.						
D Castledermot	Rev. M. Walsh	5	2 8	...	33·63	203
D Timolin Vicarage	Rev. J. Eldon Ellison..	5	1 0	370 T	48·72	234
D Straffan House	Mr. F. Bedford	5	2 0	240 T	35·10	201
DUBLIN.						
D Glen-na-Smoel (Water Works)...	F. P. Dixon, Esq., C.E.	5	1 0	514 T	50·42	243
Carrickmines (Claremont).. ..	John Read, Esq.	5	0 11	350	33·23	...
D Ballybrack (Streamville)	F. B. Falkiner, Esq....	5	1 5	30 B	33·57	221
Killiney (Cloneevin)	R. O'B. Furlong, Esq. CB	5	1 0	250 T	32·44	219
Dundrum (Lynton)	Sir J. W. Moore, M.D..	5	35·40	238
D Kingstown (People's Park)	Dr. J. Byrne Power ...	8	1 0	43 T	29·28	210

DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
<hr/>						
DUBLIN—(con.)						
Rathmines (Terenure)	F. P. Dixon, Esq., C.E.	8	0 6	125 ∇	30·28	207
„ (Leinster Road)	E. H. Cannon, Esq. ...	5	0 11	170	32·19	217
D Dublin (Fitz William Square) ...	Sir J. W. Moore, M.D.	8	1 6	54 ∇	31·60	228
D „ (Phoenix Park)	Lt.-Col. G.H. Sim, R.E.	8	1 0	155 ∇	32·90	232
D Lucan (The Garden).....	Mr. P. Reid	5	1 0	105 ∇	33·19	186
D Glasnevin (Botanic Gardens) ...	F. W. Moore, Esq. ...	8	1 0	55	32·98	237
D Balbriggan (Ardgillan) ... No. 1	Capt. E. R. Taylor.....	5	1 0	211 ∇	33·70	216
§ „ { „ } ... No. 2	„ „ „	8	1 0	211 ∇	35·26	...
„ { „ } ... No. 3	„ „ „	5	1 0	211 ∇	33·92	...
MEATH.						
D Summerhill House.....	Lord Langford	5	1 0	372 ∇	37·65	229
D Athboy	C. P. Coghill, Esq.....	8	1 3	227	41·79	228
D Oldcastle (Killeagh Rectory) ..	Rev. R. Butler	5	1 0	382	45·65	229
D Moynalty (Westland)	W. A. Barnes, Esq. ...	5	1 2	260 ∇	45·48	249
D Drumconrath (Aclare House) ...	Admiral Singleton, C.B.	10	2 6	170 ∇	43·48	240
D „ (Corstown House)	„ „ „	10	2 6	153 ∇	35·20	226
WESTMEATH.						
Athlone (The Moorings)	Capt. J. Preston.....	5	1 0	178	38·66	...
D „ (Twyford)	J. P. Hodson, Esq.....	5	5 0	188 ∇	41·88	241
D Mullingar (Belvedere)	Mr. J. Bayliss	5	1 0	367 ∇	48·28	231
Streete (Daramona)	W.E. Wilson, Esq., FRS	10	1 0	276	45·72	264
LOUTH.						
D Drogheda (St. James')	L. Donegan, Esq.	5	1 0	32 ∇	38·89	232
D Ardee (Lissrenny) .. .	T. F. Filgate, Esq.....	8	0 10	75 ∇	40·29	250
Dundalk (Farndreg)	J. Barton, Esq., C.E. ..	5	1 6	90 ∇	38·39	207
D „ (Mount Pleasant)	Telford Macneill, Esq..	5	1 0	60	42·38	288
D Greenore.....	T. Chambers, Esq., C.E.	5	1 0	4 ∇	36·22	245
LONGFORD.						
D Cloondrah	F. Dudley Fletcher Esq. CE	5	2 0	130	40·39	272
Edgeworthstown (Currygrane Ho.)	J. M. Wilson, Esq. ...	5	1 0	265	45·62	226

DIVISION XXII.—CONNAUGHT.

GALWAY.

D Woodpark [Scariff]	R. F. Hibbert, Esq. ...	5	1 0	170 ∇	51·48	275
D Galway (Queen's College)	W. Hare, Esq.	16	9 0	30	52·65	236
D Ballinasloe	W. H. Kempster, Esq.	5	2 6	160 ∇	46·88	265
D Woodlawn	Mr. A. Porter	5	3 6	300 ∇	51·49	246
D Ahascragh (Clonbrock)	Lord Clonbrock, K.P. ...	10	5 4	200 ∇	54·34	200
§ Recess Hotel	Mr. A. A. Smith	5	0 9	90	77·04	240
D Clifden (Kylemore House)	Mr. T. McNab	5	1 0	105	87·52	236
D „ („ Castle)	Mr. William Comfort ...	5	0 9	170 ∇	92·18	278

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which "01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1903	
			ft. in.	feet	inches.	
GALWAY—(con.)						
Tuam (Gardenfield)	M H. Kirwan, Esq.	5	1 0	155 T	58·97	...
„ („)	„ „ „	5	6 0	160 T	57·81	253
ROSCOMMON.						
D [Athlone]	F Dudley Fletcher Esq CE	5	2 0	128 T	42·04	236
D Rooskey	„ „ „	5	2 0	139 T	46·82	263
MAYO.						
D Cong (The Glebe)	Rev. R. Y. Lynn	5	1 11	112 T	65·94	285
Ballinrobe (Cranmore) ...	Miss Knox	5	0 9	99	62·04	...
D Westport (Murrisk Abbey)	F. C. Garvey, Esq.....	5	1 1	18	63·48	282
D „ (St. Helen's)	Miss Kelly	6	0 11	35 T	60·19	262
§ „ (Mallaranny)	Meteorological Council.	5	1 0	120	65·55	217
D Achill (Coraun House)	C. Scrase Dickins, Esq.	5	0 10	39	58·30	211
D Newport (Burrishoole House) ...	H. M. Anketell Jones Esq	5	3 0	30	65·10	265
Doo Castle [Tobercurry]	Mr. D. O'Dowd	5	3 0	...	56·07	260
§ Blacksod Point	Meteorological Council.	8	0 10	37	60·89	286
D Crossmolina (Enniscoe)	J. Pratt, Esq.....	5	0 11	74 T	65·29	285
SLIGO.						
Ballymote (New Park)	R. A. Duke, Esq.	5	1 2	228	51·90	...
D § Collooney (Markree Observatory)	J. R. Armstrong, Esq..	5	1 0	130 T	53·97	265
§ „ („)	„ „ „	5	16 6	148 T	46·08	258
D Ballysadare Bay (Glen Lodge)...	Vernon Cochrane, Esq.	5	1 0	14	49·96	259
LEITRIM.						
D Jamestown (Albert Lock)	F Dudley Fletcher Esq CE	5	2 0	146 T	45·94	224
§ Carrigallen	Meteorological Council.	59·06	267
D Drumshambo (Lough Allen Sluices)	F Dudley Fletcher Esq CE	5	2 0	169 T	49·53	200

CAVAN.									
D	Stradone House	Mr. J. Hart	5	1	0	280	7	50·13	187
	Cavan (Water Works)	M. W. H. Morris, Esq. C.E.	8	...		304	7	54·28	...
D	Killeshandra (Castle Hamilton)..	Capt. W. J. Hamilton..	5	1	0	251	7	44·79	214
D	Belturbet (Cloverhill)	Mrs. Sanderson	5	1	0	202	7	44·26	244
D	Ballyconnell House	Surg.-Gen.S.B.Roe, CB	8	1	2	196		52·57	245
FERMANAGH.									
D	Enniskillen (Portora)	W. N. Tetley, Esq. ...	5	1	0	251	7	47·06	256
	Belleek	J. Beacom, Esq.....	5	1	5	...		57·52	264
MONAGHAN.									
D	Dartrey [Cootehill]	The Earl of Dartrey ...	5	2	6	265		47·04	222
D	Monaghan (Rowantree House)...	Dr. J. C. Hall.....	5	5	6	240		38·39	236

DIVISION XXIII.—ULSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level	1903	
			ft. in.	feet.	inches.	
ARMAGH.						
D Bridge Street [Newry]	J. L. D. Meares, Esq. C. E.	5	0 9	22 A	49·24	241
D Tanderagee	J. Taylor, Esq.	5	1 6	198 T	42·41	242
D Armagh Observatory	Dr. J. L. E. Dreyer ...	8	1 0	205 A	36·29	221
D Loughgall (Manor House)	Mrs. Cope	5	1 0	205 T	43·14	234
D Portadown (West Street)	S. N. Baker, Esq.	5	27 0	117 A	40·19	251
D Lurgan (Belle Vue)	S. A. Bell, junr., Esq..	5	0 5	200 T	33·49	235
DOWN.						
D Warrenpoint (Summer Hill).....	B. M. Kernan, Esq. ...	5	1 0	30 L	47·16	205
D Newcastle (Tullymore Park) ...	Col. Hon. R. J. Jocelyn	5	1 0	276 T	72·14	235
D Rathfryland (Ballynagappoge)...	J. Smyth, Esq., C.E....	5	1 0	300	42·22	195
Castlewellan (Lough Island) ...	" " " "	5	1 0	440 T	60·12	...
Banbridge (Katesbridge)	A. A. Mulligan, Esq....	5	1 0	230 T	37·11	213
D Seaforde	Mr. W. Allan	8	0 5	180 A	48·69	244
D Banbridge (Corbet Reservoir) ...	J. Smyth, Esq., C.E....	5	1 0	234	35·53	187
D " (Milltown)	" " " "	8	0 8	220 T	38·30	233
§ Donaghadee	Meteorological Council.	8	1 6	30	37·86	253
ANTRIM.						
D Lisburn (Ulster Provincial School)	J. Woolman, Esq.	5	1 3	208	53·39	250
Stonyford (Belfast W. W.) ...	FW McCullough Esq. CE	5	1 6	437 A	39·91	236
D† Belfast (Queen's College)	Mr. G. Robinson	11	7 4	68 A	42·34	247
D† " (Linen Hall Library) ...	G. Maxwell, Esq.	5	4 9	17 T	40·88	243
D† " (Springfield)	T. G. Firth, Esq.	5	1 0	150 T	47·23	301
† " (Antrim Road)	FW McCullough Esq. CE	5	7 0	144 T	44·63	254
Antrim (Ardnaveigh)	H. B. Murray, Esq. ...	5	0 9	210 T	38·68	237
Carriekfergus (Dorisland)	FW McCullough Esq. CE	5	1 0	250 A	42·18	259
" (South Woodburn)	" " " "	5	1 0	640 A	53·29	268
" (North Woodburn)	" " " "	5	1 0	735 A	59·40	268
" (Copeland)	" " " "	5	1 0	424 A	43·28	260
" (Lough Mourne)...	" " " "	5	1 0	596 A	51·74	264
Ballynure (Ballyboley).....	Mr. T. H. Craig	5	1 4	400	36·19	...
D Ballymena (Harryville)	J. R. Williams, Esq....	5	1 5	150 T	46·82	265
D Broughshane (Quolie)	H. O'Hara, Esq.	5	1 4	893	53·88	268
§ Glenarm Castle	Meteorological Council.	8	1 0	45	56·85	218
Ballymoney (Balnamore)	W. H. Lawlor, Esq. ...	5	1 5	50 T	48·90	258
Stranocum (Gardenvale)	A. McNeill, Esq.	5	1 0	160	48·64	237
D Bushmills (Dundarave).....	Sir F. E. Macnaghten, Bt	5	1 0	162 T	44·06	243
LONDONDERRY.						
D Garvagh (Moneydig)	H. R. Morrison, Esq....	5	1 0	121	46·38	220
D Londonderry (Creggan Res.).....	Mr. J. Hutchison	8	1 0	320 T	46·92	262
Limavady (Drenagh)	M. M. McCausland, Esq.	5	1 6	60 T	45·85	262
D Coleraine	W. R. Kennedy, Esq....	5	4 0	52	45·58	251

DIVISION XXIII.—ULSTER—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1903	Days on which 101 or more fell.
		Diameter	Height Above Ground.		Height Above Sea Level	
			ft.	in.	feet.	inches.
TYRONE.						
D Stewartstown (The Square)	A. Johnston, Esq.	5	1	4	300 T	44·68 240
D Omagh (Edenfel)	Col. L. M. Buchanan, C.B.	8	1	0	280 T	51·86 259
D Newtown Stewart (Baron's Court)	Mr. R. Bell	5	1	0	250 T	54·93 248
DONEGAL.						
D Killybegs	A. Brooke, Esq.	5	1	0	30	66·87 285
Lough Eask Castle	Major-Gen. H. G. White	5	1	0	170 T	65·04 235
D Raphoe (Convoy)	Rev. K. H. Thompson	5	0	9	150 T	57·35 249
D Letterkenny (District Asylum) ..	E. E. Moore, Esq., M.D.	5	1	0	183 T	54·01 263
Rathmullan	Dr. Loughnan	5	1	0	1	50·80 ...
D Buncrana (Rockfort)	T. Colquhoun, Esq. ...	5	1	0	40 T	45·09 240
Ardnadrean Rectory	Rev. W. S. Griffith ...	5	0	10	39	53·12 ...
D Dunfanaghy (St. Helen's)	J. J. MacGrath, Esq.	8	1	0	30	54·73 271
D Horn Head	C. F. Stewart, Esq. ...	5	1	0	163	52·75 276
D Lough Swilly (Carrablagh)	H. C. Hart, Esq.	5	1	0	130	39·96 257
§ Malin Head	Meteorological Council.	8	1	0	220	41·09 272

62, CAMDEN SQUARE,
LONDON, N. W.

H. R. M.

RULES FOR SECURING UNIFORMITY IN RECORDING RAINFALL.

1. Selection of Site.—A rain gauge should be placed on a level piece of ground, not upon a slope or a terrace, and certainly not on a wall or roof. It should be at a distance from every object higher than itself, and should never be nearer to a wall or house than a distance equal to the height of that object, nor nearer to a growing shrub or tree than a distance equal to twice that height. Care should be taken to keep flowers or vegetables away from the gauge for a distance of at least three feet all round. If a perfectly open site cannot be obtained, shelter is least harmful on the north-west, north and east; but the exposure to south-west and north-east should always be free. The height above sea-level should be determined, if possible, by levelling from the nearest bench mark. The approximate height may be easily ascertained in most cases by reference to the maps of the Ordnance Survey. A specific name should be selected by each observer for his station.

2. Mountain and Moorland Sites.—Care should be taken that mountain or moorland gauges are not unduly exposed to the sweep of the wind. A level patch of ground or a very slight hollow should be selected, and a turf wall, about 2 feet high, surrounding the gauge at a distance of from six to ten feet is recommended.

3. Placing the Gauge.—The gauge should be planted in the earth and fixed by stakes or placed in a hole which exactly fits it in a block of cement. It should be fixed so firmly that it will neither be blown over nor tilted by the strongest wind, and it is best to be surrounded by short grass. The gauge should be occasionally examined and repaired if any leakage or other defect is detected.

4. Height above Ground.—The funnel of a rain gauge should be set exactly level, and at a height of 1 foot above ground. If the gauge is surrounded by long grass, or likely to become so, the height may be as much as 1 ft. 6 in., but it should never be more.

5. Change of Gauge.—When an old-established gauge has to be discontinued on account of the site ceasing to be satisfactory, a new gauge should be established on a proper site one year, or, if possible, two years, before the old one is removed, so that the readings of both may be compared and the continuity of the record ensured. This rule does not apply to the substitution for an old gauge which has become defective of a new gauge of the same size and pattern on the same site. It is most convenient to start a new gauge on January 1st. The fact of a change, with date, distance and direction from former site should be reported when it is made.

6. Absence of Observer.—An assistant should, if possible, be trained to measure the rainfall in the absence of the observer. When no such provision can be made it should be arranged to have

the gauge visited at the usual hour, and the water bottled and labelled to be kept until the observer returns.

7. Second Gauges.—It is desirable to have two gauges, one of them capable of holding at least 8 inches of rain. This should be read weekly or monthly as preferred, but in either case on the 1st of each month. A thorough check is thus kept on accidental errors in the readings of the daily gauge. A separate record must be kept of each gauge; the mean of the two should never be entered.

8. Recording Gauges.—When the expense is not prohibitive, observers are strongly recommended to have a self-recording rain gauge as well as an ordinary gauge for daily reading. Such a gauge should record in a continuous line, so that the duration of the rainfall may be accurately measured.

9. Hour of Observation.—Rainfall should be measured at 9 a.m. daily, and the amount entered against the date of the previous day. Thus, the figure to be entered opposite each date is the amount measured at 9 on the following morning.

10. Reading the Rain Glass.—In measuring rain by means of the graduated glass the observer must pour the water carefully from the bottle or inner can into the glass. If the glass is not filled the reading should be taken by holding it upright or setting it on a level slab, then bringing the eye opposite the level of the water so as to fix the nearest line on the scale to the water surface, not necessarily the line next above or the line next below the surface, but the one of these which is nearer. Each division represents one-hundredth of an inch. If there is more water in the gauge than can be measured at once, the glass should be filled up to the $\cdot 50$ mark, emptied into a jar, and filled up again as often as necessary, counting the number of times, and finally measuring the residue in the usual way. The water in the jar may be measured again roughly to make sure that no mistake has been made in counting the number of half-inches. The amount should be written down before the water is thrown away. Observers should never use a measuring glass that has not been tested, as errors in graduation often occur.

11. Small Amounts.—If the gauge contains less than one-hundredth ($\cdot 01$) of an inch but more than half that amount, it should be entered as $\cdot 01$, while if there is less than half that amount the few drops may be thrown away and the day entered as if no rain had fallen. All water found in the rain gauge is to be treated as rain, even though it comes from melted snow, hail, or frost, or from dew or mist.

12. Mode of Entry.—The result is always to be entered in hundredths of an inch, remembering that a tenth of an inch equals 10-hundredths and an inch 100-hundredths. The word “hundredths” is not to be written, but a decimal point is to be put before the last figure but one, thus, $\cdot 10$, $1\cdot 00$. If there is only one figure a cypher must be placed before it, thus two-hundredths is written $\cdot 02$.