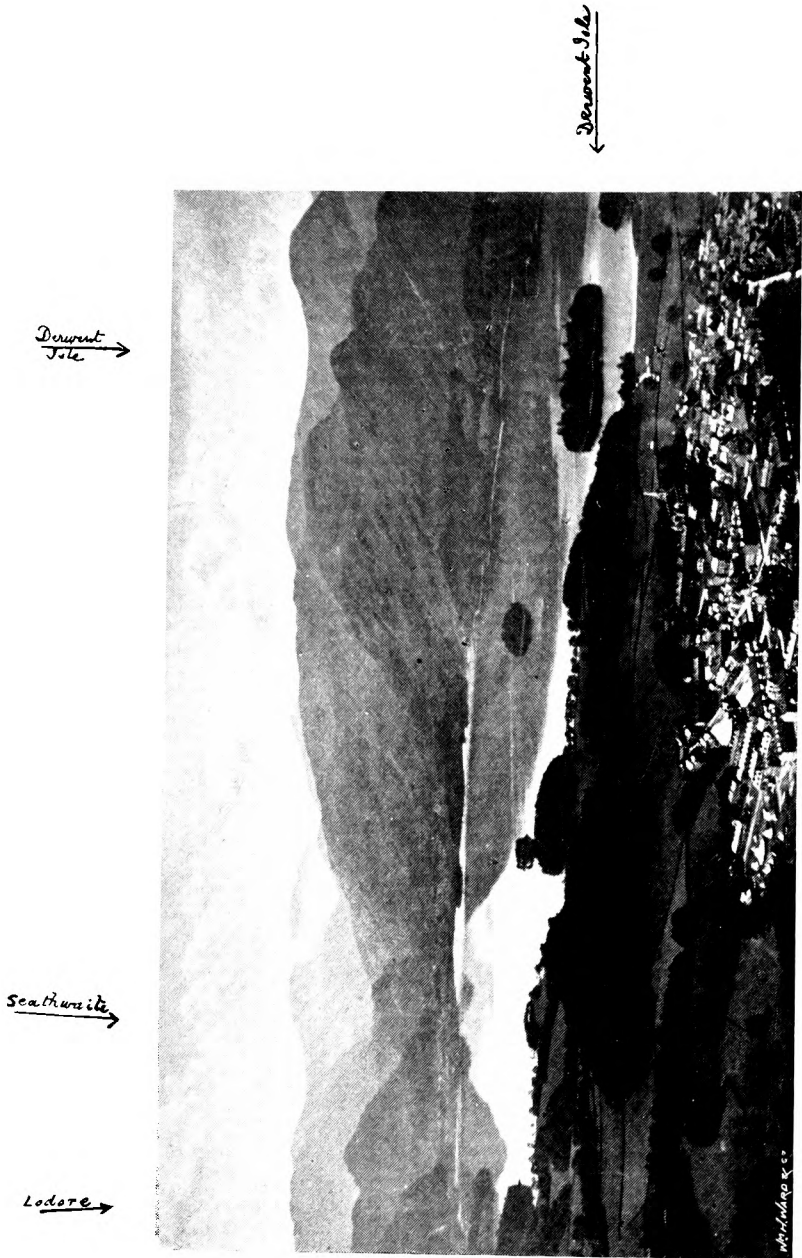


BRITISH RAINFALL,
1896.



FRONTISPIECE.



DERWENTWATER— Looking nearly S. from above Keswick.
 (The cloud, slightly W. of Seathwaite, is resting on The Styie).

See page 19

BRITISH RAINFALL, 1896.

ON

THE DISTRIBUTION OF RAIN

OVER THE

BRITISH ISLES,

DURING THE YEAR

1896,

AS OBSERVED AT MORE THAN 3000 STATIONS IN
GREAT BRITAIN AND IRELAND,

WITH ARTICLES UPON VARIOUS BRANCHES OF RAINFALL WORK.

COMPILED BY

G. J. SYMONS, F.R.S.,

CHEVALIER DE LA LÉGION D'HONNEUR,
ALBERT MEDALLIST FOR 1897,

*Secretary Royal Meteorological Society; Membre du Conseil Société Météorologique de France
Member Scottish Meteorological Society; Korrespondirendes Mitglied der Deutschen
Meteorologischen Gesellschaft; Fellow of Sanitary Institute; Fellow Royal
Colonial Institute; Membre correspondant étranger Soc. Royale de
Médecine Publique de Belgique, Socio correspondiente
Sociedad Científica Antonio Alzate, Mexico,
&c.*

AND

H. SOWERBY WALLIS,

*Fellow Royal Meteorological Society; Member Scottish Meteorological Society;
Member Sanitary Institute.*

LONDON:

EDWARD STANFORD, COCKSPUR STREET, S.W.

1897.

ERRATA IN BRITISH RAINFALL, 1895.

- Page [96]. 15th line, R 2·08 in. *should be* 3·08 in.
„ [117]. 4th line from bottom, *for* January 10th *read* January 12th.
„ [159]. Crouch End, Fairfield Road altitudes *should be* 144 I, *not* 200 I.
„ [171]. Banbury, Ark House School, Total R 22·68 ?, *not* 20·68 ?
„ 179]. Dorset, *erase* Poole, West Street—record imperfect.

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BRITISH RAINFALL, 1896.

AT last the pleasant, but yearly heavier, task of preparing this volume for, and carrying it through, the press is almost over. It is not easy to make a book better every year for nearly forty years, but we have tried to do so, and, inasmuch as it is not our own abilities, but the support of the observers and the quality of their observations which have enabled us to go on improving, we do not see why the fact should not be stated. Observers would drift astray without Editors, and certainly Editors could do nothing without Observers.

One pressing need we mention here, in the hope that some of our readers will bestir themselves to help us. The county of Sutherland contains more than a million acres—2,028 square miles; we had in it only seven stations in 1896; one of these has been discontinued, leaving only six; three of these are huddled together in one corner, so that as regards geographical distribution they are little more useful than one, and two others are lighthouses, therefore practically we have two stations in 2,028 square miles. There is nothing nearly so bad in any other part of the British Isles, and we hope that all who have the opportunity will endeavour to obtain observers in that county.

G. J. SYMONS.

H. SOWERBY WALLIS.

62, CAMDEN SQUARE, LONDON, N.W.

July 30th, 1897.

R E P O R T.

General.—Year after year our staff of observers increases, and year after year they become as a rule more careful, and send in more minute details of the rainfall. This increase upon an increase makes our work extremely heavy; for instance, the present volume contains the result of nearly 1600 of the forms known as “Daily Registers,” every one of which is re-cast here (18,000 columns), and every error exceeding 0·01 in. is sent back to the observer for examination and correction, because there is rarely any certainty whether the error is in the addition or in one of the entries. It would save much trouble if a rule, rigidly observed here, were adopted by all our correspondents. The rule is very simple. It takes only a few minutes to carry out, and its neglect involves correspondence, and a far greater expenditure of time. The rule is—

“Never COPY a total; always re-cast the column.”

Perfect, our work never can be; but how nearly so it is, is shown yearly by the table of errata, in which every entry found to be erroneous is set out. There were altogether *five* last year—in how many thousand we have not time to find out. In the monthly and annual tables—about ten thousand entries—*two* which were sent wrongly to us, escaped detection, were printed as sent, and so appear as errata.

County Organizations.—The pioneer in this work, the Rev. Canon Du Port, is still compiling, and the *Norfolk Chronicle* printing, the excellent tables for Norfolk, which we have often mentioned, and Mr. Bayard and the *Croydon Microscopic and Natural History Club* are continuing theirs for parts of Surrey and Kent. These two systems print the daily fall at each station, a plan which speedily reveals the slightest carelessness or irregularity of any observer, and undoubtedly tends to improve the records for the district. There are four other organizations issuing monthly totals under the care of observers, one for Cambridgeshire and Huntingdonshire, supervised by Mr. H. G. Fordham, of Odsey; one for Dorsetshire, under

the care of Mr. H. S. Eaton; one for North Devon, by Mr. Wainwright, of Barnstaple, (but we have not yet seen copies of it); one for Cornwall, prepared by Mr. S. Trevail for the Cornwall County Council; and one for Gloucester, compiled by Mr. Tyrer, of Cheltenham. The *Hereford Times*, the *Western Morning News*, the *Western Mail*, and the *Ayr Advertiser*, issue tables prepared in their respective offices. Every entry in these tables is checked against the return sent to us, and every discrepancy is referred to the observer for explanation.

The Nunes Bequest.—It is so many years since we referred to this subject that probably the majority of our readers know nothing about it. We think that it ought not to be forgotten, and we wish to show how much good even a moderate sum may do. Miss Nunes, who had been one of our correspondents for seven years, died in 1882, and on her will being read, it was found that she had left £100 for “Meteorological purposes.” Of course, £10 went for duty, and the remaining £90 was divided nearly equally between ordinary meteorology and rainfall. We intend to show how much has been done as the result of somewhat less than £50. *The Times* allowed us to mention the bequest and offer to lend gauges under certain conditions. Thirty rain gauges were bought and sent to selected localities, each at least 5 miles from any then existing station, and these included stations as wide apart as Devon, Kent, Brecknock, Shetland, Kerry, and Antrim. It is one thing to issue a rain gauge, but quite another to secure its continued and careful use, because even assuming (what is obviously unreasonable) that no observer got tired of the work, removals, illness and death are sure to thin the list. We have been interested in ascertaining how many of the gauges supplied in 1883 have been observed regularly every day down to the end of 1896, and there are 14 such stations, each, therefore, with a perfect record for thirteen consecutive years; from 13 stations we have records for from one to twelve years; and respecting three of the gauges we could get no tidings. In the aggregate we have already received nearly 260 complete yearly records from the gauges supplied by that bequest, and we hope that the Nunes stations now at work will long continue, until perhaps the 260 yearly records are increased to an aggregate of 500. Probably the testatrix little imagined how useful a work she was starting.

Rainfall from 1725 to 1891. In *British Rainfall*, 1891, we gave as frontispiece a diagram representing the relative wetness of each year during the above long period. The early part of this diagram had appeared in several earlier volumes, but it was then brought up to date. In the course of some work upon old rainfall records, upon which we were engaged last year, we found the very serious error of nine inches, at Lyndon, Rutland, in 1739*. This will alter all the early part of the curve, and so, *if time permits*, we hope to rework the whole table, and give a revised diagram next year.

Finance.—Although the funds at our disposal are still far below that which we should like to see them, and far below that which we think could be advantageously employed, we are very glad that, in spite of the losses by death, the list is slightly longer than in 1895, but in the present year we have lost in Mr. Chrimes almost the largest subscriber we have ever had, and in Mr. Benyon one of the next largest. Nearly every year some new method of verifying our work is introduced—it all means time and money—but while our observers continue to help us so well, we shall spare nothing to render these volumes—as regards the MS., the accuracy of the printing, and the illustrations—as nearly perfect as possible.

* November was printed in the *Phil. Trans.* as 9·57 in., instead of 0·57 in., and so the yearly total was given as 29·94, instead of 20·94

LIST OF ALL SUMS OF £1 AND UPWARDS RECEIVED IN PAYMENT
FOR BOOKS, DIAGRAMS, &c., OR AS CONTRIBUTIONS TO THE
GENERAL EXPENSES OF RAINFALL INVESTIGATIONS IN 1897.

CORPORATIONS AND WATER COMPANIES.

	£	s.	d.
Accrington Gas and Water Board.....	1	1	0
Aire and Calder Navigation Company.....	1	6	0
Bolton Corporation.....	1	1	0
Bradford „.....	3	0	0
Brighton „.....	1	1	0
Bristol „.....	1	0	0
Bury „.....	1	1	0
Cambridge Water Works Co.	1	1	0
Cardiff Corporation.....	1	1	0
Doncaster „.....	1	1	0
G.W.R. Institute.....	1	1	0
Hastings Corporation.....	1	0	0
Hornsey Local Board.....	1	1	0
Hull Corporation.....	1	16	0
Leeds „.....	2	18	0
Leicester „.....	1	1	0
Liverpool „.....	1	1	0
Manchester „.....	1	1	0
Middlesboro' „.....	2	2	0
Newcastle and Gateshead Water Company	1	1	0
Nottingham Corporation	1	10	0
Sheffield „ (2 years).....	1	1	0
Southwark and Vauxhall Water Company.....	1	6	0
Weaver Navigation Trust.....			

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Jenkin, S. W., Esq., C.E.	1	0	0	" T. T. S., Esq.	1	1	0

	£	s.	d.		£	s.	d.
Mitchell, Alex., Esq.	2	2	0	Robinson, J., Esq.	1	11	0
" F. J., Esq.	1	0	0	Rofe, H., Esq., C.E.	1	11	0
Moore, Dr. J. W.	1	0	0	Rogers, J. T., Esq.	1	0	0
Morgan, M., Esq.	1	0	0	Rolle, The Hon. Mark	1	1	0
Morrison, W., Esq., M.P.	2	0	0	Ross, D. J., Esq., C.E.	1	1	0
Morton, The Countess D. of	2	4	0	" Rev. J. C.	1	12	6
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Mostyn, C., Esq.	1	1	0	Rylands, T. Glazebrook, Esq. ..	1	1	0
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Oakes, Rev. P.	1	1	0	Searle, G. von U., Esq.	1	0	0
Odlum, W. H., Esq.	1	15	0	Senhouse, H. P., Esq.	1	1	0
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" Miss E. A.	2	18	0	Shelford, W., Esq., C.E.	1	1	0
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Otter, R. H., Esq.	1	1	0	Shuldham, Col.	1	5	0
Padwick, H., Esq.	2	0	0	Shuttleworth, Rt. Hon. Sir U. Kay			
Palairret, H. H., Esq.	2	2	0	(2 years)	1	0	0
Palmer, Alfred, Esq.	1	11	6	Sibly, T. D., Esq.	1	1	0
Parker, Rev. Dr.	1	10	0	Sidebotham, Dr. E. J.	1	0	0
Parsons, H., Esq.	1	1	0	Sidney, Hon. Philip	1	10	0
Paterson, Rev. T. M. B.	1	1	0	Silver, S. W., Esq.	2	2	0
Paul, Capt.	1	0	0	Sing, Joshua, Esq.	1	0	0
Paxton, General	1	10	0	Single, Stanley, Esq.	1	0	0
Pearson, F. F., Esq.	1	0	0	Slade, F., Esq., C.E.	1	1	0
Pease, Sir J. W., Bt., M.P.	1	1	0	Smart, F. G., Esq.	2	2	0
Peckover, Alexander, Esq.	1	18	0	Smith, B. Woodd, Esq.	1	1	0
Peek, C. E., Esq.	1	6	0	" Harold, Esq.	2	2	0
Peggs, J. Wallace, Esq., C.E. ..	1	16	0	" Hon. W. F. D., M.P.	3	0	0
Pennant, P. P., Esq.	1	0	0	" Rupert, Esq., C.E.	1	1	0
Perry, F. C., Esq.	1	0	0	Smyth, J., Esq., C.E.	1	10	0
Peterkin, J. Grant, Esq.	1	0	0	Snowden, Rev. H. C. V.	1	0	0
Philipps, Captain Lloyd	1	1	0	Soames, Rev. Gordon	1	16	3
" F. H., Esq.	1	0	0	Southall, H., Esq.	1	0	0
Philips, J. Chapel, Esq. (2 years)..	3	3	0	" John T., Esq.	1	1	0
Phillips, E. P., Esq.	1	15	0	Sparkes, J., Esq.	1	6	6
Phipps, P., Esq.	1	10	0	Spooner, Albert, Esq.	1	1	0
Pigott, W. G. F., Esq.	1	1	0	Stanton, Miss R.	1	0	0
Pitt-Rivers, Gen., F.R.S.	1	0	0	Stevenson & Burstall, Messrs. ..	1	1	0
Plater, Rev. C. E.	1	0	0	Stewart, Sir Mark J., Bt., M.P. ..	1	1	0
Plenderleath, Rev. W. C.	1	11	0	" Rev. W. E.	1	1	0
Pleydell, J. C. M., Esq.	1	1	0	Straker, J. H., Esq.	1	0	0
Pocklington, Miss	1	1	0	Stubs, Peter, Esq.	1	1	0
Poulter, H. J. Esq.	5	0	0	Sturge, R. F., Esq.	1	1	0
Preston, A. W., Esq.	1	0	0	Sturt, Col.	2	0	0
Prince, C. L., Esq.	1	10	0	" Gen.	2	10	0
Ransom, F., Esq.	1	0	0	Sutton, Martin J., Esq.	1	1	0
Rathbone, Mrs. S. J.	1	0	0	Swan, R., Esq.	1	1	0
Ravenshaw, T. E., Esq.	1	11	6	Swindells, R., Esq., C.E.	1	0	0
Rawlings, E., Esq.	1	10	0	Tabor, H. S., Esq.	1	0	0
Rayner, F., Esq., C.E.	1	1	0	Tate, Alfred, Esq.	1	1	0
Rendlesham, Rt. Hon. Lord	3	0	0	Tatton, T. Egerton, Esq.	1	16	0
Reynolds, L. W., Esq.	1	1	0	Tawney, Miss	1	0	0
" R., Esq.	1	0	0	Taylor, Captain E. R.	3	0	0
Ridout, Rev. G.	1	1	0	" F., Esq.	1	1	0
Roberts, Dr. I., F.R.S.	1	10	0	" Sons & Crimp, Messrs. ..	1	1	0
" J. F., Esq.	1	1	0	Thompson, Mrs. Heywood	1	0	0
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Tuckett, F. F., Esq.	1	5	0	Wilkin, F., Esq.	2	0	0
Turner, E. R., Esq., C.E.	1	5	0	Wilkinson, W. King, jun., Esq. .	1	1	0
„ H., Esq.	1	6	0	Williams, Dr. Theodore	5	5	0
Tyndall, W. H., Esq.	1	1	0	„ Capt. Garnons.....	1	0	0
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Waddingham, T. J., Esq.	2	2	0	„ J. G., Esq.	1	3	6
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THE MOST RAINY PART OF ENGLAND

UNDER the title, "Seathwaite's Jubilee, 1845-94," we, last year, dealt fully with the rainfall in the hamlet of Seathwaite; and, in order that those of our readers who had not been there might understand the configuration of the country generally, as well as the immediate surroundings of the gauges, we gave a carefully-prepared contoured and coloured map of about 30 square miles, with Seathwaite nearly in the centre.

By thus working up the Seathwaite records, we obtained the best guide possible to the fluctuation of the rainfall from year to year in that vicinity. It is far from being perfect; the rainfall in that district varies so greatly that no one type station would suffice; but it is the *only* station of which the record extends unbroken for 52 years, and the majority of the other records are so fragmentary that it is only by the help of the Seathwaite returns that they can be satisfactorily utilized.

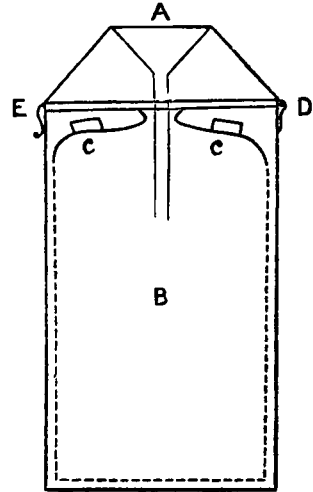
We have on the present occasion taken precisely the area represented in the map in our last volume, and have given in the following tables the total fall in every year observed at any station within the area. [Except, of course, the Seathwaite figures which were given last year.]

We thus bring into a single article the work done by several of our predecessors; and although some notes upon their work were given in *British Rainfall*, 1867, and 1876, it is so long since they appeared that a little repetition may perhaps be excused, and it is really almost indispensable as an explanation of the tables.

The records for 1847-53 inclusive were obtained by Dr. J. F. Miller, F.R.S., and for the four subsequent years Mr. Dixon, of Seathwaite, not merely continued his own records at Seathwaite, but

also went monthly and measured the gauge on The Stye. Then every record except the Seathwaite one was neglected.

In 1863, Mr. Isaac Fletcher, M.P., F.R.S., a relative of the deceased Dr. Miller, decided upon having a fresh series of observations made at most of the places at which Dr. Miller had had gauges. He designed the pattern of gauge shown in the annexed figure, and had twelve constructed by Messrs. Cook, of York. The container (B) was of very thick copper, and the outer case was of stout iron. These gauges cannot collect the proper quantity of snow, but they stood severe frost remarkably well. For six or seven years Mr. Fletcher was very careful in super-



intending these gauges and forwarding the records, but after 1869 the returns were not furnished to us. By chance we saw the figures for 1872 in a local newspaper, and therefore probably the gauges were read during 1870 and 1871, and perhaps even in 1873. But Mr. Fletcher became engrossed in Parliamentary duties, and died in 1878, and no records were found among his papers.

A year or two before Mr. Fletcher's death, Mr. Maitland, of Chester Place, Hyde Park, an enthusiastic climber in the Lake District, had communicated with Mr. Fletcher, and eventually in 1876 took over the gauges, had all necessary repairs made, and obtained the assistance of Mr. Wilson, of Wasdale, as observer, so that there should be no interruption when Mr. Maitland was in London. During Mr. Maitland's life he defrayed the whole cost, besides giving much personal attention to the work; keeping records at altitudes ranging from 1000 to 3000 ft. is neither easy nor inexpensive. However, in less than seven years Mr. Maitland died, and for the last 15 years the work has fallen wholly upon Mr. Wilson, and the cost upon the Rainfall Organization. In 1896 Mr. Wilson being about to leave the neighbourhood, the entire subject had to be reconsidered, and it was decided that the gauges from Sca Fell Pike and from Gable Hawes should be removed to The Stye, so as to obtain all possible information respecting the rainfall of that interesting locality. The new observer has therefore the care of seven gauges, viz., Sprinkling Tarn (1985ft.), Styehed

Tarn (1472 ft.), four gauges—A, B, C, D—on The Styne (1077 ft.), and one at Seathwaite (422 ft.)

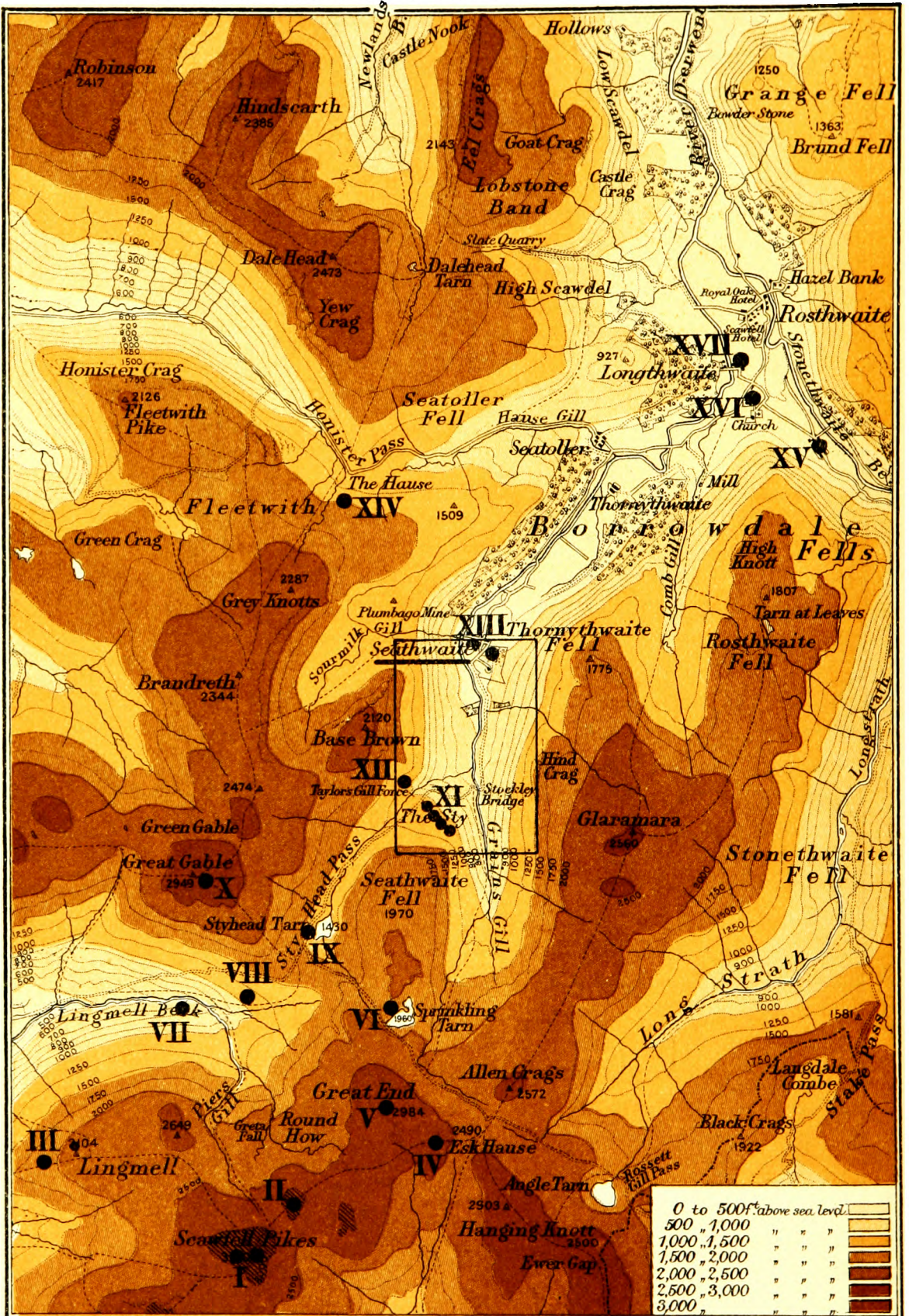
So much for the history. Before giving the results we must ask attention to Tables I. and II., and to the accompanying maps. Table I. contains the early observations, 1847–1857; at its foot will be seen two lines of means, marked respectively “Arithmetical” and “Reduced.” Reduced, in this case, does not mean made less. Very often the “Reduced” is more than the “Arithmetical,” and as this may puzzle some readers, it had better be explained. Everybody knows that an “Arithmetical” mean is the sum of the entries divided by their number; the total for 5 years at Sca Fell (Table I.), 372·08 divided by 5 gives 74·42 in. That is clear enough. But the years 1849–53 might have been wet ones, like 1850–52, and if so that “Arithmetical” average, although correct as a matter of calculation, would not correctly represent the average rainfall—and that is why “Reduction” comes in. In *British Rainfall*, 1895, we gave the rainfall in every one of the 50 years at Seathwaite, and we gave the ratio which the fall in each individual year bore to the average of the 50 years. A wet year—for instance, 1872—had 182·05 in., whereas the average for the 50 years was 137·31 in., so that in 1872 the rainfall was 44·74 in. above the average, or an excess of about $\frac{1}{3}$, therefore the ratio of that year was given as 133, and the ratios were similarly given for every year. The “Reduction,” then, is merely the correcting of the “Arithmetical” mean for the effect of the group of years being wet or dry. As it happens, in the case we have quoted, the “Arithmetical” and the “Reduced” mean are nearly identical; we had better explain why. The last column in Table I. gives the Seathwaite ratios (from p. 25 of *Brit. Rain.*, 1895), and it will be found that for the years above mentioned (1849–53) the average ratio is 99, therefore the “Arithmetical” mean has to be increased by only one per cent., and so the “Reduced” becomes 75 inches.

This process has been adopted, because it is without doubt the right one; but, as already implied, there is probably no area of the same size in the British Isles in which the application of this method is, owing to the deflection of the air currents by the mountains, equally unsatisfactory.

The construction of Table II. is precisely similar to that of No. 1.

It is necessary to say a few words respecting the maps, also, before we proceed to consider the results. The area is, as already stated,

HILLS AND VALLEYS AROUND SEATHWAITE.



Scale, 1 Inch to a Mile.

Scale, 1 inch = 2 miles.

$\frac{1}{2}$ $\frac{1}{4}$ 0 $\frac{1}{2}$ 1

London:Edward Stanford.

Stanford's Geog. Etab.

THE SEATHWAITE VALLEY (LARGE SCALE)



Scale: 6 Inches to a Mile

0 $\frac{1}{8}$ $\frac{1}{2}$ Mile London: Edward Stanford.

Stanford's Geogr. Est. Ltd. London

identical with that taken last year, but with the addition of the stations now quoted. The Roman numerals refer to the columns in Tables I. and II., and indicate the site and name of the station.

The second map is on the large scale of six inches to the mile, represents the central area enclosed by a black line on the one-inch map, and thus gives full details as to the site of The Stye gauges.

Something also should be said respecting the illustrations. The frontispiece is a general view of Derwentwater, taken from the low ground under Skiddaw, and looking nearly due south over Keswick and the Lake into the hills of Borrowdale. The photograph whence this is reproduced is of especial meteorological interest, because it so happens that there is a small cloud resting exactly upon The Stye, and thus at the same time indicating the position of the gauges and the reason for the amount which they collect. The total distance from the camera to the cloud was nine miles.

The other view, facing p. 20, is taken from the point marked C 1 on the large-scale map, it was about two-thirds of a mile south of Seathwaite, and near Stockley Bridge, which, as shown by the rough scale of altitudes in the margin, is about 400 feet below The Stye gauges, the positions of which are indicated by the intersection of the arrows in the top corner of the plate.

STATION I.—*Sca Fell Pike* is the loftiest, and has been the most troublesome and unsatisfactory of all. The rain gauge has frequently been frozen for some months. Several times it has been necessary to carry the whole gauge and ice down to Wasdale (about 2,600 ft. lower) in order to thaw and measure its contents. Once the observer, who was carrying down two gauges (weighing nearly a hundredweight), slipped, and the gauges rolled away and were smashed. Another time an observer slipped and broke his leg. No gauge in a locality like the top of *Sca Fell Pike* is, we think, likely to give good results; the wind velocity sweeps the rain *over*, and so prevents its falling *into*, the gauge, and snow by its less density will fare even worse. It would probably not be difficult to design two gauges the one of which should collect ten times as much snow as the other. We are, therefore, not surprised, though it is not satisfactory, to find that the records from this station differ very greatly. Dr. Miller's observations indicate a mean of 75 inches, the subsequent ones, of 94; but the individual years differ very widely—years of large fall on the summit being rarely synchronous with

wet ones below. On the whole we think that 90 inches is the most probable amount.

STATION II. *Sca Fell Pike (Broad Crag)*.—This is 600 yards N.E. of Station I. An 8-inch gauge, capable of holding 50 inches of rain, was erected here at the end of 1879, but it became useless in three years. It indicated a mean rainfall of 114 inches, or about twenty inches more than those on the Pike, and this seems reasonable because (a) this gauge was much better adapted to collect snow, and (b) both by its N.E. position, and by its being about 200 ft. below the summit, it was in not nearly so windy a site as Station I.

STATION III. *Lingmell*.—One of Dr. Miller's stations on the western slope of Sca Fell, between it and Wastwater, and at rather more than half the altitude of the Pike; mean fall about 90 inches.

STATION IV. *Esk Hause*.—One of Mr. Fletcher's stations, E.N.E. of the Pike, and 600 ft. below it. As the prevalent wind is W.S.W., this station was slightly sheltered, and the mean is 85 inches.

STATION V. *Great End*.—Another of Mr. Fletcher's stations, very high (2,982 ft.), almost on the watershed line, and very much exposed; to the N.E. of it the ground falls 1,000 ft. in very little more than that distance, i.e., at an average angle of nearly 45°. Mean fall, 66 inches.

STATION VI. *Sprinkling Tarn* (sometimes called *Sparkling Tarn*). This station, established by Dr. Miller, is lower than any yet mentioned, except Lingmell. It shows a greater rainfall than any of them, and the records are generally very consistent, the mean being 122 inches. Possibly the rain clouds blown from Wastdale up Lingmell Beck partly go over this gauge, and partly over the Styehhead pass into Borrowdale.

STATION VII. *Lingmell Beck, Brant Rigg*.—This station, long discontinued, was near the bottom of the valley, well open to the W., and before there had been much of the rise towards the Styehhead Pass; the mean here was a little over 80 inches.

STATION VIII. *Lingmell Beck, Gabel Hause*.—The gauge formerly at Station VII. was moved by Mr. Maitland further up the valley, and placed at precisely the same altitude as the Styeh gauges, which have to be described later on. At Station VIII. the rainfall was not very different from that at VII., but a trifle more, being about 84 inches.

STATION IX. *Styehhead Tarn*.—Here we get a great increase in the rainfall. This station is only about as much higher than

Aaron Criggs

A →
B →
C →
D →
The Sty Ganges

1722
1750
1500
1000
700
600
Approximate Altitude in feet above Sea Level



← C BA
D →

THE STYE - Looking nearly S.W. from the spot marked C 1 on the map facing page 18.

Station VIII. as VIII. was above VII., viz., about 400 ft.; but like Station VI. it is on the N.E. side of the watershed line, and, between Station VIII. at 1,077 ft. and Station IX. at 1,472 ft., though they are not half-a-mile apart, the land rises to nearly 1,700 ft., and it is probably this ridge which makes the rainfall at Styhead Tarn about 125 inches—practically the same as at Sprinkling Tarn (VI.)

STATION X. *Great Gabel*. One of Dr. Miller's stations, and not subsequently used. It is the summit of the watershed line, not quite so lofty as Sca Fell Pike, but somewhat similar in general position, and with about the same rainfall or slightly less—81 inches.

STATION XI. *The Sty*—In order to avoid confusion, we have given a single number (XI.) to this station; which may be regarded as a strip of nearly level ground about 200 yards long and 30 yards wide, running from N.W. to S.E., on the N.E. slope of a hill, but not on a precipitous part thereof. Several gauges have been used, and at the present time we have four there, in the positions shown by the letters A B C D upon the enlarged map.

In order to distinguish the records we shall refer to these gauges by the old English alphabet.

XI. *Æ*.—This gauge was erected by Dr. Miller in 1850, because the observer at Seathwaite (Mr. Dixon) told him that it often rained on The Sty when no rain fell at Seathwaite. It is impossible now to be absolutely certain as to the position of this gauge, but it was probably very close to, or actually on, the spot now occupied by gauge XI B, because Mr. Fletcher's gauges were not put up until December 1863; and yet on the 6-inch Ordnance Map, which was surveyed in 1862, a rain gauge is marked as occupying that spot. It will be seen from Table I. that gauge XI. *Æ* was observed until 1858, and probably it was left uncared for, and found by the surveyors four years later. In the very first year, which happened to be one of average rainfall, this gauge collected 169·62 in., thus thoroughly confirming Mr. Dixon's statement.

The mean indicated by this gauge was 150 inches; but, before passing on, it will be well to call attention to the extremely small rainfall in the years 1855-6-7, viz., 99·16, 113·11 and 116·20 in. respectively. Strange and utterly unlike any subsequent records as these returns are, there seems to be no doubt that they are correct. The fall of rain in the English Lakes for the six years 1853-58, both

inclusive, was extraordinarily small,* scarcely 80 per cent. of the average.

XI. **B**.—When, at the end of 1864, Mr. Fletcher recommenced observations at The Sty, the old gauge (XI. **A**) had probably disappeared; because Mr. Wilson assures us that what is now known as XI. **A** “has always been in the same position,” and he places it N.W. of B. Had even the ruins of the old gauge been seen by Mr. Fletcher, he would doubtless have placed the new one on the identical spot. The erection of this gauge was nearly concurrent with the advent of two of the wettest years in the Lake District, and we consequently see totals exceeding 200 inches, viz. :—

1866.....	224·56 in.	1872.....	243·98 in.	1882.....	202·50 in.
1868... ..	207·49 ,,	1877.....	235·52 ,,	1890.....	202·05 ,,

The average given by this gauge is 179 inches; if the fluctuation of rainfall at that wet station is similar to that usual in England, we can compute the probable fall in the driest and in the wettest year, and see how nearly the extremes have been approached—

		Theory.		Fact and Date.	
Gauge A	Driest year	99 in.	99·16 in.	in 1855	
„ B	Wettest ,,	260 ,,	243·98 ,,	in 1872	

It is therefore extremely improbable that there will ever be a drier year than 1855, but it is likely that the great fall of more than 240 inches (20 feet; 6,197 millimetres) will be exceeded.

XI. **C**.—Knowing of the uncertainty as to the indication of snow by the pattern of gauge XI. **B**, we induced Mr. Maitland in 1879 to put down one of the large 8-inch float gauges (Fig. V. facing p. 22 of *British Rainfall*, 1895), it did not work well, and was very troublesome in frost, but on the whole it gave rather more than XI. **B**; its mean was 184 inches, and its position is believed to have been near XI. **B**.

XI. **D**.—This was fixed in 1885 in order to see whether the fall increased or decreased south-eastward; it has collected less in every year until 1896. We are not sure that this gauge has always been in the same position; we rather fear that there may have been some confusion when, at the end of 1895, two additional gauges were erected. We always regarded this gauge as occupying the position now occupied by XI. **D**, but according to Mr. Wilson it was at XI. **B**. However, it shows a decrease to the S.E.; and as regards

* See *British Rainfall* 1867, p. 18, and *British Rainfall* 1895, p. 25; which shows the mean ratio for those years to be only 83 per cent.

the distribution of the rainfall along this narrow strip, we hope that the set of gauges started on January 1st 1896 will give full information ; for 1896 the totals were

A	B	C	D
156·74 in.	159·31 in.	160·30 in.	133·52 in.

which probably indicate the undermentioned mean annual fall

169 in.	171 in.	172 in.	145 in.
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This *may* be another confirmation of the approximations which often occur in rainfall work. Years ago we used to regard 140 inches as the average for Seathwaite, and 25 per cent. extra, *i.e.*, 175 inches, as that of The Sty. The calculations given last year reduced Seathwaite from 140 to 135 inches ; the above figures for The Sty point to 170 in., also a reduction of 5 inches.

STATION XII. *Taylor's Gill*.—Mr. Fletcher thought that perhaps the fall was heavier to the N.W. of the Sty, and therefore placed a gauge at the same altitude on the N. side of Taylor's Gill, and Mr. Maitland continued the record until 1882, but it was never within 11 inches of XI. B , and its reduced mean was 164 inches.

STATION XIII. *Seathwaite*.—This was fully dealt with last year, and the mean of the half century shown to be 135 inches.

STATION XIV. *Seatoller Common*.—The precise position of this gauge cannot be ascertained ; the position given on the map is reproduced from Dr. Miller's own MS. map in the possession of the Royal Society. Dr. Miller stated that the altitude had not been determined, and yet he gave it as 1,388 ft., whereas the site as shown on his own map is 2,000 ft. That would make it not very much above Stations No. VI. and IX. Their average falls are 122 in. and 125 in. ; Station XIV. gives 126 in., so probably the 1,388 ft. was only a guess.

STATION XV. *Stonethwaite*.—A little hamlet like Seathwaite, but two miles to the N.E., and therefore further from the hills ; it has a rainfall of about 106 inches, say 30 inches less than Seathwaite, just as Seathwaite has about 40 inches less than the Sty.

STATION XVI. *Borrowdale Vicarage*.—About half-a-mile N.W. of Stonethwaite, and at nearly the same altitude ; has a similar rainfall—104 inches.

STATION XVII. *Rosthwaite, Castle Lodge*.—This was gauge No. V. (of *British Rainfall* 1895) at Seathwaite which Mr. Birkett took with him when he left Seathwaite. This station is only a few hundred yards from Station XVI., and the rainfall is similar, 105 inches.

Some persons are fond of generalizations, we are not sure that the results obtained in this enquiry will be useful for that purpose ; it seems to us that the influence of position with respect to hills and valleys is far greater than that of altitude. We have tried grouping the Reduced means according to altitude, and here is the result :—

	Mean.
Above 3,000 ft. I=75 ; I=94 ; II=114	94
2,500 to 2,999 ft. X=81 ; IV=85 ; V=66	77
2,000 ,, 2,499 ,, XIV=126	126
1,500 ,, 1,999 ,, III=91 ; VI=121 ; VI=123	112
1,000 ,, 1,499 ,, IX=109 ; XI=150 ; VIII=84 ; IX=123 ; XI=179 ; XI=184 ; XI=163 ; XII=164	145
500 ,, 999 ,, VII=88 ; VII=77	83
300 ,, 499 ,, XV=111 ; XV=101 ; XVI=104 ; XVII=105 ; XIII=135	111

TABLE I.—*Rainfall in the vicinity of Seathwaite* (chiefly as recorded by DR. J. F. MILLER, F.R.S.)

Reference No.	I	III	VI	VII	IX	X	XI	XV	XIV	XIII
	Sea Fell Pike.	Lingmell.	Sprinkling Tarn.	Brant Rigg.	Stye Head Tarn.	Great Gabel.	The Stye. &	Stonethwaite.	Scatoller Common.	SEATHWAITE RATIO.
Diameter.....	5 in.	5 in.	5 in.	5 in.	5 in.	5 in.	5 in.	5 in.	5 in.	
Height.....	1 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0	1 0	
Altitude	3200	1778	1985	695	1472	2940	1077	350	2000	422
	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1847.....	...	...	114·01	83·63	108·82	75·39	...	106·21	101·28	94
1848.....	...	...	135·44	98·31	124·95	84·32	...	130·24	126·95	117
1849.....	76·71	...	110·68	79·12	97·21	78·41	...	94·27	100·16	91
1850.....	86·61	98·75	138·52	99·28	123·47	93·79	...	105·81	147·65	105
1851.....	71·29	96·29	125·29	89·51	100·16	...	169·62	114·12	141·42	102
1852.....	81·30	100·22	134·79	98·24	124·19	...	167·73	133·86	156·59	114
1853.....	56·17	71·06	94·59	73·40	92·65	...	124·91	95·68	111·45	83
1854.....	...	...	...	...	...	..	153·52	...	...	104
1855.....	...	...	...	...	...	...	99·16	...	...	64
1856.....	...	...	...	...	...	...	113·11	...	...	77
1857.....	...	...	...	...	...	...	116·20	...	...	85
Arithmetical.	74·42	91·58	121·90	88·78	110·21	82·98	134·89	111·46	126·50	...
Reduced	75	91	121	88	109	81	150	111	126	..

TABLE II.—*Rainfall in the vicinity of Seathwaite (as recorded by ISAAC FLETCHER, M.P., F.R.S. ; J. MAITLAND, and others).*

Reference No.	I	II	IV	V	VI	VII	VIII	IX
	Sea Fell.	Sea Fell Pike Broad Crag.	Esk Hause.	Great End.	Sprinkling Tarn.	Brant Rigg.	Gabel Hause.	Stye Head Tarn.
Diameter	4 in.	8 in.	4 in.	4 in.	4 in.	4 in.	4 in.	4 in.
Height	0 6	0 6	0 6	0 6	0 6	0 6	0 6	6 0
Altitude	3200	3010	2550	2982	1985	695	1077	1472
	in.	in.	in.	in.	in.	in.	in.	in.
1864.....	...	...	...	...	119·52	76·21	...	108·73
1865.....	...	...	61·53	59·52	103·84	68·27	...	99·85
1866.....	...	...	91·13	78·93	139·36	89·63	...	135·06
1867.....	...	...	95·51	74·15	117·60	75·81	...	128·35
1868.....	...	...	92·08	75·63	126·81	80·78	...	130·71
1869.....	...	...	89·75	63·99	126·95	87·32	...	133·70
1870.....	...	...	...	...	...	...	...	...
1871.....	...	...	...	...	...	...	...	...
1872.....	90·75	...	121·27	91·40	170·33	118·68	...	177·04
1873.....	...	...	...	...	...	...	...	...
1874.....	...	...	...	...	...	...	...	...
1875.....	...	...	...	...	...	...	...	...
1876.....	...	...	...	...	...	...	...	...
1877.....	...	...	107·80	...	116·53	98·94	...	162·34
1878.....	49·25	...	66·12	...	86·67	56·46	...	103·33
1879.....	...	...	...	...	102·53	(66·13)	...	106·73
1880.....	53·96	(95·90)	95·85	...	109·39	...	95·54	118·40
1881.....	...	95·60	91·90	...	106·81	...	95·36	118·95
1882.....	111·28	141·40	...	...	150·31	...	80·67	133·49
1883.....	84·90	...	...	...	111·88	...	90·81	127·93
1884.....	...	...	...	...	114·06	...	76·45	119·45
1885.....	81·69	...	...	...	(122·85)	...	80·51	129·40
1886.....	...	...	...	...	107·40	...	82·35	115·30
1887.....	...	...	...	...	71·41	...	52·30	87·70
1888.....	...	...	...	...	147·15	...	78·56	102·95
1889.....	...	...	...	...	116·08	...	70·85	115·56
1890.....	...	...	...	...	157·00	...	83·30	142·90
1891.....	110·50	...	...	...	136·60	...	81·00	121·50
1892.....	120·28	...	...	...	141·18	...	80·33	127·04
1893.....	112·75	...	...	...	129·10	...	81·31	123·96
1894.....	122·35	...	...	...	141·89	...	82·76	132·70
1895.....	93·75	...	...	...	104·30	...	70·90	83·25
1896.....	...	...	...	...	119·32	...	...	124·45
Arithmetical ...	93·77	110·97	91·29	73·94	122·11	81·82	80·19	122·62
Reduced	94	114	85	66	123	77	84	123

TABLE II.—(continued).

Reference No.	XI	XI	XI	XII	XV	XVI	XVII	XIII
	The Styce. §	The Styce. ¢	The Styce. ¢	Taylor's Gill.	Stonethwaite Valley.	Borrowdale Vicarage.	Rosthwaite, Castle Lodge.	SEATHWAITE RATIO.
Diameter	4 in.	8 in.	4 in.	4 in.	4 in.	5 in.	8 in.	
Height	0 6	1 0	1 0	0 6	0 6	1 0	1 0	
Altitude	1077	1077	1077	1077	350	330	305	
	in.	in.	in.	in.	in.	in.	in.	
1864.....	...	...	...	...	100·76	...	...	98
1865.....	149·07	...	...	...	84·13	...	...	86
1866.....	224·56	...	...	...	131·11	...	...	131
1867.....	184·71	...	...	163·70	91·27	...	...	97
1868.....	207·49	...	...	178·17	119·49	...	...	115
1869.....	198·19	...	...	179·07	114·72	...	...	109
1870.....	...	...	...	...	...	...	...	88
1871.....	...	...	...	...	...	...	...	84
1872.....	243·98	...	...	224·73	...	...	...	133
1873.....	...	...	...	...	...	...	...	107
1874.....	...	...	...	...	...	...	...	108
1875.....	...	...	...	...	...	...	...	86
1876.....	...	...	...	...	...	...	...	83
1877.....	235·52	...	...	219·69	...	...	...	131
1878.....	149·04	...	...	135·66	...	...	...	81
1879.....	148·55	...	...	132·07	...	...	...	81
1880.....	161·00	167·00	...	144·40	...	...	89·50	87
1881.....	172·56	...	...	146·60	...	...	98·75	95
1882.....	202·50	201·15	...	...	...	...	109·35	109
1883.....	190·28	...	...	...	...	...	118·75	108
1884.....	173·74	184·75	...	...	...	...	114·00	99
1885.....	197·92	(184·75)	...	...	...	...	108·75	105
1886.....	169·38	...	...	...	...	...	104·45	101
1887.....	130·90	...	113·80	...	...	75·96	74·30	74
1888.....	175·40	...	...	...	...	95·32	...	87
1889.....	152·85	...	138·73	...	...	75·27	...	77
1890.....	202·05	...	172·55	...	...	103·07	...	103
1891.....	166·40	...	153·68	...	...	123·82	...	107
1892.....	172·20	...	162·35	...	...	95·67	...	94
1893.....	166·55	...	165·28	...	...	102·42	...	102
1894.....	166·22	...	159·02	...	...	114·47	...	106
1895.....	127·65	...	126·00	...	...	77·60	...	74
1896.....	156·74	...	159·31	...	...	92·97	...	91
Arithmetical ...	177·90	184·41	150·08	169·34	106·91	95·66	102·23	
Reduced	179	184	163	164	101	104	105	

RECORDS OF EVAPORATION.

WE have changed the heading of this part of the volume for two reasons :—(1) Because we think that the work has passed the experimental stage, and that the records of the amount evaporated from a surface of water as measured by a tank and a hook gauge are just as trustworthy as the records of a good rain gauge ; (2) Because the number of records is growing so fast that it is undesirable to burden the title of the article with all the place names.

The facts quoted in previous volumes have proved so clearly the general features of daily distribution that it does not seem to us necessary to print in future all the *daily* values ; we do so on the present occasion as there are new stations, but subsequently (unless arguments to the contrary are advanced) we shall print only the monthly totals.

The situation of the Camden Square tank has already been fully described—not perfect, but unusually good for a town garden.

At Isfield Place the tank is in the circular enclosure devoted to meteorology, sixty feet in diameter, an admirable and perfectly level spot, free from all injurious surroundings.

We were fortunately able to visit the Southampton Water Works this spring, and we think that we found the explanation of the excesses in November, 1895. In order to keep children or cattle from interfering, Mr. Matthews had an iron fence put round the portion of turf appropriated to his meteorological instruments, and, to keep out small animals, he had attached to it wire netting. The enclosure, though amply large for all the other instruments, ran within about a yard of two sides of the tank and it seems probable that in wet and windy weather rain-drops hung on the wires and were eventually blown into the tank, although they obviously had no business there. This exactly agrees with our suggestion (*British Rainfall*, 1895, p. 36) : “ We believe it to have been due to the joint action of wind and rain.” Mr. Matthews had the enclosure enlarged early in 1897.

The Torquay Water Works record from Kennick Reservoir, sent to us by the engineer, Mr. W. Ingham, C.E., is from an excellent position on the moors, more than 800 feet above sea level, and about eight miles S.W. of Exeter. Like the Isfield and Otterbourne tanks, it has a remarkably good exposure, but it differs from them by being on very much higher ground.

The following little table seems to indicate that the loss from a water surface is pretty much alike in open localities in the southern half of England. We hope that some engineers in the north of England and in Scotland will start analogous observations.

EVAPORATION IN 1897.

	Camden Square, Middlesex. in.	Isfield Place, Sussex. in.	Otterbourne, Hampshire. in.	Kennick Reservoir, Devon, in.
March.....	·76	1·45	·86	1·20
April	1·23	1·80	1·64	1·47
May.....	2·99	3·51	3·48	3·59
June	2·48	3·16	3·30	3·66
	<u>7·46</u>	<u>9·92</u>	<u>9·28</u>	<u>9·92</u>

ABSTRACT OF EVAPORATION RESULTS.

Strathfield Turgiss, Hampshire, 1870-83.*

	Jan. in.	Feb. in.	March. in.	April. in.	May. in.	June. in.	July. in.	Aug. in.	Sept. in.	Oct. in.	Nov. in.	Dec. in.	Year. in.
Mean	·14	·22	1·04	1·75	2·69	3·05	3·50	2·85	1·60	·78	·36	·05	18·03
Max. on any one day 0·24 in.													

Camden Square, 1885—96.

	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.+	·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+	·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.+	·03	·01	·92	2·33	3·06	3·62	3·12	2·85	1·48	·70	·11	·01	18·18
1894.+	·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
Mean	·06	·24	·65	1·52	2·29	2·91	2·74	2·12	1·23	·60	·22	·08	14·66
1896.	·16	·24	·64	1·57	3·06	3·21	3·63	1·96	·68	·47	·18	·00	15·80
Diff.	+·10	·00	·01	+·05	+·77	+·30	+·89	·16	·55	·13	·04	·08	+1·14
Max. on any one day 0·23 in.													

Otterbourne, 1892—96.

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1892.	·10	·53	1·20	2·94	3·47	3·25	3·39	2·90	1·59	·87	·22	·08	20·54
1893.+	·08	·57	1·56	3·21	3·70	4·03	3·64	3·33	2·13	1·03	22	·02	23·36
1894.+	·17	·58	1·52	1·92	3·03	3·24	2·92	2·67	1·69	·70	·44	·09	18·63
1895.	·34	·11	1·00	1·77	3·73	4·09	2·75	2·92	2·28	·47+	·28	·13	19·31
Mean	·05	·45	1·32	2·46	3·48	3·65	3·18	2·95	1·92	·77	·15	·08	20·46
1896.	·10	·42	·81	2·04	3·90	3·76	4·58	2·91	1·00	·88	·41+	·33	20·48
Diff.	+·05	·03	·51	·42	+·42	+·11	+1·40	·04	·92	+·11	+·26	·41	+·02
Max. on any one day 0·31 in.													

* The whole of the monthly details are given in *Brit. Rain.*, 1889, p. 35.

DAILY EVAPORATION AT CAMDEN SQUARE, LONDON.

Lat., $51^{\circ} 32' 40''$ N. ; Lon., $0^{\circ} 8' 0''$ W. ; Tank, $6' 0''$ square, $2' 0''$ deep ;
Edge, $3''$ above ground ; Ground level, $111\frac{1}{2}$ ft. above Ordnance datum.

1896.

1897.

Date.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1	·06	·10	·01	·00	+·01	·01	·01	·00	·01	·03	·09	·03
2	·06	·06	·00	·02	·00	+·01	+·01	+·01	·07	·04	·07	·05
3	·10	·07	·04	·00	·03	·04	·01	+·02	·04	·04	·11	·06
4	·22	·12	·00	·01	·00	+·01	+·01	+·02	·00	·04	·10	·08
5	·14	·12	·00	·05	·02	·01	·01	·01	·01	·05	·06	·06
6	·14	·09	·02	+·01	·00	+·02	·00	·02	·00	·03	·10	·02
7	·06	·06	·02	·00	+·02	·00	·00	·00	·01	·01	·05	·08
8	·16	·05	·05	·05	·02	·00	·03	·00	·01	·05	·07	·03
9	·18	·00	·03	·02	·01	+·01	+·01	+·01	·01	·02	·12	·01
10	·14	·03	+·02	·07	·00	+·01	·01	·01	·01	·05	·11	·04
11	·18	·07	·00	·04	·01	·00	+·01	·02	·02	·05	·10	·10
12	·09	·07	·00	·03	·01	·00	·01	·00	·03	·04	·08	·11
13	·12	·07	+·01	·02	+·01	·00	·01	+·01	·01	·02	·05	·15
14	·14	·11	·04	+·02	·01	·00	·00	·01	·01	·11	·06	·16
15	·16	·08	·02	+·02	·01	·00	·02	·01	+·02	·05	·06	·12
16	·06	·13	·04	·01	·01	·00	+·03	·01	·01	+·01	·15	·17
17	·11	·06	+·01	·01	·01	·00	·04	·00	+·02	·01	·11	·13
18	·07	·01	·06	·04	·00	+·01	·04	·00	·03	·06	·17	·12
19	·11	·06	·07	·01	+·01	·00	+·01	+·02	·05	·05	·16	·09
20	·11	·05	·04	·01	·02	·01	·00	·01	·01	·05	·13	·06
21	·19	·06	·02	·01	·00	·00	+·03	·04	·03	+·01	·17	·11
22	·14	·05	·01	·02	·00	·01	·01	·01	·03	·07	·16	·07
23	·11	·02	·09	·00	·00	·00	·01	·02	·05	·06	·16	·11
24	·11	·01	·05	·02	·02	·00	·01	·04	·07	·08	·10	·12
25	·12	·08	·00	·01	·02	+·04	·02	·02	·04	·05	·11	·02
26	·08	·06	+·02	·02	·01	·01	·22	·03	·05	·06	·00	·11
27	·15	·08	·03	·01	·01	·00	·04	·04	·06	·01	·09	·02
28	·10	·07	·06	·01	·02	+·02	·00	·00	·03	·01	·06	·07
29	·10	·07	·02	·00	·00	·00	·01	·08	·08	·02	·10	·10
30	·04	·03	·02	·01	·00	·03	·03	·04	·03	·07	·08	·08
31	·08	·02	...	·02	...	·01	+·03	·02	+·02	...	·10	...
Total	3·63	1·96	·68	·47	·18	·00	·23	·21	·76	1·23	2·99	2·48

DAILY EVAPORATION AT OTTERBOURNE WATERWORKS PUMPING STATION.

(Near SHAWFORD, HANTS.)

Lat., 51° 0' 28" N. ; Long., 1° 19' 55" W. ; Tank, 6' 0" square, 2' 0" deep ;
Edge, 3" above ground ; Ground level, 111½ ft. above Ordnance datum.

1896.							1897.						
Date.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April.	May.	June.	
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·10	·07	·03	·04	·01	·02	·05	+·02	·04	+·02	·11	·11	
2	·12	·08	·02	·01	·04	·02	·05	+·02	+·04	·04	·11	·06	
3	·12	·10	·05	+·01	·01	+·03	+·01	·00	+·01	·05	·14	·07	
4	·11	·17	+·02	·04	·01	+·02	·01	+·06	+·03	·09	·10	·06	
5	·12	·18	+·01	+·02	·06	·01	·00	+·02	·03	·12	·09	·09	
6	·17	·19	·09	+·06	·04	+·01	+·02	+·01	·04	·11	·09	·09	
7	·11	·08	·06	+·07	·04	·04	+·01	·03	·04	+·01	·13	·13	
8	·18	+·02	·04	·11	·04	+·01	+·05	+·02	·09	·09	·08	·08	
9	·18	·04	·06	·08	·01	·01	·00	+·01	+·02	·11	·08	·07	
10	·11	·02	·05	·07	·01	+·05	·01	·00	·04	·08	·12	·08	
11	·13	·09	·01	·09	·01	+·03	·00	+·01	+·07	+·05	·13	·15	
12	·17	·13	·03	·04	·02	+·04	·02	·01	·05	·02	·10	·11	
13	·18	·17	·01	·03	·05	+·09	·02	·01	+·01	·08	·09	·13	
14	·20	·17	·04	·02	·01	·01	·04	+·02	·04	·08	·29	·29	
15	·21	·14	·02	·02	+·03	·01	·01	·04	·07	·09	·19	·19	
16	·21	·12	·06	·03	·01	·01	·03	·01	·01	·15	·17	·17	
17	·15	·09	·02	·02	·01	·01	·01	·00	·03	·12	·07	·07	
18	·11	·06	·05	·04	·01	·01	·01	·01	·09	·20	·16	·16	
19	·09	·06	·08	·04	·01	+·01	·04	+·05	·10	·04	·19	·08	
20	·18	·08	·01	·00	·01	·01	·04	·03	·08	·16	·09	·09	
21	·22	·07	·01	·09	·01	·01	+·25	·03	+·02	·13	·21	·09	
22	·23	·04	·01	·03	·00	·00	·04	·04	·04	·14	·19	·04	
23	·15	·11	·04	·03	·01	·01	·02	·07	·10	·18	·16	·16	
24	·18	·04	·02	·04	·01	·01	·03	·13	·08	·10	·14	·14	
25	·07	·12	·00	·01	·07	·02	·03	·05	·06	·09	·10	·10	
26	·10	·13	·05	·03	·03	+·03	·04	·08	·03	·10	·11	·11	
27	·17	·08	·02	·05	·07	+·04	·02	·04	·04	·09	·02	·02	
28	·14	·12	·06	·02	·07	+·03	·02	·11	·05	·08	·08	·08	
29	·14	·08	·03	·04	·01	+·03	...	·13	·04	·01	·13	·13	
30	·16	·02	·06	·01	...	+·02	...	·04	·03	·04	·15	·15	
31	·07	·08	...	·01	...	·00	...	·03	...	·11	...	...
Total	4·58	2·91	1·00	·88	·41	+·33	+·23	·22	·86	1·64	3·48	3·30	

NOTE.—Water level kept at about ground level. Observations at 9 a.m.
Totals for each month checked from first and last reading. Rain-
fall and water added or subtracted during the month.

When days are bracketed the tank was frozen, or contained floating
ice, in which case no reading is taken. Sign + indicates condensation.

WM. MATTHEWS, C.E.,
Southampton.

EVAPORATION

AT

ISFIELD PLACE, SUSSEX.

By MAJOR KING.

Dimension of Tank, 4 ft. by 4 ft. by 2 ft.
Height of top above Ground, 1 in.

Sea Level, 50 ft.

Lat. 50° 56' 50" N. Lon. 0° 3' 40" E.

1897.

KENNICK, CHRISTOW, DEVON.

By W. INGHAM, Esq., C.E.

Dimension of Tank, 6 ft. by 6 ft. by 2 ft.
Height of top above Ground, 3 in.

Sea Level, 842 ft.

Lat. 50° 38' 30" N. Lon. 3° 41' 20" W.

1897.

Date.	March.	April.	May.	June.	Date.	Jan.	Feb.	March.	April.	May.	June.
	in.	in.	in.	in.		in.	in.	in.	in.	in.	in.
1	·07	·04	·10	·08	1	·06	—	·03	·04	·12	·07
2	·07	·03	·10	·05	2	·06	—	·02	·04	·08	·11
3	·05	·06	·13	·05	3	+·08	·01	·00	·00	·11	·19
4	·06	·09	·12	·06	4	·01	+·02	·01	·03	·11	·09
5	·05	·04	·11	·07	5	+·02	·02	·07	·14	·14	·14
6	·08	·06	·05	·07	6	+·03	·01	·05	·01	·14	·24
7	·01	·03	·03	·10	7	·03	·02	·04	·03	+·02	·09
8	·03	·06	·08	·10	8	·01	+·06	·01	·02	·12	·00
9	·00	·01	·12	·08	9	+·01	+·01	·00	·03	·16	·02
10	·06	·08	·11	·05	10	·00	·01	·02	·11	·14	·08
11	·01	·08	·12	·11	11	·01	+·03	·00	·04	·18	·15
12	·05	·04	·10	·13	12	·01	·00	·04	+·04	·15	·15
13	·04	·00	·05	·14	13	·05	·01	·07	·02	·10	·20
14	·00	·10	·06	·16	14	·04	·03	·13	·02	·25	·25
15	·02	·06	·06	·17	15	·02	+·01	·09	·10	·16	·16
16	·02	·02	·16	·19	16	·01	·01	+·03	·22	·27	·27
17	·01	·00	·08	·15	17	·02	+·02	·03	·11	·14	·14
18	·06	·10	·19	·15	18	·00	·05	·10	·16	·17	·17
19	·09	·07	·17	·11	19	+·02	·08	·02	·14	·07	·07
20	·04	·05	·14	·08	20	+·04	·03	·05	·15	·13	·13
21	·02	·01	·20	·04	21	·05	·03	·02	·19	·11	·11
22	·05	·11	·15	·09	22	·01	·06	·07	·17	·08	·08
23	·09	·13	·19	·12	23	·04	·06	·09	·19	·13	·13
24	·05	·12	·11	·13	24	·03	·09	·08	·12	·15	·15
25	·06	·08	·05	·10	25	·00	·02	·05	·15	·12	·12
26	·06	·06	·11	·13	26	·01	·11	·06	·12	·05	·05
27	·09	·06	·12	·08	27	·03	·06	·05	·03	·06	·06
28	·05	·05	·13	·12	28	·01	·06	·08	·03	·01	·01
29	·07	·08	·08	·12	29	...	·10	·10	·05	·10	·10
30	·07	·08	·19	·13	30	...	·07	·08	·06	·13	·13
31	·02	...	·10	...	31	...	·08	...	·05	...	...
	1·45	1·80	3·51	3·16		·27	·17	1·20	1·47	3·59	3·66

THE HEBERDEN FAMILY AND METEOROLOGY, 1747—1897.

As far as we are aware, the first person to notice that the amount of rain collected by a rain gauge placed at a height above the ground was less than in one on the ground, was W. Heberden, Esq., M.D., F.R.S., who in 1769 communicated to the Royal Society a paper which had the following title :—

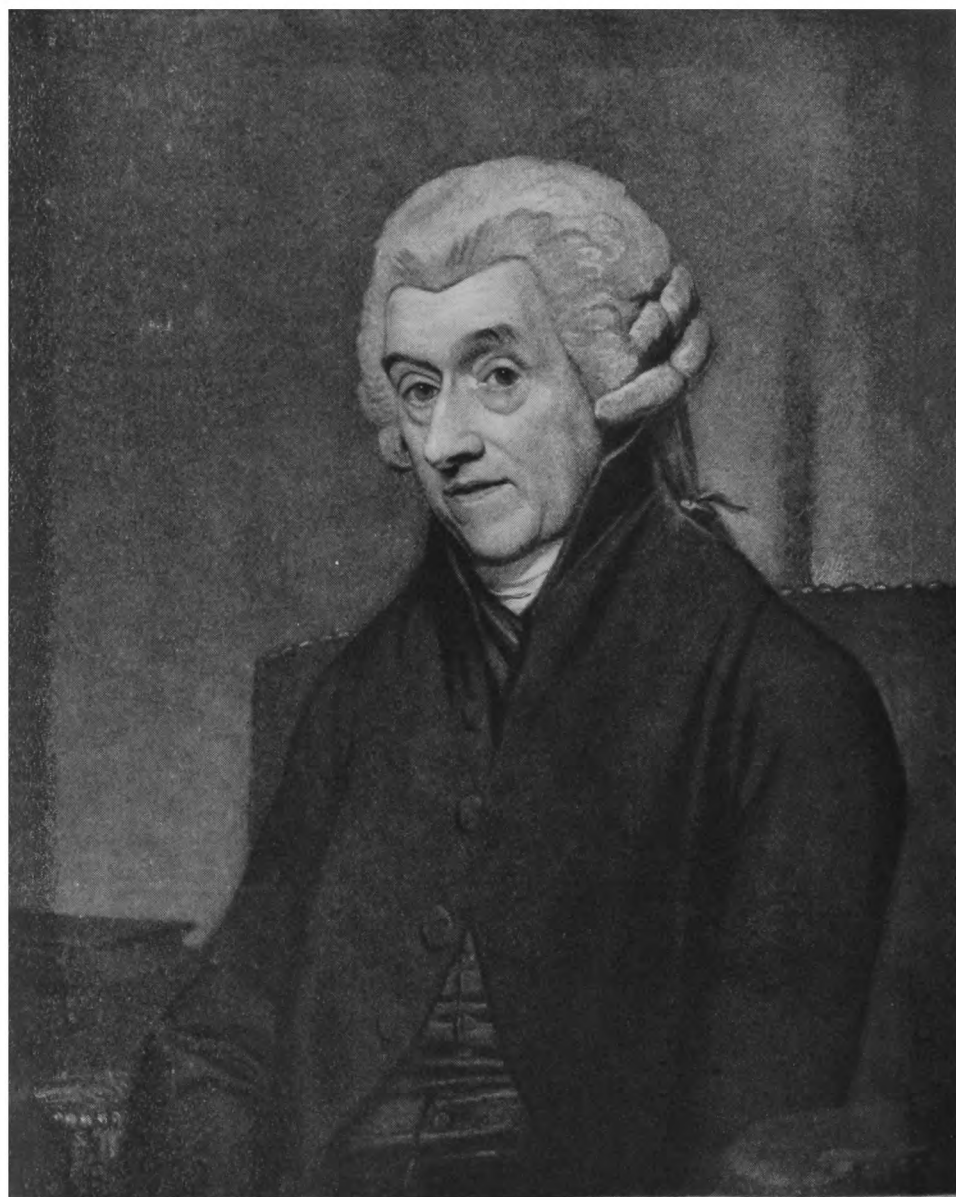
“Of the Different Quantities of Rain which appear to fall at Different Heights over the same spot of ground. Observations taken from 7th July, 1766, to 7th July, 1767.”

The paper is reprinted at the end of this article, because though in this volume we are primarily concerned with Dr. W. Heberden and his own work, we wish to give a remarkable illustration of heredity by bringing together as much of the work of the family as is known to us, and to insert the paper in the middle of the note would break the continuity of our narrative.

We are extremely glad to be able to accompany this article with a reduction from an engraving of Dr. William, which itself has a little history. Perhaps it will be well to dispose of the portrait at once.

During a short tour of inspection of rain gauges I called upon one of my present correspondents and observers, the Rev. John Heberden, M.A., rector of Hinton Ampner, Alresford, Hampshire, and there I found several relics of Dr. W. Heberden ; there was his standard clock with seconds pendulum, still at work ; there was a copy of his portrait in oil, painted when he was 86 years of age (*i. e.*, in 1796) by Sir William Beechy, R.A., and, better still, the rector had the copperplate which had been engraved from the portrait by James Ward, painter and engraver to H.R.H. the Prince of Wales. This plate, which was 15 inches by 10 inches, Mr Heberden kindly entrusted to me, and thus it is through the courtesy of his great-grandson that we are able to place before our readers the verisimilitude of one of the early English rainfall observers.

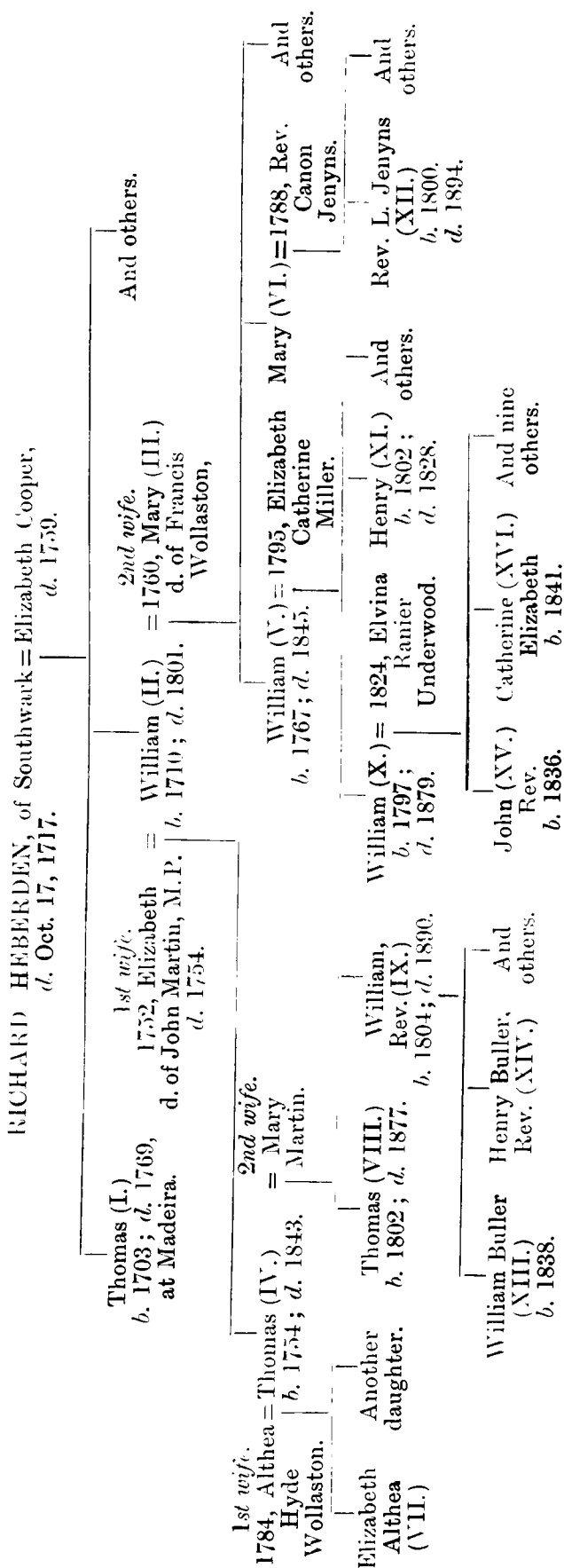
The compilation of a genealogical tree has never hitherto fallen to our lot, so that if the following is not in proper form we offer apology in advance ; we intend to make it show the facts which are essential to our argument.



William Hoebden. M.D.

Aged 86

Painted for the Honble. W. Hoebden, Esq. and Engraved by W. Ward Painter in Execution to the H. of the Prince of Wales.



We now proceed to state briefly such of the contributions to Meteorology by the various members of the family as we have been able to trace, and for the sake of clearness we have put Roman numerals against each person on the tree, and adopt the same in the following notes :—

(I.) Thomas—brother of the William (II.) whose portrait we give—was an M.D. and an F.R.S., who went to Teneriffe, and thence to Funchal, in Madeira, where he died. His contributions to meteorology were—

(i.) Observations made in going up the Pic of Teneriffe. *Phil. Trans.*, xlvii. (1751-2) pp. 353-357.

(ii.) Observations of the weather in Madeira. *Phil. Trans.* xlvii. (1751-2) pp. 357-359, and xlviii. (1753) pp. 617-620.

This paper contains monthly values of Barometer, Thermometer, and Rain for several years. The monthly rainfall was as under—

*An Account of the Quantity of Rain which has fallen in the
Island of Madeira.*

	1747	1748	1749	1750	1751	1752	1753
	in.	in.	in.	in.	in.	in.	in.
January.....	20·525	8·600	2·097	7·150	5·614	11·452	5·374
February.....	·485	10·958	1·203	1·771	·867	4·496	2·912
March.....	4·339	5·841	·932	1·123	...	·189	4·679
April.....	·528	·722	·777	·039	·011	2·479	1·604
May.....	·353	...	5·290	1·087	1·590	·399	·038
June.....	1·321	·420	·113	·226	·022	·860	·284
July.....	·200	...	...	·176	...	·221	·019
August.....	·018	2·700	...	·003	...	...	...
September.....	·540	·810	·855	1·682	3·176	·030	1·370
October.....	·010	3·303	1·512	6·601	1·707	9·897	2·352
November.....	5·181	2·654	3·059	5·611	3·509	5·370	1·967
December.....	7·351	1·500	6·527	1·882	10·483	·308	2·974
	40·851	37·508	22·365	27·351	26·979	35·701	23·573

“The years 1749 and 1750 were such dry years that the corn was destroyed, and the fruit trees suffered much, particularly the peach trees, the fruit either falling to the ground, whilst green, or, if it remained longer on the tree, being full of white worms. The mean of the seven years, is 30·62 in.”

(iii.) Observations for settling the Proportion which the Decrease of Heat bears to the Height of Situation. *Phil. Trans.* lv. (1765) pp.126-128.

(II.) William, M.D., F.R.S., whose paper (ii.) upon the decrease of measured rainfall, with height, is given on p. 39. He also wrote—

- (i.) An account of the Effects of Lightning at South Weald, in Essex. *Phil. Trans.*, liv. (1764) p. 198.

This paper, considering its date, is noteworthy in that after describing the damage, Dr. Heberden concludes—

“The whole appearance of the damage done to this church very much favours the conjecture of that sagacious observer of nature, Dr. Franklin, who thinks it probable, that, by means of metallic rods or wires reaching from the roof to the ground, any buildings may be secured from the terrible effects of lightning.”

About 80 years after this paper was written by Dr. Heberden, it was reprinted in Sturgeon's *Annals of Electricity*, Vol. x. (1843) p. 9.

- (iii.) A table of the mean Heat of every month, for ten years, in London, from 1763 to 1772, inclusively. *Phil. Trans.*, lxxviii. (1788) p. 66.

This table is of interest as showing how nearly the average temperature of London was known more than a century since.—Dr. Heberden made it 50°·6.

Dr. William (II.) was born in 1710, educated at St. Saviour's Grammar School, Southwark; went to St. John's College, Cambridge, at 14; took his B.A. degree at 18, was elected Fellow of his College when he was 20; studied medicine, and took the degree of M.D. in 1729, and at once began to practise in Cambridge. He left Cambridge and came to Cecil Street, Strand, in 1748, was elected F.R.S. in 1749, and for the subsequent 30 years held a leading position among Metropolitan physicians. At an unknown date during this period he removed from Cecil Street to Pall Mall, where, in the 92nd year of his age, and being then Senior Fellow of the College of Physicians, he died, May 17th, 1801. It may be of interest to mention that Dr. Heberden attended Dr. Johnson in his last illness, as the great lexicographer when asked for whom he had sent, replied, “Dr. Heberden, ultimus Romanorum, the last of our learned physicians.”

Though we cannot trace the date of Dr. Heberden's removal from Cecil Street to Pall Mall, it does not affect the question as to where the gauges mentioned on p. 39 were placed, because Dr. Heberden did not remove to Pall Mall until after the birth of his son William, which occurred in 1767, one year *after* the date of the experiments,

—if, therefore, they were made upon the Doctor's own house—which we rather doubt—they must have been made in Cecil Street, but (for no valid reason) our own impression has always been that they were made either in Great George Street, or in Dean's Yard.

Cosidering the way in which Dr. W. C. Wells, F.R.S., (the author of the *Essay on Dew*) wrote of Dr. Heberden in his *Letter to Lord Kenyon*, we have little doubt that during the 17 years between Wells's return to London, 1784, and Dr. Heberden's death, in 1801, both being Fellows of the Royal Society, great friendship had (notwithstanding their difference in age) existed between them, and not improbably the younger man, Wells, owed something of his professional advancement to the friendship of Dr. Heberden, whom he described in the following words :—

“Dr. Heberden, my lord, stands in a manner alone in his profession. No other person, I believe, either in this or any other country, has ever exercised the art of medicine with the same dignity, or has contributed so much to raise it in the estimation of mankind.” Putting this testimony by the side of that of Dr. Samuel Johnson, there cannot be much doubt that our engraving represents a remarkable man.

Mary (III.) was the sister of the Rev. F. Wollaston, rector of Chiselhurst, an astronomer and F.R.S., and aunt of Dr. W. Wollaston, the writer on optics, and a great friend of Sir Humphrey Davy.

Thomas, The Rev. (IV.), was rector of Whimble, near Sidmouth, Devon, and Canon of Exeter. He kept meteorological records, either at Whimble, or at his Exeter residence, from 1786 almost to the day of his death, October 17th, 1843. These MS. records, in five volumes, are still existent, and the records were carried on at Exeter by his daughter, Elizabeth Althea (VII.) until 1855.

(V.) William, M.D., F.R.S.,—son of William (II.)—was born in 1767, went to the Charterhouse in 1774, thence to his father's college, St. John's, Cambridge, B.A., 1788, being then 22, studied medicine and became F.C.P. at 31; in 1809 (at 40) he was appointed Physician to the King (George III.); in 1812 his wife died, leaving nine children, mostly young—this so affected him that, except attending to the King, he gave up all practice and retired to Datchet. This is within a short drive of Sunbury, of which his cousin, by marriage, the Rev. J. Cowe, was Vicar,* this subsequently induced

* The Rev. J. Cowe married Elizabeth Palmer Wollaston, daughter of the Rev. George Wollaston, D.D.

him to appoint Dr. Heberden his executor, which eventually resulted in the publication of "Cowe's Meteorological Register, 1796-1839." And perhaps we may trace the influence of Mr. Cowe's systematic records upon Dr. Heberden in his writing the following papers:—

- (i.) On the influence of cold upon the Health of the Inhabitants of London. *Phil. Trans.* lxxxvi. (1796) p. 279.
- (ii.) An account of the heat of July, 1825, together with some remarks upon sensible cold. *Phil. Trans.* cxvi. (1826) part 2, pp. 69-74.

Dr. Heberden (V.) died in London, in 1845, aged 78.

It was to him that reference is made in the following irreverent—and yet complimentary—lines which a friend recently met with, and has given us:—

The king employed three doctors daily—
Willis, Heberden, and Baillie—
All exceeding skilful men,
Baillie, Willis, Heberden;
But doubtful which more sure to kill is—
Baillie, Heberden, or Willis.

Mary (VI.), daughter of William (II.), married the Rev. G. Leonard Jenyns, Prebendary of Ely.

Elizabeth Althea (VII.) kept records of temperature at Exeter, from 1843 to 1855.

Thomas (VIII.) was M.D. and F.R.C.P.

William, The Rev. (IX.) was presented by the Dean and Chapter of Exeter to the vicarage of Broadhembury, Honiton, Devon, in 1829, and in 1837 began a rainfall record there, which he continued without a break until 1874, when he resigned the living and came to reside in Gloucester-place, London, where he died in the year 1890, at the age of eighty-six.

William, The Rev. (X.), was Rector of Great Bookham, Leatherhead, Surrey, where, with the assistance of his daughter Catherine (XVI.), he kept a record of the fall of rain from 1868 till his death, in 1879. The gauge then went to the Rev. John (XV.).

Henry (XI.), medical student, cut his hand at a post mortem, and died within a week.

Rev. Leonard Jenyns (afterwards Rev. Leonard Blomefield (XII.), son of Mary Jenyns (VI.), was born at Dr. W. Heberden's (II.) house in Pall Mall, May 25th, 1800; he was appointed vicar of Swaffham Bulbeck, in Cambridgeshire, and made extremely good

meteorological observations there from 1830 to 1849, epitomized in the excellent "Observations in Meteorology," which he published in 1858. He removed to Bath, and in 1865 supplied a complete set of instruments to the Royal Literary and Scientific Institution, which have been regularly observed to the present time. Besides the above-mentioned work, Mr. Jenyns, both under that name and under his subsequent one of Blomefield, wrote many papers on Meteorology during the long period, 1829 to 1887. Moreover, it was to him that William Heberden (V.) gave the Cowe's MS., and it was Mr. Jenyns (XII.) who allowed us to reproduce and publish it.

William Buller, (XIII.), son of the Rev. W. Heberden (IX.), continued the record of the fall of rain at Gloucester-place, W., started by his father, and is continuing it.

Henry Buller, The Rev. (XIV.), was Rector of Litchfield, Hants, where he kept a record of the fall of rain, 1872-76, and has been since 1890, Rector of Oddington, Stow-on-the-Wolds, Gloucestershire, where also he is keeping a record of the fall of rain.

John, The Rev. (XV.), M.A., rector (since 1878) of Hinton Ampner, Alresford, Hants, to whom we are indebted for the opportunity to present his great grandfather's portrait, has been keeping a record of the fall of rain since 1880 and is continuing it.

Catherine Elizabeth (XVI.) assisted her father, Rev. William (X.) in keeping the record at Great Bookham.

P.S.—Since writing the above we have been allowed by Col. Henry Heberden, R.A., son of William (X.), to examine an oil painting of William (II.) which he possesses; and we have been to the Royal College of Physicians to see the portrait there. Our opinion on an artistic matter is of little worth, but *quant. val.* we agree with the writer in the *Dictionary of National Biography* in regarding that at the College as the original; our engraving might almost be a photograph, so closely does it agree.

(ii.) OF THE DIFFERENT QUANTITIES OF RAIN, WHICH
APPEAR TO FALL AT DIFFERENT HEIGHTS,
OVER THE SAME SPOT OF GROUND.

BY WM. HEBERDEN, M.D., F.R.S.

Phil. Trans., lix (1769) p. 359.

Read December 7th, 1769.

A COMPARISON having been made between the quantity of rain, which fell in two places in London, about a mile distant from one another, it was found, that the rain in one of them constantly exceeded that in the other, not only every month, but almost every time that it rained. The apparatus used in each of them was very exact, both being made by the same artist; and upon examining every probable cause, this unexpected variation did not appear to be owing to any mistake, but to the constant effect of some circumstance, which not being supposed to be of any moment, had never been attended to. The rain-gauge in one of these places was fixed so high, as to rise above all the neighbouring chimneys; the other was considerably below them; and there appeared reason to believe, that the difference in the quantity of rain in these two places was owing to this difference in the placing of the vessel in which it was received. A funnel was therefore placed above the highest chimneys, and another upon the ground of the garden belonging to the same house, and there was found the same difference between these two, though placed so near to one another, which there had been between them when placed at similar heights in different parts of the town. After this fact was sufficiently ascertained, it was thought proper to try whether the difference would be greater at a much greater height; and a rain-gauge was therefore placed upon the square part of the roof of Westminster Abbey, being at such a distance from the western towers, as probably to be very little affected by them, and being much higher than any other neighbouring buildings. Here the quantity of rain was observed for a twelvemonth, the rain being measured at the end of every month, and care being taken that none should evaporate, by passing a very long tube of the funnel into a bottle through a cork, to which it was exactly fitted. The tube went down very near to the bottom of the bottle, and therefore the rain which fell into it, would soon rise above the end of the tube, so that the water was nowhere open to the air except for the small space of the area of the tube; and by trial it was found that there was no sensible evaporation through the tube thus fitted up. The following table shows the result of these observations—

From July the 7th, 1766, to July the 7th, 1767, there fell into a rain-gauge fixed—

	Below the top of a house.	Upon the top of a house.	Upon Westminster Abbey.
	in.	in.	in.
1766—from July 7th to the end.....	3·591	3·210	2·311
August.....	0·558	0·479	} 0·508
September.....	0·421	0·344	
October.....	2·364	2·061	1·416
November.....	1·079	0·842	0·632
December.....	1·612	1·258	0·994
1767—January.....	2·071	1·455	1·035
February.....	2·864	2·494	1·335
March.....	1·807	1·303	0·587
April.....	1·437	1·213	0·994
May.....	2·432	1·745	1·142
June.....	1·977	1·426	} 1·145
from July 1st to the 7th.....	0·395	0·309	
	22·608	18·139	12·099

By this table it appears that there fell below the top of a house about a fifth part more rain than what fell in the same space above the top of the same house, and that there fell upon Westminster Abbey not much above one-half of what was found to fall in the same space below the tops of the houses. This experiment has been repeated in other places with the same event. What may be the cause of this extraordinary difference has not yet been discovered; but it may be useful to give notice of it, in order to prevent that error, which would frequently be committed in comparing the rain of two places without attending to this circumstance.

It is probable that some hitherto unknown property of electricity is concerned in this phenomenon. This power has undoubtedly a great share in the descent of rain, which hardly ever happens if the air and electrical apparatus be sufficiently dry, without manifest signs of electricity in the air. Hence it is, that in Lima, where there is no rain, they never have any lightning or thunder*; and that, as M. Tournefort was assured, it never rains in the Levant but in winter, and that this is the only season in which any thunder is heard.† If this appearance therefore could be accounted for, it would probably help us to some more satisfactory causes of the suspension of the clouds, and of the descent of rain.

* See the *English translation of the Voyage of Don George Juan and Don Antonio de Ulloa to South America.* Vol. II., cap. 6, pp. 69-70.

† *Voyage du Levant*, let. x., p. 429.

COMPARISON OF GERMAN & ENGLISH RAIN GAUGES,
AND OF
MR. SIDEBOTTOM'S SNOW GAUGE
AT CAMDEN SQUARE, N.W.

1896	Ordinary English 8 in. gauge, reduced by 4 per cent.	DR. HELLMANN'S GAUGES.				SIDEBOTTOM'S SNOW GAUGE.		
		No. 1.	No. 2.	Difference from reduced English.		Ordinary 8 in. gauge reduced by 5 per cent.	Snow & Rain Gauge	
				No. 1.	No. 2.		Total.	Diff.
	in.	in.	in.	in.	in.	in.	in.	in.
Jan.	·75	·69	·74	—·06	—·01	·74	·70	—·04
Feb.	·28	·25	·26	—·03	—·02	·28	·22	—·06
Mar.	3·08	2·90	3·07	—·18	—·01	3·04	2·95	—·09
April	·52	·43	·42	—·09	—·10	·51	·43	—·08
May	·14	·07	·08	—·07	—·06	·13	·12	—·01
June	2·18	2·15	2·11	—·03	—·07	2·16	2·16	·00
July	·99	·80	·87	—·19	—·12	·98	·96	—·02
Aug.	1·84	1·80	1·85	—·04	+·01	1·82	1·78	—·04
Sep.	5·30	5·16	5·22	—·14	—·08	5·24	5·26	+·02
Oct.	2·93	2·81	2·83	—·12	—·10	2·90	2·88	—·02
Nov.	1·12	1·09	1·15	—·03	+·03	1·11	1·10	—·01
Dec.	3·46	3·30	3·48	—·16	+·02	3·43	3·39	—·04
Total 1896	22·59	21·45	22·08	—1·14	—·51	22·34	21·95	—·39
1895	20·61	with x 20·05	20·62	with x —·56	+·01	20·39	20·31	—·08
1894	26·84	26·01	27·11	—·83	+·27	26·55	26·48	—·07
1893	18·99	18·22	18·82	—·77	—·17	18·82	18·58	—·24
1892	21·71	21·30	21·81	—·41	+·10			

THE above table, though in appearance similar to those of previous years, differs from them in two respects—(1) The divider inserted in Dr. Hellmann's gauge No. 1 to prevent snow eddies has been removed, and (2) The readings of the standard gauge, which hitherto have been reduced by 2 % to render them available for comparison with Mr. Sidebottom's gauge, have now been reduced by 5 %.

It is never desirable to form opinions from one year's results if there is a chance of getting more, and the results on this page are somewhat erratic this year, so that the following must be regarded merely as passing impressions :—

The removal of the divider from No. 1 left less surface to be wetted by the rain, therefore more ought to have gone into the receiver—but it did not ; it does not seem to have affected the total by even a tenth of an inch.

The differences of both Dr Hellmann's gauges and of Mr. Sidebottom's from the standard are larger than usual—and it might easily be imagined that the standard must have been wrong—but, irrespective of the improbability of such an event happening here, we have, close to it, two other gauges, one read weekly and one read monthly, and their totals are—

8 inch Standard gauge...	23·52 in.
5 „ Weekly „	23·57 „
8 „ Monthly „	23·50 „

Knowing how these gauges have run for several years, we are certain that the Standard is not in error more than ·06 in., but the two Hellmann and the Sidebottom gauges indicate a deficiency of about 0·40 in.—so either temperature, or wind, or the distribution of rain, caused gauges high above the ground to catch less than usual in 1896.

RAINFALL AT THE ROYAL OBSERVATORY, GREENWICH.

Lat., 51° 28' 38" N.

Long., 0° 0' 0"

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

1896	No. of Rainy Days.	MONTHLY AMOUNT OF RAIN COLLECTED IN EACH GAUGE.							
		Osler's Anemometer		On roof of Octagon Room.	On roof of Magnetic House.	On roof of Photographic Thermometer Shed.	Gauges partly sunk in the ground.		
		Self-registering Gauge.	Second Gauge.						
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	9	in. ·172	in. ·161	in. ·386	in. ·488	in. ·614	in. ·640	in. ·649	in. ·687
February	6	·138	·150	·212	·312	·395	·355	·374	·427
March	22	1·749	1·545	2·301	2·598	2·927	2·996	2·963	3·055
April	10	·195	·153	·309	·433	·555	·560	·552	·590
May	5	·161	·137	·195	·259	·268	·266	·260	·267
June	14	1·179	1·153	1·570	1·830	1·902	1·939	1·894	1·893
July	7	·751	·695	·907	1·036	1·076	1·065	1·013	1·046
August	15	1·271	1·158	1·600	1·909	1·966	2·063	1·944	1·973
September	23	4·211	4·038	4·723	5·192	5·400	5·542	5·454	5·501
October	19	1·387	1·541	2·108	2·440	2·688	2·803	2·768	2·747
November	9	·720	·684	·966	1·054	1·173	1·194	1·187	1·178
December	22	1·992	2·053	2·468	2·533	2·880	2·997	2·936	2·872
Sums	161	13·926	13·468	17·745	20·084	21·844	22·420	21·994	22·236
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 gauge added in 1881.

THE STAFF OF OBSERVERS.

IN numbers as well as efficiency our staff continues to improve rapidly. The following table shows that the total number of perfect records in the present volume is more than double that in 1871, 50 per cent. greater than in 1881, and 15 per cent. greater than in 1891. In fact, from first to last we have hitherto gone forward in every successive year.

The actual figures are as under :—

Number of perfect 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

Difference from 1895.—

Increase	123 ...	13 ...	4 ...	— ...	140 ...	135
Decrease	— ...	— ...	— ...	5 ...	5	

We are, however, not content to rest and be thankful; the distribution of the stations is not sufficiently equalized, and observers increase in number most where additions are least needed. Since 1891 the increase in the number of perfect records has been—

England, 336; Wales, 41; Scotland, 43; Ireland, 0.

The distribution of stations over a country is not adequately represented by dividing the total area by the number of records, because the gauges are not equally distributed, but it is the best rough guide available, and the results are striking.

At the present time we have, on the average, in

England	one station in each	21 square miles.
Wales	„ „ „	36 „ „
Scotland	„ „ „	74 „ „
Ireland	„ „ „	179 „ „

It is, therefore, certain that there must be, both in Scotland and in Ireland, areas of several hundred square miles each without a single observer, and we invite the help of all our readers in trying to lessen this evil.

It will be seen from the following list of Gains and Losses that of the 3084 returns quoted for 1895, 2896 appear again this year, and that there are 323 new ones—a total gain of 135.

The above table, and still more the following detailed list, proves the old, old story, the increase of stations in districts where they are already numerous and the stationary character of the numbers in poorly provided areas.

The stations in the five counties of Surrey, Kent, Hants, Lancashire and Yorkshire, with an existing staff of more than 700 observers, have been increased by 64, while the numbers in the poorly provided northern counties of Scotland, and in nearly all parts of Ireland, have remained stationary or have decreased.

Surely some of our readers will try to rectify this.

MIDDLESEX (71).

ABSENT RECORDS.

London (Canonbury, N.)—*Record ceased.*
 Hampstead (Roslyn House)—*Record ceased.*
 Stamford Hill (Castlewood Hill)—*Not received.*
 Pinner Hill—*Record ceased.*

INSERTIONS.

Isleworth (Warkworth House).
 Finsbury Park (New River Works).
 Uxbridge (Harefield Park).

SURREY (132).

Witley (King Edward's School)— <i>Rec. ceased.</i>	Chiddingfold (Beaconscroft).
Guildford (Piccard's Rough) — <i>Observer moved.</i>	Witley (The Mount).
„ (The Beeches, Guildown) „ „	Felbridge Place.
Kenley (Hazelea)— <i>Observer dead.</i>	Farnham Castle.
„ (Ingleside)— <i>Observer moved.</i>	Dorking (Woodcote).
Wimbledon Common (Parkside)— <i>No reply.</i>	Guildford (Epsom Road).
	„ (Craigie, Merrow).
	Reigate (The Briars).
	Merstham (Harp's Oak Cottage).
	Kenley (The Cottage).
	Pyrford Vicarage.
	Chobham (The Elms).
	Esher (Claygate).
	Weybridge (Field Place). M.
	„ (West Oaks).
	St. Ann's Heath (Sanatorium).

KENT (123).

Appledore (Snargate)— <i>Gauge tampered with.</i>	Wittersham.
Benenden Vicarage— <i>Observer moved.</i>	Hythe (Saltwood).
Lower Walmer (Meadow Side)— <i>Recd. ceased.</i>	Dover Water Works.
Maidstone (Wateringbury)— <i>No reply.</i>	Elham Vicarage.
Hayes (Layhams Farm)— <i>Record ceased.</i>	Tunbridge Wells (Southborough).
Sheerness (Water Works)— <i>No observations.</i>	Staplehurst.
Woolwich (Powis Street)— <i>Record ceased.</i>	Ashford (Westwell, Monkeny).
Erith (Crossness) No. 1 Gauge— <i>Record ceased.</i>	Hadlow.
	Eastry.
	East Malling (Broadwater).
	Sevenoaks (River Hill).
	„ (Chevening Gardens).
	Farnborough (Feniton).
	Strood Water Works.
	Bromley (The Palace).
	„ (Widmore Road).
	Chislehurst.
	Sydenham (Elmfield).
	Rochester (Cooling).

WEST SUSSEX (35).

Steyning (Annington)— <i>Observer moved.</i>	Worthing (Ellesmere).
Rusper Rectory.— <i>Record ceased.</i>	Chichester (Little London).
	„ (Oaklands).
	„ (Charlton).

EAST SUSSEX (59).

Eastbourne (East Dean)— <i>Record ceased.</i>	Eastbourne (Glenthorne).
Playden (Springfield)— <i>No reply.</i>	„ (Trevella)
Sheffield Park— <i>Not received.</i>	Bexhill (The Grange).
Withyham (Leyswood)— <i>Not received.</i>	„ (Barrack Hall).
Worth Rectory— <i>Observer dead.</i>	Selmeston Vicarage.
	Lewes (Sothmalling) <i>mound g.</i>
	Isfield Place.
	Hayward's Heath (Brook House).

HAMPSHIRE (90).

Southampton (Shirley Warren)— <i>Rec. ceased.</i>	Carisbrook (Rainsgrove).
Alton (East Tisted Rectory)— <i>Observer moved.</i>	Ryde (North Lodge).
„ (Rotherfield Park)— <i>Observer moved.</i>	Bournemouth (Clarendon Court).
Basingstoke (Monk Sherborne)— <i>Obsr. dead.</i>	Milford-on-Sea.
	Christchurch (Winkton Lodge).
	Botley (Fairthorne).
	Bishop's Waltham (Hill Place).
	Petersfield (Fairley).
	Kilmeston Manor.
	Headley (Eveley).
	Old Lodge [Salisbury].
	Crondall (Warren Corner).
	Winchfield (Bylands).

BERKS (44).

Wokingham (Binfield Park)— <i>No reply.</i>	Ascot (Manor Farm).
Reading (Portland Pl.) 2 <i>gauges.</i> — <i>Obsr. dead.</i>	Newbury (Benham Park).
Lamborne (College House)— <i>Observer moved.</i>	Shinfield (Clares Green).
	Beenham House.
	Reading (Maiden Erlegh).
	Twyford (Hurst Grove).
	Yattendon Court.

HERTS (50).

Hatfield (Brocket Hall)— <i>Record ceased.</i>	Watford (Oaklands).
Welwyn Rectory— <i>Record ceased.</i>	„ (St. Albans Road).
	St. Albans (Bone Hill).
	Welwyn (Bridge House).
	Bennington.

BUCKS (26).

Slough (Sefton Park)— <i>Record ceased.</i>	Slough (Upton Park).
	Burnham (Fair View).
	Prince's Risboro' (Little Kimble).

OXFORD (39).

Watlington (Shirburn Castle)— <i>No observations.</i>	Charlbury.
Steeple Aston (Hill House)— <i>No reply.</i>	Chipping Norton (Churchill). Swerford. Barford St. Michael (Irondown). Banbury (Adderbury).

NORTHAMPTON (49).

Brackley (Market Place)— <i>No reply.</i>	Little Houghton.
Stoke Bruerne— <i>Record ceased.</i>	Burton Latimer Rectory.
Easton Mauduit Vicarage— <i>Observer moved.</i>	Stamford (Duddington).
Northampton (Gold Street)— <i>Not received.</i>	
„ (Adnitt Road)— <i>Observer moved.</i>	
Rothwell— <i>No reply.</i>	

HUNTS (8).

BEDFORD (19).

Luton (Hart Hill)— <i>Record ceased.</i>	Ampthill (Maulden).
Bedford (St Peter's Street)— <i>Rec. imperfect.</i>	Biggleswade (Chilworth). Cardington. Sharnbrook (Colworth Gardens).

CAMBRIDGE (37).

Foxton House [Royston].
Longstowe Rectory.
Newmarket (Cheveley Park).
Ely (The Palace).
Wisbech (Monica Road).

ESSEX (58).

Witham (Rivenhall)— <i>Observer dead.</i>	Shoeburyness, M.
Dunmow (Saling Grove)— <i>No reply.</i>	Wickford (Runwell Hall).
Dedham— <i>No reply.</i>	Norton Mandeville (Readings).
	Fingringhoe (Ballast Quay Farm).

SUFFOLK (44).

Hollesley (Shingle Street)— <i>Record unreliable.</i>	Ipswich (Belstead Hall) <i>Old gauge.</i>
Ickworth Park— <i>Record ceased.</i>	Boyton Rectory.
	Parham (The High House).
	Moulton [Newmarket].
	Southwold.

NORFOLK (58).

Diss— <i>Observer dead.</i>	Honingham.
Geldeston [Beccles]— <i>Observer dead.</i>	Lynn (Valingers Road).
Norwich (Heigham Hall)— <i>Observer dead.</i>	
Sprowston— <i>Return imperfect.</i>	
Fakenham (Cranmer Hall)— <i>Record ceased.</i>	
Holt Lodge— <i>Observer moved.</i>	

WILTS (48).

Winterslow— <i>No reply.</i>	Winterslow (Roche Court).
Trowbridge (Steeple Ashton Vic.)— <i>Obs. moved.</i>	Trowbridge (Rood Ashton).
	Burbage (Wolf Hall).
	Hilmarton.
	Wootton Bassett.

DORSET (42).

Poole (West Street)— <i>Record ceased.</i>	Swanage (Royal Victoria Hotel).
	Dorchester Water Works.
	Powerstock (West Milton).
	Wimborne Minster (Horton).
	Sandford (Orcas Rectory).
	Holwell (Westrow).
	Shaftesbury.

DEVON (94.)

Totnes (Pomeroy House)— <i>Observer dead.</i>	Meavy (Yelverton).
Paignton (Sarsden Lodge)— <i>Record ceased.</i>	Dartmoor (Cramber Tor).
Dartmoor (Siward's Cross)— <i>Gauge tamp. with.</i>	Princetown.
„ (Leeden Tor)— <i>Gauge tampered with.</i>	Exmouth (Nidderdale).
Axminster (Great Trill)— <i>Record ceased.</i>	Budleigh Salterton.
Exeter (Bramford Speke)— <i>2 g's., Obsvr. moved.</i>	Exeter (Bramford Speke Station).
Bideford (St. Helen's, Northam)— <i>No obsvatn.</i>	Torrington (Langtree).
Barnstaple (Pilton)— <i>Observer moved.</i>	Romansleigh Rectory.
Ilfracombe Hotel, <i>old g.</i> — <i>Record ceased.</i>	South Molton.
	Barnstaple (Arlington Court) <i>2nd g.</i>

CORNWALL (42).

Liskeard (Wadeland Terrace)— <i>Obsevr. moved.</i>	Flushing (Trefusis).
	Grampound (Heligan).
	Menheniot (Coldrenick House).

SOMERSET (68).

Sandford Orcas Rectory— <i>Trans. to Dorset.</i>	Temple Combe.
Dunster (Knowle)— <i>Observer dead.</i>	Taunton (West Monkton).
Weston-super-Mare (Worle Vic.)— <i>Obs. moved.</i>	Chewton Mendip (Waldegrave Ho.)
Clevedon (Pembroke Villa)— <i>Record ceased.</i>	Churchill.
	Bath (Combe Hay Manor).
	Batheaston, M.

GLOUCESTER (81).

Bristol (Montpelier)— <i>Observer dead.</i>	| Horfield (H. M. Prison).
Wirewoods Green [Chepstow]— <i>Not received.</i>	| Stroud (The Slad).

HEREFORD (30).

Hereford (Burghill) No. 4.— <i>Not received.</i>	| Ross (Bishopswood).
	| Yarkhill Vicarage.
	| Kington (Gravel Hill).

SHROPSHIRE (32).

Clun (Bettws)— <i>Record imperfect.</i>	| Ludlow (The Sheet).
Bridgnorth (Coton Hall) 3 in. g.— <i>Recd. ceased.</i>	| Bridgnorth (Quatford).
	| Pontesbury (Somerville).
	| Shrewsbury (The Abbey House).
	| Newport (Edgmond).

STAFFORD (39).

Perry Hall [Birmingham]— <i>Observer gone.</i>	| Tamworth (Bonehill House).
Alrewas— <i>Observer dead.</i>	| Brewood.
Cheadle (Teau Vicarage)— <i>Observer dead.</i>	| Lichfield (Maple Hayes).

WORCESTER (34).

Tenbury (Orleton) 2 gauges.— <i>Not received.</i>	| Bredon's Norton.
Selly Oak (The Dell)— <i>Observer moved.</i>	| Alvechurch.
	| Selly Oak [Birmingham].

WARWICK (34).

Radway (Ivy Lodge)— <i>No reply.</i>	| Fenny Compton (The Grange).
Solihull (Blossomfield)— <i>Observer moved.</i>	| Snitterfield.
Sutton Coldfield— <i>No reply.</i>	| Sparkbrook (Grantham Road).
	| Whitacre (Birmingham W. W.).

LEICESTER (24).

Rateliffe-on-Wreake Rectory— <i>Record ceased.</i>	| Syston.
	Burton-on-the-Wolds.

RUTLAND (5).

Ketton Hall [Stamford]— <i>Record ceased.</i>	Stocken Hall.
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LINCOLN (69).

Horncastle (Louth Road)— <i>Observer dead.</i>	Bourne (Wytham-on-the-Hill).
Wroot Engine— <i>No observations.</i>	| Grantham (High Street).
	| Boston (Black Sluice, Skirbeck).
	| Leadenham.
	| Skegness.
	| Lincoln (Moorlands, Skellingthorpe).
	| Market Rasen (Tealby).

NOTTS (39).

Nottingham (The Park)— <i>No reply.</i>	Radcliffe-on-Trent.
Retford (W. Retford House)— <i>Observer dead.</i>	Nottingham (Strelley Hall) <i>2nd g.</i>
	Annesley (Selston W. W.)
	Sutton-in-Ashfield W.W.
	Mansfield (W. W. Rainworth).

DERBY (46).

Willington (W. W. Milton).
Derby (Duffield Road).
Alderwasley— <i>2nd gauge.</i>

CHESHIRE (74).

New Brighton (Stanley Rock)— <i>Obsrr. moved.</i>	Chester (Upton Lawn).
	Neston (Fir Grove).
	Thurstaston (Dawpool).
	Thelwall (Norman's Place).
	New Brighton (Rutland House).
	Hadfield (Millbrook)— <i>2nd gauge.</i>

LANCASHIRE (181).

Stalybridge (West Hill)— <i>Record ceased.</i>	Warrington (Fever Hospital).
Bolton (Hurst Bank)— <i>Record ceased.</i>	Heaton Mersey [Stockport].
Over Darwen (Sunnyhurst)— <i>Received too late.</i>	Manchester (Lady Barn, Fallowfield)
„ „ (Earnsdale Res.)— <i>Rec. too late.</i>	St. Helens (Eccleston Hill).
	Manchester (Whitworth Park).
	Over Darwen (Hoddlesden) <i>2nd g.</i>
	Todmorden (Scaitcliffe).
	Blackburn (Samlesbury).
	Preston (Corporation Offices).
	Rishton Reservoir.
	Wycoller (Brink End Allotment).
	„ „ „ Moor).
	Worthdale (Watersheddles).
	Wycoller.
	Emmott Moor— <i>2 gauges.</i>
	Laneshaw— <i>2 gauges.</i>
	Barrowford Reservoir.
	Foulridge (Canal Office).
	„ (Cragg Nook Hill).
	„ (Upper Res.)
	Garstang (Grizedale, Stake House).
	Hest Bank.
	Lindal (Berkune Mines).
	Colton.

YORKSHIRE—WEST RIDING (251).

Sheffield (Redmires, Fairthorne Lodge)— <i>No obs.</i>	Sheffield (Tinsley Vicarage).
„ (Broomhall Park)— <i>No observations.</i>	Langsett Moor (Pike Lowe).
Hebden Bridge (Falling Royd) 2nd g. <i>Not rec.</i>	„ „ (Ewden Height).
Bradford (Merton Road)— <i>Record ceased.</i>	„ „ (Range Moor).
„ (Thornton Road)— <i>Record ceased.</i>	„ „ (Upper Midhope).
Leeds (Holbeck) 5 in. g.— <i>Record ceased.</i>	Honley (Northgate House).
Yeadon (South View House)— <i>Record ceased.</i>	Goole (Swinfleet).
Boston Spa <i>Record ceased.</i>	Bradford (Leeming Reservoir).
Skipton (Gill Grange, Silsden)— <i>G. tampered</i>	Shipley (Cragg End).
Nun Monkton— <i>Record imperfect.</i> [with.	Oakworth (Oldfield).
	Keighley (The Knowle).
	Ben Rhydding (Dunluce).
	Skipton.
	„ (Hawthorne Cottage).
	Gargrave (Bank's Hill, Bk. Newton).
	„ (Ray Bridge Hill).
	„ (Gt. Scarnber Hill).
	Winterburn (Long Hill).
	„ (Brown Hill).
	Harrogate (St. Mary's Avenue).
	Sedbergh (Akay).
	„ (Cemetery).

YORKSHIRE—EAST RIDING (25).

Hull (Tranby Park)—*Record ceased.*
 Market Weighton (Houghton)—*Record ceased.*
 Mapleton Manor House—*Observer dead.*

YORKSHIRE—NORTH RIDING (39).

Malton— <i>No reply.</i>	Terrington Hall.
	Scarborough Observatory.
	Fylingdales Vicarage.
	Whitby (Mulgrave Castle).

DURHAM (41).

Stockton (Norton)— <i>No observations.</i>	Ushaw College.
Sunderland (Willow Bank Lodge)— <i>Obs. mvd.</i>	

NORTHUMBERLAND (48).

Morpeth (Stobhill)— <i>No observations.</i>	Newcastle (Leazes Park).
Redesdale (Horsley)— <i>Record imperfect.</i>	Scots Gap (Wallington).
Cheviot (Broadstruther)— <i>No reply.</i>	Morpeth (Bothalhaugh Garden). M.
	Ilderton (Lilburn Tower).

CUMBERLAND (66).

Scawfell Park—*Record ceased.*
 Gable Hawes—*Record ceased.*
 Blencowe School—*Observer dead.*
 Mealsgate (Uldale Rec.)—*No reply.*
 Carlisle (Rose Castle)—*No reply.*
 „ (Castletown)—*Observer dead.*

The Sty. C. M.
 „ D. M.
 Cleator Moor Water Works.
 Borrowdale Vic. *2nd gauge.*
 Winder.
 Keswick (Derwent Hill).
 Maryport (Gilerux).

WESTMORELAND (33).

Witherslack (Halecote)—*Observer dead.*
 Kendal (Underfell)—*Record ceased.*
 Windermere (Woodland Terrace)—*Rcd. ceased.*
 Asby (Town Head)—*No reply.*

Kirkby Lonsdale (Barbon Manor).
 Ambleside (Gale House).
 Shap (Oddendale).
 „ (Church View).
 „ (Hillfield).
 Patterdale (Greenside Mine).
 Ullswater (Sharrow Bay).

MONMOUTH, WALES, AND THE ISLANDS.

MONMOUTH (25).

Llantillio Crosseny (Brynderie)—*No reply.* |

GLAMORGAN (39).

Merthyr Tydfil (Plymouth Works)—*Rcd. ceased.* | Penarth (Cwrt-y-vil).
 Pontypridd (Maesderwen, Graig).
 Crynant (Gelli Dochleithe).
 Dowlais (Brynonen, Pant).

CARMARTHEN (4).

PEMBROKE (8).

Newport (The Castle)—*Record ceased.* | Clarbeston (Penty Park).
 Brawdy (Pen-y-cwm).

CARDIGAN (5).

Troedyrour Rectory—*No observations.* | Aberystwith (N. Parade).

BRECKNOCK (36).

Cardiff W. W. (Storey Arms).	(Nant Penig).
Talybont (Cui).	
Llanfrynach (Tymawr).	
Llanwrtyd Wells.	
Newbridge (Brynwern Hall).	

RADNOR (16).

New Radnor (Downton)— <i>Observer moved.</i>	Welfield [Builth].
	Caerwnon [Builth].

MONTGOMERY (10).

Garthbibio (Bwlch Tomlyd)—*Gauge worn out.*

FLINT (7).

St. Asaph (Bodelwyddan Castle)— <i>No reply.</i>	Caergwrle.
Holywell (Bagillt)— <i>No observations.</i>	

DENBIGH (15).

Ruabon (Wynnstay)— <i>Observer gone abroad.</i>	Denbigh (Ystrad).
Penbedw [Nannerch]— <i>Record ceased.</i>	

MERIONETH (7).

Arenig (Bodrennig).	
Bl. Ffestiniog (New Welsh Quarry).	
Cowan (Rhug Gardens).	

CARNARVON (12).

Carnarvon (Cocksidia)— <i>Record ceased.</i>	
Llanbedr-y-Cennin— <i>Record imperfect.</i>	

ANGLESEA (6).

Llandwyn Island.	
Lligwy.	

ISLE OF MAN (9).

ISLES OF SCILLY (2).

JERSEY (2).

GUERNSEY (6).

|	L'Eree (Claire Mare).
|	Cobo.
|	Villa Carey 5 <i>in. gauge</i> .

SCOTLAND.

WIGTON (5).

KIRKCUDBRIGHT (18).

Castle Douglas (Slogarie)— <i>No reply</i>.	| Creetown (Cuil Park).
	| Dalbeattie (Station Road).

DUMFRIES (12).

Langholm (Westwater)— <i>No reply</i>.	| Canobie (Byreburnfoot).
„ — <i>Observer gone</i> .	Shieldhill (Tinwald Res.)

ROXBURGH (14).

Lilliesleaf (Riddell) 2nd <i>gauge</i> .
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SELKIRK (3).

PEEBLES (4).

BERWICK (7.)

		West Foulden.
		Longformacus (Rawburn).

HADDINGTON (6).

EDINBURGH (26).

Gorebridge (Middleton) — <i>No reply.</i>		Edinburgh (Roy. Observatory). <i>2ndg.</i>
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LINLITHGOW (3).

Linlithgow (Rockville) — <i>Observer dead.</i>		
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LANARK (13).

Lanark (Fence) — <i>No observations.</i>		
Glasgow (Belvedere Hospital) — <i>Record incor.</i>		

AYR (16).

Ayr (Ballantine Drive) — <i>Observer moved.</i>	|	
Mauchline — <i>Observer dead.</i>	|	
Wemyss Bay (Ashcraig) — <i>No reply.</i>		

RENFREW (29).

Paisley (The Coats Obsy) — <i>Return unreliable.</i>		
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DUMBARTON (5).

Helensburgh (Lyleston) — <i>Observer dead.</i>		Helensburgh (Victoria Road).
„ (Ferniegair) — <i>Record imperfect.</i>		

STIRLING (18).

	Kippen (Arngomery).
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BUTE (4).

Arran (Pladda)—*Record imperfect.* |

ARGYLL, MAINLAND (18).

Ardrishaig—*Return imperfect.*
Loch Fil (Conaglen)—*Not received.*

| Tighnabruaich, 2 *gauges.*
| Lochgilphead (Poltalloch) 2*nd g.*
| Ardgour House.

ARGYLL, INSULAR (15).

Kintyre, Mull of—*Record imperfect.* | Islay (Eallabus).

CLACKMANNAN (3).

KINROSS (3).

FIFE (11).

PERTH (30).

| Dunblane (Kippendavie Lodge).
| Balquhidder (Blaircreach).
| Perth (Kinfauns Castle).

FORFAR (33).

| Kirriemuir (Lintrathen).
| " (Longdrum).
| " (Glen Dye).
| " (Barney).
| " (Glen Damff).
| Brechin (Stracathro Gardens).

KINCARDINE (3).

Fettercairn (Arnhall)—*Record ceased.* |

ABERDEEN (16).

Towie (Culquoich)—*Record ceased.* |
 New Deer (Artamford Cottage)—*No reply.*

BANFF (5).

| Aberlour.

ELGIN OR MORAY (6).

Forres H. R. S.—*Record imperfect.* | Kinloss.

NAIRN (3).

WEST ROSS (11).

Isle of Lewis (Stornoway)—*Duplicate return.* |

EAST ROSS (10).

| Contin (Kinnahaird).

WEST INVERNESS (14).

Fort William (Public School)—*Gauge moved.* |
 Skye (Edinbane, Loch Grishinish)—*Recd. ceased.* |
 „ (Kilmuir)—*Return imperfect.* |
 S. Uist, (Askernish)—*No observations.* |

EAST INVERNESS (9).

Inverness (Culloden House)—*Observer dead.* | Kingussie.
 | Killin.
 | Loch Ness (Foyers).

SUTHERLAND (7).

CAITHNESS (6).

ORKNEY (10).

Hoy (Graemsay Sound East)—*Rec. unreliable.* | North Ronaldshay.

SHETLAND (6).

| Sule Skerry.

IRELAND.

CORK (12).

Cork (Clarence Place)— <i>Record ceased.</i>	| Cork (Wellesley Terrace).
Mallow (Old Dromore)— <i>Observer dead.</i>	| Mallow (Summer Hill).
	| Doneraile.

KERRY (7).

WATERFORD (9).

| Cappoquin.

TIPPERARY (7).

Cahir (Cahir House)—*Observer moved.* |

LIMERICK (4).

Limerick (Roxborough) 2nd g.—*No observatns.*|

CLARE (6).

Ennis—*No reply.* | Carrigaholt Castle.

WEXFORD (8).

| Wexford (Bann-aboo).

KILKENNY (5).

| Kilkenny Castle.

WICKLOW (3).

CARLOW (2).

QUEEN'S COUNTY (1).

KING'S COUNTY (4).

| Victoria Lock [Meelick].

KILDARE (1).

DUBLIN (10).

MEATH (5).

Aclare House. 10 in. gauge. Gauge moved. |

WESTMEATH (3).

LOUTH (3).

Ravensdale School—*No reply.* |

LONGFORD (1).

Cloondra [Tarmonbarry]—*Record unreliable.* |

GALWAY (10).

| Galway (Queen's College).

ROSCOMMON (3).

| Donamon (Castle Coote).

MAYO (5).

| Cong (The Glebe).

SLIGO (4).

Sligo (Mount Shannon)—*Observer dead.* |

LEITRIM (3).

CAVAN (6).

Lough Sheelin (Arley) 2 gauges— <i>Not received.</i>	| Killeshandra (Castle Hamilton).
" " (Fortland)— <i>No reply.</i>	|
Cavan (Farnham)— <i>No reply.</i>	|

FERMANAGH (0).

Brookboro (Colebrook Park)—*Record ceased.* |

MONAGHAN (2).

ARMAGH (6).

DOWN (12).

ANTRIM (18).

| Antrim (The Manse).
| Glenarm Castle.

LONDONDERRY (6).

Limavady—*Observer dead.*
Bellarena—*No reply.* |

TYRONE (4).

Moy (Derrygally) 2 *gauges. Observer dead.*
Sixmilecross Rectory—*No reply.* |

DONEGAL (11).

Castlefinn (Finn Lodge)—*No reply.* | Moville Rectory

O B I T U A R Y.

As the numbers of our correspondents increase, it is necessary that our annual obituary must lengthen, but it does so slowly ; and 64 out of more than 3,000 is but few, though all too many.

Of the 168 contributors to "English Rainfall, 1860," we have lost but one—distinguished as usual by an *—viz., Mr. Crosthwaite ; so that 19 still remain.

Mr. Crosthwaite's record dates back far earlier than that of any observer whom we have lost this year, for he took over Mr. Otley's record in the beginning of 1845, and has kept it personally until within the last year or two, and by deputy to the present time. We have lost not merely a friend, but a careful observer, who was always ready to drive over to Seathwaite, or elsewhere, if occasion required.

Of observers whose records began in the fifties, we have lost Mr. Wheatley Balme and Rev. Canon Cross.

A very important loss is that of Mr. Richard Chrimes of Rotherham, to whom we are indebted for providing and mounting the finest set of gauges for experiments upon the decrease collected by elevated rain gauges ever established, and for defraying all the cost of their observation. But all down the list we come upon a succession of names of those who have done good work for 20, 30 and even more years ; and, thanks to our organization, their records are safe, and will be useful for years to come.

It is unpleasant to refer to money matters ; but we find that this list represents an annual loss in the future of more than £30 per annum. We notice also that in two instances (we know nothing of others) deceased observers, Mr. Wheatley Balme and Mrs. Overend, have each left more than a quarter-of-a-million sterling, largely for educational and charitable purposes—what a pity they did not follow Miss Nunes' example.

Observers Deceased to July, 1897.

NAMES AND STATIONS.	PERIOD OF OBSERVATION.	
	DATE.	Perfect Yearly Records.
Adamson, E. W., Esq., Eastdean, Eastbourne	C 1883-95 T	13
Adie, Mrs., Rockville, Linlithgow, N.B.	1870 imp -95	25
Ash, Rev. Drummond { Cocking, Midhurst.....	1883-87 T	9
{ Saxby, Barton-on-Humber..	C 1890-93 T	
Ballard, E., Esq., M.D., Compton Terrace, Islington	C 1867 imp -74 T.....	7
Balme, E.B. Wheatley, Esq. { Calder Farm, Mirfield, Yorks	C 1858-68 T	77
	C 1861-96 C	
	High Close, Ambleside	
	Cote Wall, Mirfield, Yorks	
Barber, J. T., Esq., Spondon, Derby	C 1872-83, 1885	13
Battersby, Worsley, Esq., J.P., Knowle, Dunster, Somerset.....	C 1888 imp -95 T.....	7
Benyon, R., Esq., Englefield, Reading	C 1875-96	22
Bridges, Rev. F. H. { Bruntingthorpe, Lutterworth	1873-82 imp T ... }	22
	{ Rivenhall, Witham, Essex...	
Brodie, F., Esq. { Moulsey Gore, Uckfield	C 1863-68 T	19
	{ Fernhill, Wootton Bridge, I. of W.	
Brundell, B.S., Esq., C.E. { Doncaster W.W. gauges.	1880-86 C	24
	{ Kirk Bramwith, Doncast'r	
Buchanan, G., Esq., C.E., Towerfields, Keston, Kent	C 1882 imp -96.....	14
Caldicott, Colonel, Coundon, Coventry	1870-96 C	27
Carr-Dyer, Major, Hazelea, Kenley, Surrey	C 1894 imp -96 imp C	1
Caswell, C. J., Esq., Louth Road, Horncastle	C 1894 imp -95 T.....	1
Chrimes, R. Esq. { Moorgate Grove, Rotherham	C 1865-96	32
Clappison, Mr. T., Mapleton, Hull	1886-93 imp -95 ...	9
Clinkard, E., Esq., Potlands, Toot Baldon, Oxon..	1895-96 C	2
Compton, T. J., Esq., M.D., Heigham Hall, Norwich	1893-5	3
Cozens-Hardy, W. H., Esq., J.P., Letheringsett Hall, Holt, Norfolk	C 1873-94 T	22
Cross, Rev. Canon { Appleby Vicarage, Lincoln ...	C 1858 imp -91 imp T {	40
	{ Halecote, Grange, Carnforth...	
*Crosthwaite, J. F., Esq., F.S.A., The Bank, Keswick	1845-96	52
Cunningham, D., Esq., Dundee Harbour gauges. var.	1884-95 C	12
Dashwood, R., Esq., Geldeston, Beccles	C 1880 imp -96 imp T	15
Dixon, Mr. R., Paddlesworth, Hythe	1877-95 C	19
Doughty, W., Esq., Byreburnfoot, Canobie, N.B...	1876-85 imp -94 ...	18
Fawcett, T., Esq., Blencowe School, Penrith	C 1871-95 T	25
Fenton, Dr. M. H., M.O.H., Coventry	1892-96	5
Forbes, Duncan, Esq., Culloden House, Inverness..	1878-95 T	18
Francis, Mrs. Clement, Quay Hall, Cambridge	C 1880-95 C	16
Fraser, Dr., Pomeroy House, Totnes	1892-95 T	4
Holmes, Rev. C. A. { Melton, Leicester	C 1861 imp -65 imp T	30
	{ Greetham, Oakham, Rutland	
	C 1865 imp -67 T C -75	
	imp -94 imp T ... }	
{ Asfordby, Melton, Leicester.	C 1868-70 T	
	{ Thistleton, Rutland	
	C 1871-75 imp T ... }	

Observers Deceased to July, 1897—(continued).

NAMES AND STATIONS.	PERIOD OF OBSERVATION.	
	DATE.	Perfect Yearly Records.
James, Rev. A. { Burwarton, Bridgnorth	C 1884-96 T	15
{ Brown Clee Hill, Bridgnorth	C 1884 imp -86 T ...	
Jevons, G., Esq. { St. Michael's Hamlet, Liverpool	1879-83 T	16
{ 39, Hope Street, ,,	C 1884-94 T	
Jodrell, Rev. H., Gisleham Rectory, Lowestoft ...	1862-86, 1888-89 T	27
Kirby, Rev. H. T. M., Mayfield, Hurst Green, Sussex	C 1885-96 T	12
Lyster, T. Rice, Esq., Bedford Office, Thorney, Peterborough	1893-96 C	4
Macaulay, T., Esq., Kibworth, Leicester	C 1875-94 C	20
McLellan, D., Esq., Queen's Park, Glasgow	1880-92 C	13
Messent, P. J., Esq., C.E., Pier Works, Tynemouth	C 1864-96	33
Michel, J., Esq., Forcett Park, Darlington	1877 imp -95 C	18
Monk-Bretton, The Rt. Hon. Lord, Conyborough Park, Lewes, Sussex	1886-92, 1894	8
Muirhead, R., Esq., Joppa, Mid Lothian, N.B. ...	1888-94 T	7
Muir, Mr. A., Mauchline, Ayr, N.B.	1892-95 T	4
Newton, J., Esq. C.E. { Barrington Ho., Cheshire....	C 1868-96	39
{ Coldwell, Res. Newton, Lancs	1886-95 C	
Olpherts, F. M., Esq., Mount Shannon, Sligo	C 1866 imp -95	29
Overend, Mrs., West Retford House, Retford... ..	C 1890 imp -95 T	5
Paget, J., Esq., J.P., Stuffynwood Hall, Mansfield	1876-78 imp -96 ...	20
Patmore, Coventry, Esq., Heron's Ghyll, Uckfield.	C 1872-74 imp T	2
Pearson, C. N., Esq., Portland Place, Reading.....	1888-96 imp T	8
Pochin, Rev. E. N., Barkby, Leicester	1870-96	27
Poole, Rev., H. J., Stowell, Sherborne, Dorset.....	C 1882 imp -96 T	14
Reynolds, Rev. Dr., Cheshunt College, Waltham Cross	1872-95 imp T	23
Richards, Westley, Esq., Ashwell Lodge, Oakham	1886-91	6
Ryves, Rev. G. T. { Buildwas	1873 T	22
{ Tean Vicarage, Stoke-on-Trent	1875-95	
Sellick, E., Esq., Alrewas, Lichfield	1880-85, 88-91, 1894-95 T	12
Smith, Mr. A., Castletown, Carlisle	1866-95 T ..	30
Smith, Rev. J. W., Dinsdale, Darlington	C 1865-70, 74-85, 88-96	27
Stone, E. J., Esq., F.R.S., Radcliffe Obs., Oxford.	1879-96 C	18
Stuart, C. P., Esq., Sandymount House, Woburn..	1870-95 C	26
Warriner, Rev. G., Bloxham Grove, Banbury	1877-95 C	19
West, Rev. Prebendary, Fownhope, Hereford	C 1869-80 imp-89 imp	19
Willes, Rev. Canon { Ashby Magna, Lutterworth..	1872-86 T	23
{ Monk Sherborne, Basingstoke	C 1887 imp -95 T }	
Wingfield, Rev. Canon, Welwyn	1872-95 T	24

NOTE.—C indicates commencement of record and also its continuation, T its termination.

RAINFALL AND METEOROLOGY
OF
1896.

SYMBOLS EMPLOYED.

<i>H.R.S.</i>		Highland Railway Station.
H	- -	Hail.
L	- - -	Lightning.
R	- - -	Rainfall.
S	- - - -	Snow.
T	- - -	Thunder.
TS	- - - -	Thunderstorm.
TSS	- - -	Thunderstorms.

ON THE METEOROLOGY OF 1896.

WITH NOTES ON SOME OF THE PRINCIPAL PHENOMENA.

[These Notes should be read in conjunction with those on Heavy Rains in 1896.]

JANUARY.

6th.—*Hemingby* (VII). Max. temp. $34^{\circ}\cdot 1$, min. $34^{\circ}\cdot 0$.

7th.—*Chelford, Astle Hall* (VIII). Thick fog all day.

9th.—Sea level pressure in the W. of Scotland above 31·10 in, being greater than any previous record.*

10th.—*Chelford, Astle Hall* (VIII). Slight S storm.

15th.—*Rendlesham Hall* (IV). Heavy S.W. to W. gale.—*Llanfrechfa Grange* (XI). Heavy S.W. gale.—*Dalnaspidal* (XVI). T, L and S.—*Drumnadrochit* (XVIII). Strong N.W. gale, with S, sleet and T.

15th and 16th.—*Watten, H.R.S.* (XIX). N.W. gale with showers of R and S.

15th—18th.—*Scourie* (XIX). 4·25 in. of R, causing heavy flooding.

16th.—*West Bromwich* (VI). In 15 minutes ·20 in. of R fell.

FEBRUARY.

7th and 8th.—*Buttermere, Hassness* (X). In about 18 hours, 5·05 in. of R fell, the greatest on record here.

19th.—*Wakefield, Stanley Grange* (IX). Partial drought for 35 days ended, R ·34 in.

25th.—*Colmonell, Clachanton* (XIV). About an inch of S.—*Craigend Castle* (XV). S three and a half inches deep.

26th.—*Helensburgh, Water Works* (XV). Heavy fall of S.

27th to April 1st.—*Chiddingfold* (II). R for 35 successive days.—*Knaresborough, Farnham* (IX). Very distinct lunar rainbow.

* See *Met. Mag.*, 1895, p. 181, and *Quar. Jour. R. Met. Soc.*, XXII., p. 152.

MARCH.

1st.—*Inverary, Newtown* (XV). H and T.

2nd.—*Hedsor* (III). Strong W. gale.—*Abergwesyn* (XI). Very stormy, with R, H and S.

3rd.—*Croydon, Duppas House* (II). T, H, R and S.—*Bearstead, Malling Cottage* (II). TS.—*Crossness* (II). T, L, S and R.—*Pirbright Camp* (II) S, H and R.—*Ashburton, Druid* (V). S showers and L.—*Penzance, St. Clare* (V). L and H.—*Chelford, Astle Hall* (VIII). T, L, heavy R and high wind.—*Uldale Rectory* (X). S, H and T.—*Colmonell, Clachanton* (XIV). S showers.—*Castle Lough* (XX). H and S showers.—*Broadford, Hurdlestown* (XX). R, sleet and S all day; T and L at night.—*Woodpark [Scariff]* (XXII). Heavy storm at night, with T and L.—*Galway, Queen's Coll.* (XXII). Heavy squalls, with L and T.

3rd and 4th.—*Emsworth, Redlands* (II). Westerly gale, with R, T and L.—*Little Saxham Rectory* (IV). H storms.—*Athlone, Twyford* (XXI). S.—*Mullingar, Belvedere* (XXI). S.

4th.*—*Abinger Hall* (II). L.—*Further Barton* (VI). L.—*Uldale Rectory* (X). Skiddaw, all white.

13th.—*Leeds, Elmete Hall* (IX). S.—*Melmerby, Baldersby* (IX). S.—*Stronvar* (XVI). Two inches of S.

13th and 14th.—*Knaresborough, Farnham* (IX). S.

14th.—*Thixendale* (IX). Deep fall of S, which rapidly thawed next day.—*Uldale Rectory* (X). An inch of S.

15th.—*Chelford, Astle Hall* (VIII). TS and heavy R.—*Cong, The Glebe* (XXII). Heavy TS, lasting only a few minutes; L struck the church twice.

15th and 16th.—*Tuam, Gardenfield* (XXII). T and L.

16th.—*Meltham, Harewood Lodge* (IX). T and L.—*Knaresborough, Farnham* (IX). T and L.—*Melmerby, Baldersby* (IX). T and L at 7.30 a.m. followed by strong S.W. gale.—*Douglas, Victoria Road* (XI). Whole gale from W.S.W. Mail steamer 7 hours crossing from Liverpool.—*Glasgow, Queen's Park* (XIII). Great gale and heavy R.

22nd.—*Kensington, Edith Road* (I). Max. temp. 68°·2, the highest in March in 13 years.—*Finchley, Etchingham Park* (I). Frequent L between 8 p.m. and 10 p.m.—*Abinger Hall* (II). L.—*Birchington Thor* (II). L.—*St. Albans, The Grange* (III). T and L.—*Hedsor* (III).

* See also *Met. Mag.*, April 1896, p. 38.

Very warm. Max. in shade 68°.—*Easton-on-the-Hill* (III). T and L.—*Little Saxham* (IV). Very brilliant L and loud T about 8 p.m.—*Swaffham* (IV). TS in evening; L very vivid.—*West Bromwich* (VI). In 10 minutes, .15 in. of R fell.

24th.*—*Stafford, Salt Vicarage* (VI). Severe TS; .25 in. of R fell in 10 minutes.—*Cheadle, The Heath House* (VI). Terrific storm of T and L from 8 p.m. to 9 p.m.—*Southport, Hesketh Park* (VIII). Severe TS 7.20 p.m. to 7.50 p.m.; serious structural damage by L.—*Harewood Lodge* (IX). T and L.—*Knaresborough, Farnham* (IX). T and L.—*Melmerby, Baldersby* (IX). T and L.—*Ulpha Vicarage* (X). T and L.

26th.—*Leeds, Elmete Hall* (IX). S.—*Melmerby, Baldersby* (IX). S.—*Douglas, Victoria Road* (XI). Heavy fall of S at 6 p.m., which lay on the hills for some days.—*Crossmolina, Enniscoe* (XXI). S.—*Galway, Queen's Coll.* (XXII). Showers of S.—*Tuam, Gardenfield* (XXII). S.

27th and 28th.—*Helensburgh, Water Works* (XV). Heavy fall of S.

28th.—*Horsell, Lindisaye* (II). H storm.—*Emsworth, Redlands* (II). Squally N.W. gale, with R, H and T.—*Itchen Stoke* (II). T and heavy H showers.—*St. Albans, The Grange* (III). S and H.—*Easton-on-the-Hill* (III). S and R.—*Chelford, Astle Hall* (VIII). Blowing hard from N.W., with R and H storms.—*Uldale Rectory* (X). Skiddaw and the fells white.

28th and 29th.—*Great Barrington* (VI). S.

29th.—*Pitsford, Sedgbrook* (III). Heavy S storm with T and L at 4 p.m.—*Rendlesham Hall* (IV). R, H, S and T.—*Cheadle, The Heath House* (VI). Heavy S at 6 p.m.

APRIL.

9th—12th.—*Dalnaspidal* (XVI). S daily.

10th.—*Findern* (VII). Heavy R, about .30 in. in 15 minutes.

10th and 11th.—*Colmonell, Clachanton* (XIV). H showers.

11th.—*Sudbury, Friars Street* (IV). Heavy H.—*Knaresborough, Farnham* (IX). T, L, R, H, S and high wind.

12th.—*Douglas, Victoria Road* (XI). N.W. gale with tremendous squalls and R, H and S. The spire of *Lydney Church*, Gloucestershire, was being repaired, the top of the spire and the scaffolding were blown down, and fell through the roof of the south aisle.

* See also *Met. Mag.*, May 1896, p. 64.

- 12th and 13th.—*Abergwesyn* (XI). S and H.
 14th.—*Edinburgh, Blacket Place* (XIII). Faint mock suns.
 22nd.—*Ashburton, Druid* (V). Ice on pools.
 28th.—*Taristock, Rose Villa* (V). Lunar rainbow.
 28th—30th.—*Dalnaspidal* (XVI). S daily.
 29th.—*Bearstead, Malling Cottage* (II). TS.—*Hemingby* (VII). T.
 —*Knaresborough, Farnham* (IX). T, L and H.—*Thixendale* (IX). Heavy H storm and T.—*Edinburgh, Blacket Place* (XIII). Slight TS with H.
 —*Helensburgh, Water Works* (XV). Hills covered with S.—*Cahir, Duneske* (XX). Potatoes damaged by frost.
 29th—May 19th.—*Chiddingfold* (II). Absolute drought for 21 days.
 30th.—*Abinger Hall* (II). L.—*Hythe* (II). T and L.—*Birchington, Thor* (II). TS.—*Pitsford, Sedgbrook* (III). T.—*Sudbury, Friars Street* (IV). T and L.—*Alderbury* (V). Heavy H storm.—*Bishops Cannings* (V) T and L.—*Mildenhall Rect.* (V). T and L; frost at night.—*Great Barrington* (VI). TS.—*Seathwaite Vicarage* (VIII). L.—*Miltown Malbay* (XX). Sharp frost, damaging potato haulms.
 30th—May 18th.—*Wakefield, Stanley Grange* (IX). Absolute drought.

MAY.

- 1st.—*Eastbourne, Osborne House* (II). L.—*Hawkedon Rectory* (IV). Absolute drought for 17 days commenced.
 1st—17th.—*Knaresborough, Farnham* (IX). Absolute drought.
 11th.—*Edinburgh, Blacket Place* (XIII). Max temp. 78°·1; the highest on record so early in the season for at least 72 years.
 12th.—*Easton-on-the-Hill* (III). T and L.
 13th.—*Clifton, Pembroke Road* (VI). TS.—*Dowlais, Gwernllwyn* (XI). L and T.
 15th.—*Hedsor* (III). Sultry and thundery, but no R.
 17th.—*Oxford, St. Giles'* (III). Absolute drought for 18 days ended.—*Hawkshead, Esthwaite Lodge* (VIII). Absolute drought for 17 days ended.
 19th.—*Hedsor* (III). Absolute drought for 19 days ended.—*Pyrlton Manor* (III). Absolute drought for 32 days ended.—*Oxford, Elsfield* (III). Absolute drought for 20 days ended.—*Handsworth* (VI). Absolute drought for 21 days ended.
 20th.—*Farnham, Seale* (II). T, and ·21 in. of R in 30 minutes.—

Hedsor (III). Strong N.W. winds, a gale in squalls. Distant T, but very little R.—*Ulpha Vicarage* (X). TS.—*New Galloway, Glenlee* (XII). Heavy H, T and L.

21st.—*Eastbourne, Osborne House* (II). T and H.—*Cheltenham* (VI). Sharp frost.—*Wakefield, Stanley Grange* (IX). Partial drought for 34 days ended ; R .24 in.

JUNE.

1st.—*Cork, Wellesley Terrace*. (XX). Partial drought for 53 days, with .48 in. of R ended.

2nd.—*Hedsor* (III). Partial drought for 49 days, with .40 in. of R, ended.—*Easton-on-the-Hill* (III). T and L. Heavy TS in Northamptonshire, the main street of *Wansford* flooded, a horse killed and other damage by L at *Market Deeping*.

2nd—4th.—*Cookham Vicarage* (II). T daily.

3rd.—*Farnham, Seale* (II). R .72 in., which fell in 45 minutes.—*Horsell, Lindisaye* (II). TS.—*St. Albans, The Grange* (III). Partial drought for 48 days ended ; R .38 in.—*Oxford, St. Giles'* (III). Partial drought for 48 days, with .24 in. of R, ended.—*Oxford, Elsfeld* (III). Partial drought for 47 days, with .33 in. of R, ended.

3rd and 4th.—*Tuam, Gardenfield* (XXII). T and L.

4th—*Hythe* (II). TS.—*Bearstead, Malling Cottage* (II). Severe TS.—*Lewes, Bedford Lodge* (II). TS.—*St. Albans, The Grange* (III). TS about 10 p.m.—*Hedsor* (III). Severe TSS in evening, and heavy R.—*Sudbury, Friars Street* (IV). Severe TS.—*Gonalston Rectory* (VII). T and heavy R, .92 in. falling in about 1 hour 30 minutes.—*Worksop, Hodsock Priory* (VII). During a TS, 1.85 in. of R fell in about 1 hour 50 minutes, partly H ; the total for the day (2.07 in.) is the largest ever measured here in one day.—*Chelford, Astle Hall* (VIII). Heavy TS.—*Harewood Lodge* (IX). TSS.—*Wakefield, Stanley Grange* (IX). Very severe TS between 1.26 p.m. and 1.50 p.m., .61 in. of R fell.—*Barbon Manor* (X). Between 2.45 p.m. and 3.45 p.m., 2.10 in. of R fell.

Lincoln was visited on the 4th by a very severe TS, from 5.30 to 6 p.m. an inch of rain was recorded. In the middle of the city, where the rainfall was heaviest, in five minutes from the beginning the streets were converted into rushing torrents, the water varying from 1 ft. to 1 ft. 6 in. in depth. At the Stonebow, which spans

the High Street in the very centre of the city, the water was level with the naves of the wheels of the passing vehicles. The streets running north and south are steep, and as the grates and sewers were quite incapable of dealing with the tropical downpour, the water rushed along a foot deep the whole width of the streets. As two of these streets approach the river Witham they become narrow courts, and in these the water was very deep. It fell over the stone walls of the river like a waterfall, and 80 yards of the solid masonry were either washed into the river by the flood, or struck away by the lightning; part of a gas main also was carried away. In many cases there were streams flowing right through houses and shops, and numberless cellars were flooded. Much of the flooding was caused by the welling up of the water from the sewers. In the course of the storm there were hailstones as large as hazel nuts. The storm clouds seemed to be hemmed in between the hills to the north and south of Lincoln, and after the great downpour there was a constant succession of heavy showers, the wind frequently shifting.

4th—7th.—*Thixendale* (IX). TSS daily.

4th—8th.—*Knaresborough, Farnham* (IX). T and L daily.

5th.—*Oxford, Magdalen Coll.* (III). TS.—*Ross, The Graig* (VI). TS, with .14 in. of R in 20 minutes.

6th.—*Kensington, Edith Road* (I). TS with very heavy H at 8.30 a.m. In 7 minutes 30 seconds, .27 in. of R fell.—*Finchley, Etchingham Park* (I). L and T.—*Birchington, Thor* (II). T and L — *Duddington [Stamford]* (III). TS at 10.25 a.m., and .20 in. of R in 23 minutes.—*Little Saxham* (IV). TS; .20 in. of R fell in about 20 minutes.—*Chelford, Astle Hall* (VIII). TSS most of the day, one very heavy at 2.30 p.m., with H three times the size of a pea.—*Harewood Lodge* (IX). TS.—*Abergwesyn Vicarage* (XI). Distant T.—*New Galloway, Glenlee* (XII). T and L.—*Colmonell, Clachanton* (XIV). T and L.

6th and 7th.—*Easton-on-the-Hill* (III). T, L and R, and H on 6th.

6th—8th.—*Tuam, Gardenfield* (XXII). T and L.

7th.—*Barnstaple Athenæum* (V). Between 4 p.m. and 4.45 p.m., .52 in. of R fell.—*Llanfrechfa Grange* (XI). Very heavy T and vivid L.

7th and 8th.—*Llandoverly* (XI). T and H.

8th.—*West Bromwich* (VI). In 10 minutes, .22 in. of R fell.—*Southport, Hesketh Park* (VIII). Three houses within the Borough were struck by L.—*Wakefield, Stanley Grange* (IX). Ash tree, about

60 yards from R gauge, shattered by L.—*Leeds, Elmete Hall* (IX). Heavy TS, with 1·36 in. of R, between 0.55 p.m. and 1.45 p.m.—*Selkirk, The Hangingshaw* (XIII). During a TS, 1·76 in. of R fell in 2 hours.—*Craigend Castle* (XV). Severe TS; ·65 in. of R fell in 15 minutes.—*Stronvar* (XVI). T.—*Broadford, Hurdlestown* (XX). T and L.

9th.*—*Rendlesham Hall* (IV). T.—*Warminster, Rye Hill* (V). About noon, ·25 in. of R fell in 10 minutes.—*Ross, The Graig* (VI). T and heavy R.—*Handsworth* (VI). T and heavy R.—*Bedworth Cemetery* (VI). TSS from 3.30 p.m. to 7.20 p.m., and 1·56 in. of R.—*Dowlais, Gwerllwyn* (XI). L and T.—*Llandefaelog-fach* (XI). R 2·30 in., falling in about 5 hours between 6 p.m. and 11 p.m. The fall has been exceeded on only two occasions.

9th and 10th.—*Bethersden, Oakhurst* (II). In 18 hours, 2·06 in. of R fell.

10th.—*Hythe* (II). Continuous R from 3 a.m. to 9 p.m.; 2·51 in. falling in the 18 hours.—*Dover College* (II). R began about 0.30 a.m. and continued till 11 p.m.; total fall 2·23 in.—*Sevenoaks, River Hill* (II). Very wet; ·50 in. registered at 9 a.m., and 1·90 in. at 9 a.m. on 11th.—*Chichester, Eartham House* (II). TS, with 1·30 in. of R.—*Chichester, Little London* (II). Great TS; 2·71 in. of R falling between 5 a.m. and 10 a.m.—*Alton, Ashdell* (II). R 2·34 in.; 1·37 in. falling in 1½ hours during a heavy TS.—*Heckfield, Park Corner* (II). R 1·92 in., the heaviest fall since 1890.—*Hedsor* (III). Heavy R and T all the afternoon.—*Upminster Hall* (IV). In 45 minutes, 1·38 in. of R fell during a heavy TS. An oak, 70 yards from the gauge, was struck by L.—*Cantley* (IV). Severe TS. Nearly 1·50 in. of R fell in 14 hours.—*West Bromwich* (VI). In 5 minutes, ·14 in. of R fell.

Chichester.—Tremendous rainfall. On the evening of the 10th one of the heaviest falls of rain ever experienced in this city deluged the streets, and converted many of them into miniature rivers and lakes. Rain had fallen freely in the early morning, and as evening approached a TS broke over the city. It seemed as if Chichester was the centre of the electrical disturbance, for, the storm, or perhaps a succession of storms, hung round the place for hours. Rain fell in tremendous quantities. Among other places the subway at the railway station became impassable; the Hornet, always a source of trouble in heavy rain, could be passed only by wading ankle deep,

* Whirlwind at Bridgwater—See *Met. Mag.*, September 1896, p. 117.

near Messrs. Newman's shop ; lower down, near the Four Chestnuts, there was another big flood, and Whyke and Bognor roads, near the Roundabout, were also partially submerged. A severe strain was put upon the sewers from the quantity of water finding its way into them from roofs and backyards, and in one or two instances the coverings of the manholes were lifted off. The rain ceased about 9 p.m. In various parts of the city the measurements of rain were different. Mr. States reports that the gauge in the Museum garden, South-street, registered 2·90 in., or very nearly 300 tons of water per acre ; while other gauges gave 2·71, and smaller quantities, down to 2·30 in. Luckily the sewers stood the strain well ; the water disappeared surprisingly fast after the rain ceased. During the storm a poor woman, named Mrs. Hards, had a narrow escape at Shopwhyke. While attending to some poultry, in a cart-shed, she was thrown back on a hen-coop, had her hair scorched by the electric current, and her right hand slightly hurt. One of the fowls was blinded.

14th.—*Cork, Wellesley Terrace (XX)*. Max. temp. 82° ; the highest recorded since July 16th, 1876.

15th.—*Maidenhead, Castle Hill House (II)*. Rather severe TS.—*Hedsor (III)*. TS, but no R.—*Easton-on-the-Hill (III)*. T and L.—*Duddington [Stamford] (III)*. Severe TS at 4.30 p.m., and ·64 in. of R in 20 minutes ; 3 beasts killed by L.—*Blandford, Whatcombe (V)*. T. *Altarnon (V)*. T, L and ·50 in. of R in about 10 minutes.—*Stowell Rectory (V)*. TS.—*Southport, Hesketh Park (VIII)*. Max. temp. 84°·6 ; the highest in June since 1878.

16th.—*Ludlow, Ashford (VI)*. In 13 minutes, ·15 in. of R fell.—*Nottingham, Beeston Fields (VII)*. Two TSS, during which ·44 in. and 1·46 in. of R fell respectively.

17th.—*Thixendale (IX)*. TS.

20th.—*Chelford, Astle Hill (VIII)*. TS.—*Thixendale (IX)*. TS.

22nd.—*Spilsby, Hagnaby Priory (VII)*. TS.

24th.—*Capel, The Cottage (II)*. TS, with 1·95 in. of R in 1 hour 20 minutes.—*Sevenoaks, River Hill (II)*. TS from noon to 4 p.m., with ·87 in. of R ; and another TS about midnight, with 1·13 in. ; making 2·00 in. in about 18 hours.—*Birchington, Thor (II)*. T and L.—*Easton-on-the-Hill (III)*. T and L.—*Rendlesham Hall (IV)*. T.—*Chelford, Astle Hall (VIII)*. TS.

24th and 25th.—*Bearstead, Malling Cottage (II)*. Severe TS ; 1·30 in. of R falling between 4 a.m. and 9 a.m. on 25th.—*Sevenoaks,*

River Hill (II). A TS commenced about 0.30 p.m. on 24th, lasting until about 4 p.m., and yielding .87 in. of R; another occurred about daylight on 25th, the R ceasing by 7.30 a.m., and at 9 a.m. an additional 1.13 in. was measured.

25th.—*Farnham, Scale* (II). R .53 in., which fell in 30 minutes. Small whirlwind near the landing stage at Liverpool, about noon, one hansom cab blown over, and another damaged, and several baskets blown into the dock.

JULY.

4th—18th.—*Chiddingfold* (II). Absolute drought for 15 days.

7th.—*St. Albans, The Grange* (III). TS.—*Oxford, Magdalen College* (III). Terrific TS from 6 to 6.30 p.m. The Ashmolean Museum struck and fired by L.—*Oxford, St. Giles'* (III). Very severe T and L, and .91 in. of R, of which at least .88 in. fell between 5.50 and 6.50 p.m. Objects within 100 yards on each side struck by L.—*Steeple Aston* (III). TS.—*Northampton, Sedgebrook* (III). TS.—*Easton-on-the-Hill* (III). T, L, H and R.—*Swaffham* (IV). TS.—*Wilts County Asylum* (V). In 30 minutes, .80 in. of R fell.—*Bishops Cannings* (V). TS and .93 in. of R, but the ground seemed scarcely moistened.—*Stowell Rectory* (V). TS.—*Further Barton* (VI). Short TS at 5 p.m. Very heavy about 4 miles S.E.—*Rotherby Hall* (VII). Violent TS from 5.30 p.m. to 8.30 p.m., with 1.56 in. of R. An elm tree on the lawn was struck by L.—*Gonalston Rectory* (VII). T and heavy R, 2.30 in.—*Findern* (VII). TSS.—*Derby, Duffield Road* (VII). TS.—*Guisborough, Hutton Hall* (IX). In one hour and a quarter, 3.07 in. of R fell during a TS.

8th.—*Cantley* (IV). TS.—*Dunchurch Hall* (VI). Violent TS.—*Spilsby, Hagnaby Priory* (VII). TS.—*Hurdlestown* (XX). T and L.—*Miltown Malbay* (XX). L and heavy R.—*Currygrane* (XXI). R 2.43 in.; the greatest fall since observations commenced in 1879.

7th—8th.—Serious flooding occurred through thunderstorm rains, notably at *Faringdon, Leicester, Grantham, Rhyl, Cork* and *Dublin*. Great loss of life and property by L.

9th.—*Chelford, Astle Hall* (VIII). TS and heavy R.—*Southport, Hesketh Park* (VIII). Two TSS, with 1.80 in. of R.—*Harewood Lodge* (IX). T and L.—*Knaresborough, Farnham* (IX). T and L.—*Melmerby, Baldersby* (IX). T and L at 7 p.m.—*East Layton Hall* (IX). Sharp TS; a haystack struck, and some poultry sheltering by it

killed.—*St. Bride's Bay* (XI). Between 9 and 10 a.m., .45 in. of R fell.—*Cork, Wellesley Terrace* (XX). T and L.

11th.—Owing to drought about 800 tin plate workers thrown out of work in *South Wales*.

14th and 15th.—*Birchington, Thor* (II). T and L.

15th.—*Hythe* (II). TS.—*Hailsham* (II). R .97 in., all falling between 4 and 5 p.m.; and probably .90 in. in the first half hour.—*Cantley* (IV). TS.

16th.—*Hedsor* (III). Very cold N.E. winds; a drop of 30° in max. shade temp. as compared with 14th, from 86° to 56°.

18th.—*Ross, The Graig* (VI). River Wye the lowest since 1887.

21st.—*Harewood Lodge* (IX). Rainbow at 8.25 p.m.

24th.—*Derry Castle [Killaloe]* (XX). R 3.26 in. The heaviest in 24 hours ever recorded here.—*Balbriggan, Laragh* (XXI). Severe T and L and very heavy R, 2.15 in.—*Athlone, Twyford* (XXI). R 2.66 in.; with one exception, the greatest fall in 20 years. Serious flooding in *Belfast*.

24th—25th.—*Athlone* (XXI). Very heavy R, 3.60 in.—*Antrim, The Manse* (XXIII). R fell continuously for about 15 hours, beginning at night on the 24th, total 1.86 in.

25th.—*Hedsor* (III). Partial drought for 30 days, with .27 in. of R, ended.—*Grasmere, Pavement End* (X). Between noon and 1 p.m., .50 in. of R fell.—*Killiney, Cloneevin* (XXI). Between 2.45 p.m. and 4 p.m., 1.90 in. of R fell, accompanied by T and L.

26th.—*Haslemere* (II). In 45 minutes, 1.12 in. of R fell.—*Haslemere, Hazelhurst* (II). In half an hour, 1.16 in. of R fell.—*Maidenhead, Castle Hill House* (II). TS and .81 in. of R in two hours.—*Hedsor* (III). T and heavy R.—*Easton-on-the-Hill* (III). T and L.—*Duddington* (III). T and heavy R; .09 in. fell in 10 minutes, and .17 in. in 15 minutes.—*Cantley* (IV). TS.—*Swaffham* (IV). TS.—*Thixendale* (IX). TS, with .33 in. of R in 20 minutes.

27th.—*Emsworth, Redlands* (II). T and L.—*Derby, Duffield Road* (VII). TS.

30th.—*Stretham Ferry* (III). In 2 hrs. 30 min., 2.15 in. of R fell without T.—*Cork, Wellesley Terrace* (XX). In 10 minutes, .20 in. of R fell.

31st.—*Ystalyfera, Wern School* (XI). Waterspout on Black Mountain range.

AUGUST.

1st.—*Mere Down* (V). Terrific T and L, and 1·92 in. of R.—*Warminster, Rye Hill* (V). Between 4.15 p.m. and 6.45 p.m., 1·75 in. of R fell.—*Bishops Cannings* (V). TS and 1·15 in. of R.—*Huntsman Court* (V). In an hour, 1·82 in. of R fell.—*Chelford, Astle Hill* (VIII). Slight TS.—*Dowlais, Gwernllwyn* (XI). L and T.—*Ystalyfera, Wern School* (XI). Terrific TS, with heavy R on the mountains. Two boys were bathing in the Tawe when the flood came down, two or three feet high, and both were swept away.—*Llandovery* (XI). T, L, large H and heavy R.—*Abergwesyn* (XI). TS.

2nd.—*Warminster, Rye Hill* (V). Between 5.15 p.m. and 5.45 p.m., ·64 in. of R fell.—*Ashburton, Druid* (V). TS.—*Tavistock, Rose Villa* (V). TS and ·69 in. of R in 31 minutes.—*Liskeard, Beech Lawn* (V). TS and ·40 in. of R between 2 p.m. and 2.30 p.m.

8th.—*East Tisted Rectory* (II). At Rotherfield Park, one-third of a mile from here, 3·03 in. of R fell between 1.10 p.m. and 3.50 p.m. On examining the gauge here after the drenching R had abated, the receiver, which holds 2·50 in., was overflowing, and ·40 in. more fell in the next half-hour. Violent T accompanied the R.—*Ashburton, Druid* (V). TS.—*Tavistock, Rose Villa* (V). TSS.—*Weston-super-Mare, Beaufort Road* (V). Heavy TS.—*Clifton, Pembroke Road* (VI). TS.—*Bolton, The Park* (VIII). TS.—*Guernsey, Villa Carey* (XI). A water-spout passed over the Island nearly from S. to N. ·71 in. of R fell here.

9th.—*Portsdown Road* (I). T and L.

10th.—Heavy TS in *Folkestone* in the early morning, and considerable flooding by heavy R.

13th.—*Edinburgh, Blacket Place* (XIII). R and H; ·14 in. fell in 11 minutes.

14th.—*Edinburgh, Blacket Place* (XIII). TS with heavy R.

16th.—*Birchington, Thor* (II). Sharp TS.

19th.—*Bearstead, Malling Cottage* (II). Severe TS. TS heavy R and flooding at *Llanelly* in the early morning.

20th.—*Barry, Biglis* (XI). In one hour, about noon, ·93 in. of R fell.

21st.—Violent TS at *Wimborne*, R so heavy that boats were used in the streets.

25th.—*Crossness* (II). TS and heavy R.—*Oxford, Magdalen College* (III). Heavy H.—*Rendlesham Hall* (IV). T and L.—*Ross, The Graig*

(VI). Sudden rise of 3 ft. in the river Wye.—*Dowlais, Gwernllwyn* (XI). T and H.—*St. Bride's Bay, Pen-y-cwm* (XI). H, T and L.

26th.—*Oxford, Magdalen College* (III). TS.—*Rendlesham Hall* (IV). T, H and R.—*Cantley* (IV). TS.—*Chelford, Astle Hall* (VIII). TS at 5.15 p.m.—*Thixendale* (IX). T.—*Dowlais, Gwernllwyn* (XI). L and T.—*Llandovery* (XI). T and H.

26th and 27th.—*Tavistock, Rose Villa* (V). L.—*Cheltenham* (VI). TSS.

28th.—*Cirencester, Further Barton* (VI). Water in a well 100 ft. deep reduced to 3 ft. 3 in.

28th and 29th.—*Douglas, Victoria Road* (XI). Exceptionally severe S.W. gales.

29th.—*Miltown Malbay* (XX). Stiff westerly gale.

31st.—*Birchington, Thor* (II). Sharp TS; hop loft at Woodchurch farm struck by L.—*Emsworth, Redlands* (II). T, L and heavy R 6.40 a.m. to 8.10 a.m.—*Carlton* (III). Very severe TS, 1.78 in. of R falling in 55 minutes.—*Carlton Hall* (III). Severe TS from 2 p.m. to 3 p.m., 1.25 in. of R falling in that time.—*Knaresborough, Farnham* (IX). T and L. *St. Asaph*, great R and floods, the Holywell Road, near Clwyd bridge, was under 6 ft. of water. Flooding also at *Colwyn Bay* and *Denbigh*.

31st and Sept. 1st.—*Earls Colne* (IV). R 2.52 in.; the greatest fall in 48 hours during the 19 years over which the record extends.

SEPTEMBER.

1st.—*Haslemere, Hazelhurst* (II). TS apparently near; a shower at 2.30 p.m., then fine. R again at 4.30 p.m., and 1.03 in. had fallen by 6 p.m., by 8 a.m. on 2nd 2.06 in., and by 10 a.m. 2.21 in.—*Dorking, Fir Tor* (II). In 20 hours, 2.75 in. of R fell.—*Reigate, Doods* (II). In 24 hours, 2.27 in. of R fell; the greatest fall recorded in 15 years.—*Reigate, Nutwood* (II). R 2.33 in.; chiefly between 4.30 p.m. and 5.20 p.m.—*Wallington* (II). TS and 1.75 in. of R.—*Danny Park* (II). In two hours, 1.13 in. of R fell.—*Manningtree Vicarage* (IV). Between 3 a.m. and 3.30 p.m., 2.22 in. of R fell.—*Orwell Park* (IV). R 2.27 in. The greatest fall in one day in the 22 years recorded; 1.98 in. fell between 11.30 a.m. and 3 p.m.—*Rendlesham Hall* (IV). T and L. Much flooding in *Ipswich*, sewers overcharged and the water rushed up through the manholes—*Bishop's Hill*, R 9 a.m. to 3.30

p.m. = 1·53 in. ; *Clare Lodge*, up to 9 a.m. ·26 in. ; 9 a.m. to 3 p.m., 2·35 in.

3rd.—*St. Albans, The Grange* (III). TS at night.—*St. Bride's Bay, Pen-y-cwm* (XI). T and L.—*Cork, Wellesley Terrace* (XX). T and L.

3rd and 4th. *Hurdlestown* (XX). T and L.

4th.—*Hedsor* (III.) Very heavy R ; total 1·21 in.—*Wakefield, Stanley Grange* (IX). Steady R from 3 p.m. to 8 a.m. on 5th, 1·09 in.—*Killarney* (XX). TS and ·65 in. of R in about 40 minutes.—*Woodpark* (XXII). Heavy TS.

5th.—*Maidenhead, Castle Hill House* (II). TS.

6th and 7th.—*Dowlais, Gwernllwyn* (XI). L.

7th.—*Portsmouth Road* (I). L and T.—*Crossness* (II). Heavy TS with little R.

8th.—*Abinger Hall* (II). Severe TS.—*Hythe* (II). TS.—*Birchington, Thor* (II). T and L.—*Lewes, Bedford Lodge* (II). TS.—*Emsworth, Redlands* (II). Short and sharp TS.—*Oxford, Magdalen College* (III). Severe TS.—*Oxford, St. Giles'* (III). TS.—*Pitsford, Sedgebrook* (III). TS.—*Easton-on-the-Hill* (III). T and L.—*Odsey* (III). TS.—*Poole, Parkstone* (V). Exceptionally grand TS, with 2·12 in. of R ; most of which fell between 9.30 and 11.30 p.m.—*Further Barton* (VI). TS.—*Great Barrington* (VI). Heavy TS at night.—*Cheltenham* (VI). TS at night.—*Ross, The Graig* (VI). L and T.—*Ludlow, Ashford* (VI). TS at night.—*Handsworth* (VI). Severe TS at night, with ·40 in. of R between 1 a.m. and 2 a.m.—*St. Bride's Bay, Pen-y-cwm* (XI). TS.

8th and 9th.—*Bearstead, Malling Cottage* (II). Severe TSS, 10 p.m. to 2 a.m.

9th.—*Maidenhead, Castle Hill House* (II). In 15 minutes, ·30 in. of R fell ; TS at midnight.—*Cantley* (IV). TS.—*Blandford, Whatcombe* (V). TS.—*Ludlow, Ashford* (VI). TS.—*Chelford, Astle Hall* (VIII). TS.—*Knaresborough, Farnham* (IX). T and L.—*Abergwesyn Vicarage* (XI). TS and ·93 in. of R in 28 minutes.—*Douglas, Victoria Road* (XI). TSS.

10th.—*Hythe* (II). TS.—*Crossness* (II). Heavy TS with 1·05 in. of R between 10 a.m. and 1.30 p.m.—*Odsey* (III). TS.—*Sudbury, Friars Street* (IV). In 30 minutes, ·44 in. of R fell.—*Norwich, Brundall* (IV). In 10 minutes, ·22 in. of R fell.—*Cahir, Duneske* (XX). L.

Whirlwind in *Manchester*. Shortly after 11 p.m., on the 10th, a portion of *Oldham Road*, in this city, was struck by what is described

as a whirlwind. The wind had been blowing rather briskly during the evening, but there was nothing to indicate the remarkable phenomenon about to be witnessed. Persons living in the block of houses which front Oldham Road, and is bounded on two other sides by Hampson Street and Back Hampson Street, were suddenly alarmed by a loud crash, as if some stupendous blow had been delivered at the whole of the dwellings. In a second or two roofs were ripped off, chimney pots crashed down in all directions, and slates and *débris* were carried right across Oldham Road, smashing windows in houses on the opposite side. Several pedestrians were lifted off their feet and blown down, and one lady was carried from the footpath right on to the tram lines. A large crowd quickly collected, and it was then seen that much damage had been done, although, fortunately, no person sustained any injury. Police-constable Leggett was informed by Robert Berry, who occupies the house, 8, Hampson Street, that he and his wife and family were asleep, when they were awakened by the noise of the roof over the front bedroom being torn off. They escaped hurriedly by means of a window. The roof of a stable also in the same street had been blown off, and the dwelling-houses 385, 387 and 389, Oldham Road, were damaged by the falling chimney pots. The inner portion of the entire premises, indeed, has a wrecked appearance, but Mr. Berry's house has suffered most severely. The wonder is that none of the sleeping occupants was hurt. The peculiarity of the affair is that the whirlwind does not seem to have struck any other part of the district. Its effects are said to have been felt in Cheetham, but, as far as can be ascertained, the block off Oldham Road is the only property which has actually suffered.

10th and 11th.—*Easton-on-the-Hill* (III). T and L.

11th.—*Waresley Park* (III). In 2 hours, 1·75 in. of R fell.—*Wellington, The Avenue* (V). Tremendous downpour of R at 3.30 p.m.; in about 15 minutes, ·43 in of R fell.—*Long Ashton* (V). Heavy TS.

12th.—*Odsey* (III). TSS and 1·76 in. of R.—*Rendlesham Hall* (IV). T and L.—*Alcester, Ragley Gardens* (VI). In 45 minutes during a TS, ·50 in. of R fell.—*Chelford, Astle Hall* (VIII). Violent TS, lasting an hour.—*Welshpool, Pool Quay* (XI). Between 0.15 p.m. and 2 p.m. 1·00 in. of R fell.

12th and 13th.—*Swaffham* (IV). TSS.

13th.—*Cantley* (IV). TS.—*Findern* (VII). TSS.—*Chelford, Astle*

Hall (VIII). Slight TS.—*Thixendale* (IX). TS.—*Knighton* (XI). Between 2.20 p.m. and 2.50 p.m., .38 in. of R fell.

14th.—*Galway, Queen's College* (XXII). T and L.

16th.—*Wallington* (II). TS.—*Harewood Lodge* (IX). TS.

17th.—*Thixendale* (IX). S.W. gale.

18th.—*Ulpha Vicarage* (X). T, L and H.

20th.—*Birchington, Thor* (II). T and L.—*Antrim, The Manse* (XXIII). In 12 minutes, .11 in. of R fell.

24th.—*St. Bride's Bay, Pen-y-cwm* (XI). Very heavy N.N.W. gale, *Cork, Wellesley Terrace* (XX). Great gale from N.W.—*Hurdlestown* (XX). N.W. gale.—*Miltown Malbay* (XX). N.W. to N. gale.—*Woodpark* (XXII). Furious gale from N. The most violent storm for years.

24th and 25th.—*Bloxworth Rectory* (V). Destructive S.W. to N.W. gale.—*Ivybridge, Langham Hill* (V). Very severe gale.

25th.—*Kensington, Edith Road* (I). Strong gale in afternoon, S. to N.W.—*Keston Tower* (II). Heavy N.W. gale.—*Ryde* (II). Great W.S.W. gale. Fishing boats sunk off Ryde Pier, and many broken up.—*Hedsor* (III). Strong N.W. gale.—*Wellington* (V). Violent and destructive gale.—*Stowell Rectory* (V). Strong gale; several trees uprooted.—*Ross, The Graig* (VI). Tremendous gale.—*Llanfrechfa Grange* (XI). Violent N.W. gale; trees blown down.

26th.—*Galway, Queen's College* (XXII). Violent gale at night.

27th.—*Nottingham, Beeston Fields* (VII). Sharp shower at 2.15 p.m., with a hurricane of wind; .26 in. of R fell in 15 minutes.

OCTOBER.

4th.—*Thixendale* (IX). L at 10 p.m.—*Miltown Malbay* (XX). Gale from N.W. with H.

4th—6th.—*New Galloway, Glenlee* (XII). L.

4th—9th.—*Abbots Leigh* (V). Gales, and heavy floods on 7th.

5th.—*Wallington* (II). TS with H.—*Croydon, Duppas House* (II). H, R and T.—*Emsworth, Redlands* (II). T and L.—*Easton-on-the-Hill* (III). T, L, H and R.—*Batheaston* (V). Heavy H storm with T at noon.—*Bolton, The Park* (VIII). T and L.—*Ulpha Vicarage* (X). L and H.—*Llanfrechfa Grange* (XI). Heavy H storm.—*Ballinluig* (XVI). S on hills.

5th—7th.—*Douglas, Victoria Road* (XI). Terrific gale, N.W., W., W.S.W., and finally S. Channel service suspended both ways.

6th.—*Haslemere, Hazelhurst* (II). Gale with 1·23 in. of R.

6th and 7th.—*Helensburgh, Water Works* (XV). Hills covered with S.

7th.—*Kensington, Edith Road* (I). Strong S.W. gale at night.—*Long Ashton* (V). Considerable flooding of low-lying lands and houses, caused by 3·12 in. of R in 4 days, and high tides.—*Cargen [Dumfries]* (XII). R 1·76 in.; causing a heavy flood on the Nith.—*Drumnadrochit* (XVIII). S on the hills as low as 1,000 ft.—*Bullindoney* (XXI). Torrents of R, 1·75 in. falling; between 6 p.m. and 9 p.m. the R was terrific, accompanied by a tremendous gale from S.S.W. The Barrow overflowed its banks and flooded New Ross and the adjoining lands. The worst flood for 28 years.

7th and 8th.—*Cork, Wellesley Terrace* (XX). The most disastrous storm for many years. On the 7th, 1·33 in. of R fell, and strong S.W. winds with high tides heaped up the sea on the shores, causing tidal floods in the streets.—*Galway, Queen's College* (XXII). Wind force 8, with heavy squalls and high tide, much damage done on the coast.

8th.—*Southport, Hesketh Park* (VIII).—Strong S.W. gale, in conjunction with a low bar., occasioning a high and rather destructive tide.—*Ulpha Vicarage* (X). L.—*Dowlais, Gvernllwyn* (XI). L and H.—*Talarvor* (XI). Remarkably high tide with low bar. S.W. wind, heavy R and floods in the Dwyfawr and Dwyfach rivers. The Esplanade at Criccieth was much damaged.—*Glenlair House* (XII). Phenomenal R, 3·04 in. Very serious damage both by wind and water occurred along the whole of the Welsh coast.

10th.—*Coventry, Coundon* (VI). S.—*Withington, Lady Barn House* (VIII). Severe TS, with H of unusual size.—*Bolton, The Park* (VIII). T and L.—*Wakefield, Stanley Grange* (IX). Violent TS at 5 p.m.; R 7·2 in.—*Pawston [Coldstream]* (X). After a heavy gale on 8th and 9th, it rained heavily all day on 10th, turning to S during the night; the total fall being 2·12 in.; with one exception, the heaviest fall ever recorded here.—*Cockermouth, Higham* (X). Five inches of S at night, breaking many trees.—*Rhiwbryfdir* (XI). Heavy fall of S.—*Edinburgh, Blacket Place* (XIII). S at night.—*Drumnadrochit* (XVIII). Slight S on low ground.—*Portlaw* (XX). S for 3 hours, remarkably early for the S. of Ireland.—*Ballingarry, Hazelfort* (XX). About two inches of S.—*Broadford, Hurdlestown* (XX). S at night, and the hills white on 11th.—*Woodlawn* (XXII). About an inch of S.—*Lawderdale* (XXII).—S and strong wind from N.

10th and 11th.—*Waterford, Cove Lodge* (XX). The only S during the year.

11th.—*Ashburton, Druid* (V). L. S on Dartmoor.—*Penzance, St. Clare* (V). T and H.—*Chelford, Astle Hall* (VIII). Snowed hard all morning.—*Bolton, The Park* (VIII). S nearly three inches deep.—*Southport, Hesketh Park* (VIII). Over 3 hours heavy S; the earliest date in the 26 years' record.—*Sowerby Bridge, Haugh End* (IX). S all day.—*Thixendale* (IX). S.—*New Galloway, Glenlee* (XII). Hills covered with S.—*Ballinluig* (XVI). S on hills.—*Cork, Wellesley Terrace* (XX). First S.—*Nenagh, Clashnevin* (XX). Ground covered with S, the earliest remembered.—*Athlone, Twyford* (XXI). Heavy fall of S.—*Mullingar, Belvedere* (XXI). S.—*Woodpark* (XXII). The only S of the year.—*Ballymote, New Park* (XXII). Heavy fall of S; the earliest remembered.—*Castle Coote* (XXII). Three inches of S.—*Markree Observatory* (XXII). S.—*Belfast, Springfield* (XXIII). First S.

12th.—*Glendalough* (XXI). S.

13th.—*Birchington, Thor* (II). T, L and heavy R.—*Easton-on-the-Hill* (III). T and L.

14th.—*Little Saxham* (IV). TS.—*Cantley* (IV). TS.—Violent TS, with H and R, at *Bungay, Diss*, and *Bury St. Edmunds*, about 3 a.m. Several buildings struck by L, and much glass broken by the H.

17th.—*Hedsor* (III). L at night.—*Rotherby Hall* (VII). The river Wreake rose 5 ft. 2 in., causing a considerable flood.—*Dunmanway, Coolkelure* (XX). S showers.

18th.—*Beverley Asylum* (IX). S.—*Ulpha Vicarage* (X). S on hills.—*Douglas, Victoria Road* (XI). Violent S.W. gale.—*Cork, Wellesley Terrace* (XX). S.

19th.—*Hailsham* (II). R 1·37 in., all falling in about six hours.—*Chelford, Astle Hall* (VIII). S at night.

23rd.—*Miltown Malbay* (XX). L and H.

23rd—25th.—*Cantley* (IV). TSS daily.

24th.—*Abinger Hall* (II). A very sharp TS occurred at noon, lasting about 20 minutes. A large chestnut tree was struck by L, which broke off a large bough and split the trunk. Portions of the limb were thrown distances of 55, 30 and 25 yards.—*Croydon, Duppas House* (II). T, H and R.—*Chelford, Astle Hall* (VIII). H storms.—*Hawkshead, Esthwaite Lodge* (VIII). Five inches of S, yielding 1·00 in. of water.—*Seathwaite Vicarage* (VIII). S at night; the heaviest fall remembered so early in the season.—*Ulpha Vicarage*

(X). About two inches of S at night.—*St. Bride's Bay, Pen-y-cwm* (XI). TS.—*Douglas, Victoria Road* (XI). H, S and L.—*Glasgow, Queen's Park* (XIV). S and sleet.—*Colmonell, Clachanton* (XIV). H showers.—*Stronvar* (XVI). S and sleet showers; S one inch deep.—*Galway, Queen's College* (XXII). L and T; wind force 8.—*Tuam, Gardenfield* (XXII). T and L.—*Markree Observatory* (XXII). S.—*Lawderdale* (XXII). S and strong wind from N.W.

24th—25th.—*Crossness* (II).—TSS.—*Helensburgh, Water Works* (XV). Hills covered with S.

25th.—*Haslemere, Hazelhurst* (II). T, S and H.—*Wallington* (II). TS with H.—*Birchington, Thor* (II). T, L and heavy H storm.—*Hailsham* (II). T, L, H and R.—*Emsworth, Redlands* (II). L.—*Itchen Stoke* (II). TS with heavy R and H at 11.15 a.m., lasting about 10 minutes, and a strong S.W. gale uprooting trees.—*Ascot, Manor Farm* (II). Severe TS.—*Broxbourne* (III). T and H.—*Pitsford, Sedgbrook* (III). S.—*Chelford, Astle Hall* (VIII). H storms.—*Keswick, Barrow House* (X). Heavy fall of S at night.—*Drumnadrochit* (XVIII). Three inches of S fell between 0.30 and 3.30 p.m.—*Broadford, Hurdlestown* (XX). N. gale with S.—*Courtown* (XXI). S.—*Athlone, Twyford* (XXI). Moderate fall of S.—*Mullingar, Belvedere* (XXI). S.

26th.—*Birchington, Thor* (II). T and L.

29th.—*New Galloway, Glenlee* (XII). T and L.

NOVEMBER.

5th—7th.—*Cheltenham* (VI). Ice over open water.

8th.—*Cheltenham* (VI). S on the hills.

15th.—*Pitsford, Sedgbrook* (III). Squally with S.

17th.—*New Galloway, Glenlee* (XII). Thick fog all day.

30th.—*Edinburgh, Blacket Place* (XIII). The densest fog since January 4th, 1881.

DECEMBER.

4th.—*Torquay, Cary Green* (V). In 10 minutes .25in. of R fell.

4th and 5th.—Severe gale in the S.E. of England; Brighton Chain Pier carried away. Sea-level pressure in London down to 28.515 in. at 1.11 a.m. on 5th.

5th.—*Kensington, Edith Road* (I). Strong S.W. gale in early morning.

5th and 6th.—*Duddington* (III). Welland in flood, water over the road between Collyweston and Ketton.

6th and 7th.—*Duddington* (III). Welland in flood.

15th.—*Duddington* (III). Welland swollen, floods out.

15th and 16th.—*Colmonell, Clachanton* (XIV). S showers.

15th—18th —*Honiton, Ivedon* (V). Slight S daily.

16th.—*Chelford, Astle Hall* (VIII). Very foggy ; 5 inches of S fell in the night.—*York, Burton Croft* (IX). S.

17th.—*Maidenhead, Castle Hill House* (II). S for about an hour.—*St. Albans, The Grange* (III). S.—*Oxford, Magdalen College* (III). Sharp shower of S.—*Southport, Hesketh Park* (VIII). A brief TS and sharp H storm.—*Edinburgh, Blacket Place* (XIII). Heavy S.—*Miltown Malbay* (XX). Very sharp frost ; ice an inch and a half thick.

17th.—Earthquake along the boundary between England and Wales at 5.32 a.m. See *Met. Mag.*, page 177.

17th and 18th.—*Brackley, East Hill* (III). About an inch of S.

17th—21st.—*Odsey* (III). S daily.

17th—22nd.—*Waltham-le-Wolds* (VII). S daily.

18th.—*Teuokesbury, Beckford* (VI). S yielding .01 in., the only fall during the year.—*Leeds, Elmete Hall* (IX). S.

18th and 19th.—*Thixendale* (IX). S.

19th.—*Ashburton, Druid* (V). Ground white with S.—*Richmond* (IX). S yielding .38 in.

19th and 20th.—*Croydon, Duppas House* (II). S.—*Cantley* (IV). S.

19th—21st.—*Harrietsham, Stede Hill* (II). S daily.—*St. Albans, The Grange* (III). S daily.

19th—23rd.—*Emneth* (IV). S and sleet yielding .21 in.

20th.—*Rendlesham Hall* (IV). S and H.

24th—31st.—*Sedbergh, Thorns Hall* (IX). R 5.78 in. in the 8 days.

26th.—*Hedsor* (III). Very warm and close ; max. temp. 60°.—*Inverary, Newtown* (XV). T and L.

27th.—*Chichester, Little London* (II). TS.—*Douglas, Victoria Road* (XI). R 1.08 in. ; mostly falling in a little over an hour about 4 a.m.

28th.—*Kensington, Edith Road* (I). Strong S. gale in early morning.

29th.—*Ross, The Graig* (VI). Unusually great range of temp., 22°-0.

30th.—*Wakefield, Stanley Grange* (IX). Mean temp. 48°·3 ; 15° above the average.

31st.—*Lochmaddy* (XVIII). Sharp TS for about 15 minutes at 6 p.m.—*Drumnadrochit* (XVIII). TS between 6 p.m. and 7 p.m.

OBSERVERS' NOTES ON THE MONTHS.

JANUARY.

I. *Kensington, Edith Road.* Exceedingly mild and dry. Temp. $3^{\circ}\cdot7$ above, and R 1·03 in. below, the average. The warmest January since 1890.—*Muswell Hill.* R 1·38 in. below, or only 37 per cent. of, the average of 24 years; falling on 8 days.—*Finchley, Etchingham Park.* Very dry; R about three-eighths of the average. With the exception of 1st, the first 9 days were dry, followed by 6 days with R, a dry week succeeded, and R fell on four out of the next five days.

II. *Haslemere, Hazelhurst.* Mild with little R. Ground in good condition and not too dry. Frost on grass on 16 nights. Much white fog and little wind. No S.—*Abinger Hall.* The finest January remembered; not much sun, but dry, fine weather.—*Wallington.* With the exception of 1890, the warmest January in 10 years; the calmest, with the exception of 1889; the driest, with the exception of 1892; and the most sunless, with the exception of 1893. Mean bar., the highest on record.—*Hythe.* Very gloomy and mild, with excessively high bar. pressure.—*Keston Tower.* Very mild, with only a small amount of R; no storms, and very little foggy weather.—*Birchington, Thor.* Very mild throughout, with several foggy days towards the end.—*Crossness.* Foggy, with no S and very little frost.—*Lewes, Saxonbury.* Dry without frost; much fog, but no high wind.—*Emsworth, Redlands.* Notable absence of sun; much fog; no excessive cold.—*Itchen Stoke.* Unusually mild, only 8 days on which temp. fell below 32° .—*Maidenhead, Castle Hill House.* Fairly dry. The first part very muggy, dull and damp; but the latter half fine, brighter and colder. Prevailing wind S.W.

III. *St. Albans, The Grange.* Very mild, dry and cloudy.—*Slough, Upton.* Warm, the temp. rising above 50° on 8 days. Damp, from absence of sunlight and wind, despite absence of R or S.—*Culham Vicarage.* Dry and dull, with very little sun and very little frost. The precipitation on several days was more fog than R.—*Bloxham Grove.* Dull and calm with local fogs, slight R and absence of severe frost. In no instance did the temp. continue below freezing point for 24 hours,

and frost occurred on only 9 days.—*Pitsford, Sedgebrook*. No S fell, the month being fine and warm. R .35 in. less than the average.

IV. *Colchester, Lexden*. Very slight variation of temp., ranging usually between 35° and 45°, rising to 50° on a few days, and falling once to about 28°. Very high bar. on 9th, 29th and 30th.—*Ipswich, Bishops Hill*. Remarkable for mildness and uniform temp., with overcast sky, little sun, and general dryness. R .80 in. less than the average.—*Denver*. Temp. generally high, especially on 2nd, 15th, 17th and 25th; very low only on 23rd.

V. *Bishops Cannings*. Slight night frosts, but generally warm; birds singing all the month. R little more than one-third of the average.—*Tavistock, Rose Villa*. Dry and rather warm, with small daily range of temp.—*Wellington, The Avenue*. Decidedly mild, with remarkably high pressure. R less than one-third of the average.

VI. *Clifton, Pembroke Road*. The driest January in 40 years. Weather mostly dull and gloomy.—*Ross, The Graig*. Remarkable for unprecedented warmth and dryness, being the driest January except 1855 since 1818. Only four days with the bar. below 30 inches at 9 a.m. Between December 29th and January 27th, the temp. rose above 50° on 13 days.

VII. *Belvoir Castle*. Mild and dull to the 17th, colder and brighter after.—*Horncastle, Bucknall*. Extraordinarily fine; temp. about 2° above the average.—*Hodsock Priory*. Very mild and dry. R little more than one-third of the average. On the 8th, the bar. reached 30.980 in., the highest ever recorded here.—*Findern*. Early part foggy; latter half very fine and springlike.—*Derby, Duffield Road*. First half dry but cloudy; second half dry but foggy.

VIII. *Chelford, Astle Hall*. A fine mild month; garden flowers coming into bloom earlier than ever before remembered. Bar. as a rule exceptionally high.—*Bolton, The Park*. Remarkably mild with small range of temp., entire absence of S, and little R. Mean temp. 3°·5 above the average of 10 years, and exceeded only in 1890, frost occurring on only 6 nights. R 1.18 in. less than the average. Duration of sunshine 21 hours.—*Southport, Hesketh Park*. Warm and humid, but for the most part calm and comparatively rainless. Cloudy and rather misty generally. Mean temp. more than 3° above the average for 24 years. Frost on only 6 days, and on grass on 11 days. Daily range of temp. extremely small. Mean relative humidity abnormally high; but total R two inches less than the average. Underground water unprecedentedly low for the time of year. Much fog

and haze, and more cloud than in any other January since observations commenced.—*Seathwaite Vicarage*. Very mild and rather rainy; but with no S and only one sharp frost.

IX. *Baldersby*. Weather mild; no S and very little frost. Prevailing winds W.—*Scarborough Observatory*. Dull with high wind to the 15th; thence to the end calm and dry.—*East Layton*. A very fine and quiet winter month, with remarkable absence of R and S; at times almost summerlike.

X. *Ulpha Vicarage*. Generally very mild and remarkably free from storms. R very near the average.—*Uldale Rectory*. Excessively mild and open; the trees in full bud, and wild flowers peeping out.

XI. *Llanfrechfa Grange*. Much fog and many sunny days; very little frost.—*Llanvihangel Court*. Mild, calm and very dry.—*Douglas, Victoria Road*. Very fine and quiet, with only one gale on 15th and 16th. Several brilliant days and high temp., but fog on 5 days.

XII. *Lilliesleaf, Riddell*.—Very warm but very dark; some fogs, but not very heavy. Very little frost. Very little R. Excessively high bar. readings. S on 13th.

XIII. *Edinburgh, Blacket Place*. Mean pressure (30·222 in.) the highest in January, with one exception (1880), during 70 years.

XV. *Craigend Castle*. Dull, mild and showery, with 4 inches of S on 13th.—*Oban, The Corran*. Abnormally mild, but less sun than usual, and the days exceptionally dark; 18 sunless days. Very high bar. readings from 8th to 10th and 29th to 31st.

XVI. *Coupar Angus*. Good weather almost throughout. R and rainy days both deficient. Mean temp. 2°·7 above the average.—*Ballinluig*. Warm and dry. S on 14th, 15th and 16th.

XVIII. *Glenaladale*. Wet and extraordinarily mild.—*Lochmaddy*. An exceptionally fine month, the special feature being the high bar. from 4th to 12th inclusive.—*Drumnadrochit*. On the whole, remarkably mild and free from frost.

XIX. *Watten, H.R.S.* Open throughout, with gales of wind. The first three weeks very changeable, the closing week fine and springlike.

XX. *Dunmanway, Coolkelure*. With the exception of three or four slight frosts, the weather was mild and springlike. One or two gales from W. or S.W.—*Cork, Wellesley Terrace*. The driest January since 1855, with only one-fourth of the average R. The latter half foggy.—*Derry Castle [Killaloe]*. A mild and dry winter month. R 47 per cent. below, and wet days exactly, the average.—*Nenagh, Castle Lough*. A very favourable month, with little R or frost.—*Hurdlestown*. A

very fine January, the driest on record; R 1·64 in., and rainy days 5, below the average of 11 years.—*Miltown Malbay*. The calmest and mildest January remembered; warm nearly all through; scarcely any high wind, and no gales.

XXI. *Ballindoney*. Very fine for the time of year, with only a few flakes of S on 11th.—*Kilkenny, Sion Villa*. Peculiarly dry; R little more than ·75 in. Weather remarkably fine and mild, very little frost.

XXII. *Tuam, Gardenfield*. Mostly fine and mild, with little frost and no S. R less than half the average of ten years.—*Lawderdale*. A mild, warm month with light winds.

XXIII. *Belfast, Springfield*. Remarkable for open weather and high bar.

FEBRUARY.

I. *Kensington, Edith Road*. R ·28 in., less than one-fourth of the average.—*Muswell Hill*. During the first fortnight R fell on only 2 days, amounting to ·08 in.; while in the remaining 15 days, ·31 in. fell; the total being little more than one-fifth of the average.—*Finchley, Etchingham Park*. Another very dry month, the R not amounting to a quarter of the average. In the first 9 days ·12 in. fell; then followed 10 dry days; while in the last 10, ·27 in. fell. Partial drought for 30 days, with ·30 in. of R, ended on 26th.

II. *Haslemere, Hazelhurst*. Mild and dry with little wind and a good proportion of sunshine. Frost on grass on 22 nights.—*Abinger Hall*. Fine and dry throughout, with intense frost on the mornings of the 24th, 25th and 26th.—*Wallington*. Fairly warm, cloudy and very dry. The second consecutive month remarkable for high mean pressure. Mean amount of cloud the largest with the exception of February 1888, and mean wind force the smallest with the exception of February 1891, in 11 years. Duration of sunshine 50 hours.—*Hythe*. Very dry and mild with high bar.—*Keston Tower*. Very fine, with very little R and no severe frost; no stormy weather and no fog.—*Birchington, Thor*. Frost on grass on 3rd, 4th, 5th and 10th; bitterly cold, with N. and N.E. winds from 23rd to 27th; the remainder extremely mild.—*Leysdown*. Remarkably fine and mild. Several springlike days, and none really cold for the time of the year.—*Crossness*. Dull and foggy for the greater part, with very little R.—*Lewes, Saxonbury*. Very fine, dry and mild; frost on only 5 nights.

III. *St. Albans, The Grange*. Rather warm, humid and cloudy; R

only .46 in.—*Culham Vicarage*. Dry and mild till the 23rd, after which there were 5 days sharp frost, followed by very mild weather.—*Oxford, St. Giles'*. Fine and dry, with mean temp. lower than that of January, but higher maxima.—*Bloxham Grove*. Fine and pleasant weather, with a very slight R. Severe frost at times, but never continuing through the day.—*Pitsford, Sedgebrook*. Altogether a very pleasant month, with little frost; R 1.47 in. less than, or little more than a quarter of, the average.

IV. *Ipswich, Bishops Hill*. On the whole very pleasant and very dry till the last day, when there was continuous fine R for 16 hours. R .83 in. below, or less than half, the average.—*Denver*. Dry and generally warm; most advantageous for agricultural operations, which are unusually forward.

V. *Bishops Cannings*. R 1.55 in. below, or less than a quarter of, the average. Rainy days half the average number.—*Tavistock, Rose Villa*. A dry month, with average temp.; R about one-third of the average. L on 19th. Solar halos on 11th, 12th, 19th and 26th. *Barnstaple, Athenæum*. Very dry; R less than one-third of the average of 30 years. Temp. generally higher than the average, and an unusual number of wild plants in flower.—*Wellington*. Frosty for two or three days at the commencement, and also at the close, otherwise very mild. R very deficient. Pressure uniformly high.

VI. *Clifton, Pembroke Road*. There have been only three drier Februaries in 40 years; but the R of January and February combined is even more remarkable and altogether unprecedented, the next smallest fall of the combined months being more than double that of this year, yet the weather has been mostly mild, with little frost.—*Cirencester, Further Barton*. A remarkably dry month, with prevalence of misty weather and some white frosts. Water in a well 100 ft. deep, sinking at the rate of 1 foot per week.—*Ross, The Graig*. The partial drought which commenced on December 30th continued to the close of this month, .62 in. of R falling in the 62 days, the fall reaching .10 in. on only one day. There is no other instance back to 1818 with a total for January and February combined of less than 1.50 in.

VII. *Hodsock Priory*. Dry, dull and mild, but with some frost in the last week. The second consecutive month with abnormally high bar.; R less than half the average. Duration of sunshine 39 hours, 21 hours less than the average.—*Findern*. Very mild generally, but severe frost on 25th and 26th.—*Derby, Duffield Road*. A dull month with very little sun.

VIII. *Chelford, Astle Hall*. Mild up to 22nd, followed by frost on most nights and cold E. winds.—*Bolton, The Park*. Mild and cloudy with little bright sunshine, no S, and, until the last 36 hours, little R; though the total is .72 in. above the average. Mean temp. $39^{\circ}2$, or $2^{\circ}0$ above the average. Duration of sunshine 11 hours less than the average.—*Southport, Hesketh Park*. Remarkably cloudy and hazy, but very dry, light S.E. winds predominating. Warm throughout the second week; much cooler during parts of the latter half. Mean temp. $1^{\circ}5$ above the average. Frost on 8 days. Oscillations of mean daily temp. exceptionally extensive. R an inch below the average, half the total falling on the last day. Underground water unprecedentedly low for the season, lower even than in January. Either haze or slight fog almost daily, and a large excess of cloud; only about half the normal duration of sunshine.—*Seathwaite Vicarage*. Somewhat rainy and very mild with no S and only one sharp frost. Vegetation unusually forward.

X. *Ulpha Vicarage*. Very mild and pleasant on the whole, but R 1.16 in. above the average of 8 years.—*Uldale Rectory*. Fine and open, with remarkably high bar., and, excepting on 4 nights, entirely free from frost.

XI. *Llanfrechfa Grange*. Unusually dry and mild, except for sharp frosts from 23rd to 27th. Moderate winds throughout.—*Douglas, Woodville*. Very mild and on the whole quiet. The temp. of the second week is said to be the highest ever recorded here in February.

XII. *Lilliesleaf, Riddell*. Very fine and very warm. R under the average; bar. very high. Agricultural prospects excellent.

XV. *Oban, The Corran*. Very mild, but on the whole deficient in sunshine. All vegetation far advanced.

XVI. *Dollar*. Mild, with very little frost.—*Coupar Angus*. Total R about an inch below, and mean temp. $3^{\circ}7$ above, the average.—*Ballinluig*. A mild but rather cloudy month. S on 26th and 29th.

XVIII. *Glenaladale*. A very fine month and vegetation very forward. Mean temp. $41^{\circ}8$.—*Lochmaddy*. The weather on the whole was exceptionally good, but gales from S. or S.E. occurred on 19th, 23rd, 24th and 25th.—*Drumnadrochit*. Extraordinarily mild, summerlike weather.

XIX. *Watten, H.R.S.* The first three weeks were singularly fine, dry and mild; the last week was bitterly cold, with gales chiefly from S.E.

XX. *Dunmanway, Coolkelure*. A very fine, springlike month ; like an ordinary April. No frosts.—*Cork, Wellesley Terrace*. Remarkable for small R and unusually mild temp. ; R less than half, and mean temp. $3^{\circ}2$ above, the average. Frost in shade on only one night.—*Derry Castle*. Mild and dry. R 44 per cent., and number of wet days 37 per cent., below the average.—*Broadford, Hurdlestown*. Very fine and mild, some days quite like summer ; R $\cdot 37$ in., and rainy days one, less than the average of 11 years.—*Miltown Malbay*. Exceedingly mild, without frost, S or H. Very little R, save on three days, when heavy downpours occurred.

XXI. *Ballindoney*. Fine and mild with no S.—*Kilkenny, Sion Villa*. Very fine weather prevailed, and on many days the heat of the sun was powerful. The min. temp. only twice fell below freezing point.

XXII. *Tuam, Gardenfield*. Fine and mild, with no S. Heavy R on 7th and 25th, and the last 3 days showery; total one-third less than the average.—*Lawderdale*. The first three weeks were warm and dry, but the last week was wet and cold.

XXIII. *Belfast, Springfield*. Remarkably fine and open, with little R until the 25th.—*Killybegs*. Unusually mild and springlike throughout.

MARCH.

I. *Kensington, Edith Road*. Very warm and wet, the number of days with R (27) being larger than in any previous month in 13 years. The warmest March in the same time ; temp. $4^{\circ}8$ above the average.—*Muswell Hill*. R 1.70 in. above, or nearly twice, the average, exceeding that of any other March in 24 years, excepting 1888. There were not two consecutive dry days, and the third week was very wet.—*Finchley, Etchingham Park*. Very wet both as regards R and rainy days, the total fall being about double the average, and exceeding that of any March during ten years, except 1888.

II. *Haslemere, Hazelhurst*. A wet month. Total R 4.28 in. Gales and strong wind from 3rd to 6th and 16th to 26th.—*Abinger Hall*. Open and mild, with a plentiful supply of showers.—*Wallington*. Exceedingly warm and wet ; the wettest March in 11 years with the exception of 1888, and the most cloudy and most sunless in that time ; while the mean temp. is the highest with the exception of March 1893. R 1.36 in. above, and duration of sunshine little more than half, the average.—*Hythe*. Very unsettled and showery, with intervals of fine weather.—*Birchington, Thor*. Extremely mild, especially

between the 14th and 27th, after which very cold weather set in.—*Sheppey, Leysdown*. Generally fine and mild, with some very hot days, followed by cold ones.—*Maidenhead, Castle Hill House*. Rather wet; the first part rather cold, then much warmer, and the latter part colder again. Very high wind some days, and several H showers. Prevailing wind S.W.

III. *St. Albans, The Grange*. Very warm, cloudy and very wet. R fell on 26 days.—*Bloxham Grove*. Gloom and R prevailed with slight exceptions throughout, and March dust was unknown. There was an absence of severe frost and cutting N.E. wind, and only slight falls of S on three days.—*Castle Ashby*. Very changeable and showery, with R more or less every day, and gales of wind veering from S. to N.E. and back again.—*Pitsford, Sedgbrook*. R 1·09 in. above the average of ten years.

IV. *Sudbury, Friars Street*. Unsettled with a good deal of R; only five rainless days. L on 4th, L and T on 22nd, and T on 24th.—*Ipswich, Bishops Hill*. R 1·68 in. above, or rather more than double, the average, and only twice exceeded in March in 25 years.—*Denver*. On the whole warm, with an unusual number of wet days, so that land, at all heavy, became soaked, and delayed sowing.

V. *Bishops Cannings*. R 1·58 in. above the average. Remarkable absence of E. wind.—*Tavistock, Rose Villa*. Wet, warm, stormy, cloudy and damp. R fell on 25 out of the first 28 days, the total fall being nearly double the average. Dartmoor white with S on 3rd, 4th and 28th.—*Stowell Rectory*. R the heaviest in March since 1882. Mean temp. 4°·9 above the average.

VI. *Clifton, Pembroke Road*. R 1·08 in. above the average.—*Further Barton*. Many wet and windy days alternating with fine ones. A few night frosts, but temp. high.—*Ross, The Graig*. R slightly more than the average, but number of rainy days much in excess. No S, fewer frosts than usual, and temp. above the average. Weather very variable.

VII. *Hodsock Priory*. Mild, with average R, but a good many slight showers; mean temp. 3°·6 above average.

VIII. *Bolton, The Park*. Mild and showery, with little sunshine. Mean temp. 2°·6 above the average, frost occurring on only one night. Duration of sunshine 65 hours. R nearly twice the average.—*Southport, Hesketh Park*. The wettest and most cloudy March during a quarter of a century. Very warm and equable throughout. Mean temp. 2°·5 above the average. Frost on only one night. Min. temp.

remarkably high, having been only once equalled in March. R more than 1·50 in. above the average, and both it and the number of rainy days greater than in any other March. Underground water rising markedly. Sunshine deficient.—*Seathwaite Vicarage*. Very rainy, but mild throughout. R on 28 days, but no excessive downpours.

X. *Ulpha Vicarage*. Very rainy, but generally mild, with comparatively little wind and no severe frost. R nearly twice the average of 8 years.—*Uldale Rectory*. Though the R was excessive, it was not accompanied by either frosty or windy weather.

XI. *Llanfrechfa Grange*. Unusually wet and mild, with great prevalence of westerly, and absence of easterly, winds.—*Douglas, Victoria Road*. Wet and stormy, with gales on 9 days. Temp. above the average throughout, and no frost.

XII. *Lillicsleaf, Riddell*. A pleasant month with only four days of E. wind. More R than the average, but nothing to hinder garden work. S on only two days.

XV. *Craigend Castle*. Wet and stormy, with 4 inches of S on 4th.—*Oban, The Corran*. The wettest March in 10 years, the R being 5·11 in. above the average. A cold, cheerless month, the mean temp. being lower than in January or February.

XVI. *Coupar Angus*. R about half an inch deficient. Mean temp. 2° above the average, due to bright, sunny weather.

XVIII. *Glenaladale*. Very wet; the last fortnight cold, with much S on the hills.—*Drumnadrochit*. Mild on the whole, with very little frost.

XIX. *Watten, H.R.S.* Cold, wet and unsettled throughout.

XX. *Cork, Wellesley Terrace*. Remarkably mild, with only one slight shower of S.—*Derry Castle*. Extremely wet; the wettest March on record here. R 201 per cent. of the average, and wet days 53 per cent. in excess.—*Castle Lough*. Wet, windy and cold, with H and sleet occasionally.—*Broadford, Hurdlestown*. The wettest March since 1886, and the greatest number of rainy days recorded in 11 Marches. R 1·08 in. above the average.—*Miltown Malbay*. For agriculture, one of the worst months of March remembered; R nearly every day, and many heavy falls. The first and last weeks stormy, with heavy H showers.

XXI. *Ballindoney*. Wet with constant but not heavy R. H on 3 days.—*Monksgrange*. R 3·91 in. on 30 days.—*Kilkenny, Sion Villa*. Very wet; S and H on 3rd, 4th, 20th and 28th. Stormy from 1st to 8th, 15th to 17th, and again on 26th and 28th. Heavy gales on 4th

and 20th. Early morning fogs on 19th and 22nd. Mild, overcast and misty from 9th to 13th and 23rd to 25th. Fine and mild at the close.

XXII. *Tuam, Gardenfield*. Very wet, R on 27 days, and 2·50 in. above the average; very little frost.—*Lawderdale*. Very wet and cold; only three rainless days.

XXIII. *Belfast, Springfield*. No exceptional fall of R, but only five dry days and very little sunshine.

APRIL.*

I. *Muswell Hill*. R less than one-third of the average of 24 years; all falling in the week ending 16th, except ·02 in. on 5th and ·02 in. on 29th.—*Finchley, Etchingham Park*. A very dry month, R about one-third of the average. With the exception of ·10 in. on 4th and ·03 in. on 29th, all the R fell in the 7 days 10th to 16th.

II. *Haslemere, Hazelhurst*. Fine and dry. Gale on 12th with H and R, and again on 30th from N. No frosts in shade, but 13 on grass.—*Abinger Hall*. Rather dry, no heavy falls of R having occurred. Cold N. and N.W. winds set in towards the close with frosts.—*Wallington*. Warm and dry, with duration of sunshine much below the average. The third month with a R of less than 1·00 in., and towards the end the want of R was becoming serious. Total fall less than half the average.—*Hythe*. On the whole very dry and fine.—*Keston Tower*. Very mild with only a small amount of R.—*Birchington, Thor*. Very fine and warm but dry. R much wanted.—*Leysdown*. Remarkably fine and warm on the whole, with cold E. wind occasionally. Very little R.—*Maidenhead, Castle Hill House*.—Very fine and dry, with temp. pretty high, the wettest part being about the middle. Prevailing winds N.W. and S.W.

III. *Culham Vicarage*. A dry month with rather cold nights and some frosts.—*Bloxham Grove*. R slight, though it fell daily from 9th to 16th. From that date to the end, with two slight exceptions, the weather was fine and pleasant. The night temp. was low with some sharp frosts.—*Pitsford, Sedgebrook*. R ·80 in. less than the average. Mean temp. 46°·9.

IV. *Ipswich, Bishops Hill*. Pleasant on the whole, with slight frost on some nights. R less than half the average.

* See also *Met. Mag.*, July 1896, p. 84.

V. *Bishops Cannings*. R 1·03 in. less than the average.—*Tavistock, Rose Villa*. Dry and rather warm. R hardly one-third of the average. The temp. rose to, or above, 60° on 7 days. N.W. winds blew on 13 days, and N. on 10. Solar halos were seen on 7 days.—*Wellington*. Very dry and rather mild, but N. and N.W. winds were frequent, which made the air seem harsh. R not one-fourth of the average.—*Stowell Rectory*. Warm and dry. Mean temp. 2°·5 above the average.

VI. *Further Barton*. The first week dry with little sunshine, then 10 days in succession with R in small quantities, and none after till the 30th. Temp. moderate, only a few really warm days.—*Ross, The Graig*. Another very dry month; much fine weather intermixed with cold, showery periods. In the four months, January to April inclusive, only 3·66 in. of R fell, the average of 20 years being 9·79 in. This is the smallest fall for the period registered in Herefordshire since observations commenced in 1818.

VII. *Belvoir Castle*. Dry and mild, with slight frosts on 5 days.—*Hodsock Priory*. Warm and dry with about average sunshine; the mean temp. has been exceeded only twice in 20 years; the daily range was large and there were a good many frosts on grass, though very few in screen. Most of the R fell in the second week, and the rest of the month was very dry.

VIII. *Chelford, Astle Hall*. Fine on the whole and mild.—*Bolton, The Park*. Comparatively mild and bright, with almost entire absence of E. wind. R ·34 in. above the average. Duration of bright sunshine 136 hours, 28 hours above the average. Frost on only one night.—*Southport, Hesketh Park*. Strikingly abnormal; there being marked absence of E. winds for which April is notorious, and, instead, a prevalence of W. winds unprecedented in any month during a quarter of a century. Very warm at night, and exceptionally equable throughout. Mean temp. 2°·7 above the average. Frost on one night. Earth and water becoming phenomenally warm for the time of the year. Mean daily range of temp. by far the lowest April value in 25 years. Total R about ·75 in. below the average. A large amount of cloud, but a good record of sunshine nevertheless.—*Seathwaite Vicarage*. Mild and rather rainy, with a spell of bright, summer-like weather from 18th to 25th.

IX. *East Layton Hall*. Very fine, with much sunshine.

X. *Ulpha Vicarage*. Fine generally and free from severe frosts and high winds. R slightly below the average of 8 years.

XI. *Llanfrechfa Grange*. Very small R; a prevalence of northerly

winds. Low temp. at night throughout.—*Llanvihangel Court*. Mild, with persistent N. to W. winds and very little R.—*Douglas, Victoria Road*. Fine and dry with N.W. to S.W. winds throughout. Coarse, cold stormy weather prevailed from 9th to 16th inclusive, and from 26th to 28th.

XII. *Lilliesleaf, Riddell*. Remarkable for fineness and warmth, though the last few days were cold. R small. E. wind on only two days.

XIII. *Edinburgh, Blacket Place*. Very warm and R very deficient. Mean temp. 4° above the average, and the highest since 1844. The mean temp. of the first four months ($43^{\circ}6$) was equalled only in 1846 since 1796, when it was $43^{\circ}8$.

XV. *Craigend Castle*. Fine on the whole, but showery; the last week cold with H showers.—*Oban, The Corran*. Dull and wet; R one inch above, and temp. below, the average.

XVI. *Coupar Angus*. R $\cdot73$ in. below, and little more than half, the average. Mean temp. almost 4° above the average, and the highest for April in 16 years.

XVIII. *Glenaladale*. The first half of the month was very wet, cold and stormy, with much sleet and H, and S on the hills; the latter half mild.—*Drumnadrochit*. Very genial weather, and vegetation forward. Sleet and S on 10th and 11th.

XIX. *Scourie*. Weather very broken throughout; frequent showers of H and sleet.—*Watten*. Dry and cloudy, with cold N. winds.

XX. *Cork, Wellesley Terrace*. The air was remarkably dry, the R being the smallest in April for 17 years. Temp. 3° above the average.—*Derry Castle*. Exceedingly mild. R 42 per cent. below, but wet days 6 per cent. in excess of, the average.—*Broadford, Hurdlestown*. A very fine month and the driest April on record. R $1\cdot02$ in. below, or less than half, the average of 11 years, but rainy days just the average. Frost on the last two nights damaged potatoes.—*Miltown Malbay*. Though R fell on more than half the days of the month, the total is slight. Beginning and end cold with H showers; middle calm and fine.

XXI. *Ballindoney*. Very fine and dry, the R exceeding $\cdot10$ in. on only 3 days.—*Kilkenny, Sion Villa*. Fine with bright and very warm sun for the most part. Stormy on 10th, 11th and 14th, and again from 26th to 28th. H on 29th. Thick early morning fogs from 22nd to 24th.

XXII. *Tuam, Gardenfield*. Fine and mild, with less than half the

average R. Very fine from 1st to 8th and 18th to 23rd, the remainder showery. Sharp frost on 30th injured vegetation.—*Lawderdale*. A warm but seasonable month.

XXIII. *Belfast, Springfield*. Very fine and open weather and not much frost.

MAY.*

I. *Kensington, Edith Road*. Very hot and dry ; R only .22 in., falling on four consecutive days. The driest May in 13 years.—*Muswell Hill*. R fell on only three days, 20th to 22nd, the total being exactly one-tenth of the average of 24 years, and the least in May during that period. Absolute drought for 20 days ended on 19th.—*Finchley, Etchingham Park*. R less than that of any other May since the record commenced in 1886, and about one-tenth of the average, R was recorded on only three days, 20th to 22nd, terminating an absolute drought for 20 days.

II. *Haslemere, Hazelhurst*. Fine and dry ; ponds very low, earth burnt up, little grass ; watering was the principal garden work. Wind N. to N.E. all the month. Total R only .42 in.—*Abinger Hall*. Only one good shower fell during the month ; everything is parched and blight and caterpillars are rampant.—*Wallington*. Exceedingly dry with average temp. An absolute drought of 20 days' duration ended on 19th. R 1.82 in. below, or less than one-thirteenth of, the average. Duration of sunshine 200 hours.—*Hythe*. Very dry, with strong and cold N.E. winds. R on only 5 days.—*Keston Tower*. Extremely dry, with moderately low temp. The country suffering much from drought.—*Birchington, Thor*. Very dry with cold N. and N.E. winds ; everything parched.—*Leysdown*. Generally fine and hot, but E. wind prevalent and very cold at times.—*Crossness*. Very fine and dry throughout.—*Lewes, Saxonbury*. Absolute drought from 2nd to 19th inclusive, partial drought having prevailed since April 16th.—*Itchen Stoke*. Only 3 days on which R fell ; 10 days on which temp. rose above 70°.—*Maidenhead, Castle Hill House*. Very dry and very fine weather all through. N.E. winds nearly all the month. Absolute drought from April 29th to May 19th.

III. *St. Albans, The Grange*. Of average temp. and bright ; R only .34 in. on 5 days.—*Culham Vicarage*. Very dry with rather cold nights and some frosts. The driest May since observations commenced in

* See also *Met. Mag.*, July 1896, p. 84.

1851.—*Oxford, St. Giles'*. Very fine, dry and cool; a good deal of wind, mostly from N. and E.—*Bloxham Grove*. With the exception of slight R on two days, fine and dry throughout, and very cold at times, much injury being done by frost. The drought was becoming very serious at the close.—*Pitsford, Sedgebrook*. R little more than one-eighth of the average.

IV. *Sudbury, Friars Street*. Very fine and dry until the 18th, with some high temperatures.—*Ipswich, Bishops Hill*. Very dry; R just one-fifth of the average. Slight frosts in the first half.—*Aylsham, Woodgate*. Prolonged drought; in 20 days only .03 in. of R fell, and during 16 days none was registered.

V. *Bishops Cannings*. R less than one-seventh of, and rainy days ten less than, the average. Wind between N. and E. throughout.—*Tavistock, Rose Villa*. Very dry, warm and sunny, with great daily range of temp. Measurable R fell on only one day. The temp. rose to or above 70° on ten days. Solar halos on three days and parhelia on 14th.—*Tiverton, St. Peter Street*. Devon is usually considered a wet county; the register for May is, R .05 in., heaviest fall .05 in. on 21st, one rainy day.—*Hartland Abbey*. Country suffering badly from want of R; no prospect of hay or roots.—*South Molton*. R fell on only one day, when .08 in. was registered.—*Wellington*. Abnormally dry, R falling on only one day. Wind frequently northerly, but temp. above the average.—*Stowell Rectory*. The driest May ever recorded here.—*Long Ashton*. R only .34 in. on two days.

VI. *Clifton, Pembroke Road*. The driest May in 40 years, excepting 1876.—*Further Barton*. Very dry, with great sun heat; a few cold days after the 18th, and frost on the 21st.—*Great Barrington*. Very hot and dry throughout.—*Ross, The Graig*. R (.18 in.) smaller than that of any May back to 1818, except 1844, when it was the same. Partial drought for 50 days ending June 3rd, with .50 in. of R. Since and including 1818 no five months ending May 31st has been equally dry.—*The Clive Vicarage*. R wanted badly; springs low and ponds drying.—*Burton, Rangemoor*. Very dry, the first 18 days without R, then .32 in., and 9 more rainless days.—*Kenilworth, The Spring*. R 2.03 in. less than, or one-seventh of, the average for 14 years. Absolute drought for the first 17 days.—*Coventry, Coundon*. The driest May in the 29 years during which a register has been kept, the fall being less than one-sixth of the average.

VII. *Belvoir Castle*. Bright and dry, with variable temp.; wind northerly on 25 days.—*Bucknall*. Hot and droughty, and after nine

weeks of partial drought most crops are suffering.—*Hodsock Priory*. Another warm and dry month ; days particularly warm, but some rather sharp frosts in the first week. R 1·80 in. below, or less than a quarter of, the average. Mean temp. 2°·1 above average. Duration of sunshine 188 hours.—*Matlock, The Gables*. R ·30 in., the smallest fall in May in 20 years.

VIII. *Chelford, Astle Hall*. Very dry and hot ; on only three days did R fall, and grass lands were much burnt up. Frost on 21st injured tender vegetables.—*Gateacre, The Nook*. Absolute drought from 1st to 17th.—*Bolton, The Park*. Singularly bright and fine with high temp. Duration of sunshine 221 hours, being the greatest recorded in May, and exceeded by only one month in ten years.—*Southport, Hesketh Park*. The sunniest month on record ; extremely warm and dry. Mean temp. 3°·2 above the average. Frost on grass on 7 nights, but none in shade. Mean temp. 1 foot below ground higher than in any other May in 24 years. Light winds generally, mainly from W. R the smallest in May in 25 years and more than 1·50 in. below the average. Underground water falling rapidly, and lower than in any previous Spring since the observations commenced. Mean relative humidity much below the normal value. Duration of bright sunshine the highest yet recorded in any month.—*Seathwaite Vicarage*. A droughty month of generally high temp., with an exceptional amount of sunshine.

IX. *Sowerby Bridge, Haugh End*. Exceedingly fine and very warm in the early part.—*East Layton Hall*. Very hot and dry ; blossom of all kinds abundant and a fortnight early.

X. *Ulpha Vicarage*. Very parching almost throughout ; wind generally northerly ; ground frost on many nights, but not severe. R less than one-sixth of the average of 8 years.

XI. *Llanvihangel Court*. N. or N.E. winds throughout, except from 13th to 15th.—*Llandoverly*. The driest May remembered.—*Bodorgan*. The driest May remembered here ; R only ·44 in.—*Llwdiarth Esgob*. The driest month in 35 years, excepting June 1868. No R in the first 18 days, and the total only ·30 in.—*Douglas, Victoria Road*. Absolute drought to the 17th, and R on only four days. Bright sunshine largely in excess, and temp. above the average throughout. Strong winds prevailed in the second half, attaining the force of a gale almost daily from 14th to 29th.

XII. *Lilliesleaf, Riddell*. Very dry, but favourable for agriculture ; slight frost, which did no damage, on three nights.

XV. *Craigend Castle*. Fine, warm and dry; no R in the first half or in the last week. *Oban, The Corran*. Fine, dry and hot.

XVIII. *Glenaladale*. A very beautiful month; warm and at times sultry. An absence of parching winds, and vegetation in consequence luxuriant.—*Lochmaddy*. Very fine throughout, with high temp. after the 6th.—*Drumnadrochit*. R less than half the average of ten years, and the smallest in that period, with one exception.

XIX. *Watten*. The first half very dry and fine, with bright hot sun. The third week wet and cold, and the closing week dry and cloudy with cold northerly winds.

XX. *Dunmanway, Coolkelure*. Sharp frosts, doing much damage, on the first three days. The remainder of the month very hot and dry; wind principally E. and S.E.—*Cork, Wellesley Terrace*. R only one-sixteenth of the average, and the least in May for 31 years, Temp. 3° above the average.—*Derry Castle*. The driest May in 50 years in this locality. R 87 per cent., and wet days 44 per cent., below the average.—*Carrigaholt*. Hot and hazy; wind generally N.E. to S.E.—*Broadford, Hurdlestown*. The driest month on record; R less than one-tenth of, and rainy days ten below, the average. Light lands quite burned up and water running short.—*Miltown Malbay*. Very dry and water becoming scarce. Opening with frost on the 1st and 2nd, the remainder of the month though sunny by day was cold at night.

XXI. *Ballindoney*. Exceedingly dry, R falling on only four days, and amounting to .14 in. Everything very much in want of R. Total drought from 1st to 17th; partial drought from April 14th to June 1st, 49 days with .42 in. of R.—*Ballyhyland*. The driest May and the driest month in 30 years; R .07 in.—*Kilkenny, Sion Villa*. A charming month. Very warm sun and very sultry weather generally throughout. Stormy on 19th, 20th and 29th to 31st.—*Killiney, Cloneevin*. R .06 in., the lowest record for any month since observations began in 1885, with the exception of February 1891, when only .03 in. fell.—*Currygrane*. Very dry and hot; R badly wanted towards the end, many wells and springs being quite dry.

XXII. *Tuam, Gardenfield*. Extremely fine and dry, and part of it very warm; R only one-fifth of the average.—*Lawderdale*. A dry, warm month.

XXIII. *Belfast, Springfield*. Remarkably fine with sunshine almost throughout and considerable evaporation. Crops in want of R.

JUNE.

I. *Kensington, Edith Road*. The hottest June in 13 years, with average R.—*Muswell Hill*. R nearly 28 per cent. below the average of 24 years. In the 20 days ending 30th, R fell on only 4.—*Finchley, Etchingham Park*. The partial drought which had prevailed since April 17th continued until the 2nd, only .23 in. of R having fallen in the 47 days. More than nine-tenths of the month's total fell in the 8 days 3rd to 10th, and R was recorded on only 4 other days.

II. *Haslemere, Hazelhurst*. Warm and sunny. TSS on 4th, 10th and 24th. Welcome heavy R from 4th to 10th.—*Abinger Hall*. Heavy falls of R on 9th, 10th and 24th, besides other lighter showers, were of great value for all crops. R of the half year less than 10 inches.—*Wallington*. A wet month, but the air very dry and warm and vegetation apparently suffered from want of moisture. Duration of sunshine 3 hours above the average.—*Ospringle, Lorenden*. R 3.98 in.; the falls of 1.83 in. on 10th, and 1.00 in. on 24th, being of immense value.—*Birchington, Thor*. Total R the greatest in any month since February 1893. 2.79 in. on 9th and 10th was most beneficial.—*Sheppey, Leysdown*. Though generally fine and hot, the month was remarkable for a steady fall of 2.39 in. of R in about 26 hours on 9th and 10th, so that in 8 rainy days nearly as much fell as in the previous 5 months.—*Crossness*. TSS on 5th, 24th and 25th, and very heavy R on 10th; otherwise a fine month.—*Lewes, Saxonbury*. Showers at the beginning, and heavy R on the 10th were very beneficial after the long drought.—*Maidenhead, Castle Hill House*. Fairly dry and temp. high. Prevailing winds S.W.

III. *St. Albans, The Grange*. Rather warm, air dry, with average R.—*Culham Vicarage*. A warm month with a good deal of R in the first 10 days in TSS.—*Bloxham Grove*. Fine and pleasant with seasonable and refreshing rains, too late to be of service to the hay.—*Pitsford, Sedgbrook*. R .61 in. more than the average of 10 years.

IV. *Sudbury, Friars Street*. Very wet until the 11th, then finer, and some very high temperatures about the middle.—*Ipswich, Bishop's Hill*. A fine month, but R .18 in. above the average, due to 20 hours steady R on 10th.

V. *Tavistock, Rose Villa*. A warm, dry, fine month; R only about three-fourths of the average. The long drought, which commenced on April 17th, broke up on the 3rd, and 1.00 in. of R fell in the following six days. Springs very low at the beginning and end.—*Wellington*. R

a trifle above the average. A few days of great heat about the middle, and the mean temp. unusually high.

VI. *Further Barton*. Fine and hot ; the drought ended on the 2nd, and more or less R fell for eight consecutive days. TSS on 24th and 25th.—*Ross, The Graig*. One of the finest months on record. Though 1.53 in. of R fell in the six days ending the 9th, the remainder was dry and the drought scarcely relieved. Very warm, although the temp. rose to 80° on only 3 days ; the average max. has been higher in 5 Junes, but the average min. in only one.

VII. *Belvoir Castle*. Changeable ; R above the average and temp. much above the average.—*Hodssock Priory*. The warmest June for at least 20 years, and the R the largest in the same period. R exactly double, and mean temp 4°·2 above, the average.

VIII. *Bolton, The Park*. High temp., average amount of sunshine and gentle R distributed intermittently. The mean temp. (59°·0) is the highest recorded in June, and 3°·4 above the average, while the max. (82°·4 on 15th) is the highest shade temp. in the 10 years observed. R .73 in. above the average.—*Southport, Hesketh Park*. By far the warmest June in 25 years. Temp. above the average every day after the 1st. A hot period from 13th to 16th, the max. in screen on 15th being 84°·6—the highest June value since 1878. Mean temp. 4°·5 above the average. Mean 1 ft. earth temp. higher than in any previous June. R .50 in. below the average. Large amounts of sunshine.—*Seathwaite Vicarage*. A splendid month of sustained high temp.

IX. *East Layton Hall*. A month of bright sunshine and grand thunder rains.

X. *Ulpha Vicarage*. Some refreshing rains fell, but there was never enough to saturate the soil, and at the end of the month it was perfectly dry. R .33 in. above the average of 8 years.

XI. *Llanfrechfa Grange*. Fine and hot ; crops short from want of R in April and May.—*Douglas, Victoria Road*. Warm as a whole, the temp. exceeding 70° on several occasions, while on the 14th and 15th it exceeded 76°, a high value for this station. The R (3.19 in.) was hardly felt after the long drought.

XII. *Lilliesleaf, Riddell*. A very favourable month, with average R.

XV. *Craigend Castle*. Showery, with much needed R ; a severe TS on 8th and heavy R on 24th.

XVI. *Coupar Angus*. R fell sparingly on 18 days, the total being .67 in. above the average. Mean temp. 1°·9 above the average.—*Ballinluig*. R 3.42 in., which came in good time for the crops.

XVIII. *Glenaludale*. The first half of the month was very fine and hot, the second half wet and stormy.—*Lochmaddy*. A raw, cold month, more like April than June. Winds mostly W. and S.W.

XIX. *Watten*. Cloudy, almost sunless, moist and often cold.

XX. *Dunmanway, Coolkelure*. Very fine, with much sunshine and warmth, the R falling generally at night. Great scarcity of water in rivers and streams, which are lower than remembered.—*Derry Castle*. Dry and hot, but showery; R 21 per cent. below, but wet days 7 per cent. above, the average.—*Broadford, Hurdlestown*. A favourable month, the R being greatly wanted, and there was not too much on any one day. R .16 in., and rainy days 5, above the average of 11 years.—*Miltown Malbay*. Although a fair amount of R fell during the month, its effect on the ground was scarcely appreciable, the weather being warm and parching; much distant T.

XXI. *Ballindoney*. Very warm, with only two heavy falls of R on 6th and 16th. The heat on several days was very great.—*Kilkenny, Sion Villa*. Another month of charming weather, with much scorching sun, especially about the 15th. Early morning fogs on 1st and 27th. L and loud T on 9th; stormy on 30th.

XXII. *Tuam, Gardenfield*. A wet month; R about 70 per cent. above the average. The last week fine.

XXIII. *Belfast, Springfield*. Much needed R from the 2nd to 8th; from the 9th to the 15th very hot with sunshine all day, and the ground so thoroughly dried that 2.36 in. of R, which fell from 16th to 24th, was all absorbed, making no difference to the streams.—*Killybegs*. On the whole, very warm and favourable to growth.

JULY.

I. *Kensington, Edith Road*. R one-third of the average. The driest and hottest July since 1887.—*Finchley, Etchingham Park*. R about three-eighths of the average. During the first 25 days R fell on 5, amounting to .22 in., while in the remaining 6 days .82 in. was registered. Partial drought for 45 days, with .38 in. of R, ended on 25th.

II. *Haslemere, Hazelhurst*. Very dry until 26th, when there was a TS with 1.39 in. of R, 1.16 in. falling between 1.45 and 2.15 p.m.; its effect in tearing up the ground was extraordinary.—*Abinger Hall*. Very hot and dry and R much needed everywhere; much

corn was carted before the end of the month.—*Wallington*. Warm and very dry. The driest July since 1885, and the want of R is much felt. With the exception of 1887, the month has the highest mean and max. temps. in July in the past ten years. It has also the lowest relative humidity and wind force, and, with the exception of 1887, the smallest amount of cloud. Duration of sunshine 36 hours above the average.—*Tenterden*. R only .85 in. The only July with less than two inches since 1887. Heat nearly equal to that of Jubilee year; temp. above 80° on 5 days, and above 70° on 25 days.—*Keston Tower*. A fair amount of R and a good deal of warm weather.—*Sheppey, Leysdown*. Fine and very hot, but the heat tempered by easterly breezes on most days.

III. *St. Albans, The Grange*. Very warm, the mean temp. being 63°·0; air dry, and sky very bright.—*Culham Vicarage*. Very dry, with high temp. throughout except on 16th. Very partial showers.—*Oxford, St. Giles'*. Warm and dry, with about half the normal R. Harvest well begun in the middle of the month.—*Bloxham Grove*. High temp. and scanty R marked the month, but the nights were frequently cold. Notwithstanding the heat, there was little T. Harvest very forward.—*Northampton, Sedgebrook*. R 2·38 in. below, or little more than one-third of, the average.

IV. *Ipswich, Bishops Hill*. Very dry and hot; the driest July since 1878. R only one-seventh of the average.

V. *Bishops Cannings*. R 1·15 in. less than the average, making the month too dry for grass and roots.—*Hartland Abbey*. The country badly parched, farmers having to feed cattle on oilcake, &c.—*Wellington*. Another month with deficient R—less than half the average. Temp. much above the normal until about the last week.

VI. *Clifton, Pembroke Road*. The driest July in 40 years (R .97 in.) excepting 1863, when only .47 in. fell.—*Ross, The Graig*. From 23rd to 26th .76 in. of R fell, which was refreshing, but scarcely affected the drought. Harvest almost as early as in 1868; grass land quite burnt up. The only seasons to be compared with this are 1864, 1870 and 1893.

VII. *Hodsock Priory*. The warmest and driest July since 1887. Harvest in full swing at the end. R 1·09 in. below the average. Duration of sunshine 10 hours below the average.

VIII. *Bolton, The Park*. Three showery periods, but the total R below the average. Temp. above the average, and a full amount of sunshine.—*Southport, Hesketh Park*. For the most part normal. Mean

temp. 1° above the average. An excess of N.W., and a deficiency of S.W., winds. R $\cdot 50$ in. above the average, owing to heavy T showers on the 9th, which were followed by a nearly rainless fortnight. Mean humidity again low. Satisfactory amounts of sunshine and ozone. Air often extremely clear. Sea very warm during the middle of the month.—*Seathwaite Vicarage*. A rainy month, with bright, sultry weather about the middle.

X. *Ulpha Vicarage*. R $1\cdot61$ in. above the average. A favourable month for the crops.

XI. *Llanfrechfa Grange*. Much warmer and drier than usual, and corn crops cut at the end of the month.—*Douglas, Victoria Road*. The R reached the large total of $5\cdot93$ in., which has only twice been exceeded in 23 years, still far from being a wet month, four days were responsible for $3\cdot91$ in., and the weather on the whole was finer and more pleasant than usual. Temp. slightly above the average.

XII. *Lilliesleaf, Riddell*. A decidedly hot month with about average R. Springs all running. Crops, fruit, &c., a month in advance of the average.

XV. *Craigend Castle*. Dull and showery.

XVI. *Dollar*. Not a bad month, the R falling principally at night.—*Coupar Angus*. A month of almost average temp., the features being four very warm nights (18th to 21st), several close, sultry days, and the absence of bright sunny weather with high temp.—*Ballinluig*. A very fine month, free from TSS. No excess of temp., the grass min. on 24th just touching 32° .

XVIII. *Glenaladale*. Rather wet and ungenial.—*Lochmaddy*. Until the 23rd, the weather was normal; but after that date, stormy, with N.E. and E. winds.

XIX. *Watten*. Cloudy, moist and mild with great absence of sunshine. Continuous R from noon on 25th till past midnight ($1\cdot17$ in.) causing a heavy flood.

XX. *Cork, Wellesley Terrace*. R about double the average, and only once exceeded in 34 years, viz., in July 1872.—*Derry Castle*. The wettest July in 20 years except 1883, when $7\cdot73$ in. fell on 22 days. R 59 per cent. above, but wet days 5 per cent. below, the average.—*Hurdlestown*. The wettest July on record. R $1\cdot60$ in. above, but rainy days 1 below, the average. With the exception of July 2nd, 1892, when $2\cdot12$ in. fell, the fall on 24th ($2\cdot10$ in.) is the greatest on record.—*Miltown Malbay*. Much R and no great warmth. The R for the first three weeks, though copious, was scarcely appreciable on the

baked surface of the soil and pastures, but thence to the end it was more continuous and very beneficial.

XXI. *Ballindoney*. A warm month. The R on 3 days exceeded an inch, the fall being very heavy on 8th. On 4 days—8th, 9th, 23rd and 24th—4·88 in. fell.—*Kilkenny, Sion Villa*. Stormy on 1st and 4th, and strong, fresh breezes frequently. Total R 4·25 in., of which four-fifths fell on 4 days. Lovely weather, with much oppressive heat, prevailed generally.—*Killiney, Cloneevin*. R 6·72 in.; the highest recorded in any one month since observations began in 1885.—*Ardgillan*. R excessive (7·03 in.), 1·53 in. falling on 8th and 2·43 in. on 24th, the latter in about 18 hours steady R. In the 3 days, 23rd to 25th, 3·86 in. fell.—*Athlone, Twyford*. R 7·48 in., a fall only once exceeded in any month during more than 20 years.

XXII. *Tuam, Gardenfield*. Very wet, only 8 dry days; R 50 per cent. above the average.—*Laurderdale*. A wet, unseasonable month.

XXIII. *Belfast, Springfield*. R 7·74 in., the record fall in 22 years, but very little harm was done.

AUGUST.

I. *Muswell Hill*. R ·99 in., or 36 per cent. less than the average of 24 years. The beginning and end of the month were dry, nearly all the R falling between the 7th and the 25th.—*Finchley, Etchingham Park*. R about five-eighths of the average, the latter half being the wetter. Total for the eight months of the year 38 per cent. less than the average, every month except March having had a deficiency.

II. *Haslemere, Hazelhurst*. A cool month with a fair proportion of sunshine. R on 20 days. The drought of June and July so parched the ground that it was caked hard 9 inches from the surface at the end of August. Prevailing winds N.E. to N.W.—*Abinger Hall*. After the first week the weather became very unsettled, though the R was light.—*Wallington*. Comparatively dry, with the lowest mean temp. and mean wind force, and the smallest number of hours of sunshine, in any August for 10 years. Mean temp. 2°·4 below the average.—*Hythe*. A showery month, with many intervals of fine weather. Springs very low.—*Keston Tower*. A showery month, with no hot weather.—*Birchington, Thor*. Unsettled from beginning to end, with heavy R at times.—*Sheppey, Leysdown*. Generally fine and warm, most of the R falling at night, and the heaviest falls being attended by distant L and T.—*Lewes, Saxonbury*. Dry, warm and sunny; R much

wanted, and springs getting very low.—*Maidenhead, Castle Hill House*. Rather wet, especially towards the end. Temp. fairly high. Prevailing winds N.W. and S.W.

III. *St. Albans, The Grange*. Rather cold, with nearly average R.—*Culham Vicarage*. Dry and warm till the last 10 days, when nearly all the R fell. Had it not been for the R of the last 2 days, the fall of the first 8 months of the year would have been the smallest registered in 46 years.—*Bloxham Grove*. Fine and pleasant on the whole, and favourable for harvest work. The temp. was low after the 26th.—*Pitsford, Sedgebrook*. R .48 in. above the average.

IV. *Colchester, Lerden*. A cool, damp, Septemberlike month. Harvest generally over in the first half. *Ipswich, Bishops Hill*. A succession of most useful showers, but an absence of the usual number of summer TSS. R .09 in. above the average.

V. *Tavistock, Rose Villa*. Cold and showery with average R. The temp. rose above 70° on only 3 days.—*Stowell Rectory*. R .90 in. less than the average.

VI. *Ross, The Graig*. The long-continued drought which, with the exception of March and 6 days in June (4th to 9th), had prevailed from December 30th, 1895, was beginning to give way at the close of this month. The R of the 8 months is only 8.15 in., which is much less than in any corresponding period since 1818.

VII. *Belvoir Castle*. Variable weather and temp.; deficient sunshine; plentiful R.—*Hemingby*. Very unseasonable. Dull, with prevalence of cold N. or N.E. wind.—*Hodsock Priory*. The first cold month after 9 consecutive warm ones. Lower mean temp. and less sunshine than in any previous August since observations commenced. R .76 in. less than the average. Harvest finished generally in the last week.—*Derby, Duffield Road*. The first half fine, the second half dull and wet.

VIII. *Chelford, Astle Hall*. Fine and mild, with a good deal of T.—*Bolton, The Park*. Somewhat changeable, though the mean bar. pressure is the highest recorded in August during 11 years. The duration of bright sunshine was 93 hours, or 17 hours less than the average. R the least in August since 1887, and 1.71 in. below the average.—*Southport, Hesketh Park*. Somewhat chilly, with equable temperature, the result of prevalence of N. and W. winds. Much cloud and very low day temp. generally. Mean temp. 1° below the average. R 1.50 in. below the average, and practically confined to the

latter half. Underground water very low. Deficiency of sunshine.—*Seathwaite Vicarage*. Disappointingly wet and cold, but with no heavy falls of R.

XI. *Douglas, Victoria Road*. Fine and dry, but most unsummerlike, cold, strong N. and W. winds prevailing almost daily.

XV. *Craigend Castle*. Showery, and the last 10 days wet.

XVI. *Coupar Angus*. Weather generally good for harvest work. No night frosts or extremely warm days. Mean temp. $0^{\circ}5$, and R two inches, below the average.—*Ballinluig*. A dull month. Water supply a little short. Harvest a fortnight earlier than usual.

XVIII. *Glenaladale*. Wet and rather chilly; mean temp. $55^{\circ}6$.—*Lochmaddy*. R $\cdot 88$ in. in excess of the average of 12 years.—*Drumnadrochit*. Though only $1\cdot78$ in. of R fell, the month was especially wretched from the constant drizzle of its 25 wet days.

XIX. *Scourie*. Exceedingly wet, and crops suffered much.—*Watten*. Moist with northerly winds, and very thick and cloudy throughout.

XX. *Dunmanway, Coolkelure*. A very fine and warm harvest month; wind principally N. or N.W.—*Cork, Wellesley Terrace*. R a little more than one-third of the average; absolute drought of 16 days' duration ending on 15th.—*Mallow, Summer Hill*. R abnormally small, only $1\cdot72$ in.; the average for 6 years being $4\cdot28$ in. Absolute drought prevailed from 2nd to 16th inclusive; the longest drought previously recorded in August being only 6 days.—*Derry Castle*. Splendid harvest weather the first half, but wretchedly wet after the 17th. R 24 per cent., and wet days 16 per cent., below the average.—*Hurdlestown*. The driest August on record. R $2\cdot57$ in. below, or less than half, the average for 11 years.—*Miltown Malbay*. Good, dry harvest weather in the first half, but the latter half extremely wet.

XXI. *Ballindoney*. Fairly fine with no heavy R.—*Kilkenny, Sion Villa*. Very fine and dry, with much very warm sunshine, though for the past 6 years August has been very wet.

XXII. *Tuam, Gardenfield*. The first half fine, but R every day (except the 28th) in the latter half. R 25 per cent below the average.—*Lauderdale*. The first half dry, the remainder cold and wet.

XXIII. *Belfast, Springfield*. Following a wet July, the weather was cool and damp, and though the R was considerably less than the average, the ground did not dry, and evaporation was much less than usual.

SEPTEMBER.*

I. *Staines, Belle Vue.* The wettest month since observations commenced.—*Kensington, Edith Road.* R just three times the average. The wettest September in 13 years, and the wettest month since October 1891.—*Muswell Hill.* R 170 per cent. above the average of 24 years, and, with the exception of December 1876, the greatest in any month during that period. Nearly two-thirds of the total fell in the first half.—*Finchley, Etchingham Park.* R quite $2\frac{1}{2}$ times the average, and nearly double that of September 1892, the wettest previously since observations commenced in 1886. The second week was extremely wet, 2·67 in. being recorded in it.

II. *Haslemere, Hazelhurst.* A very wet month ; R on 26 days ; total 8·45 in. Temp. below the average. Flowers washed out by heavy R and the land saturated deeply on 4th. Wind between W. and S. nearly all the month. Full gale on 25th.—*Godalming, Charterhouse.* The wettest month recorded here ; R 7·12 in.—*Abinger Hall.* The wettest month recorded here.—*Dorking, Fir Tor.* R 9·73 in. Far the wettest month since observations commenced in 1876, the next highest fall being 7·45 in. in November, 1877.—*Wallington.* The wettest month in the 15 years' record, with the lowest mean bar., the highest mean min. in shade and on grass, the highest amount of cloud, and the greatest number of rainy days, of any September during 11 years.—*Maidstone, Mount House.* The wettest month (R 7·68 in.) since the record began in 1869 ; the next wettest being October 1880, with 7·12 in.—*Keston Tower.* Very wet and stormy, 2·62 in. of R falling on 1st ; being the greatest fall in 24 hours since the record commenced in 1883.—*Sheppey, Leysdown.* Unsettled throughout, with occasional gales and heavy R.—*Lewes, Saxonbury.* Mild and very wet, but the R very welcome after the dry summer.—*Maresfield, Forest Lodge.* R 7·47 in. The wettest September for 40 years.—*Parkhurst, Brookfield.* R 8·90 in. on 25 days ; 1·21 in. falling on 1st, 1·24 in. on 4th, and 1·56 in. on 24th. *Osborne.* Exceptionally wet ; R 8·09 in., an amount only once exceeded in 39 years, viz., in September 1866.—*Wickham, The Croft.* R 7·77 in. ; the greatest amount in any month since October 1891.—*Alton, Ashdell.* R 8·24 in. ; the largest previous fall in September being 6·50 in. in 1866.—*Maidenhead, Castle Hill House.* Very wet all through.

III. *Broxbourne.* The wettest month since July 1880.—*St. Albans, The Grange.* Of average temp. ; very humid, with R (6·69 in.) about

* See also *Met. Mag.*, September 1896, p. 116 ; and October 1896, p. 129.

three times the average, on 24 days. The wettest month for at least 10 years.—*Culham Vicarage*. There has not been so wet a September in this district since 1876; and it is the wettest registered at Long Wittenham in 46 years.—*Oxford, St. Giles'*. Extraordinarily stormy; R nearly four times the average of 9 years.—*Castle Ashby*. The heaviest September R since 1873, when the record commenced; while in that period only two months (July 1880 and October 1891) have had a greater fall.—*Pitsford, Sedgebrook*. R 2·14 in. above, or nearly double, the average.

IV. *Ipswich, Bishops Hill*. R 2·72 in. above, or more than double, the average. The R was almost continuous, and the total (4·97 in.) only ·11 in. less than in 1885. Several rather severe TSS.—*Denver*. Extraordinarily wet, and much corn in the fens spoilt.

V. *Figheldean*. R 6·35 in.; 4·36 in. above the average of 14 years, and 3·72 in. more than the next wettest September.—*Bishops Cannings*. R 3·11 in. above, or more than twice, the average.—*Malmesbury, Charlton Cottage*. R 8·80 in.; the greatest fall ever recorded in one month here.—*Poole, The Yarrells*. R 10·13 in.; the greatest fall in any month during the 20 years recorded.—*Tavistock*. Cold, damp, cloudy and very wet. Heavy falls of 1·64 in. and 1·51 in. occurred on the 21st and 24th, causing floods on the Tavy.—*Wellington*. Very wet, stormy and unsettled from beginning to end; R about two inches above the average. Temp. normal.—*Stowell Rectory*. Very wet; R 6·85 in. No similarly heavy R since September 1885, when 6·06 in. fell.—*Mells Rectory*. R 8·38 in.; exceeded only by October 1891 in 10 years.

VI. *Clifton, Pembroke Road*. The wettest September (R 7·35 in.) in 40 years, with two exceptions—7·40 in. in 1874 and 7·68 in. in 1866. R considerably more than that of the preceding 5 months.—*Cirencester, Further Barton*. Remarkable for R, which amounted to nearly seven inches on 25 days. Temp. high; often windy.—*Whitminster*. R 6·62 in.; the largest monthly amount since 1857, with the single exception of October 1891.—*Cheadle, The Heath House*. The total R for the month has been twice exceeded since the beginning of 1873. Including the last 13 days of August, it rained here on 41 days out of 42.

VII. *Belvoir Castle*. The wettest September since 1883.—*Hemingby*. Very unseasonable, with excessive R.—*Hodsock Priory*. Very dull, wet and stormy, with a complete absence of fine weather. R more than twice the average. Duration of sunshine only 65 hours.

VIII. *Chelford, Astle Hall*. A rough, wet month ; sometimes very hot, with a good deal of T.—*Neston, Hinderton*. The only month with 27 rainy days since observations commenced in 1868.—*Bolton, The Park*. Remarkably unsettled, and squally at times, with heavy R, causing floods in places. Duration of bright sunshine 47 hours, or 38 hours less than the average. R more than double the average, and 3·95 in. more than in any other September in 11 years —*Southport, Hesketh Park*. The cloudiest and most sunless September on record. Wet, and in the latter half very stormy. Mean temp. 0°·5 above the average. Warm until the 18th, cool afterwards. Range of temp. extremely small. Light and, for the most part, land-air throughout the first fortnight ; strong S.W. to N.W. winds subsequently. R an inch in excess of the average. Underground water commencing to rise. Amount of cloud the largest September value in 26 years, and little more than half the average duration of bright sunshine.—*Seathwaite Vicarage*. Unseasonably wet, with five falls exceeding an inch in 24 hours.

IX. *Huddersfield, Dalton*. The wettest September for 31 years—*Wakefield, Stanley Grange*. R 4·30 in., or 3·21 in. above the average.

X. *Ulpha Vicarage*. Very wet ; R 3·81 in. above the average of 8 years.

XI. *Crynant, Gelli Dochlleithe*. Very wet ; R 10·09 in., causing the heaviest flood known in the Crynant Valley for many years.—*Douglas, Victoria Road*. Wet and stormy. From the 14th to the 27th severe gales on 8 days, and strong winds on 5, with heavy seas. Only three wetter Septembers have occurred in 23 years, and, with the exception of 1891, none so stormy.

XII. *Colvend Manse*. Very wet, and much corn spoiled.—*Lilliesleaf, Riddell*. Unusually continuous R, only four days without it, but the total was exceeded in October 1895 and February 1894.

XIII. *Edinburgh, Blacket Place*. Very sunless during the first half, only 2½ hours' sunshine being recorded. The R though 50 per cent. above the average, was less than in the Septembers of 1891 and 1887.

XV. *Craigend Castle*. Wet ; the crops damaged by R.—*Oban, The Corran*. One of the wettest, coolest and stormiest Septembers of the past 10 years.

XVI. *Coupar Angus*. R twice the average ; the continuous moist state of the atmosphere, together with the high night temp. of the first two weeks, damaged the ungathered crops.—*Ballinluig*. The

weather was wet and dull throughout, and consequently unsuitable for harvest work.

XVIII. *Lochmaddy*. Beautiful weather in the first 12 days, but the remainder the most disagreeable September weather remembered. On the 16th and 17th the wind went twice round the compass, each time against the sun.—*Drumnadrochit*. R 1·50 in. above the average, and the greatest in September since 1885, excepting 1892, when slightly more fell.

XIX. *Scourie*. Fine harvest weather for 10 days early in the month, but almost incessant R in the remainder.—*Watten*. Windy, wet and sunless, especially in the second half.

XX. *Dunmanway, Coolkeelure*. A very wet month, but very warm. Towards the end, W. to N.W. gales of great violence occurred; several trees blown down and roofs damaged on 24th and 25th.—*Cork, Wellesley Terrace*. R more than double the average, and the greatest in September for at least 45 years. Temp. 1°·5 below the average.—*Derry Castle*. The wettest September and worst harvest month on record here; R 235 per cent. of the average, with wet days 47 per cent. in excess.—*Ballingarry, Hazelfort*. R for 21 consecutive days from 8th to 28th, proving disastrous to the harvest.—*Limerick, Roxborough*. The wettest September on record, and also cold and wild.—*Hurdlestown*. The wettest September on record here, and much hay and corn ruined. R 2·68 in. above, or more than double, the average of 11 years; rainy days 10 above the average.—*Miltown Malbay*. The first week was overcast with a moist sultriness prejudicial to harvest; while during the remainder, R fell every day, with high winds and occasional heavy gales. The wettest September on record.

XXI. *Ballindoney*. A month of incessant R; the fall on the 8th being 1·30 in., and on the 21st 1·12 in. Only 6 fine days. A great deal of L at night.—*Ballyhyland*. The wettest September for 27 years; R 6·92 in.—*Kilkenny, Sion Villa*. A wretched month; much stormy and cold weather, especially in the second half, when there was a succession of storms and gales. Frequent large and handsome rainbows.—*Rathmines, Leinster Road*. R 5·39 in.; the greatest fall in September since observations began in 1882.

XXII. *Tuam, Gardenfield*. The first week fine, the remainder excessively wet; R 2·50 in. above the average, and the greatest in September since 1869.—*Ballymote, New Park*. R 3·35 in. above the average, and the greatest in September in 8 years.—*Lawderdale*. Very wet, cold and stormy.

XXIII. *Belfast, Springfield.* Damp throughout, with almost continuous gales from 19th to 26th.—*Moneydig.* From the 9th to the end there was only one day without R, and much grain was injured.—*Stewartstown.* The worst month for farmers for many years, only three days without R.

OCTOBER.

I. *Muswell Hill.* R 3 per cent. below the average of 24 years. The first week was wet, followed by 4 dry days; from 12th to 21st, R fell almost daily; while in the last 10 days, only 2 had measurable R.

II. *Haslemere, Hazelhurst.* Wet to 26th, and temp. low, especially at night; frost on grass on 19 nights. Fine towards the end of the month, with slight fog in morning.—*Wallington.* Wet and cold; but not much more than average R. Sunshine deficient, and the lowest average max. in shade in 11 years. *Hythe.* Very wet and stormy; the wettest month since October 1889.—*Keston Tower.* Wet and stormy weather continued almost without a break up to the 25th, when calm, frosty weather set in.—*Birchington, Thor.* Very wet and stormy, with T, L and H storms.—*Lewes, Sarisbury.* Wet and chilly; a fall of 1·10 in. of R on 19th causing floods.

III. *St. Albans, The Grange* Rather cold and humid, with heavy R. *Culham Vicarage.* A wet month, with no great falls of R, and rather cold.—*Duddington, Stamford.* Wet, with fog and frost towards the close.

IV. *Sulbury, Friars Street.* Unsettled throughout, with much L at night.—*Ipswich, Bishops Hill.* The first half wet and squally, then generally cold and foggy with several frosts; the last week fine and bright. R ·32 in. less than the average.

V. *Bishops Cannings.* R ·11 in. above the average.—*Tavistock, Rose Villa.* Showery, cloudy and very cold, with about average R. The first frost of the season occurred on 13th.—*Wellington.* The first part was very rough and unsettled, the second quieter but very cold. Almost continuous south-westerly gales from 5th to 8th.

VI. *Further Barton.* R almost daily until the 19th, and from 23rd to 25th, then dry till the close. The first half mild, the latter cold with night frosts.—*Cheltenham.* R exactly the average of 19 years and mean temp. 2°·0 below the average for the same period. After the 18th, cold and raw with fog, but some bright days.—*Ross, The Gramp.* R near the average for the month as a whole, but the first half

very wet, and a continuation of the very wet September. The 44 days ending October 16th yielded 8·07 in. of R, and the 248 days ending September 2nd 8·21 in. The second extremely cold October in succession, and absolutely the coldest as regards day, or maximum, temp. since observations began here in 1859. The mean temp. of the last 14 days ($39^{\circ}3$) is unprecedentedly low.

VII. *Hemingby*. Wet, cold and boisterous.—*Hodsock Priory*. Cold and unsettled, with a great deal of showery weather. Mean temp. lower than for 20 years, being $3^{\circ}0$ below the average. R 0·90 in. above the average, and duration of sunshine 10 hours deficient.

VIII. *Southport, Hesketh Park*. The coldest October, with the exception of 1880, in 25 years. Mean temp. 4° below the average; frost on 9 days. Moderate to strong S.W. winds during the first nine days, light N. airs and calms afterwards. R an inch in excess of the average. A considerable rise in the level of the underground water. Slight fog and haze somewhat prevalent. Normal amounts of cloud and sunshine.

IX. *Wakefield, Stanley Grange*. R fell on every day but two. *Melmerby, Baldersby*. R 0·93 in. above the average of 10 years. Prevailing winds N.W.—*Scarborough Observatory*. An exceedingly wet and cloudy month.—*East Layton Hall*. Very dull and damp, with a limited amount of sunshine.

X. *Biddleston*. A record month for R (8·12 in.) ; the greatest fall in any month for 30 years.—*Pairston [Coldstream]*. The wettest October in the last 25 years, with (on the 10th) the heaviest R (2·12 in.) since September, 1880.

XI. *Douglas, Victoria Road*. Very wet, and, until the 18th, stormy; cold throughout, with veritable winter in the last week. Gales of great severity occurred on 5th, 6th, 7th, 10th, 17th and 18th, and for a few hours on 26th; but the rest of the month was unusually quiet.

XII. *Lilliesleaf, Riddell*. Much R in the early part of the month; less afterwards.

XIII. *Edinburgh, Blacket Place*. The coldest October since 1817; mean temp. $43^{\circ}2$.

XV. *Craigend Castle*. The first week wet and stormy; then clear, with sharp frosts and some S showers.

XVI. *Coupar Angus*. R fell on 17 days, but the total did not reach the average. Mean temp. the lowest since 1885.—*Ballinluig*. Much drier and brighter than September, with a good deal of frost at night.

XVIII. *Glenaludale*. Chiefly remarkable for its extraordinarily low temp.—*Lochmaddy*. Except from the 10th to 14th, when the weather was bright and fine, the month was cold and boisterous. Prevailing winds N. and N.E., and on several occasions it blew a full gale.—*Drumnadrochit*. A very wintry month, with the greatest R (8·42 in.) in any month of 11 years recorded, and also the greatest fall in 24 hours during the same period, *i.e.*, 1·51 in. on 18th.

XIX. *Watten, H.R.S.* Wet and squally, with cold northerly winds, rain storms, snow storms and frequent frosts.

XX. *Coolkelure*. Cold and boisterous winds ; principally from N.W. and N.E.—*Derry Castle*. A month of very changeable weather. R 8 per cent. below, but wet days just equal to, the average.—*Broadford, Hurdlestown*. The first part of the month was wet, the last part fairly fine. R 45 in. below, but rainy days 4 above, the average of 12 years.—*Miltown Malbay*. The heavy R of August and September continued to the 12th, when cold, boisterous weather, with winds from N. or N.E., prevailed for a week ; and the remainder was changeable and very cold.

XXI. *Kilkenny, Sion Villa*. Storms and gales up to the 9th, and on 19th, 24th and 25th. Frost on 7th and 12th, and from 22nd to the close. S on and off all day on 11th.

XXII. *Tuam, Gardenfield*. R on 24 days, but slightly less than the average. Frost on 7 nights.

NOVEMBER.

I. *Kensington, Edith Road*. The coldest November in 13 years, and the driest since 1889 ; on only 2 days was 50° attained.—*Muswell Hill*. Total R only 39 per cent. of the average, and the smallest amount in November since 1879. The last 11 days were rainless.—*Finchley, Etchingham Park*. R 55 per cent. less than the average of 10 years. Nearly all the R fell in the first half.

II. *Abinger Hall*. Open and fairly dry, with cold N.E. wind towards the end.—*Wallington*. Very dry, and the coldest November in 11 years. Frosts and fogs numerous. R less than half the average. Mean temp. 4°·0 below, and duration of sunshine 3 hours below, the average.—*Tenterden*. The coldest November since 1884 ; frost in screen on 10 nights, and above 50° on only 2 days. Duration of sunshine 91 hours ; 11 sunless days. Only four Novembers with less R since the record began in 1863.—*Hythe*. Very unsettled and showery to the

19th, then dull, dry and frosty to the end.—*Keston Tower*. A pleasant month, with little R or wind, but a good many frosty nights.—*Birchington, Thor*. Mild and foggy in the early part; cold N.E. winds with sharp frost in the later part.—*Sheppey, Leysdown*. Fair generally with some very fine days. Cold winds, frequently strong, from N.E. or E. very prevalent.

III. *Broxbourne*. Cold N.E. winds almost throughout, and temp. below the average.—*St. Albans, The Grange*. Very cold and bright, with but little R.—*Slough, Upton*. Owing to the unusual dryness and the heavy rains in October, the ground was in perfect condition for agriculture.—*Culham Vicarage*. Dry and rather cold.—*Oxford, St. Giles'*. Mean temp. nearly 5° below the average of 9 years.—*Pitsford, Sedgbrook*. Mostly overcast and foggy; wind N. or N.W. every day but 29th and 30th. R 1·38 in. below, or less than half, the average.

IV. *Colchester, Lexden*. Cold and dry; favourable for working on the land. No S.—*Ipswich, Bishops Hill*. Dry, fine and cold, with slight frosts nearly every night and frequent fog or mist. R only half the average.

V. *Bishops Cannings*. Cold and dry; R 2·70 in. below, or little more than one-fifth of, the average.—*Mildenhall*. The driest November on record.—*Wellington*. Dry, cold and unusually bright; the last two or three days intensely cold with strong N.E. wind. R less than one-third of the average.—*Stowell Rectory*. Very dry and rather cold.

VI. *Clifton, Pembroke Road*. There have been only three drier Novembers in 40 years—1856, ·22 in.; 1871, ·65 in.; 1879, ·67 in.; 1896, ·75 in.—*Further Barton*. Cold, with many fine days and little fog.—*Ross, The Graig*. Another very cold month, though November 1871 was slightly colder. In 1894 and 1895, there were 19 days on which the temp. rose above 50° ; while this year the absolute max. is 50° ·8. The R is the smallest in November since 1856.

VII. *Belvoir Castle*. Very changeable in every way. Sharp frost from 4th to 7th; six consecutive sunless days from 21st to 26th.—*Horncastle, Bucknall*. Mean temp. below the average on every day.—*Hodsock Priory*. Dry and open, but the coldest November since 1879. R ·91 in. below, or little more than half, the average. Duration of sunshine 9 hours above the average.

VIII. *Chelford, Astle Hall*. A cold, frosty month.—*Bolton, The Park*. Cold and generally calm, but piercing easterly breezes in the latter part. R 2·30 in. below, or considerably less than half, the average of 11 years, and the smallest on record for November. Dura-

tion of sunshine 4 hours above the average.—*Southport, Hesketh Park.* Calm, dry and cold. Mean temp. $2^{\circ}7$ below the average. Particularly low readings from 4th to 6th, and on 17th and 30th. Frost in screen on 14 days. Very light airs generally, variable in direction; keen N. and E. breezes occasionally. R nearly 2·00 in. under the average, half of the total falling on 7th. Much haze, yet a good record of sunshine. No S or H.—*Seathwaite Vicarage.* The smallest R in November since the gauge was fixed in 1888. Severe frosts for the season.

IX. *East Layton Hall.* Very fine and almost free from fog, with some very bright, dry weather.

X. *Ulpha Vicarage.* Very fine, with some frosts of more than usual severity. R 5·35 in. below the average of 8 years.

XI. *Llanfrechfa Grange.* Calm, without much fog.—*Douglas, Victoria Road.* Very fine and quiet, with unusually bright but cold weather. The wind attained the force of a gale on only one day, but fresh N.E. breezes prevailed at the end.

XIII. *Edinburgh, Blacket Place.* Great deficiency of sunshine; the total amount recorded being only 22 hours. R only one-quarter of the average.

XV. *Craigend Castle.* The first week fine and frosty, then mild and showery.

XVI. *Coupar Angus.* R much below the average, both in quantity and in the number of rainy days. Temp. high, with the exception of a few cold nights.—*Ballinluig.* Remarkably dry and fine on the whole, very suitable for farm work. No S.

XVIII. *Glendalale.* A fine, mild, calm month.—*Lochmaddy.* At the beginning and end of the month the weather was exceptionally good, but from the 10th to the 23rd the reverse was the case.—*Drumadrochit.* Remarkably fine; a marked contrast to October.

XIX. *Watten, H.R.S.* The first 19 days wet, with frosts, S storms and torrents of R. The closing week fine.

XX. *Cork, Wellesley Terrace.* R less than half, and mean temp. $3^{\circ}2$ below, the average. Frost on 9 nights.—*Broadford, Hurdlestown.* A very fine November, and the driest recorded here. R 1·83 in. below, or less than half, the average; rainy days 10 less than the average.

XXI. *Ballindoney.* A fine month, with no very heavy R. A good deal of frost, but not severe.—*Kilkenny, Sion Villa.* Fine and dry. Frosts from 6th to 10th, and again on 19th, 26th and 27th. Thick wet fogs on 6th, 10th and 17th. Storms on 14th and 15th. Much

very mild, but very damp, weather.—*Rathmines, Leinster Road*. R 69 in.; the smallest fall in November since the record began in 1882.

XXII. *Tuam, Gardenfield*. R on 15 days, but less than one-third of the average. Frost on 6 nights; the remainder mild. No S.—*Lauderdale*. A very good, dry and mild month.

XXIII. *Belfast, Springfield*. The month opened very fine; white frosts from 4th to 6th, followed by R. From 13th to 19th R again, and thence to the end occasional fogs and frosts.—*Buncrana, Rockfort*. A particularly fine winter month.—*Carrablagh*. So dry a November (R 1.43 in.) has probably never been known before. That of 1889 was also altogether abnormal, but it was half-an-inch wetter.

DECEMBER.

I. *Kensington, Edith Road*. The wettest December since 1886; R just double the average.—*Finchley, Etchingham Park*. R 1.92 in., or 91 per cent., above the average of 10 years. The first week was very wet, with 1.89 in. of R on 6 days, while in the second week, every day was wet. In the latter half, slight falls of S occurred on 19th, 20th and 21st, and 6 other days were rainy.

II. *Haslemere, Hazelhurst*. A rainy month. Frost in shade on 12 nights; on grass on 24. Slight S on 15th, making roads slippery for a week.—*Abinger Hall*. Wet, but mild and open for the most part; some beautiful days from 15th to 18th.—*Wallington*. Very wet and sunless, but warm. Fogs somewhat frequent, and that of 16th specially bad. S fell on 3 days, but did not lie long. R 1.21 in., or more than one-third, above the average. Duration of sunshine only two-thirds of the average.—*Hythe*. Very wet and unsettled; R falling on every day but five. S on 4 days.—*Birchington, Thor*. Wet and dull; the greater part very mild.—*Sheppey, Leysdown*. Generally humid and mild; with a few cold days, and some remarkably fine. R 1.06 in. above the average of 9 years.—*Leaves, Saxonbury*. Wet till 15th, and all springs running freely; frost from 15th to 24th; very mild, with much fog, after. Heavy gale from S.S.E. on 4th, and much damage at Newhaven and Brighton.—*Maidenhead, Castle Hill House*. A wet month, and the weather very muggy and damp. Prevailing wind S.W. and N.

III. *St. Albans, The Grange*. Of average temp., humid, rather cloudy and very wet.—*Culham Vicarage*. Wet and changeable; mostly mild, with little frost.—*Castle Ashby*. R of the month 1.41 in. above the

average ; leaving a deficiency on the total for the year of 1·58 in.—*Pitsford, Sedgbrook*. R 1·25 in., or about 50 per cent., above the average.

IV. *Sudbury, Friars Street*. Very unsettled, but mild on the whole; only 5 fine days. A little S on 20th and 21st.—*Ipswich, Bishops Hill*. Wet, open and mild, with some frost, much fog and mist, and some high winds. R 1·26 in. above the average.

V. *Bishops Cannings*. R 1·44 in. above the average, but very little water in drains and ditches.—*Ivybridge, Langham Hill*. The wettest month in 10 years. R 11·31 in.—*Bere Ferrers*. R 10·89 in. ; an amount exceeded in only two months in 21 years.—*Lee Moor Clay Works*. Although the total R is the greatest for many years, there was no great flood on any one day.—*Tavistock, Rose Villa*. Stormy, very wet, and rather cold. R about double the average, 7·87 in. falling in the first 16 days.—*Milton Abbot, Endsleigh*. R the greatest recorded in 30 years.—*Falmouth Observatory*. R 10·73 in., the greatest recorded in the 26 years 1871–96.—*Altarnon*. One of the six wettest months recorded in 32 years.—*Wellington*. Excessively wet ; R falling daily till the 15th. The middle of the month rather cold and frosty, the remainder mild.

VI. *Clifton, Pembroke Road*. Mild, rainy and very unsettled. During the last week, a rapid succession of depressions from the Atlantic.—*Cirencester, Further Barton*. Very changeable ; a little S on 17th, which remained on the ground for several days. *Ross, The Graig*. Temp. of the month near the average. Very changeable weather ; bright, clear mornings alternating with excessive gloom. Frosty on 1st and 2nd, and from 12th to 26th inclusive ; the last 6 days very warm ; the max. temp. above 50° each day. The first fortnight very wet.

VII. *Hemingby*. Very variable temp. and weather on closely contiguous dates.—*Hodsock Priory*. Dull, with no sharp frost, and with a slight excess of R. Sunshine deficient. S on the ground for about a week from 17th.

VIII. *Chelford, Astle Hall*. Fine and mild till about the 13th, when it turned very cold, and continued so to the end.—*Bolton, The Park*. R fell daily till 13th, and from 24th to 31st ; on 15th and 16th, about an inch of S fell and lay on the ground until 23rd. R 1·87 in. above the average. Bright sunshine occurred on only 5 days ; the total duration being less than 7 hours.—*Southport, Hesketh Park*. Rather wet, but otherwise fairly normal. Mild generally until the 14th, and after the 24th ; much lower temp. between. Frost in screen on

12 days. Winds very variable and rarely strong. R particularly heavy in the last week, and the total nearly 1·50 in. in excess of the average. Water level exceptionally high at the close of the year, much of the surrounding country being flooded. A good deal of cloud, but a satisfactory record of sunshine. No S.—*Seathwaite Vicarage*. Mild on the whole, with more than average R; 7·30 in. of continuous R falling in the last 9 days.

IX. *Baldersby*. Mild; with easterly wind in the first half, and westerly in the second half.

X. *Ulpha Vicarage*. Wet and unusually dark. A slight fall of S on 16th, followed by frost until 22nd, when very wet weather succeeded, lasting to the end.

XI. *Douglas, Victoria Road*. Only two wetter Decembers since observations began in 1874. R fell daily from 1st to 12th, and 23rd to 31st; brilliantly fine from 17th to 22nd, with slight frost. Moderate gales occurred on 6 days.

XII. *Colvend Manse*. The wettest December for many years, especially so towards the end.—*Lilliesleaf, Riddell*. Very wet and changeable; sometimes frost, S and calms; at others, storms, heavy R and fogs.

XIII. *Edinburgh, Blacket Place*. The dullest month since December 1890; bright sunshine only 5 per cent. of the possible duration.

XIV. *Paisley, Crookston*. From 24th to 31st, 4·50 in. of R fell.

XV. *Craigend Castle*. The first half dull and showery, then clear and frosty; and the last week wet and stormy, with 3·07 in. of R on 29th and 30th.

XVI. *Coupar Angus*. Extremely wet and fitful weather. Four spells of low temp., but of short duration. R twice the average.—*Ballinluig*. Very wet and damp. A slight sprinkling of S on the ground from 15th to 25th.

XVIII. *Drumnadrochit*. R ·07 in. more than the average of ten years.

XIX. *Watten, H.R.S.* Wet and stormy, but mild and open.

XX. *Coolkelure*. With the exception of four days' frost, remarkable for the prevalence of violent gales from S.W. and S.E., accompanied by a very large R. Temp. generally high.—*Cork, Wellesley Terrace*. Rain-fall two-and-a-half inches in excess of the average. Atmosphere in an almost complete state of saturation during the last week.—*Killarney*. The heavy R of the month acting on a great mass of bog filling a valley, caused it to become disintegrated and to flow like an avalanche

down the Valley of the Flesk. Fatal results followed the sweeping away of a cabin with its eight inhabitants.—*Knockaderry*. R 8·50 in. : the greatest monthly amount for 25 years.—*Waterford, Cove Lodge*. R 7·14 in. ; the greatest recorded here in any month.—*Derry Castle*. A tempestuous winter month, and the wettest in 20 years, except 1884, when 7·72 in. of R fell. R 46 per cent., and wet days 24 per cent., above the average.—*Broadford, Hurdlestown*. Weather very uncertain ; one day with severe frost, and the next very wet. R ·92 in., and rainy days 4, above the average for 12 years.—*Miltown Malbay*. Very wet. Hard frost at night from 16th to 19th, but the remainder mild, with very little high wind and no S.

XXI. *Longraigue*. R 9·25 in. ; only twice exceeded in any month since 1868.—*Templeudigan, Ballindoney*. The wettest month since observations commenced, the R on 1st and 8th being extremely heavy. From 16th to 20th there was very severe frost, then a return of heavy R. Land very wet. Aurora seen on 3rd.—*Ballyhyland*. R 8·74 in. The wettest December for 24, and the wettest month for 21, years.—*Monksgrange*. Remarkable for R, 10·43 in. on 27 days.—*Kilkenny, Sion Villa*. Very wet, cold and dark. Frost from 13th in mornings, turning to R in afternoons. Storms on 7th, 12th, 24th and 25th. Gales on 9th and 10th. Ice bore skaters on 20th.

XXII. *Tuam, Gardenfield*. R on 21 days, and one-third more than the average. No S ; frost on 12 nights, very severe from 17th to 23rd. Very wet on 29th and 30th, and the highest flood for about 7 years on 31st.—*Lawderdale*. A wet and cold month.

XXIII. *Belfast, Springfield*. Wet till the 15th ; frost from 16th to 23rd ; then 2·75 in. of R in the last 9 days.

OBSERVERS' NOTES ON THE YEAR 1896.

ENGLAND.

DIVISION I.—MIDDLESEX.

TEDDINGTON, GOMER HOUSE.—Notwithstanding much drought, the R almost reached the yearly average.

KENSINGTON, EDITH ROAD.—The first 7 months were all above the average in temp., the next 4 below, and December again above. Mean temp. $1^{\circ}\cdot 1$ above the average. The total R for the first 8 months (9·46 in.) is the least recorded in 13 years, but a wet autumn brought up the total for the year very near to the average (1·13 in. below). Absolute drought for 32 days (April 18th to May 19th). Partial droughts for 33 days (January 28th to February 29th), with ·28 in. of R, and for 51 days (April 15th to June 4th), with ·47 in. of R.

WESTBOURNE GROVE.—A dry year, only 6·63 in. of R being recorded during the first half; while the greatest fall in 24 hours was only ·79 in. The total for the 4 months January, February, April and May, was only 1·17 in.

HAMPSTEAD, BRANCH HILL.—R 2·13 in. more than, and rainy days 25 less than, the average of 20 years.

MUSWELL HILL.—R 3·74 in., or 13 per cent., less than the 24 years' average; mainly due to the scanty R of the first 8 months, all which (excepting March, which had nearly double its average) showed large deficiencies, especially January, February, April, May and July, ranging from a tenth of the average in May to three-eighths of it in July; the aggregate of the 8 months was 7·54 in., or 43 per cent., less than the 24 years' average; while the total of the last 4 months was 14·49 in., or an excess of 35 per cent.; of this September contributed 6·26 in. The number of days on which R fell was 154, or nearly 15 per cent. less than the average. No fall of an inch in 24 hours occurred. There was absolute drought for 20 days ending May 19th, and partial drought for 51 days ending June 3rd (R ·45 in.), and for 45 days ending July 25th (R ·45 in.).

FINCHLEY, ETCHINGHAM PARK.—Remarkable for the extra-

ordinary irregularity of the distribution of the R, the great deficiency of the first 6 months, and the large excess of September. There were 9 months with a deficiency and 3 with an excess. The aggregate of the first 8 months is 10·11 in., and that of the last 4, 11·65 in., making the total 1·34 in. less than the 10 years' average. The months of greatest deficiency were January, February, April and May, the totals of which are all under an inch, and less than half their average. The total of September (6·36 in.) exceeded the aggregate of the 7 months January, February, April, May, June, July and November. There was absolute drought for 20 days ending May 19th, and partial drought for 30 days ending February 26th (with ·30 in. of R), for 51 days ending June 2nd (with ·45 in.), and for 45 days ending July 25th (with ·38 in.). There was only one fall of R in 24 hours exceeding an inch. The fall of S was very insignificant.

DIVISION II.—SOUTH-EASTERN COUNTIES.

HASLEMERE.—R ·70 in. above the average of 24 years. The first 6 months were dry, with a fall of 10·85 in. ; while the last 6 months were wet, 12·03 in. falling in September and October. The fall of September (7·98 in.) is the largest in any month of the 24 years.

HASLEMERE, HAZELHURST.—Mild and dull, with little R early in the year ; 25 rainy days in March, but April and May fine and dry. Heavy showers in June refreshed the parched ground. September abnormally wet (R 8·45 in.), with 2·06 in. on 1st. Frost destroyed all flowers in October. Only ·04 in. of S fell throughout the year, and the ice never bore a man's weight. R exceeded an inch on 8 days, the total being 3·25 in. above the average of 7 years. Insect pests numerous and destructive.

HASLEMERE, GRAYSWOOD HILL.—The disproportion between the R of the two halves of the year—10·21 in. and 21·53 in.—is remarkable.

CHIDDINGFOLD, BEACONSCROFT.—The first 3 months were damp and gloomy, though little R fell in January and February ; in March there were 26 rainy days, nearly making up the average. April and May were distinguished by drought, but June was rainy. July was very hot and dry, and water was low in the wells. September was marked by heavy rains, which continued into October. December also was very wet.

WITLEY, THE MOUNT.—There were three distinct seasons of drought: at the beginning of March, when dust followed the plough; at the end of May, when everything was parched; and at the end of July, following great heat and wind. September was the wettest on record, R 7·61 in., exceeding the fall of September 1885 by 1·20 in.

HASCOMBE RECTORY.—The springs were still low at the close, notwithstanding the heavy R of the last 4 months.

ABINGER HALL.—A year of remarkable contrasts; the first half very dry, September and December very wet. TSS rather prevalent. Winter mild.

FARNHAM, BOURNE VICARAGE.—Abnormal at all seasons, the various months exceeding, or falling short of, the average in an extraordinary way. Drought from April 18th to June 4th, broken by only four showers. Only 5 rainless days from August 30th to October 9th. R of the four quarters 4·35 in., 3·74 in., 9·74 in. and 8·84 in.; the fall of the first half-year being less than that of either of the subsequent quarters.

GUILDFORD, MERROW.—The first 5 months were very dry, and although considerable R fell in June, everything became dried up, and water was very scarce until September, when 6·19 in. of R fell.

REIGATE, DOODS.—Again a large deficiency of R in the first half-year; viz.: 9·15 in., or only 28 per cent. of the total, which is 2·97 in. above the average of 15 years. The other feature was the unprecedented fall of September, 8·73 in.

DORKING, HIGH ASHURST.—January was dry and remarkably mild; February very dry and the last week cold. Absolute drought prevailed for 19 days ending May 19th, and partial drought for 49 days ending June 3rd; heavy rains in September so cooled the ground that the leaves fell from the trees while still green.

UPPER GATTON.—The first half of the year, with the exception of March, was dry; absolute drought prevailing for 20 days ending May 19th, and partial drought for 53 days, with ·50 in. of R, ending June 6th. September was extremely wet, with four falls exceeding ·75 in.

PIRBRIGHT CAMP.—The distribution of R much resembled that of 1895. Out of a total of 24·61 in., 16·96 in. fell in the last half, September being remarkably wet. The total for the 4 months January, February, April and May, was only 1·60 in. S fell on only 2 days, March 3rd and December 21st.

ASHTEAD, D'ABERNON CHASE.—Remarkable for the small fall in the first 8 months and for the excessive amount in September.

CHERTSEY, OTTERSHAW.—Very dry till the end of July, a fair amount of R in August, extraordinarily wet in September, and plenty of R to the end of the year, the total being nearly up to the average of 10 years.

WEYBRIDGE, FIELD PLACE.—No measurable R fell, except .03 in. on April 29th, from April 17th to May 20th, and only .32 in. from April 17th to June 3rd inclusive, but the fall of September (5.81 in.) has been exceeded in only 3 months during 20 years.

ESHER, CLAYGATE.—Very dry to the end of July; after that unusually wet. February remarkably dry, and September excessively wet.

WALLINGTON.—Very cloudy and sunless, with high temp. and a fair amount of R. Duration of sunshine 99 hours less than in any year of the previous ten.

CLAPHAM PARK.—The first 7 months (with the exception of March) were dry, the last 5 (except November) were wet. There was no fall of an inch in 24 hours.

BENENDEN.—In the 8 months ending August 11.34 in. of R fell, while in September and October 12.11 in. fell.

TENTERDEN.—Total R about the average, but 1896 was a remarkable year. January, February, April, May, July and November all had far less than the average. Droughts, though severe in May, were in no case so long or so intense as in 1893 and 1895, and the hay crop was not so light. Harvest was very early, hop-picking wet. The fall of the first 5 months was only 4.75 in., the least during 33 years.

HYTHE, FROGHOLT.—An unusually dry spring (only .40 in. in February, and .29 in. in May), followed by heavy R in the autumn.

CRANBROOK, SWATTENDEN.—R .66 in. above, and rainy days 7 below, the average of 20 years.

CRANBROOK, HARTLEY.—On four days the R exceeded an inch, the average number for 31 years being two.

BETHERSDEN, OAKHURST.—A dry spring, only 4.51 in. of R to the end of May, but more than 11 inches in September and October. No S to lie.

MAIDSTONE, MOUNT HOUSE.—Total R above the normal, and exceeded only four times since 1869.

ASH, PETTINGS HOUSE.—The fall in September and October

(10·37 in.) is nearly half a year's average. Absolute drought for 19 days ending May 18th, and partial drought for 53 days, with ·33 in. of R, ending June 3rd; R was measured on 25 consecutive days from October 2nd.

ST. PETERS.—The drought in the first 5 months was remarkable; July also, usually a wet month, was dry.

MARGATE, APSLEY HOUSE. R five inches above the average, and the greatest in 15 years. The first half was very dry, and just half the total fell in the 3 months August to October. There were four falls exceeding an inch in 24 hours.

ROCHESTER, HOO ST. MARY.—The R of the 4 months January, February, April and May was so small that serious drought occurred, and but for a wet week in the early part of June, nearly all crops would have failed. Harvest was early, and finished before the bad weather of September.

WORTHING, ELLESMERE.—Only 9·20 in. of R fell up to August 31st, the smallest quantity in any corresponding period since observations commenced in Worthing in 1852.

ANGMERING.—More R fell in September and October than in the previous 8 months.

ARUNDEL.—Total R rather below the average of 10 years. September was the wettest month since October 1882.

CHICHESTER, WATERGATE.—Absolute drought prevailed for 21 days ending May 19th, and in the 51 days ending on the same date only ·52 in. of R fell.

FALMER.—R 2·03 in. less than the average of 36 years.

GUESTLING RECTORY.—The chief peculiarities of the R were the number of falls (four) exceeding an inch in 24 hours, and the great dryness of April, May, June and July, broken only by 1·83 in. on June 9th and 10th. Absolute drought prevailed for 18 days ending May 19th, and partial drought for 48 days ending June 4th.

HAMPTON LODGE. Dry as a whole, only ·23 in. of R falling in February and May, ·50 in. in April, and ·65 in. in January.

MARESFIELD, FOREST LODGE.—The R of 1896 is ·91 in. in defect of the average of the 40 years ending with 1895. The earlier months were, as a rule, so seriously deficient as to threaten a water famine, *e.g.*, January was 1·63 in., February 1·90 in., April 1·26 in., May 1·51 in., July 1·29 in. and August ·74 in. in defect, while again in November there was a deficiency of 1·82 in. Absolute drought from May 2nd to 19th inclusive.

BONCHURCH, LILIES.—R very small in the early months of the year, but September remarkably wet.

OSBORNE.—R about 89 per cent. of the average of 39 years. The chief feature was the remarkably small fall in the first 6 months (6·43 in.) ; only once has a less quantity fallen in the same period, viz., in 1892. September was exceptionally wet.

EMSWORTH, REDLANDS.—R ·95 in. below the average of 13 years. Absolute drought prevailed for 20 days in April and May, and a dry period from March 30th to August 29th caused loss to agriculturists. The exceptionally heavy R of September kept the land water-logged to the end of the year.

NETLEY HOSPITAL.—Only trifling amounts of R fell in February, April, May and July. May had only ·39 in. on 3 days, while in September 7·79 in. fell on 24 days ; December also was very wet. The last 4 months of the year yielded nearly half as much again as the first 8 months.

WICKHAM, THE CROFT.—Less than an inch of R was registered in 5 out of the 12 months, the total for the year being 2·75 in. below the average of 12 years. There were periods of absolute drought for 19 days commencing May 1st, and 21 days commencing July 4th.

SOUTHAMPTON, RED LODGE.—Extraordinarily dry in the summer, everything scorched up and water scarce in many places. A very wet September.

OTTERBOURNE, SHAWFORD.—In 5 months (March 21st to August 21st) only 4·50 in. of R fell. Absolute drought for 21 days ending June 20th, and 16 days ending July 24th. Partial drought for 50 days, with ·32 in. of R, ending June 3rd, and for 29 days, with ·17 in. of R, ending July 24th.

OLD LODGE [SALISBURY].—A long drought in spring and summer, which caused great loss in this dry country, was succeeded by a wet autumn. September being the wettest month of the year instead of, as usual, one of the dry ones.

HINTON AMPNER.—Many wells in this parish were dry in the beginning of September. The well here is 100 ft. deep, the top being about 323 ft. above sea-level. The water reached its lowest point (2 ft. 5 in.) on September 3rd.

ROTHERWICK, TYLNEY HALL.—Another dry year, with R at the wrong time ; the total 2·33 in. less than the average of 20 years.

SANDHURST LODGE.—After the remarkable drought of the

summer, 15·31 in. of R fell between August 17th and the end of the year.

DENFORD PARK.—Total R about 3·50 in. less than the average. The growing months (April and May) were very dry, but September, October and December were exceedingly wet.

READING, EAST THORPE.—R ·03 in. above, but rainy days 10 below, the average of 10 years.

DIVISION III.—SOUTH MIDLAND COUNTIES.

WATFORD, FROGMORE.—April and May were exceptionally dry, with an aggregate R of only ·76 in. ; but August and September had the exceptional amount of 10·89 in.

ST. ALBANS, THE GRANGE.—R about the average. Nearly three times as much fell in the second half of the year as in the first half, in which there was one partial drought of 48 days ending June 3rd. September, with 6·69 in., was the wettest month in 10 years. Remarkably few TSS.

THROCKING RECTORY.—R 2·35 in. above the average of 15 years. Partial drought for 48 days, with ·46 in. of R, ending June 3rd.

SLOUGH, LANGLEY.—Difference of R from the average of 25 years only ·01 in. September had the greatest fall in any month during that period.

SLOUGH, UPTON.—The drought of 1896 was broken by a wet month in March, and by 1·02 in. of R on June 9th and 10th ; but the fall for the first six months was less than half the normal quantity.

HEDSOR.—The year commenced with dry, mild weather and high pressure. March was abnormally wet ; after which dry weather continued, with a short break in June, till August 16th. The summer was pleasantly, but not excessively, warm. On August 17th, heavy rains commenced and continued till October 21st, 10·63 in. being precipitated in that period. November was dry and fine with rather low temp., December very mild and wet. Owing to the heavy precipitation in March, September and December, the total R is only ·09 in. below average.

AMERSHAM.—February very dry and March wet. Absolute drought for 33 days ending May 20th ; partial drought for 47 days, with ·35 in. of R, ending June 3rd.

ADDINGTON.—A very light R until the end of July ; and, though

excessive falls in September helped to make up arrears, the total fall is more than two inches less than the average of 25 years. No severe frost.

STONY STRATFORD, THORNTON.—R 1·39 in. below the average of 20 years.

WHITCHURCH.—R about four inches less than the average. Great absence of T and H.

CAVERSHAM, CANE END.—Drought in April and May ruined hay and other crops, and heavy R in September ruined much late corn.

CULHAM VICARAGE.—Spring very dry, with the exception of March, and the R up to August 19th exceptionally small. The wettest September on record, and a very dry November. Total R 3·50 in. below the average.

PYRTON MANOR.—R 3·10 in. above the average of 10 years. Only 5·48 in. fell in the first 5 months, while 6·72 in. fell in September. Absolute drought for 32 days from April 18th.

BLOXHAM GROVE.—Spring mild and dry; summer dry till the end of August; autumn very wet; winter wet and mild.

BANBURY, BODICOTE.—In the first 8 months only 10·39 in. fell, and in the 4 remaining months 13·33 in.

DUDDINGTON.—Long periods of drought occurred in the first half of the year. In 66 days ending March 6th, only 1·90 in. of R fell; in 75 days ending May 31st, 1·96 in. fell; and in 66 days ending June 5th, 1·56 in. September, October and December were wet, floods occurring frequently in the last-named month.

MAXEY VICARAGE.—The longest rainless period was 11 days (May 1st to 11th), and the longest period with R every day 19 days (October 3rd to 21st). On only 5 days did the fall exceed ·50 in.

ASPLEY GUISE.—R 1·29 in., or 5 per cent., less than the average of 25 years.

TRUMPINGTON.—The earlier part of the year was remarkable for dryness and high temp. From April 11th to June 4th only slight showers of R fell, but in the later months continued wet prevailed with low temp.

DIVISION IV.—EASTERN COUNTIES.

LEXDEN, HILL HOUSE.—Absolute drought for 16 days ending May 18th. Partial drought for 32 days, with ·32 in. of R, ending

February 28th ; 33 days, with $\cdot 21$ in. of R, ending June 2nd ; and 45 days, with $\cdot 24$ in. of R, ending July 25th.

BRAINTREE, FENNES.—R only about half-an-inch below the average, though (as in the three preceding years) the first 6 months show a decided deficiency. Partial drought for 48 days ending June 3rd, with $\cdot 41$ in. of R.

MANNINGTREE VICARAGE.—From January 1st to August 31st $12\cdot 08$ in. of R fell, and in the remaining 4 months $12\cdot 20$ in. fell.

IPSWICH, BISHOPS HILL.—R $1\cdot 71$ in. less than the average. January, February, April, May, July and November were all dry, giving an aggregate fall of $4\cdot 60$ in., a deficiency of $7\cdot 32$ in. March and September were very wet, giving with June, August, October and December an excess of $5\cdot 61$ in.

IPSWICH, CLARE LODGE.—Remarkable for almost entire absence of S.

CLARE, STANSFIELD.—The great drought of April and May was severely felt by the crops.

HAWKEDON RECTORY.—A mild winter, a wet March, a dry April and drier May. June and July model months. August brought wet, succeeded by a pouring wet September, and October scarcely better ; November dry and fine ; December very wet, but mild. R $\cdot 51$ in. above the average of 7 years.

GELDESTON [BECCLES].—R nearly three inches below the average.

BRUNDALL.—Remarkable for, the mildness of winter and almost complete absence of S ; the dry weather from April 1st to August 4th ; the warmth of June and July, and the number of rainy days in September, October and December, though in neither of these months did the fall exceed the average by an inch.

NORWICH, ESSEX STREET.—February very dry, and March generally rainy. May, June and July very dry, and the ground much parched. R falling on only 26 days and evaporating almost as it fell. Harvest was fairly well secured in August. The first half of September was very rainy, also the months of October and December.

BYLAUGH PARK.—R about $1\cdot 50$ in. above the average, but the fall in the first half year very small.

WORSTEAD.—A very mild winter, a long, dry summer and wet autumn ; the air persistently cold from Michaelmas to Christmas.

HILLINGTON.—We suffered much less from drought than our

neighbours, and escaped the excessive falls which caused floods in some districts. The springs were very low till the end of September; later they rose, and the ponds filled with unexampled rapidity.

DIVISION V.—SOUTH WESTERN COUNTIES.

ALDERBURY.—R five inches below the average.

MERE DOWN.—The drought in May caused failure of the hay crop, and the prolonged dry weather to the end of July rendered the root crop almost a blank. This makes four droughty and disastrous summers out of five.

ROCHE COURT.—The first half-year dry, but balanced by the later months, particularly September and December.

FIGHELDEAN.—The R up to August 31st (9·76 in.) is much the least in any corresponding period since observations began in 1882.

MILDENHALL.—In 41 days ending October 9th, 10·05 in. of R fell on 33 days.

RAMSBURY.—The contrast between the dryness and the wetness, respectively of the first and last halves of the year, was very marked; September was particularly wet. No fall of an inch in 24 hours was recorded.

ASHLEY RECTORY.—January and February were unusually fine and March was exceptionally wet. About the middle of April a drought commenced which lasted till the beginning of June, and as little R fell in July, by the middle of August shallow wells were dry, and trees were the only green spots in a wilderness of brown.

LANGTON HERRING.—In the first 8 months only 8·67 in. of R fell, and in the last 4 months 15·64 in. In September and December 12·41 in. fell, or ·51 in. more than in all the rest of the year. Mean temp. 0°·6 above the average of 25 years.

WINTERBORNE ST. MARTIN.—Nearly half the total fall occurred in September and December, while in 4 months the fall was less than an inch.

WINTERBORNE STEEPLETON.—The longest absolute drought was 21 days ending May 19th; and in the 46 days ending June 1st only ·14 in. fell, while between August 30th and September 29th, 9·59 in. fell on 26 days.

CHALBURY RECTORY.—R nearly the average, but very unevenly distributed. Number of falls exceeding an inch in 24 hours (6) the greatest remembered.

DEVONPORT, ROWDEN'S RES.—For the first 6 months the R was 7·84 in., the average of 17 years being 14·52 in.; the total for the year is 6·30 in. below the average. Absolute drought prevailed for 27 days ending May 21st.

IVYBRIDGE, LANGHAM HILL.—The most marked feature of the year was the prolonged drought of 67 days (March 29th to June 3rd), during which ·67 in. of R fell, this included an absolute drought of 25 days. The whole summer was extremely fine, but not hot.

PLYMPTON, HEMERDON.—The small R during the first 8 months (14·28 in.) deserves notice. In consequence, the springs were scarcely ever lower, and much inconvenience was caused. This was in part compensated by the heavy falls in September, October and December, but the total for the year is much below the average.

BERE FERRERS.—Exceptionally dry from April 16th to June 2nd, and exceptionally wet from September 7th to December 31st.

WATCOMBE PARK.—Total R 5·40 in. less than the average of 11 years. May was extraordinarily dry (R only ·03 in.), and there was great drought during the summer months until the heavy falls of September and October.

SHEEPSTOR VICARAGE.—Very dry, disturbed occasionally by severe storms of R and wind. Prematurely hot in May and cold in August. Winter mild, except for a week of S and intense frost from December 16th to 22nd.

YELVERTON.—Remarkable for prolonged drought from April to August, and for the great quantity of R in December.

LOWERY.—In the first 6 months of the year the R was 13·13 in., the average for the same period for 11 years being 20·57 in. Absolute drought for 22 days ending May 20th.

KINGSKERSWELL, FLUDER.—The R of April and May combined was only ·11 in. November also had only 5 days with measurable quantity.

TEIGNMOUTH, WOODLANDS.—R more than seven inches less than the average, the falls being small in January, February April, July and November, while May was almost rainless.

TAVISTOCK, ROSE VILLA.—A dry year, with temp. slightly below the average. The longest dry period was the first 20 days of May. The first 6 months were warm and the last 5 cold.

IDEFORD.—R 4·89 in. below the average. January, April, May and November had the smallest falls, and September and December the greatest falls, in any corresponding months.

BOVEY TRACEY, COLEHAYS.—A very hot dry season and the most severe drought on record, lasting from April to August.

MAMHEAD RECTORY.—There were 43 consecutive days on which R fell (September 8th to October 20th); then, after 1 day's interval, 8 more rainy days.

POLAPIT TAMAR.—Total R 3·28 in. below the average of 16 years. The first half year was particularly dry notwithstanding a very wet March; the last half, on the other hand, was unduly wet, nearly $2\frac{3}{4}$ times as much R falling as in the first 6 months.

ROUSDON [LYME REGIS].—A dry year; but not so remarkably dry as 1887, 1892 and 1893; total 4·81 in. below the average. It has, however, been very rare for two consecutive months to elapse with less than ·50 in., as in April and May. May and November were the driest months of those names in 13 years, and September was the wettest in the same period.

HEANTON SATCHVILLE.—A disastrous year; the drought of April, May, June, July and August being ruinous to all crops. Total R 6·11 in. less than the average of 10 years.

TIVERTON.—With the exception of 1887, the smallest R in any year since the observations commenced in 1872.

TORRINGTON, LANGTREE.—The first 7 months were exceedingly dry, but the R in September and December was abnormally plentiful, and brought up the total to within four inches of the average.

WOOLACOMBE.—May was very dry, absolute drought prevailing for 22 days ending 22nd, and in the 40 days ending June 4th, only ·07 in. fell.

PARRACOMBE.—The R of the first 8 months was very deficient, but was nearly compensated by heavy falls in September, October and December.

PENZANCE, ST. CLARE.—R 8·97 in. less than the average; but September, with 6·37 in., was the wettest since 1883.

ST. AGNES.—The spring and summer drought was more disastrous to crops than in the dry years 1887 and 1893. An unusual absence of TSS and very little wind until the autumn equinox.

STRATTON, POUGHILL.—R 7·32 in. less than the average of 6 years. No S.

WEST COKER.—R 3·21 in. below the average of 10 years. With the exception of March, June and September, the weather was remarkably dry up to the beginning of December.

WELLINGTON, THE AVENUE.—The first 6 months (with the exception of March and June) were very dry and continuously mild ; while the latter 6 generally showed an excess of rainfall, with temp. below average ; December excessively wet.

SANDFORD ORCAS RECTORY.—Marked by great inequality in the monthly R. May ·12 in., September 6·25 in., November ·98 in. and December 5·02 in.

CRANMORE HALL.—R 3·50 in., and rainy days 5, less than the average of 10 years. In the first 8 months 15·22 in. fell, and in the last four 18·39 in. Longest dry period, May 1st to 20th ; longest wet period, September 9th to October 10th.

STON EASTON.—R 6·78 in. below the average of 28 years.

HARPTREE COURT.—Notwithstanding the heavy rains in September and December, the total R is 9·02 in. below the average of 14 years, and is the smallest in that period. In the 144 days, from March 4th to August 18th, only 4·74 in. fell, showing very severe drought in summer.

WRINGTON.—R 4·19 in. below the average of 9 years.

LONG ASHTON.—Though the total R is 7·90 in. less than the average of 23 years, there were no absolute droughts ; but partial drought prevailed for 32 days ending May 20th, with ·18 in. of R. The fall of the first 6 months is considerably less than in any other year since 1871.

CLEVEDON, W. W.—R 4·80 in. below the average of 27 years. September shows an excess of 3·83 in., March of 1·76 in., December of 1·56 in., October of ·46 in. ; but all the other months show deficiencies, exceeding an inch in every case but June.

DIVISION VI.—WEST MIDLAND COUNTIES.

CLIFTON, PEMBROKE ROAD.—R 7·78 in. below the average of 40 years ; every month being deficient except March, September, October and December. Rainy days only 6 below the average. In six months the fall was less than an inch. Total for the first half of the year 6·98 in., and for the 4 months, April to July, 3·39 in ; these values being unprecedentedly small. The absence of heavy falls in 24 hours is also remarkable, no fall in the first 7 months exceeding a third of an inch.

BRISTOL, FISHPONDS.—R nearly nine inches less than the average, owing to the drought which lasted (with the exception of March)

from January to the end of August. The falls in January, February, April, May, July and November were all less than an inch; the total for those 6 months being 3·61 in.; June and August were also deficient; while the remaining months had more than the average, September especially so, with 7·08 in. In 43 days ending June 1st, only ·40 in. of R fell.

WESTBURY-ON-TRYM.—R 9·92 in. less than the average of 24 years.

FILTON.—Remarkably dry; R nearly ten inches below the average. For weeks during June and July, and up to August 19th, cattle and sheep were starving, and water had to be carted long distances.

FAIRFORD, KEMPSFORD.—A very dry summer after a dry winter and early spring. The land in some places was not wet enough for seed to germinate from May 1st to July 7th.

FAIRFORD, HORCOTT.—In the 7 weeks from August 18th, 2·50 in. more R fell than in the preceding 7 months and 18 days.

HATHEROP RECTORY.—R 6·27 in. less than the average of 26 years. The first 6 months were unprecedentedly dry, only 5·98 in. of R falling.

WHITMINSTER.—R to the end of August (8·97 in.) the smallest fall in any corresponding 8 months since 1857.

GLOUCESTER, BIRDLIP HILL.—A year of deficient R, especially in the first 5 months. September and December were much above the average, and November had the lightest fall for 14 years.

GLOUCESTER, WITCOMBE RES:—Total R 6·92 in. below the average of 34 years. Exceedingly dry to the end of August, but September exceptionally wet.

GLOUCESTER, LOWER BARTON STREET.—R 3·72 in. below the average; less than an inch fell in January, February, April, May and November, and only 6·61 in. in the first half-year. Absolute drought for 20 days ending May 19th, and for 15 days ending November 30th. The beginning and end of the year were mild, with little frost and no S.

CHELTENHAM, NAUNTON PARK VILLAS.—Remarkable for having produced only 6·90 in. of R in the first half, the average being 11·44 in.; while the total for the year is 4·07 in. less than the average. Absolute drought from April 30th to May 20th. The temp. of every month, except October and November, was above the average, but the amount of bright sunshine was not extraordinary.

TEWKESBURY, BECKFORD.—Engineers' drought for 242 days, from January 1st to August 29th. R only 45 per cent. of the average.

BREDONS NORTON.—Water was scarce in the summer, pastures were brown and the hay crop was slight. The Avon overflowed its banks about the 8th of December, and from 28th to 31st, hundreds of acres were under water.

ROSS, THE GRAIG.—Very warm and dry till the end of August, then cold and wet, except November, which was very dry. R 5·87 in. less than the average. Temp. about 0·5 above average.

MUCH MARCLE.—R 5·85 in., but rainy days only 4, below the average of 7 years.

PUTLEY COURT.—The summer drought was so severe that, in spite of the heavy R of September, I saw no land drains on this stiff soil running till the first week of December, and wells had not nearly reached their maximum at the end of the year.

DILWYN.—Partial drought from January 27th to February 29th ; 32 days with ·32 in. of R. Engineers' drought for the first 8 months, the fall in that time being less than half the average for the 9 years recorded.

PEMBRIDGE, MARSTON.—January, February, May and November were very dry, September and December very wet ; the last 4 months dull and cold. Only 7 days on which ·50 in. or more of R fell. Water scarce.

LUDLOW, ASHFORD.—The main feature of the year is its small R, less than seven inches having fallen in the first 7 months ; November also was very dry. Water supply very low.

LUDLOW, ASHFORD HOUSE.—R about six inches below the average, the first 7 months having a fall of only 8·05 in. ; January, February, July and November—usually wet—yielded only 3·27 in. in the 4 months ; whereas September had more than twice the average. Absolute drought for 18 days ending May 17th, and partial drought for 32 days ending May 31st.

LUDLOW, THE SHEET.—Exceptional drought ; more severe than that of 1893. Marked absence of TSS.

PREEN MANOR.—The driest year of the past 15.

WILLEY PARK.—R 4·24 in. less than the average of 14 years. Deep springs that had never been known to be dry, were so during October, November and part of December.

WOLVERHAMPTON, TETTENHALL.—The tenth dry year in succes-

sion, and the driest of the last 23 years. R only 72 per cent. of the average. Absolute drought from April 30th to May 17th, and partial drought from April 13th to May 17th.

STOKE, HARTSHILL.—In the 56 days ending October 11th, there were only 4 on which R was not registered.

MADRESFIELD COURT.—A memorable season of protracted drought.

LEIGH LODGE.—Only one day during the year on which more than .50 in. of R fell.

KIDDERMINSTER, WOODFIELD.—The smallest total R in the 9 years recorded.

LONG COMPTON, WESTON PARK.—A trying season for vegetation, as during April and May only 1.08 in. of R fell. The June rains were of great value.

ALCESTER, RAGLEY HALL.—Dry on the whole ; R 1.66 in. below the average of 10 years. Fall in the first 6 months 3.73 in. below the average.

KENILWORTH, THE SPRING.—R .67 in. less than the average of 14 years.

COVENTRY, PRIORY ROW.—Very dry till early in June, which month gave 3.53 in. of R. June, July and August were very warm and lovely, September and October very wet. Remarkable abundance of blossom on all kinds of trees.

DIVISION VII.—NORTH MIDLAND COUNTIES.

ROTHERBY HALL.—This year, like 1895, was remarkable for extremes of drought, and for wet periods ; there was also at times much wind. Very little R fell during the first 5 months, and the total for the year is 1.84 in. below the average of 28 years. The Wreake overflowed three times. In the first 5 months of the year, 5.11 in. fell, the second 5 months yielding 14.20 in. In the 76 days ending October 31st, there were only 9 days without recorded R.

WALTHAM-LE-WOLDS.—The dry weather of the first 5 months was felt very keenly, and the wet September delayed harvest. There were only 10 fine days in September and October, but the November R was 50 per cent. below the average. There were exactly twice as many rainy days in the last half-year as in the first.

TOLETHORPE HALL.—Starting with a large deficiency from the

last 3 years, this year again had less than the average, and the drought was severely felt ; on the other hand, the large fall of September (more than in the first 5 months of the year) ruined the harvest.

STUBTON.—Very dry until the autumn, when the average R was nearly made up. Much corn damaged.

DALBY GRANGE.—A bad year for agriculture ; mainly owing to drought in early summer, and abnormal R in September and October, which damaged outstanding crops.

LOUTH.—R .73 in. above average ; mean temp. $48^{\circ}4$, or $0^{\circ}9$, above average.

BURTON-UPON-STATHER.—R 1.43 in. above average ; from January to June 8.80 in. fell, and from July to December 18.00 in.

NORMANTON-ON-THE-WOLDS.—During the 31 days, April 17th to May 17th, only .01 in. of R fell, 26 consecutive days being rainless.

STRELLEY HALL.—The driest spring, and the wettest autumn, for many years.

WORKSOP, HODSOCK PRIORY.—Warm and dull, with a slight deficiency of R. The mean temp. ($48^{\circ}6$) is $1^{\circ}1$ above the average, and higher than in any of the last 20 years, except 1884 and 1893 ; the daily range is also high. The shade temp. exceeded 80° six times in June and July. On the other hand, the minimum was distinctly high, $18^{\circ}3$. The R shows a deficiency of 1.59 in. ; the drought of the early part of the year having been nearly made up for by the heavy falls of June and September ; the heavy TS of June 4th was a notable feature. Sunshine was very deficient, the only months with an appreciable excess being April and May, while the deficiencies in August and September were abnormally large.

HAZELWOOD, HOLMESIDE.—R 1.32 in. below the average of 11 years.

HAZELWOOD, CHEVIN.—R 1.19 in. more than the average of 11 years.

CHESTERFIELD, TAPTON GROVE.—The dry April and May ruined the grass crop, and the finest prospect for a harvest ever known was destroyed by the wet September and October.

DIVISION VIII.—NORTH WESTERN COUNTIES.

CHRISTLETON HALL.—January and February were free from hard or continuous frosts, March was very wet, and April dry, but both

had cold winds. May was very dry, with warm days and cold nights, and destructive frost on 20th. September and October were exceptionally dull and rainy. December was changeable with a little S.

CHELFORD, ASTLE HALL.—R 2·00 in. above the average of 12 years.

NESTON, HINDERTON.—R 4 per cent. less than the average of 27 years, but the fall of the first 6 months ·13 in. above that average.

WILMSLOW, SOUTHSIDE.—January and February were remarkably mild; March had a heavy R; April and May were warm, followed by heat to the third week in August, when the weather broke, and R continued to the end of October. November was dry, followed by a large R in December, including two inches of S on 17th.

AIGBURTH, KELTON.—R 3·60 in. below the average of 21 years. May was very dry with only ·52 in., and on no day did an inch fall.

BLUNDELLSANDS, PARK CORNER.—A very dry summer, and the ground much parched.

BOLTON, THE PARK.—R 4·28 in. above the average of 10 years, and September had the greatest total of any month in that time. The wet periods were February 27th to April 4th, during which time 7·47 in. fell; August 17th to October 11th (53 wet days), when 13·43 in. fell; and December 24th to 31st, when 3·30 in. fell. The only absolute drought was from May 1st to 17th. R, S or H fell on 209 days, or 9 above the average. The mean shade temp. ($47^{\circ}5$) was exceeded only in 1893, and was 1° above the average of 10 years. The temp. fell below freezing-point on only 39 days, compared with an average of 58 days. Bright sunshine was recorded on 246 days, making a total of 1,027 hours, or 28 hours above the average.

SOUTHPORT, HESKETH PARK.—Upon the whole very calm, decidedly warm and slightly dry, though rather cloudy. Remarkable for an overwhelming predominance of W. and N.W. winds. Mean temp. $1^{\circ}0$ above the average of 24 years.

OVER DARWEN, ST. JAMES' VIC.—A very high total R, nearly 60 per cent. of which fell in the 4 months March, September, October and December. On 9 days more than an inch fell.

HASLINGDEN.—Remarkable for the comparatively moderate R from January 1st to August 16th (excepting March), and for the heavy fall from August 17th to December 31st, the proportions being

21·81 in. in 229 days, and 27·81 in. in 137 days. In the 56 days ending October 11th, 16·68 in. fell on 53 days.

ST. MICHAEL'S-ON-WYRE.—The wettest March recorded here. A very wet spell at harvest time, R falling on 53 days out of the 62 ending October 11th. November fall much below, and December fall much above, the average.

DOWNHAM HALL.—R about eight inches below the average.

GARSTANG, FORTON.—The early weeks were mild and fine ; March was wet, but April had two weeks of fine weather, and May was wonderfully rainless. Though the fall of June was up to, and that of July exceeded, the average, both had a majority of fair days. The next three months were wet ; November was very fine, but December had R on 23 days.

GRANGE, PIT FARM.—The first 7 months were all warmer than the average, but October and November were cold. March, September and December were exceptionally wet, but May was remarkably dry. Frost occurred on 75 nights, but there was very little S. From September 9th to October 11th, 9·92 in. of R fell, only 2 days being rainless.

CARTMEL, BROUGHTON HALL.—R slightly in excess of the average, mainly owing to the heavy falls in the last 8 days, which amounted to 5·46 in.

SEATHWAITE VICARAGE.—A mild spring, with an exceptional amount of brilliant sunshine in May. Deficient R in the first half of the year, but the latter half cold and wet. Little wintry weather in the closing months.

DIVISION IX.—YORKSHIRE.

DONCASTER, PUMPING STATION.—R below the average. The heavy falls of September and October were of great value to water-works.

DONCASTER.—The hay crop was deficient, owing to light R in April and May, and much of the harvest was spoiled by wet in September and October.

MELTHAM, HAREWOOD LODGE.—R a little below the average. May was very dry, and, generally speaking, the R was light for the first 8 months, except in March ; October was wet, and September most exceptionally so. The year was rather warm, with little frost,

and an almost entire absence of S. TSS were fairly numerous, but of slight intensity.

WALTON HALL.—R 5·01 in. less than the average of 21 years.

HUDDERSFIELD CEMETERY.—The deficient R of the earlier part of the year was not made up by the excess of the later months.

NOSTELL PRIORY.—Very dry in the first 5 months, but June brought several heavy TSS, and September and October were very wet.

WAKEFIELD, STANLEY GRANGE.—R 1·11 in. above the average. The first 7 months, March and June excepted, were very dry ; the last 5 months, November excepted, unusually wet. May was very bright, and a partial drought of 34 days' duration ended on 21st. September and October were excessively wet. Mean temp. 47°·9, the highest since 1887.

GOOLE, SWINFLEET.—In the first 8 months only 11·08 in. of R fell, which caused the Ouse to become very much contaminated, and many salmon died.

HALIFAX, S. OWRAM.—R 2·82 in. less than the average of 6 years. By far the larger amount fell in the latter half. In May there was absolute drought for 17 days from the 2nd, while in September and October together there were only 11 rainless days.

HEBDEN BRIDGE, FALLING ROYD.—January and February mild and dry. March very wet, 5·01 in. of R falling in the first 15 days, while the first S of the year fell on the 13th ; the wind was easterly on 4 days only. April warm and dry. May very dry, with much sunshine, the wind being E. or N. every day ; absolute drought from 1st to 17th. June very warm and dry, the mean temp. being 3° above the average of 10 years. July and August fairly dry and fine. From April to August inclusive, only 9·95 in. of R fell, causing great scarcity of water towards the end of August. September and October very wet, R falling on 49 days out of 61. November fairly free from fogs and dry. December wet and mild.

LEEDS, HORSFORTH.—Chiefly notable for the very dry February, and the wet March and April ; also for the very partial distribution of R in the early months.

KNARESBOROUGH, FARNHAM.—The feature of the year—beyond the spring drought, which was redeemed by the R in March and June—was the 31 days consecutive R, followed by 30 rainy days out of 33, between August 28th and November 2nd.

BEVERLEY ASYLUM.—Absolute drought prevailed for 18 days at

the beginning of May, and R fell on every day in October, but on the 1st and 8th the fall was less than .01 in.

WETWANG VICARAGE.—Total R in the first half-year less than eight inches. Absolute drought for 19 days ending May 18th. The heaviest fall in the year (.85 in. on October 11th) fell as S.

THIXENDALE.—A singularly mild winter, with much fog. The harvesting season was unfavourable, owing to frequent R.

OLD MALTON.—R 3.50 in. less than the average of 38 years.

BALDESBY.—The R fell short of the average by one inch during the first quarter of the year, by one-and-a-half inches during the second quarter, and by half-an-inch during the third quarter; but exceeded the average during the fourth quarter by one-and-a-half inches.

THIRSK, SOWERBY.—R 4.37 in. less than the average of 17 years.

LEYBURN, BOLTON HALL.—Until the end of August the R was much below the average, the total only slightly exceeding that of the remaining 4 months of the year. The number of wet days (50) in September and October is unusual.

BURNESTON.—The first 5 months were very dry, nice rains occurred in the next 3, and the last 4 were very wet.

RICHMOND, THE GROVE.—Remarkable for the dryness of January, February, April and May, and for the absence of any great fall in 24 hours.

INGLEBY MANOR.—With the exception of March and the first week of June, very dry till July 21st; from that date almost perpetual R. Total 2.17 in. above the average of 10 years. Four falls exceeding an inch.

DIVISION X.—NORTHERN COUNTIES.

DARLINGTON, CLEVELAND PARADE.—R three inches below the average of 20 years, the first 5 months being exceptionally dry.

BISHOP AUCKLAND, THE CASTLE.—The first 6 months were very dry. January, 1895, alone produced nearly as much R as the whole 6 months in 1896. May in particular was very droughty, with only 5 wet days. The last 6 months were all dull, with a full number of wet days, but no excessive fall on any one.

SUNDERLAND, WEST HENDON HOUSE.—R 2.11 in. below the arithmetical average, and 1.85 in. below the geometrical mean, for the 30 years 1860–89. October was the wettest month, with a fall of

5·65 in.; a quantity only exceeded once in that month during 37 years (5·77 in. in 1865). February was the driest month, with a fall of ·59 in. on 6 days. The duration of time that R fell in 1896 was in excess of the average, though deficient in the first 5 months. Although some R, S or H fell on 253 days, a measurable quantity was reached on only 179. Commencing October 1st, R fell on 34 days consecutively, a measurable amount on 28 of them, including each of the 3 days in November. This is the first time that R has been observed on every day of a 31 day month. S fell on only 12 days, its maximum depth being $1\frac{1}{2}$ inch on December 19th. There were noticeable excesses of wind from the N.W. directions, and noticeable deficiencies of S. and S.E. winds. The E. was the wettest wind in proportion to the time it blew, and the W., as usual, the driest. The R with each wind was below the average, except the N.W., S. and E., which were above. The number of days on which the alternation of sea and land breezes took place was above the average, the excess taking place in February, March, April, May and November, while there was not a single such instance in September. The wind force for the year was nearly the average; the noticeable deficiencies in February and November, being made up for by corresponding excesses in August and April. The cloud was above the average for the year, there being an excess in nearly every month, especially in the latter part of the year; in May only there was a marked deficiency. The fog was above the average for each month, except April and December. The year was thus remarkable for dismal weather, especially in the latter part, but not for heavy rains.

GATESHEAD, EIGHTON COTTAGE.—R about an inch below the average.

BIDDLESTON.—Exceptionally dry for the first 8 months, and exceptionally wet during the last four.

PAWSTON.—The second half of the year had just three times the R of the first half. This disproportion was nearly equalled in 1887. Heavy R on May 21st saved the hay crop, but corn crops were light, and much injured by wet weather in September.

MILLOM, LEYFIELD.—R ·81 in. below the average of 6 years. During the first half 17·01 in. fell, and in the second half 26·99 in. Absolute drought prevailed for the first 17 days of May.

ULPHA VICARAGE.—Very mild in the early months with excessive R in March, followed by almost a drought in April and May; but

the effect of this dry weather was modified by a moist June and July, followed by five or six weeks of fine hay-time till September 8th.

BRAYSTONES.—R 1·59 in. above, and evaporation 7·89 in. below, the average of 32 years.

KESWICK, SHU-LE-CROW.—The complete absence of S, a wet March, and a very dry May were the chief features of the first six months. November, as well as being dry, was marked by an almost entire want of sunshine and almost continuous calm.

EDENHALL VICARAGE.—R 1·53 in. above the average of 12 years.

WIGTON, BROOKFIELD.—R 4·27 in. more than the average of 23 years.

BRAMPTON, DENTON HOUSE.—R nearly an inch below the average of 10 years. May was very dry, having less than one-third of the average R.

KENDAL, NATLAND PARK.—R 2·95 in. less than the average of 9 years. The features of the year were the very dry May, the wet December, and falls exceeding an inch on 6 days.

SHAP, HILLFIELD.—Absence of S in January and February; much R in March; a dry May. Heavy R in September, October and December. November dry and mild.

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

CHEPSTOW, SHIRENEWTON HALL.—The drought was so great that the soil was perfectly dry to the depth of 22 inches; a storm of ·75 in. of R did not descend into the ground two inches, and two days afterwards, this two inches was again quite dry. Many springs ceased to flow that had never been known to be dry. In the droughts of 1868 and 1887, we cut a moderate amount of hay—about three-quarters of a ton; in 1896, in only a few instances, could any grass be mown. I had 45 acres to mow, but there was nothing but the bare ground, and the cattle could find nothing, and no hay could be bought in the neighbourhood. For a month we fed the cattle on tree branches, besides many bushels of apples and pears. In other droughts, when the R commenced in abundance, there was in a fortnight plenty of grass; whilst in 1896, grass did not grow till the beginning of September, and up to Christmas, 70 acres of pasture was scarcely sufficient for 14 cows and 6 horses. Many showers of a quarter-of-an-inch did not sink into the ground,

but remained on the surface till evaporated. No water came out of the drains till after September the 17th. For 20 weeks grass did not grow.

ABERGAVENNY, DYNE HOUSE.—The drought in January, February, April and May was not balanced by the heavy falls in the later months.

FONMON CASTLE.—R about five inches over the average of 10 years. Great irregularity in the distribution of the R, March and September being abnormally wet, and each the wettest month of the name in 10 years. December also was very wet; May and November were unusually dry.

OYSTERMOUTH, NEWTON.—January and February dry and mild; March stormy, with much R; April dry and cold, and May very dry, with cold nights; only .25 in. of R fell in six weeks. June was dry, and July and half August exceptionally dry, with high winds. September and October were wet; November had many fine days, with frost; and December was wet and mild, with occasional strong winds.

MORRISTON.—R 2.27 in. less than the average of 5 years.

NEATH, FAIRY LAND.—R 3.78 in. below the average of 10 years, the first 6 months having the smallest fall in that period. But for the very large amounts in September and December, the year would have been remarkably dry.

HAVERFORDWEST.—The year commenced with constant damp and mildness, though the total R in February was small. A fair quantity fell in March, with some stormy weather. April was bright and sunny, and May disastrously dry; June also was dry and very hot, making the total for the first 6 months the smallest on record. The remainder of the summer was precarious, and autumn was excessively wet and stormy. November was fine and frosty; December wet, stormy, mild and gloomy.

ST. DAVIDS.—The first 6 months were mostly fine, bright and sunny, and by the end of June only one-fifth of the year's R had fallen. April May, and June were exceptionally fine and summer-like, but July and August were wet and unsettled.

BUILTH.—Till August, the driest year known. Absolute drought from April 28th to May 20th, and partial drought from April 16th to June 4th. Springs failed which had never been known to do so, but the Wye was not quite so low as in 1887.

CAERWNON [BUILTH].—Absolute drought for the first 19 days of

May, and partial drought for 47 days ending June 2nd, with .42 in. of R.

GWERN-I-ARGLWYDD.—A very dry summer and great want of grass, and a very wet harvest spoiling much grain.

POOL QUAY VICARAGE.—A year similar in some respects to 1893. Absolute drought for 16 days from May 2nd; partial drought for 34 days from April 30th. Max. R 1.20 in. on September 12th, of which one inch fell in an hour-and-a-half. In the first 6 months 9.19 in. of R fell on 89 days, while in September and October 9.76 in. fell on 52 days.

RHYL.—During the first 6 months only 8.79 in. of R fell, but the total for the last 6 was 18.62 in., and the year exceeded the average.

EDLESTONE HOUSE.—Only 1.52 in. of R fell in April and May, consequently, the early summer was unfavourable to agriculture; but the fall of 5.97 in. in June and July improved both corn and grass. August followed with 2.94 in., and September with 5.27 in., so that the total for the 4 months was 14.18 in., or about half the total for the year, resulting in damage to harvest.

ROSSETT, TREVALYN HALL.—R 4.27 in. below the average of 25 years. The winter, spring and summer were generally dry, with absolute drought for three weeks in May, but the autumn months were very wet.

COLWYN BAY, NANT-Y-GLYN.—R 5.33 in. above the average of 18 years. March, June, July, August, September, October and December all had more than the average. There were six falls of one inch or more in the 4 months July to October, and one fall exceeding two inches.

LLIGWY.—Mild and dry in January and February; wet in March; intensely dry during April, May and June, with brilliant cloudless weather, only .04 in. of R measured in May. Very wet autumn, excepting in November, which was dry, bright and mild. Absolute drought for 20 days ending May 17th, and partial drought for 49 days, with .30 in. of R, ending June 3rd.

DOUGLAS, VICTORIA ROAD.—January and February fine, mild and quiet. March wet and stormy, though mild and free from E. winds. April fine and dry; spring very forward. May was practically rainless (.27 in.), with continuous cold, strong N.W. winds from 14th which did more damage to vegetation than the drought. June warm and sometimes summer-like; nearly 3.25 in. of R fell, but was of little real service; the R for 6 months being only 13.75 in.;

after this, there was no summer worthy the name, and the long autumn set in early. July wet and cold. August dry, cold and stormy. Very wet and continuously stormy all September and until October 18th. The coldest October on record. November fine. R fell daily from 1st to middle of December, followed by 5 fine, frosty days; the remainder of the month wet and stormy. In the last 6 months, 29·37 in. fell; and the year, which promised in June to be so dry, ended with R above the average.

ST. MARTIN'S, LES BLANCHES.—The aggregate R of September and October was 14·35 in.; while the aggregate from January 1st to August 31st, was only 11·21 in.; the former falling on 56 days, and the latter on 101 days.

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

GALLOWAY HOUSE.—Excessive drought and storms of wind in May; much R and sharp frosts in October.

AUCHENCAIRN, TORR HOUSE.—R ·07 in. more than the average of 26 years. March, June, July and December were considerably wetter than the average. May and November were very dry.

GLENHEAD OF TROOL.—Exceptionally wet, and some very heavy falls of R, especially in December. Very little S.

DUMFRIES, IVY BANK.—R about three inches below the average. There was a remarkable period of drought between April 16th and June 4th, when only about ·75 in. fell; but specially in May, when there were only three rainy days.

BRANXHOLME.—Warm and dry in spring and early summer, succeeded by a very wet autumn, which greatly hindered harvest; September exceptionally wet.

LILLIESLEAF, RIDDELL.—One of the best years for agriculture remembered. Plenty of grass and hay, good crops and fairly well got.

MELROSE ASYLUM.—R 1·66 in. less, and rainy days 4 more, than the average of 14 years.

DIVISION XIII.—SOUTH EASTERN COUNTIES.

DRUMMORE.—S fell on only six days: one in February, two in March, one in April and one in December. H fell on five days. Lunar halos were seen on three days, and coronæ on 18 days.

DIVISION XIV.—SOUTH WESTERN COUNTIES.

ARDENCLUTHA.—R just an inch less than the average of 8 years, but 7·51 in. less than in 1894, and 5·21 in. more than in 1889. A very wet harvest time.

DOCHROYLE.—R 2·59 in. less than the average of 21 years.

COLMONELL.—R 40 in. less than the average of 20 years; mean temp. 1°·9 above the average. Frost on only 67 nights, or 27 less than the average.

GARTHLAND.—There were 12 days during the year on which an inch or more of R fell.

DIVISION XV.—WEST MIDLAND COUNTIES.

HELENSBURGH, VICTORIA ROAD.—May was very dry, all the R falling on two days. The last quarter of the year was marked by long continued fogs.

BUCHLYVIE.—R 2·07 in. less than the average of 7 years. The earlier months were mild. April and May were very fine and dry, especially May, only 0·02 in. of R falling in the 18 days ending 17th. Heavy R (1·51 in.) on June 4th dispelled anxiety and greatly benefited the crops. On the whole, a fine summer followed. At the beginning of September, the weather became wet and stormy, and continued so until the middle of October, when it again changed, and was fine to the end of November. December was generally very wet.

TIGNABRUAICH.—Copious R fell at times inopportune for the farmer and tourist.

OBAN, THE CORRAN.—A wet year; R 3·44 in. above the average of 10 years.

BALLACHULISH, CRAIGRANNOCH.—A year of full average R. March, April and June exceptionally wet; July and November unusually dry.

ISLAY, ARDBEG.—A very favourable year for the crops grown here, but very wet broken weather in September and October retarded harvesting.

DIVISION XVI.—EAST MIDLAND COUNTIES.

KINROSS, GELLY BANK.—A very mild winter was followed by a favourable spring, but a dry May checked growth. Harvest began early, but owing to rainy weather, was long on hand. November was pleasant, December the reverse.

MOUNTQUHANIE HOUSE.—Up to the end of July only 10·00 in. of R fell.

OCHTERTYRE [STIRLING].—R the smallest since 1889.

STRONVAR.—With the exception of September, one of the finest years remembered, the amount of sunshine being quite unusual.

COUPAR ANGUS.—R 4·20 in., and rainy days 10, below the average. In the first 5 months there was a deficiency of five inches. June and July yielded an excess of an inch, and August a deficit of two inches, which was fully made up in September. October and November were both dry, but December made good their deficiency.

BLAIR ATHOL.—Exceptionally dry in May and November.

INVERARITY.—But for the very wet December, the R of the year would have been exceptionally small.

DIVISION XVII.—NORTH EASTERN COUNTIES.

ELLON, KERLUCK.—Unusually fine to the end of May, but after that came R and lack of sunshine; prevailing more and more towards autumn and on to the close of the year.

OLD DEER.—The feature of the R was the continuous downpour from August 21st to the end of the year. From August 21st to October 31st there were only 12 dry days, and in November and December only 13 dry days. In the first six months 9·85 in. fell, and in the second six 23·95 in.

WESTER ELCHIES SCHOOL.—Drought during the first 6 months affected wells to an abnormal extent, and many did not begin to rise again till the October R. The second 6 months were very wet and sunless, and retarded the ripening of crops and harvesting.

FORRES, GRANGE HALL.—R below the average, although July and October were specially wet.

DIVISION XVIII.—NORTH WESTERN COUNTIES.

STRATHPEFFER SPA.—A rather dry year with no heavy falls. February, May and November were very dry.

LOCH MADDY.—A normal Hebridean year, with nothing remarkable to note. R 2·83 in. above the average. The first 7 months show an excess of more than six inches.

FORT AUGUSTUS.—Total R very near the average of 12 years. May and November were abnormally dry.

DRUMNADROCHIT.—R 1·15 in. more than the average of 11 years. The first 5 months were genial, with little frost or S, and a small R. The harvest months were memorable for the heavy fall, R being measured on 71 days out of the 92.

DIVISION XIX.—NORTHERN COUNTIES.

DUNROBIN CASTLE.—The first 5 months were, on the whole, fine, and there was very little frost. June and July were wet and sunless, August had rather less R, but September and October were wet, and great difficulty was experienced in getting in the crops. The summer and autumn were the wettest and most sunless for many years.

SCOURIE.—Spring was dry and seasonable, but the latter part of summer and harvest very wet, considerably damaging all crops. Winter, generally speaking, open and mild, with little frost or S.

WATTEN, H.R.S.—Fresh open winter; dry bright spring; wet, mild, almost sunless, summer; wet, cold and very protracted harvest.

KIRKWALL.—The heaviest R since 1882.

IRELAND.

DIVISION XX.—MUNSTER.

CORK, VILLA FRANCA.—Between March 30th and June 1st inclusive, only ·55 in. of R fell.

CORK, WELLESLEY TERRACE.—R about 7·50 in. deficient. Absolute drought for 16 days ending August 15th, and partial drought for 53 days ending June 1st. The first six months were remarkably dry, only 8·43 in. of R falling, or 10·23 in. less than the average.

MALLOW, SUMMER HILL.—A dry year; on only one day did the fall exceed an inch. August was exceptionally dry, and September exceptionally wet.

DARRYNANE ABBEY.—Dry on the whole ; January, April, May, June and November particularly so.

WATERFORD, COVE LODGE.—Remarkably dry, except in July, September and December.

PORTLAW.—Excessive drought prevailed to the end of May ; even the moderate amount of R in June had no effect on the water supply, and by July 8th all streams and springs were lower than at any period for 70 years.

CLONMEL, BRUCE VILLA.—The first half of the year had less than a quarter of the annual average R. January and May were the driest for more than 31 years, and November for 17 years.

BALLINA [KILLALOE].—Characterized by long spells of fine weather and by heavy falls of R. On July 25th, 3·26 in. fell.

DERRY CASTLE.—Although the total R is less than 2 per cent. above the average of 10 years, 1896 was remarkable for excessively wet and for exceedingly dry months, and for the most ruinous harvest weather remembered. March, July and September, important spring, summer and autumn months, where phenomenally wet ; while December was almost the wettest winter month on record. May and November were remarkably mild and dry. The remaining months, October excepted, were very favourable, being bright and mild, and drier than the average, without excessive drought.

NENAGH, CLASHNEVIN.—The first two months were very fine and mild, but March gave a large supply of R. The fall was light in April, and especially so in May, and corn suffered, but it improved under the showers of June. From August 16th to October 13th, there were only four rainless days, and crops were seriously damaged. Little R in November, but December brought up the total to very near the average.

BALLINGARRY, HAZELFORT.—R three inches less than the average. In the 45 days ending September 30th, 7·28 in. fell on 36 days, while R fell daily from September 8th to 28th, yet the springs in many localities had not recovered from the drought of early summer, and water had to be carted.

LIMERICK, ROXBOROUGH.—About an average R, but badly distributed. Too dry in April, May and June, while the July and September R spoiled the hay and corn harvest.

BROADFORD, HURDLESTOWN.—R 2·91 in., and rainy days two, less than the average of 11 years.

MILTOWN MALBAY.—January and February exceptionally dry, and March excessively wet. April, May and June parching and cold. Heavy rains commenced in July, and continued, with only two breaks of a week of good weather, up to October 12th. The remainder of October and November were rather dry, but December was very wet.

DIVISION XXI.—LEINSTER.

BALLYHYLAND.—R from January to June inclusive only 9·63 in., little more than one-quarter of the total, and the driest half-year on record.

LAVISTOWN.—The R, though slightly above the average, was only 8·68 in. in the first half-year, and 21·54 in. in the second ; the effect being that crops were very short in quantity, and much damaged in saving.

KILKENNY, SION VILLA.—Excepting March, which was very wet and stormy, lovely weather prevailed from the commencement of the year to the end of August ; even in the earlier months there was much warm weather, and the R of the first 8 months was very deficient. September, October and December were wretched months, very wet, cold and stormy. November was fine and generally mild, but very damp.

BRAY, FASSAROE.—The driest May on record, and all the months but March were either very wet or very dry. The earliest harvest for 60 years.

ABBAY LEIX, BLANDSFORT.—R 1·17 in., and rainy days 8, less than the average of 22 years.

KILLINEY, CLONEEVIN.—R 5·19 in. in excess of the average of 11 years, though less than that of either 1894 or 1895. Rainy days three above the average. In the first 6 months, only 6·98 in. fell on 70 days. There was absolute drought from May 1st to 17th, and partial drought for 51 days from April 14th to June 3rd, with 41 in. of R. The winter months were exceptionally mild.

RATHMINES, LEINSTER ROAD.—Partial drought from April 14th to June 15th, 63 days with 60 in. of R.

DUBLIN, PHENIX PARK.—R 2·08 in. above the average of 10 years.

BALBRIGGAN, ARDGILLAN.—No R fell for 12 days ending May 17th, and R fell every day for 22 days ending October 7th.

BALBRIGGAN, LARAGH.—R .91 in. more than the average of 10 years.

DIVISION XXII.—CONNAUGHT.

WOODPARK [SCARIFF].—A year of curious alternations of drought and heavy rains. January and February mild. N.E. wind set in early in April and continued to June. May very hot, N. breezes all August. First half of November very mild.

KYLEMORE HOUSE.—Very wet and stormy, bad for saving any crops.

TUAM, GARDENFIELD.—R 1.91 in. less than the average of 10 years. January, February, April, May, August, October and November had less than the average. Winter mostly mild, with no S; spring began wet, but was mostly dry; summer mostly wet; autumn partly wet and partly dry.

CONG, THE GLEBE.—The first half of the year, except March, had a small R, while the second half, except November, was very wet.

BALLYMOTE, NEW PARK.—R 1.87 in. in excess of the average of 8 years. The wettest months were March, September and December, more than 5.50 in. having fallen in each. Nearly six inches fell in the last 23 days of September, and proved disastrous to harvest.

GLEN LODGE.—Would have been a fine year but for the heavy R in September.

LAWDERDALE.—A wet year, with R 4.31 in. more than the average of 10 years, while the rainy days are five fewer than the average. March, June, July, September and December abnormally wet.

DIVISION XXIII.—ULSTER.

LURGAN, BELLE VUE.—R below the average. May even drier than in 1895, with less than a quarter of the average; July excessively wet, with more than double the average; November the driest on record, with a deficiency of nearly 80 per cent., and less than half the previous driest.

DRENAGH.—R much above the average in July, August, September and October.

STEWARTSTOWN.—R above the average, but rainy days not in excess.

OMAGH, EDENFEL.—On the whole fine till August, with an abundant harvest spoilt by autumn rains.

RAPHOE, CONVOY HOUSE.—The early spring and part of summer were fine, the end of the year was gloomy and broken. R large, but not excessive. Very little sunshine.

MOVILLE RECTORY.—Very wet on the whole, but May was the driest month for many years.

HORN HEAD.—The early part of the year was dry, but from August to the end of October was very wet.

HEAVY FALLS IN SHORT PERIODS IN 1896.

FOR whatever else the rainfall of 1896 may be noteworthy, it is not for exceptional rates of fall. There are fewer entries than usual, and the rates are by no means remarkable. In our last we compared the number of entries and the average rates for instances of falls lasting less than two hours in the years 1894 and 1895. We reproduce those figures, and have added the corresponding ones for 1892 and 1893 and for 1896; they are thus proved to be much less important:—

Entries of less than two hours' duration.

Year.		Number.		Average Rate per Hour.
1892	.....	30	.....	2·07 in.
1893	.....	49	.....	1·86 „
1894	.....	52	.....	1·68 „
1895	.....	71	.....	1·81 „
1896	.....	53	.....	1·51 „

The same fact is shown very clearly by comparing the following diagram with the one for 1895; in that year there were 16 entries above the white curve (which shows extremes rarely exceeded); in 1896 there are only 4 such entries, and they are all less important than those reported for 1895.

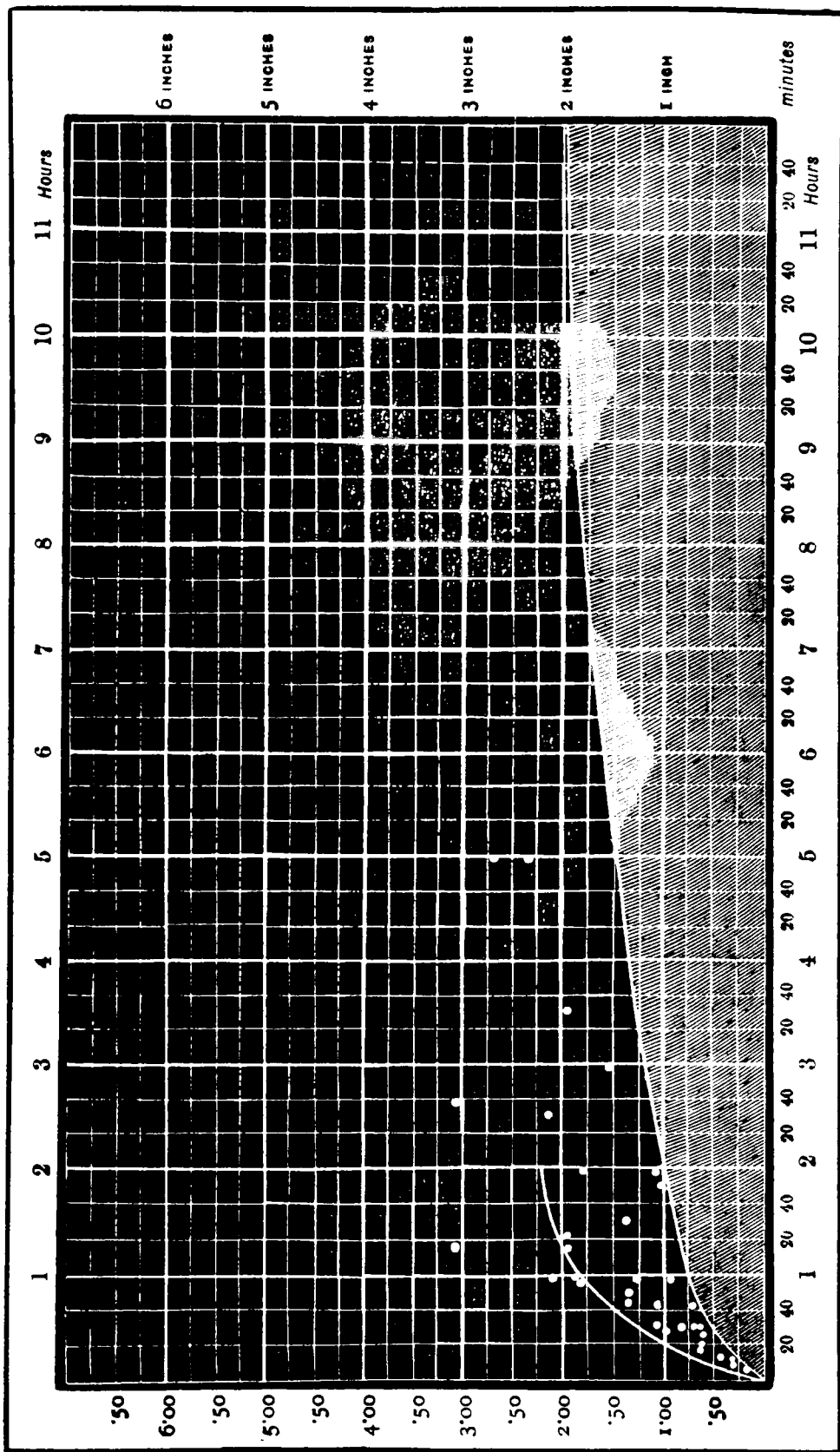
In fact, these four entries are the only ones to which it is necessary to call attention, they are:—

III.	August 31	Carlton, Cambridgeshire	.....	1·78 in. in 55 mins.*
X.	June 4	Barbon Manor, Kirkby Lonsdale	2·10 „ „	1 hour.
IX.	July 7	Hutton Hall, Guisborough, Yorks	3·07 „ „	1 „ 15 mins.
II.	August 8	Rotherfield Park, Alton.....	3·03 „ „	2 „ 40 „

While the above remarks are strictly correct, we do not wish to be misconstrued and supposed to state that, for example, the fall of 1·16 in. in half-an-hour at Hazelhurst, Haslemere, on July 26th, was unimportant; on the contrary, it certainly was important, but such cases occur *somewhere or other* so frequently, that when the records of the entire country are brought together, the fact ceases to be exceptional.

* The observer at Carlton Hall collected 1·25 in. in 1 hour, a smaller amount in a longer time.

HEAVY FALLS IN SHORT PERIODS.



The shaded portion represents falls too numerous to require insertion ; the short white curve, extremes rarely exceeded.

Heavy Falls in Short Periods in 1896.

Date.	Div.	Station.	Amount.	Duration.		Rate per hour.
			in.	hr.	min.	in.
Sept. 9 ...	III.	Berkhamsted	·16	...	5	1·92
June 10 ...	VI.	West Bromwich	·14	...	5	1·68
„ 3 ...	I.	London, Camden Square	·24	...	6	2·40
July 26 ...	„	„ „ „ „	·15	...	6	1·50
June 6 ...	„	Kensington, Edith Road	·27	...	7½	2·16
„ 3 ...	„	London, Camden Square	·32	...	9	2·13
„ 15 ...	V.	Launceston, Altarnon	·50	...	10?	3·00
Sept. 9 ...	III.	Berkhamsted	·26	...	10	1·56
Mar. 24 ...	VI.	Salt Vicarage	·25	...	10	1·50
June 9 ...	V.	Warminster, Rye Hill	·25	...	10	1·50
Dec. 4 ...	„	Torquay, Cary Green	·25	...	10	1·50
June 8 ...	VI.	West Bromwich	·22	...	10	1·32
Sept. 10 ...	IV.	Norwich, Brundall	·22	...	10	1·32
July 30 ...	XX.	Cork, Wellesley Terrace	·20	...	10	1·20
June 3 ...	I.	London, Camden Square	·42	...	13	1·94
„ 8 ...	XV.	Strathblane, Craigend Castle	·65	...	15	2·60
Sept. 11 ...	V.	Wellington, The Avenue	·43	...	15	1·72
„ 9 ...	II.	Maidenhead, Castle Hill Ho..	·30	...	15	1·20
Apr. 10 ...	VII.	Findern	·30?	...	15	1·20
Sept. 27 ...	„	Nottingham, Beeston Fields..	·26	...	15	1·04
July 26 ...	I.	London, Camden Square	·27	...	18	·90
June 15 ...	III.	Stamford, Duddington	·64	...	20	1·92
July 26 ...	IX.	Thixendale	·33	...	20	·99
June 4 ...	„	Wakefield, Stanley Grange ...	·61	...	24	1·52
„ 4 ...	VII.	Lincoln, Boultham.. ..	·85	...	25	2·04
Sept. 9 ...	XI.	Abergwesyn Vicarage	·93	...	28	1·99
July 26 ...	II.	Haslemere, Hazelhurst	1·16	...	30	2·32
„ 7 ...	V.	Devizes, County Asylum	·80	...	30	1·60
June 3 ...	I.	London, Camden Square	·70	...	30	1·40
Aug. 2 ...	V.	Warminster, Rye Hill	·64	...	30	1·28
June 25 ...	II.	Farnham, Seale	·53	...	30	1·06
Sept. 10 ...	IV.	Sudbury, Friars Street	·44	...	30	·88
Aug. 2 ...	V.	Liskeard, Beech Lawn	·40	...	30	·80
„ 2 ...	„	Tavistock, Rose Villa	·69	...	31	1·34
Sept. 4 ...	XX.	Killarney, Woodlawn	·65	...	40?	·98
June 10 ...	IV.	Upminster Hall	1·38	...	45	1·84
July 26 ...	II.	Haslemere, Lower Street ..	1·12	...	45	1·49
June 3 ...	„	Farnham, Seale	·72	...	45	·96
„ 8 ...	IX.	Leeds, Elmete Hall	1·36	...	50	1·63
Aug. 31 ...	III.	Carlton	1·78	...	55	1·94
June 4 ...	X.	KirkbyLonsdale, Barbon Man'r	2·10	1	0	2·10
Aug. 1 ...	V.	Bampton, Huntsam Court...	1·82	1	0	1·82
„ 31 ...	III.	Carlton Hall	1·25	1	0	1·25
July 15 ...	II.	Hailsham	·97	1	0	·97
Aug. 20 ...	XI.	Barry, Biglis	·93	1	0	·93
July 7 ...	III.	Oxford, St. Giles	·88	1	0	·88
„ 7 ...	IX.	Guisborough, Hutton Hall ...	3·07	1	15	2·46
„ 25 ...	XXI.	Killiney, Cloneevin	1·90	1	15	1·52
June 24 ...	II.	Capel, The Cottage	1·95	1	20	1·46
„ 10 ...	„	Alton, Ashdell	1·37	1	30	·91
„ 4 ...	VII.	Gonalston Rectory	·92	1	30?	·61

Heavy Falls in Short Periods in 1896—continued.

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
Sept. 12 ...	XI.	Welshpool, Pool Quay	1·00	1 45	·57
June 4 ...	VII.	Hodsock Priory	1·85	1 50?	1·01
„ 8 ...	XIII.	Selkirk, The Hangingshaw ...	1·76	2 0	·88
Sept. 11 ...	III.	St. Neots, Waresley Park ...	1·75	2 0	·88
„ 1 ...	II.	Hurstpierpoint, Danny Park..	1·13	2 0	·57
July 30 ...	III.	Stretham Ferry	2·15	2 30	·86
Aug. 1 ...	V.	Warminster, Rye Hill	1·75	2 30	·70
„ 8 ...	II.	Alton, Rotherfield Park	3·03	2 40	1·14
July 7 ...	VII.	Leicester, Rotherby Hall	1·56	3 0	·52
Sept. 1 ...	IV.	Ipswich, Orwell Park	1·98	3 30	·57
June 10 ...	II.	Chichester, Little London ...	2·71	5 0	·54
„ 9 ...	XI.	Brecknock, Llandefaelogfach.	2·30	5 0?	·46
Sept. 1 ...	IV.	Manningtree Vicarage	2·22	12 30	·18
Feb. 7 & 8	X.	Buttermere, Hassness	5·05	18 0	·28
June 10 ...	II.	Hythe	2·51	18 0	·14
„ 9 & 10	„	Bethersden, Oakhurst	2·06	18 0	·11
Sept. 1 ...	„	Dorking, Fir Tor	2 75	20 0	·14

HEAVY FALLS ON RAINFALL DAYS IN 1896

WE here deal with the days of 1896 on which the greatest amount of rain was recorded at about 2,500 stations. These amounts refer in almost every case to the true rainfall day, *e.g.*, the period beginning at 9 a.m. on the 7th of February, ending at 9 a.m. on the 8th, but called the rainfall of the 7th. Evidently this information can only be afforded by stations at which the rainfall is measured daily, and that is the chief reason for there being about 500 fewer returns than in the later portion of this book. But it would be wearisome and inexpedient to occupy (as would be necessary) fifty pages with these details. While, therefore, we are obliged to have them all copied out and the percentage which each bears to the total rainfall of the year at the same station worked, we print only a selection, *viz.*, those at which the total fall in the day was largest (all cases of $2\frac{1}{2}$ inches or upwards); or most remarkable, *i.e.*, where the fall on the one day was the largest proportion of the entire yearly fall (all cases of $7\frac{1}{2}$ per cent. or upwards).

In the following notes we first deal chronologically with the various rains, quoting the values exceeding the above-mentioned limits, and then we give certain abstracts, some of which are based upon these extreme values, and some on the entire mass of about 2,500 returns.

PART I.—CHRONICLE.

FEBRUARY 7TH.

A wet, but by no means exceptionally wet, day in the English Lakes.

VIII.	Monk Coniston Park	2·97 in. or 3·5 per cent.	
X.	Buttermere, Hassness.....	3·19 „	3·3 „
„	Borrowdale, Grange	3·58 „	4·2 „
„	Keswick, Barrow House	2·67 „	3·8 „

FEBRUARY 12TH.

A very ordinary wet day in the W. of Scotland.

XVIII.	Glenquoich	3·11 in. or 2·9 per cent.
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JUNE 2ND.

A heavy local TS, in the neighbourhood of Stamford and Peterborough ; no one else had a M (maximum fall on any one day in the year) on that day.

III. Barnack, Walcot Park 1·95 in. or 8·4 per cent.

JUNE 3RD.

A week of TSS began with this date, the principal M were as follow :—

IX. Bradford, Hewenden Res. 3·66 in. or 8·9 per cent.

JUNE 4TH.

VII	Worksop, Hodsock Priory	2·07 in.	or 8·7	per cent.
„	Grassmoor Colliery.....	2·06 „	8·6	„
IX.	Northallerton, The Lodge.....	2·16 „	8·4	„
X.	Kirkby Lonsdale, Barbon Manor ...	2·55 „	5·1	„

JUNE 9TH.

II. Dymchurch Rectory 2·13 in. or 8·0 per cent.

JUNE 10TH.

Attention has already been called to this, which may, perhaps, be called the Chichester rain, but it prevailed over the whole S.E. counties, and over most of Essex and Suffolk. It was the M of the year at about 170 stations.

II.	Crondall, Warren Corner	2·14 in.	or 8·5	per cent.
„	Tunbridge Wells, Etherton Hill	1·99 „	7·9	„
„	Chevening Gardens.....	2·47 „	7·9	„
„	Chichester, Oaklands.....	2·45 „	8·6	„
„	„ West Dean	2·80 „	8·1	„
„	„ Chilgrove.....	2·78 „	7·7	„
„	Midhurst, Borden Wood	2·97 „	9·1	„
„	„ Lynch Farm	2·80 „	7·9	„
„	„ Hollycombe	2·70 „	7·8	„
„	Petersfield, Fairleigh.....	2·57 „	7·2	„
„	„ Steep Vicarage	2·28 „	8·0	„
„	Liss, Lingwood	2·92 „	8·3	„
„	Greatham, King's Holt	2·79 „	7·2	„
„	Liphook, Fowley	2·74 „	8·1	„
„	„ White Hill Chase	3·00 „	10·0	„
„	Shinfield, Clares Green	1·80 „	7·9	„
„	Rotherwick, Tylney Hall	2·25 „	9·4	„
„	Winchfield, Elvetham Park.....	2·18 „	7·8	„
„	„ Bylands	1·87 „	8·2	„
„	Hartley Wintney	1·87 „	7·6	„
„	Heckfield, Park Corner.....	1·92 „	8·5	„
XI.	Crickhowell, Glanusk Park	2·70 „	7·4	„
„	Llanfrynach, Tymawr	2·64 „	6·9	„

JUNE 16TH.

A TS in Nottinghamshire and South Yorkshire.

VII. Nottingham, Beeston Fields..... 1·90 in. or 7·5 per cent.

JUNE 24TH.

Another TS rain, chiefly, but not exclusively, in the S.E. and E. of England.

II. Capel, The Cottage..... 2·52 in. or 8·3 per cent.
VII. Lincoln, Skellingthorpe Hall 2·10 „ 8·2 „

JULY 7TH.

A TS, or series of TSS yielding M, extending from Gloucester to Lincoln and from Hertfordshire to Yorkshire.

VII. Leicester, Humberstone Asylum..... 2·55 in. or 10·7 per cent.
„ Barkby 2·78 „ 11·1 „
„ Syston 1·94 „ 8·6 „
„ Lincoln, Doddington 1·95 „ 7·7 „
„ Plumtree, Normanton-on-the-Wolds 1·74 „ 8·3 „
„ Radcliffe-on-Trent, Chestnut House 1·90 „ 8·7 „
„ „ „ 1·74 „ 7·9 „
„ Nottingham, Stoke Bardolph 1·93 „ 9·0 „
„ Gonalston Rectory 2·30 „ 8·8 „
„ Newark, Averham Rectory 2·30 „ 9·7 „
„ South Scarle..... 2·50 „ 10·9 „
IX. Guisborough, Hutton Hall 3·07 „ 8·6 „

JULY 8TH.

This M was chiefly noteworthy in Ireland, but even there, it reached $7\frac{1}{2}$ per cent. at only one station. Apparently excessive M are less frequent in Ireland than in England and in Scotland, for the observer at Currygrane states that his M of 2·43 in. is the greatest for nearly 20 years; and yet, as it is neither $2\frac{1}{2}$ inches nor $7\frac{1}{2}$ per cent. (it is only 6·6), it is not entitled to be quoted here. The only record which has that right is—

XXIII. Dartrey, Coote Hill 3·21 in. or 8·6 per cent.

JULY 24TH-25TH.

This rain was continuous, and fell chiefly on the earlier date in Ireland and on the later in the extreme North of England and in Scotland; but owing to some few observers still breaking Rule IX, it is not quite certain that all the following are assigned to their true date, though, of course, it is hoped and believed that that is the case.

JULY 24TH.

XX.	Ballina [Killaloe].....	3·26 in. or 7·3 per cent
„	Derry Castle [Killaloe]	3·26 „ 6·9 „
XXI.	Dublin, Phoenix Park.....	2·17 „ 7·5 „
„	Balbriggan, Ardgillan	2·43 „ 8·0 „
„	Summerhill House	2·81 „ 8·1 „
„	Athlone.....	2·51 „ 7·5 „
„	„ Twyford	2·66 „ 7·5 „
XXII.	Ballinasloe	2·50 „ 6·7 „
XXIII.	Newcastle, Fairleigh	2·96 „ 5·6 „
„	Glenarm	3·50 „ 8·3 „

JULY 26TH.

XVIII.	Tarbetness.....	1·93 in. or 7·6 per cent.
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JULY 30TH.

Local heavy rains, but we believe unaccompanied by T : one in Kent, one in Cambridgeshire, and one in Yorkshire. The only M claiming insertion are—

III.	Ely, Stretham	1·58 in. or 7·5 per cent.
„	„ „ Ferry	2·15 „ 9·1 „

AUGUST 7TH.

An unimportant and local M in the neighbourhood of Lowestoft.

IV	Lowestoft, The Cliffe, Corton	1·91 in. or 8·4 per cent.
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AUGUST 28TH.

A wet day in the west of Scotland ; but the only M entitled to mention is—

XVIII.	Loch Shiel, Glenaladale.....	2·95 in. or 2·7 per cent.
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AUGUST 31st.

Many TSS ; but the only M calling for notice seem to be—

IV.	Witham, Little Braxted Hall	1·96 in. or 8·0 per cent.
„	„	1·93 „ 7·6 „
XI.	Colwyn Bay, Bryn Euryn.....	2·82 „ 8·6 „

SEPTEMBER 1st.

Another day of TSS ; M chiefly in Surrey, but extending to Hants, Herts and Essex.

II.	Dorking, Woodcote	2·74 in. or 8·2 per cent.
„	„ Fir Tor.....	2·83 „ 8·5 „
„	Reigate, Nutwood	2·33 „ 7·7 „
„	Merstham	2·51 „ 7·6 „
„	Caterham Valley, Birchwood House	2·18 „ 8·2 „
„	Keston, Bradfield	2·54 „ 8·8 „
„	„ Tower.....	2·62 „ 8·2 „
IV.	Ipswich, Orwell Park.....	2·27 „ 8·5 „
„	„ Burwood	2·35 „ 9·4 „
„	„ Clare Lodge.....	2·35 „ 9·2 „
„	Bury St. Edmunds, Abbeygate St....	2·22 „ 9·3 „

SEPTEMBER 4TH.

One of the most generally wet days in the year, the date of M at hundreds of stations in the southern half of England, but not important at any of them; the only M claiming entry here is—

XXI. Glen-na-Smoel (Waterworks) 2·67 in. or 6·1 per cent.

SEPTEMBER 17TH.

The M at several stations in South Wales.

XI. Ystalyfera, Wern Schools 2·60 in. or 4·6 per cent.
 ,, ,, Tanyralt 2·57 ,, 4·5 ,,

SEPTEMBER 21ST.

The M at about 50 stations, mostly in Devon and Cornwall, but no case entitled to mention here.

SEPTEMBER 22ND.

This M was chiefly in Lancashire and Yorkshire, but they are very small; the only one entitled to mention is—

IX. Slaidburn, Whitendale 2·88 in. or 4·1 per cent.

SEPTEMBER 23RD.

There were a few M in the West of England and in Wales.

XI. Capel Curig, Lake Cowlyd 2·73 in. or 4·1 per cent.
 ,, Rhiwbryfdir=Oakley Quarries 2·70 ,, 3·0 ,,

SEPTEMBER 24TH-25TH.

M occurred at several hundred English stations on these days, but the amounts were all too unimportant to be mentioned here.

OCTOBER 7TH.

This was the date of M at many stations in North Wales, the English Lakes, and the South of Scotland, but the amounts (for the district) were small.

X. Keswick, Eskin Place..... 2·50 in. or 4·5 per cent.
 ,, Bassenthwaite, Mirehouse..... 2·90 ,, 5·6 ,,
 XI. Llanberis, Glyn Padarn..... 3·10 ,, 4·2 ,,
 XII. Kirkpatrick Durham, Glenlair..... 3·04 ,, 7·0 ,,

DECEMBER 13TH-14TH.

This M seems to have travelled eastwards, and was chiefly noticeable in Devon and Cornwall.

13th. XX. Kenmare, Derreen 2·57 in. or 4·4 per cent.
 14th. V. Redruth, Trevince 2·79 ,, 7·5 ,,

DECEMBER 29TH.

The M, but not an important one, at many stations in the North of England and South of Scotland.

VIII.	Cartmel, Broughton Hall	2·61 in. or 5·3 per cent.		
„	Broughton-in-Furness	2·58 „	4·4	„
„	Ambleside, Skelwith Fold.....	2·54 „	3·1	„
X.	Seathwaite	4·59 „	3·7	„
„	Borrowdale Vic.	2·91 „	3·1	„
„	Ambleside, Skelwith Bridge.....	2·54 „	3·1	„
„	„ Gale Hcuse	2·54 „	3·1	„
„	„ Lesketh Howe	2·66 „	3·4	„
„	Elterwater, Birch Hill	2·93 „	3·3	„
„	Dungeon Ghyll	2·80 „	2·6	„
„	Grasmere, High Close	3·04 „	3·9	„
„	„ Pavement End.....	3·25 „	3·9	„
XI.	Blaenau Festiniog	3·13 „	2·9	„

PART II.—ABSTRACTS.

We have now to deal (first) with the most remarkable of the M during the year, and (second) with the whole of the entries of M.

As regards absolutely heaviest fall in one day Seathwaite again heads Table I., and Table II. shows that Seathwaite has taken that position in 13 years out of 32. In other respects Table I. speaks for itself, but is in no way remarkable.

Table II. is an abstract not only of Table I., but also of the 31 precursors of Table I. From it we see that though the M in 1896 were about a tenth part less than usual, they were by no means unprecedentedly small, there having been six years in each of which the depths were still smaller.

In Table III. and IV. we see collected the M which were most remarkable by reason of the proportion of the total yearly amount which fell on one day. It will be seen that more half of them are due to the rains of July 7th and of September 1st. Table IV. shows that in every respect they are unimportant, being below the average both as to percentage and as to amount.

Tables V and VI., deal with the whole of the reported M, and the first feature to be noticed is that they are unprecedentedly numerous. This proves nothing as to their character, it shows only that our organization is improving as well as growing, because to have 2465 daily records of rainfall for one year shows both a large staff and a careful one. Table V. shows that as regards percentages the M falls in 1896 were exactly the average, that as regards amount they were 10 per cent. below it, which of course

indicates that the total fall in the year was about 10 per cent. less than usual. Later on we shall see how nearly this agrees with the result of a totally distinct and different mode of investigating the question.

Table VI. needs a few words of explanation, without which the differences given at the bottom might be supposed to be contradictory or erroneous. It will be seen that this year the table contains about 1,000 more records than it did in 1882, and it contains 506 more than it has done on the average of the period 1882-95; therefore, although it is absolutely true that there have been 20 more instances of a fall of 2·00 in. or more in 24 hours, this does not show that they have been more frequent, but merely that, just as the total number of records utilized in 1896 exceeds the average, so—but not to the same extent—do the records above 2 inches and above 3 inches. It was in anticipation of this difficulty that we added the columns headed “Per cent. of Total Number”; those figures are strictly comparable, and they show a deficiency of 2 inch falls of 12 per cent., and of 3 inch falls of 63 per cent.; thus confirming our previous remarks as to the absence of exceptional rains in 1896.

TABLE I.—*Maximum Falls in 1896.*

Date.	Div.	Station.	Depth.	Per Cent.	Total.
Dec. 29 ...	X.	Seathwaite.....5 in. gauge	4·59in.	3·7	125·06 in.
June 3 ...	IX.	Bradford(Hewenden Res.) <i>new</i> g	3·66 ,,	8·9	41·19 ,,
Feb. 7 ...	X.	Borrowdale (Grange)	3·58 ,,	4·2	84·30 ,,
July 24 ...	XXIII.	Glenarm	3·50 ,,	8·3	42·21 ,,
„ 24 ...	XX.	Ballina [Killaloe]	3·26 ,,	7·3	44·79 ,,
„ 24 ...	XX.	Derry Castle [Killaloe]	3·26 ,,	6·9	46·98 ,,
Dec. 29 ...	X.	Grasmere (Pavement End)..	3·25 ,,	3·9	83·07 ,,
July 8 ...	XXIII.	Dartrey [Coote Hill]	3·21 ,,	8·6	37·38 ,,
Feb. 7 ..	X.	Buttermere (Hassness)	3·19 ,,	3·3	97·71 ,,
Dec. 29 ...	XI.	Blaenau Ffestiniog	3·13 ,,	2·9	107·14 ,,
Feb. 12 ...	XVIII.	Glenquoich	3·11 ,,	2·9	108·85 ,,
Oct. 7 ...	XI.	Llanberis (Glyn Padarn) ...	3·10 ,,	4·2	74·17 ,,
July 7 ...	IX.	Guisborough (Hutton Hall).	3·07 ,,	8·6	35·74 ,,
Oct. 7 ...	XII.	KirkpatrickDurham(Glenlair)	3·04 ,,	7·0	43·54 ,,
Dec. 29 ...	X.	Grasmere (High Close)	3·04 ,,	3·9	78·49 ,,
June 10 ...	II.	Liphook (White Hill Chase)	3·00 ,,	10·0	30·11 ,,

TABLE II.—*Comparison of Maximum Falls with those in previous years.*

MEAN.				ABSOLUTE.			
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	—4·4	86·2	6·38	3·6	Seathwaite.....	„
1867 ...	3·17	9·0	— 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	—2·9	Seathwaite ...	„
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	—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	Glenesmoel ...	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	Seathwaite ...	„
1886 ...	3·77	7·7	58·7	4·20	9·9	Little Bredy ...	V.
1887 ...	—2·83	6·1	56·8	4·93	13·0	Galway Q. Coll.	XXII.
1888 ...	4·20	5·9	77·0	5·20	5·4	Wythburn Vic.	X.
1889 ...	3·89	+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	+108·4	6·14	4·2	Seathwaite.....	X.
1892 ...	4·47	7·9	70·1	5·80	4·5	Seathwaite.....	„
1893 ...	3·84	5·8	89·6	4·96	3·5	Seathwaite.....	„
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.
Mean ...	3·70	6·4	70·1	5·34	7·0	....	...
1896 ...	3·31	5·9	67·5	4·59	3·7	Seathwaite ...	X.
Diff. ...	—·39	—·5	— 2·6	—·75	—3·3	....	...

TABLE III.—*Maximum Percentages in 1896.*

Date.	Div.	Station.	Per Cent.	Fall.	Total.
July 7 ...	VII.	Barkby	11·1	2·78 in.	25·06 in.
„ 7 ...	„	South Scarle	10·9	2·50 „	22·88 „
„ 7 ...	„	Leicester (Humberstone Asylm.)	10·7	2·55 „	23·86 „
June 10 ...	II.	Liphook (White Hill Chase)	10·0	3·00 „	30·11 „
July 7 ...	VII.	Newark (Averham Rectory)	9·7	2·30 „	23·66 „
Sept. 1 ...	IV.	Ipswich (Burwood).....	9·4	2·35 „	25·08 „
June 10 ...	II.	Rotherwick (Tylney Hall)...	9·4	2·25 „	23·96 „
Sept. 1 ...	IV.	Bury St. Edmunds Abbeygate St	9·3	2·22 „	23·81 „
„ 1 ...	„	Ipswich (Clare Lodge)	9·2	2·35 „	25·44 „
June 10 ...	II.	Midhurst (Borden Wood) ...	9·1	2·97 „	32·67 „
July 30 ...	III.	Ely (Stretham Ferry).....	9·1	2·15 „	23·72 „
„ 7 ...	VII.	Nottingham (Stoke Bardolph)	9·0	1·93 „	21·42 „
June 3 ...	IX.	Bradford (Hewenden Res.) <i>new</i> g	8·9	3·66 „	41·19 „
Sept. 1 ...	II.	Keston (Bradfield)	8·8	2·54 „	28·78 „
July 7 ...	VII.	Gonalston Rectory	8·8	2·30 „	26·06 „
June 4 ...	„	Worksop (Hodsock Priory).	8·7	2·07 „	23·69 „

TABLE VI.—*Max. Falls in each year exceeding 2·00 in., and exceeding 3·00 in.*

Year.	Total number of records.	Falls of 2·00 in. or more.		Falls of 3·00 in. or more.	
		Number.	Per cent. of total No.	Number.	Per cent. of total No.
1882	1463	140	9·6	8	0·6
3	1505	170	11·3	23	1·5
4	1691	138	8·2	9	0·5
5	1801	179	10·0	24	1·3
6	1718	158	9·2	44	2·6
7	1921	52	2·7	4	0·2
8	1974	374	18·9	34	1·7
9	1812	170	9·4	24	1·3
1890	2081	345	16·6	54	2·6
1	2218	270	12·2	39	1·8
2	2231	470	21·1	81	3·6
3	2267	183	8·1	29	1·3
4	2321	313	13·5	36	1·6
5	2423	249	10·3	31	1·3
Mean	1959	229	11·5	31	1·6
1896	2465	249	10·1	16	0·6
Diff.	+506	+20	-1·4	-15	-1·0

TABLE IV.—*Comparison of Max. Percentages with those in previous years.*

Years.	MEAN.			Per Cent.	ABSOLUTE.		
	Per Cent.	Depth.	Mean total fall at these Stations.		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	+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.. [Hall	III.
1875 ...	10·2	+3·76	37·5	13·2	3·95	Letheringsett ...	IV.
1876 ...	— 7·4	2·49	33·7	— 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	CambridgeM. V.	III.
1880 ...	9·5	3·06	32·3	11·7	3·34	Marmont Pr. 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	—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	—2·11	21·9	13·0	4·93	Galway, Q. 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 ...	+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 Aslm	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.
Mean ..	9·8	2·79	28·9	12·5	3·76	.....	...
1896 ...	9·5	2·50	26·3	11·1	2·78	Barkby	VII
Diff. ...	— 3	— 29	— 2·6	— 1·4	— 98	.....	...

TABLE V.—*Comparison of the Mean of all the Maximum Falls of 1896 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	— 3.4	1.59	+ 47	+ 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	+1.83	37	109	+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	— 1.14	— 25	— 74	— 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 "
Mean	1363	4.4	1.47	33	98	4.3 "
1896.....	2465	4.4	1.33	30	88	3.9 "
Diff.....	+1102	.0	— .14	— 3	— 10	— .4 "

DROUGHTS IN 1896.

It is very satisfactory that instead of the chaos of notions and endless misunderstandings as to "What is a drought" which used to exist, our definitions seem generally accepted. The satisfaction has nothing whatever to do with by whom they were laid down, nor even with the definitions themselves, but with the fact that it is now possible to take any perfectly kept record and compare the dry periods in it with those in any other, either at the same place in different years, or in any one year at different places. But the record must be a carefully kept one; there must be no shirking as to examining the gauge each morning, no matter how satisfied the observer may feel that "there is nothing in it." He cannot be certain that a small fall had not occurred while he was asleep; and, besides, it is mere laziness not to look into the gauge and so be certain.

For study of droughts we must therefore have records that we can trust; and if we are to represent the country, they must be distributed at nearly equal distances apart all over the British Isles. Thanks to our excellent staff, we have been able for nine years past to discuss the records of 50 such stations; happily, there have been few changes in them, and where a change was inevitable, a new station to replace the absentee has been selected, possessing, as far as possible, the double qualification set out above.

In the first place we must reprint the definitions.

ABSOLUTE DROUGHTS.—Periods of *more than* 14 consecutive days absolutely without measurable R.

PARTIAL DROUGHTS.—Periods of *more than* 28 consecutive days, the aggregate rainfall of which does not exceed 0·01 in. per diem.

We next give the results from these stations, and will then state the conclusions to which they lead.

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
ENGLAND & WALES.							
London (Camden Square), N.W.. <i>Middlesex.</i>	April 30	May 19	20	Jan. 28 April 5 June 25	Feb. 29 June 2 July 25	33 59 31	in. ·30 ·59 ·27
Dorking (Abinger Hall) ... <i>Surrey.</i>	April 26	May 19	24	April 17	June 2	47	·42
Hythe..... <i>Kent.</i>	May 3	May 19	17	Jan. 28 April 17	Feb. 28 June 3	32 48	·25 ·37
Welwyn (Datchworth Rectory).. <i>Herts.</i>	May 2 Nov. 16	May 18 Nov. 30	17 15	Jan. 28 April 12	Feb. 27 June 3	31 53	·30 ·46
Maxey Vic. [Market Deeping] ... <i>Northampton.</i>	None			Jan. 28 April 5	Feb. 27 May 17	31 43	·30 ·43
Geldeston [Beccles] <i>Norfolk.</i>	None			Jan. 26 April 17	Feb. 28 May 19	34 33	·31 ·31
Calne (High Street)..... <i>Wilts.</i>	May 1	May 19	19	Jan. 28 May 1	Feb. 29 June 3	33 34	·31 ·28
Torquay (Cary Green)..... <i>Devon.</i>	April 25	May 20	26	Mar. 21 June 17	June 3 July 22	75 36	·66 ·28
Bideford (Northam Vicarage) ... <i>Devon.</i>	April 29	May 20	22	April 25	June 3	40	·29
St. Austell (Trevarna) <i>Cornwall.</i>	May 3	May 20	18	April 14	June 3	51	·51
Ilminster (White Lackington) ... <i>Somerset.</i>	April 30	May 20	21	April 14	June 5	53	·46
Ross (The Graig) <i>Hereford.</i>	None			Jan. 2 April 15	Feb. 29 June 3	59 50	·58 ·50
Weston Park [Shifnal] ... <i>Stafford.</i>	May 1	May 17	17	April 16	May 19	34	·31
Market Overton <i>Rutland.</i>	None			April 18	May 20	33	·32
Worksop (Hodsock Priory) <i>Notts.</i>	None			Jan. 28 April 17	Feb. 27 May 20	31 34	·30 ·29
Belper (Northfield) <i>Derby.</i>	April 30	May 17	18	April 17	June 2	47	·45
St. Michael's-on-Wyre <i>Lancashire.</i>	May 1	May 17	17	None			

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
Knaresboro' (Farnham) <i>York, W.R.</i>	May 1	May 17	17	Jan. 1 April 17	Feb. 19 May 18	50 32	in. ·49 ·32
Driffield (Beverley Road) <i>York, E.R.</i>	May 1	May 17	17	Jan. 15 April 17	Feb. 19 May 17	36 31	·35 ·30
Darlington (South End) <i>Durham.</i>	None			Jan. 27 April 16	Feb. 27 May 20	32 35	·29 ·34
Morpeth (Bothalhaugh Garden)... <i>Northumberland.</i>	None			Jan. 17 April 17	Feb. 19 May 18	34 32	·29 ·31
Pawston [Coldstream]..... <i>Northumberland.</i>	None			None			
Whitehaven, Irish Street <i>Cumberland</i>	April 30	May 18	19	None			
Chepstow (Shirenewton Hall) .. <i>Monmouth</i>	None			May 1	June 1	32	·30
Haverfordwest (High Street) ... <i>Pembroke.</i>	April 29	May 20	22	April 14	June 3	51	·48
Churchstoke (Mellington Hall)... <i>Montgomery.</i>	None			Jan. 28	Feb. 28	32	·27
Halkyn <i>Ffint.</i>	Jan. 28 May 1	Feb. 11 May 17	15 17	Jan. 28 April 17	Feb. 27 May 18	31 32	·30 ·30
Llanfairfechan <i>Carnarvon.</i>	April 30	May 15	16	None			
SCOTLAND.							
Garliestown (Galloway House)... <i>Wigton.</i>	May 1	May 17	17	None			
Cargen [Dumfries] <i>Kirkcudbright.</i>	May 1	May 17	17	None			
Melrose Asylum <i>Roxburgh.</i>	None			April 17	May 18	32	·28
Edinburgh (Blacket Place)..... <i>Edinburgh.</i>	None			None			
Ardrossan (Kirkhall) <i>Ayr.</i>	None			None			
Buchlyvie (The Manse) <i>Stirling.</i>	None			None			

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
Strontian (Laudale)..... <i>Argyll.</i>	None			None	,		in.
Islay (Ardbeg) <i>Argyll.</i>	None			None			
Kirriemuir (Lintrathen) <i>Forfar.</i>	April 30	May 14	15	April 18	May 18	31	·26
Cromar (Logie Coldstone Manse) .. <i>Aberdeen.</i>	None			Jan. 17	Feb. 18	33	·30
Alness (Ardross Castle) <i>Ross.</i>	None			None			
Golspie (Dunrobin Castle) <i>Sutherland.</i>	None			None			
IRELAND.							
Dunmanway (Coolkelure) <i>Cork.</i>	May 6	May 20	15	April 16	June 1	47	·42
Killarney (Woodlawn) <i>Kerry.</i>	None			April 29	June 1	34	·29
Clonmel (Bruce Villa) <i>Tipperary.</i>	April 30	May 17	18	April 17	June 3	48	·46
Enniscorthy (Ballyhyland)..... <i>Wexford.</i>	April 30	May 17	18	April 14	June 1	49	·41
Bray (Fassaroe) <i>Wicklow.</i>	April 30	May 18	19	April 14	June 3	51	·50
Athlone (Twyford) <i>Westmeath.</i>	None			April 29	June 1	34	·34
Ballinasloe..... <i>Galway.</i>	None			April 29	June 2	35	·32
Collooney (Markree Observatory) .. <i>Sligo.</i>	None			None			
Belfast (Springfield) <i>Antrim.</i>	None			None			
Stewartstown (The Square) <i>Tyrone.</i>	None			None			

As regards "Absolute droughts," it will be seen that, with two exceptions,* they all refer to the early part of May, beginning between April 25th and May 6th, and ending between May 14th and 20th; the average duration being 18 days.

The "Partial droughts" were less regular. For greatest aggregate duration Camden Square heads the list, with three partial droughts covering 123 days, or just one third of the year; during which the total rainfall was only 1·16 in.—a fact, but one which seems scarcely credible. Torquay was certainly not a wet place in 1896; a partial drought prevailed from March 21st to June 3rd, 75 days with only 0·66 in. of R; and after a fortnight, a second followed of 36 days with only 0·28 in. Another extremely careful observer had nearly as severe a drought, viz., Mr. Southall, of The Graig, Ross, Hereford; who (omitting January 1st) in the first two months had 59 days with 0·58 in., and 50 days from April 15th with only half-an-inch. The Irish stations mostly had about six weeks from the middle of April with only 0·40 in.†

Spring droughts having been exceptionally frequent during recent years, the only average which is at present available for comparison is probably not that of really average years, but we must either take it or go without one, and, having pointed out its possible need of correction as years roll on, we give the summaries, averages and differences of 1896 therefrom.

ABSOLUTE DROUGHTS.

	No. of Stations.	No. of Droughts.	Average.	Duration Greatest.	Stations without one.
1888 ...	50	17	17 days	20 days	35
1889 ...	50	42	21 "	30 "	13
1890 ...	50	13	18 "	20 "	39
1891 ...	50	26	18 "	34 "	28
1892 ...	50	36	16 "	20 "	25
1893 ...	50	39	20 "	44 "	23
1894 ...	50	52	18 "	31 "	10
1895 ...	50	52	19 "	29 "	16
Mean ...	50	35	18 "	29 "	24
1896 ...	50	27	18 "	26 "	25
Diff. ...	0	—8	0 "	—3 "	+1

* January 28th to February 11th at Halkyn, Flintshire, and November 16th to 30th at Datchworth, Herts.

† See also *Met. Mag.*, 1896 (July), p. 84.

PARTIAL DROUGHTS.

	No. of Stations.	No. of Droughts.	Average.	Duration	Greatest.	Stations without one.
1888	... 50	..... 4	..... 42 days	.....	50 days	..... 46
1889	... 50	..... 38	34	,,	45	..... 15
1890	... 50	..... 3	30	,,	31	..... 47
1891	... 50	..... 38	36	,,	49	..... 14
1892	... 50	..... 17	35	,,	64	..... 33
1893	... 50	..... 53	51	,,	114	..... 10
1894	... 50	..... 44	37	,,	62	..... 13
1895	... 50	..... 47	39	,,	64	..... 19
Mean	... 50	..... 31	38	,,	60	..... 25
1896	... 50	..... 49	40	,,	75	..... 16
Diff.	... 0	..... +18	+2	,,	+15	..... -9

From these tables it appears that there have not been quite so many “absolute” droughts as usual, but there have been more partial ones than in any recent year except 1893, and that they have lasted longer than the average, but not nearly so long as in 1893.

MONTHLY RAINFALL OF 1896.

As usual we give information on this subject in many forms.

In the *Meteorological Magazine* there are monthly abstracts of records from 150 stations, and for about 40 of them the difference between the fall in each month, and the average for the same month during the previous decade.

In the Observers' Notes on the Months (see *ante* pages [22] to [58]) there is the general history of the weather; in the following tables (pages [113] to [119]) we give the monthly rainfall at each of 233 stations, and in the two sheets of maps inserted between pages [120] and [121] we show in which part of the country the fall was near the average, and in which it was an inch or more above or below it.

These maps are similar to those given in previous years, and are based upon the following data :—A map was prepared showing the stations of which the records date back to 1880 and are still being continued; 48 stations were then chosen as widely distributed as possible; for each of them the mean rainfall was determined for each month, from the observations made during the decade, 1880-89. Then a table was constructed, showing for each station, whether the fall in each month in 1896 was within an inch of the average, or more than an inch above or below it. Upon the map for each month were then placed marks over the site of each station, indicative of the relation of the fall in that month to the average. The symbols adopted are :—

A round dot when within an inch of the average.

A + when more than an inch above it.

A — when more than an inch below it.

Lastly, we give from page [143] onwards, a brief history of the distribution of the fall of rain over the British Isles in each month, remarks on such monthly totals as are exceptional, and an investigation as to the localities in which the deficiency of rain in the first six months was most remarkable.

MONTHLY RAINFALL AT 233 STATIONS IN THE BRITISH ISLES DURING 1896.

ENGLAND.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
I.	Middlesex	London (Camden Square) ...	.78	.29	3.20	.55	.14	2.27	1.03	1.92	5.51	3.05	1.17	3.61	23.52
"	"	Harrow	.86	.40	3.42	.54	.25	1.75	1.10	3.40	7.45	2.72	1.24	3.75	26.88
II.	Surrey	Guildford (Epsom Road).....	.81	.42	3.11	.53	.49	3.06	1.32	2.13	6.56	2.58	1.57	3.96	26.54
"	Kent	Tenterden	.79	.39	2.71	.52	.21	3.87	.85	2.26	5.61	5.55	1.34	3.91	28.01
"	"	Hythe	1.32	.33	3.13	.85	.17	3.61	1.16	2.93	5.44	6.27	2.79	4.37	32.37
"	"	Sevenoaks (Riverhead Vic.)	1.06	.29	3.22	.63	.26	5.09	1.57	1.62	5.48	4.49	1.49	3.83	29.03
"	"	Ospringe (Lorenden)	.88	.36	2.86	.83	.15	3.98	.97	2.53	4.30	5.35	1.01	3.55	26.77
"	Sussex	Arundel (Parching)	.90	.42	2.86	.51	.38	2.50	1.56	1.29	7.61	4.31	1.46	4.61	28.41
"	"	Maresfield (Forest Lodge) ..	1.30	.27	2.96	.61	.40	2.98	1.37	1.82	7.47	5.15	1.65	4.66	30.64
"	"	I. of Wight (Sandown).....	1.01	.23	3.78	.60	.34	1.62	1.12	1.78	8.76	4.47	.95	4.84	29.50
"	Hants	Bps. Waltham (Swanmore Ho.)	1.06	.45	3.63	.48	.49	1.59	.58	2.07	9.36	2.81	1.00	5.22	28.74
"	"	Basingstoke (Sherborne S.J.)	.99	.43	3.46	.30	.21	2.86	.74	2.42	6.39	2.92	1.01	3.78	25.51
"	Berks	Newbury (Welford Park) o.g.	.89	.47	3.49	.72	.45	2.42	.78	3.48	6.04	3.46	1.03	4.18	27.41
III.	Herts	Hertford (Bayfordbury).....	.56	.44	3.15	.59	.24	2.37	.79	2.96	6.30	2.74	1.21	3.71	25.06
"	"	Royston	.81	.49	3.27	.85	.30	2.02	.65	2.38	5.25	2.96	1.05	3.06	23.09
"	"	Buckingham (Adstock)	1.14	.47	2.64	.84	.30	2.16	.96	2.53	5.30	2.53	1.14	3.45	23.96
"	Oxford	Henley (Northfield House)...	.74	.52	3.73	.29	.32	2.46	.25	2.42	6.06	2.18	.62	4.29	23.88
"	"	Oxford (Magdalen Coll.) ...	.60	.31	2.32	.56	.19	2.44	1.39	2.96	4.83	2.66	.73	3.03	22.02
"	Northampton	Wellingborough (Swanspool)	1.15	.52	2.21	.98	.36	2.36	.97	1.78	5.19	3.45	.90	2.99	22.86
"	Bedford	Bedford (The Grove)	.82	.74	2.12	.76	.56	1.91	.96	1.85	4.67	3.41	.98	2.87	21.65
"	Cambridge	Ely (Stretham)	.87	.66	2.69	.59	.23	2.24	2.45	1.56	4.30	2.46	.75	2.29	21.09
"	"	Wisbech Bank House	1.16	.80	2.57	.68	.45	2.16	1.58	2.20	3.93	4.02	1.05	3.10	23.70
IV.	Essex	Loughton (High Beech)	.48	.37	2.84	.69	.20	2.48	1.60	2.02	5.64	3.17	1.09	3.16	23.74
"	"	Chelmsford (High Street)...	.62	.64	3.04	.49	.17	3.24	.63	3.32	5.23	2.68	1.20	2.90	24.16
"	"	Braintree (Bocking Place) ..	1.03	.60	3.02	.53	.20	2.58	.56	2.58	7.06	2.09	1.14	3.05	24.44
"	Suffolk	Ipswich (Bishop's Hill).....	1.32	.61	3.15	.79	.41	2.23	.34	2.58	4.97	2.50	1.13	3.02	23.05
"	"	Haverhill (Great Thurlow).	1.29	.98	3.45	1.02	.41	3.07	1.29	2.40	5.04	3.12	1.00	2.99	26.06
"	"	Framlingham (Mount Pleasant)	1.33	.54	3.30	1.13	.49	2.10	.79	1.67	3.54	2.56	1.46	3.10	22.01
"	"	Geldeston [Beccles]	1.01	.43	3.17	1.05	.46	1.80	1.05	1.60	3.89	2.93	1.55	3.03	21.97
"	Norfolk	Swaffham	1.48	.78	3.53	.82	.62	1.99	1.96	2.02	5.34	4.12	1.15	3.85	27.66
"	"	Holt (Field Dalling).....	1.16	.53	3.41	1.18	.50	2.20	1.92	1.61	4.31	3.93	1.06	3.06	24.87

ENGLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
VII.	Rutland	Market Overton	1.33	1.00	2.23	.88	.64	2.71	2.38	2.37	4.72	3.90	1.03	3.80	26.99
"	Lincoln	Sleaford (Rauceby Hall) ...	1.00	.55	2.33	.71	.45	2.25	1.77	1.18	4.15	3.33	1.26	3.60	22.58
"	"	Market Rasen	1.06	.65	1.98	.85	.71	4.41	2.51	1.80	3.97	5.48	1.46	3.98	28.86
"	"	West Halton .....	.66	.45	2.03	.82	.95	2.61	1.74	1.41	5.98	6.15	1.77	3.35	27.92
"	Notts	Ollerton (Thoresby Gardens)	1.13	.63	2.12	1.06	1.03	3.31	1.92	1.65	5.46	4.12	1.97	3.42	27.82
"	Derby	North Darley	1.22	1.04	4.20	1.18	.35	2.84	1.25	2.34	6.40	4.94	1.98	5.83	33.57
VIII.	(Leicestershire)	Congleton (Buglawton Vic.)	1.18	1.77	3.79	1.42	.61	3.35	1.46	2.85	4.83	4.08	1.58	3.84	30.76
"	Leicestershire	Manchester (Withington) ..	.99	1.60	3.79	1.60	.54	2.75	1.60	2.47	5.05	4.06	1.20	3.41	29.06
"	"	Ormskirk (Rufford)	1.76	1.61	4.07	1.11	.41	2.63	2.66	2.93	5.32	4.80	1.51	4.70	33.51
"	"	Burnley (Swinden, Lower)	2.05	2.38	5.45	2.41	.55	2.88	2.25	2.43	7.56	5.27	2.31	6.04	41.86
"	"	St. Michael's-on-Wyre	1.98	1.45	4.71	1.95	.88	3.51	5.69	3.17	5.14	4.23	1.35	5.23	38.96
"	"	Cartmel (Pit Farm)	3.25	2.69	6.63	1.76	.38	3.10	4.77	3.09	6.37	5.58	1.72	6.96	46.30
IX.	York, W.R.	Rotherham (Moorgate Grove)	.66	.72	2.18	1.02	.57	2.24	1.12	1.77	4.00	2.74	1.10	3.19	21.31
"	"	Huddersfield (Dalton)	1.18	1.70	4.68	1.99	.48	3.10	1.76	1.85	7.35	5.52	1.75	4.37	35.73
"	"	Leeds (Methley Park) .....	.50	.66	2.86	1.23	.60	4.08	1.53	2.26	4.24	4.05	1.79	2.69	26.49
"	"	Malham Tarn	4.56	3.01	8.45	3.25	.57	4.00	3.90	3.08	9.90	4.88	1.86	7.93	55.39
"	"	Ripon (Mickley) .....	.64	.52	3.12	.82	.42	3.30	1.84	2.48	3.98	4.12	1.40	4.15	26.79
"	York, E.R.	Pattingham .....	.73	.82	2.50	.70	.80	1.72	1.65	1.29	3.72	4.99	1.52	3.22	23.66
"	"	Pocklington (Warter) .....	.69	.68	2.38	.96	1.00	2.89	1.02	1.21	4.09	5.19	2.01	4.44	26.56
"	York, N.R.	Old Malton .....	.60	.66	2.39	.67	.78	2.74	1.89	1.93	2.97	3.61	1.55	3.87	23.66
"	"	Thirsk (Sowerby) .....	.64	.58	2.45	.49	.50	3.28	1.97	1.81	2.16	3.43	1.14	3.02	21.47
"	"	Whitby (Royal Crescent) ...	.85	.43	2.08	.42	.79	1.78	.93	2.17	3.24	3.35	1.25	2.76	20.05
"	"	Lockwood Beck	1.09	.43	2.14	.85	1.36	3.21	3.94	3.61	4.05	7.21	2.82	4.01	34.72
X.	Durham	Darlington (South End) ...	1.01	.49	1.88	.77	.55	2.98	2.17	1.37	3.18	4.08	1.23	3.72	23.43
"	"	Hartlepool (Hunworth Burn)	.70	.42	1.55	.52	.82	2.74	2.28	1.73	3.41	6.96	1.78	4.18	27.09
"	"	Wolsingham	1.04	.84	3.82	1.13	.55	2.01	2.07	1.44	3.73	6.24	1.43	4.73	29.03
"	Northumberland	Haltwhistle (Unthank Hall)	1.95	1.72	4.73	1.93	.55	2.35	3.08	2.31	4.58	4.71	1.08	3.84	32.83
"	"	Morpeth (Meldon Park) ...	1.17	.81	3.00	.94	.82	2.82	3.48	1.68	3.07	5.54	1.38	6.52	31.23
"	"	Alwinton (Biddleston) ...	1.55	.88	2.76	1.15	1.12	2.21	3.25	2.33	3.70	8.12	1.90	6.13	35.19
"	"	Howick Hall	1.39	.81	2.32	.82	1.01	1.84	2.55	1.80	3.70	7.85	1.38	5.22	30.69
"	Cumberland	Borrowdale (Seathwaite) ...	11.09	10.19	19.49	5.78	1.15	6.82	9.12	8.96	15.78	12.87	4.32	19.49	125.06
"	"	Brampton (Denton House)	2.51	1.75	5.09	1.99	.65	2.87	3.64	2.29	3.67	3.42	1.21	3.90	32.99
"	Westmoreland	Kendal (Kent Terrace) ...	4.20	3.34	6.98	1.98	.41	3.19	4.28	2.45	6.43	4.46	1.75	8.62	48.09
"	"	Appleby (Ormside)	1.51	1.69	4.41	1.73	.62	3.39	2.82	1.78	4.33	3.73	.87	3.09	29.97
"	"	Lowther Castle	2.05	2.06	4.96	2.35	.59	3.02	3.35	1.90	6.57	6.47	1.46	4.91	39.69

SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March	April	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XIII.	Berwick.....	Marchmont House	1.38	1.29	1.90	1.04	1.25	2.26	3.55	2.18	4.34	5.52	1.60	5.07	31.38
	Haddington	Haddington Asylum .....	.61	.69	1.34	1.09	.88	2.02	3.56	1.95	3.91	4.48	1.08	4.41	26.02
	Edinburgh.....	Edinburgh (Blacket Place) .....	.84	.85	1.59	.96	.57	3.57	4.33	1.79	4.47	4.14	.65	3.35	27.11
	Linlithgow	Uphall	1.83	1.03	2.68	1.09	.51	3.94	4.87	2.35	4.42	3.36	.78	4.16	31.02
XIV.	Lanark	Biggar (Cambus Wallace)..	1.41	1.53	2.32	1.92	.62	4.07	3.94	1.50	3.12	3.68	.86	3.90	28.87
	"	Hamilton (Water Works)..	1.70	1.90	4.05	1.75	.65	3.95	4.20	1.80	4.15	4.40	1.00	4.95	34.50
	" Ayr.....	Colmonell	2.75	2.60	5.03	2.09	.70	4.28	7.09	3.03	4.89	3.51	2.55	7.22	45.74
	"	Dalmellington (Benquhat).	3.19	2.56	7.15	2.54	1.03	3.64	5.87	5.12	6.45	5.59	2.19	6.42	51.75
XV.	"	Ardrossan (Kirkhall)	2.36	1.94	4.39	2.22	.69	3.77	6.10	1.92	4.84	3.50	1.55	5.01	38.29
	"	Arrochar	3.23	4.01	10.62	3.78	.94	5.24	6.83	3.64	6.13	4.85	4.15	10.52	63.94
	"	Buchlyvie (The Manse) ..	3.02	3.08	5.33	2.71	.89	5.44	3.30	2.93	4.97	4.25	1.90	7.62	45.44
	"	Rothsay (Barone Cott.) ..	3.00	3.08	6.13	2.79	.79	3.50	5.66	3.32	4.12	2.64	1.87	5.56	42.46
	"	Lochgilphhead (Kilmory)..	4.09	4.85	8.78	4.31	.95	3.75	4.21	3.83	7.01	4.80	3.99	8.01	58.58
	"	Appin (Airds)	5.74	4.75	8.40	3.00	1.19	3.90	4.05	4.77	6.08	3.28	3.50	5.35	54.01
	"	Morvern (Drimmin)	5.22	5.41	7.75	4.03	1.70	5.68	4.39	7.53	6.89	5.39	4.67	6.63	65.29
	"	Ballachulish (Ardsheal) ..	7.08	8.40	10.75	4.85	1.32	4.69	4.90	6.33	7.17	4.92	4.49	7.62	72.52
	"	Strontian (Laudale).....	4.41	5.70	9.15	3.73	1.45	4.31	4.73	7.64	7.05	4.24	4.96	6.44	63.81
	"	Kintyre (Devaar)	3.60	3.05	6.41	2.55	1.37	3.75	4.70	3.77	5.52	3.64	1.89	6.18	46.43
	"	Islay (Ardbeg)	3.08	2.97	7.23	2.76	.97	3.81	5.26	3.35	4.51	4.66	1.94	4.32	44.86
	"	Jura (Ardfin)	4.21	5.08	6.87	2.68	2.00	3.34	6.76	4.53	6.08	4.66	2.66	7.82	56.69
XVI.	"	Dollar	2.35	1.85	4.53	2.35	.70	3.88	4.20	1.96	5.19	4.10	1.12	5.87	38.10
	"	Loch Leven Sluice	1.70	1.30	2.90	1.30	.60	3.50	4.30	3.00	4.00	3.90	1.20	6.30	34.00
	"	Kilconquhar (Balcarres) ..	.89	1.14	2.16	1.33	.80	2.43	5.69	3.25	5.39	4.38	.98	7.69	36.13
	"	Stronvar	4.82	4.00	8.79	3.59	.85	5.59	4.62	3.49	7.90	7.18	3.12	10.52	64.47
	"	Coupar Angus .....	.86	.81	1.45	.82	.55	2.42	3.37	1.24	4.27	2.14	.85	4.83	23.61
	"	Dalnaspidal H.R.S.	4.93	3.30	6.26	3.56	1.27	4.65	3.96	3.19	8.19	7.61	2.15	8.84	57.91
	"	Broughty Ferry (Douglas Ho.)	.62	.86	1.20	1.05	.76	2.48	3.63	1.93	3.59	2.73	.71	5.08	24.64
	"	Kirriemuir (Balnakeilly)...	1.44	1.01	2.33	1.26	.87	3.24	3.93	1.84	4.97	2.00	.73	7.24	30.86
XVII.	"	The Burn [Brechin].....	.90	1.10	2.00	1.30	1.20	2.10	3.70	1.70	3.90	3.60	1.20	7.30	30.00
	"	Coldstone Manse	1.12	.51	1.73	.97	1.21	2.55	2.80	1.28	4.04	6.26	1.02	5.03	28.52
	"	Haddo House .....	.83	.95	2.15	1.63	1.54	2.48	2.96	1.62	4.22	5.75	1.18	6.64	31.95
	"	Old Deer	1.48	1.12	2.18	1.37	1.41	2.29	3.05	1.83	5.20	5.54	1.35	6.98	33.80
	"	Grantown	1.49	.60	1.99	2.27	1.71	3.35	2.95	2.44	4.20	6.61	1.12	2.83	31.56
	"	Gordon Castle	1.16	.75	2.08	1.51	1.52	3.81	2.55	2.78	4.53	5.27	1.80	3.88	31.64
	"	Cawdor (Budgate)	1.54	.80	2.22	1.57	.57	4.49	3.74	2.09	3.94	5.01	1.24	2.80	30.01

SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XVII.	Nairn	Nairn (Achareidh)	1.41	.43	1.89	1.27	.86	3.22	3.16	1.92	3.61	3.15	.99	2.35	24.26
XVIII.	Ross	Applecross	5.87	4.00	9.15	5.91	2.07	4.63	4.58	6.19	6.22	8.12	3.00	5.23	64.97
"	"	Strathconan [Beaul]	6.00	1.98	8.10	5.33	1.26	5.03	2.55	3.15	6.57	7.01	1.53	4.31	52.82
"	"	Braemore House	8.60	2.90	5.50	6.55	2.60	3.53	3.40	3.65	4.80	12.17	3.38	8.32	65.40
"	"	Ardross Castle	2.93	1.21	2.94	1.40	.60	4.14	3.87	1.99	4.81	7.20	1.00	3.37	35.46
"	Inverness	Fort William (Observatory)	8.75	8.27	9.69	3.63	1.29	4.79	3.74	6.12	6.80	4.96	4.45	8.58	71.07
"	"	N. Uist (Loch Maddy)	5.41	4.15	6.42	3.71	1.50	4.18	4.61	4.88	5.43	4.09	3.52	4.94	52.84
"	"	Invergarry	6.02	4.15	9.01	4.13	.77	3.25	2.24	3.45	5.59	6.81	3.52	7.28	56.22
"	"	Aviemore H.R.S.	2.31	1.01	3.00	1.96	.99	3.35	3.09	1.95	4.38	5.12	1.02	3.25	31.43
XIX.	Sutherland	Invershin	1.64	.89	2.95	2.71	.39	3.37	2.06	2.98	4.82	2.93	.73	2.45	27.92
"	"	Dunrobin Castle	2.97	1.86	2.82	2.00	1.69	4.16	3.31	1.72	4.67	3.07	1.68	3.88	33.83
"	"	Scourie	6.93	2.86	5.25	3.68	3.46	3.98	3.15	7.40	6.40	6.11	3.92	3.60	56.74
"	Caitness	Wick	2.39	.91	3.29	2.02	2.00	3.26	4.16	2.28	4.49	3.86	1.64	4.35	34.65
"	Shetland	Sumburghhead (Dunroseness)	3.62	3.04	4.50	3.73	1.18	1.33	3.08	3.65	5.34	7.15	3.15	3.84	43.61

IRELAND.

XX.	Cork	Dunmanway (Coolkelure)	3.47	4.91	7.00	.88	.10	4.16	6.83	2.46	10.81	4.59	3.10	12.92	61.23
"	"	Cork (St. Ann's Hill)	1.18	1.74	3.22	.43	.14	2.83	4.60	1.31	5.44	3.23	1.59	6.90	32.61
"	"	Mallow (Summer Hill)	1.52	2.18	3.73	.54	.25	2.69	3.68	1.72	6.06	3.44	1.19	5.32	32.32
"	Kerry	Darrynane Abbey	2.15	3.36	5.58	1.41	.44	2.30	5.82	2.82	5.81	5.72	1.94	7.31	44.66
"	"	Kenmare (Derreen)	2.60	5.01	8.51	1.27	.00	4.04	4.76	2.30	8.52	5.28	2.71	13.15	58.15
"	Waterford	Waterford (Brook Lodge)	1.20	2.05	2.36	.46	.08	1.93	7.06	1.17	6.12	2.79	1.24	8.48	34.94
"	Tipperary	Caher (Duneske)	.89	1.34	3.50	.41	.15	2.03	4.89	1.98	4.87	2.45	1.11	5.87	29.49
"	"	Nenagh (Castle Lough)	1.46	1.95	5.89	1.07	.17	2.19	5.87	2.56	7.24	3.31	1.33	6.40	39.44
"	"	Ballingarry (Hazelton)	1.23	1.57	4.11	1.05	.16	2.12	5.19	1.75	5.64	2.82	1.02	4.12	30.78
"	Limerick	Pallaskerry (Kilcornan)	1.35	1.34	4.54	1.06	.20	1.75	4.00	2.38	5.97	2.65	.69	3.60	29.53
"	Clare	Killadysert (Paradise Hill)	2.08	1.94	6.51	2.13	.58	2.42	6.58	2.99	7.10	3.64	1.12	5.67	42.76
"	"	Miltown Malbay	2.51	2.43	6.74	1.58	.55	3.01	5.55	4.20	6.02	3.67	1.49	6.27	44.02
XXI.	Wexford	Ballyhyland	1.74	2.26	3.04	.72	.07	1.80	5.51	1.15	6.92	4.85	1.52	8.74	38.32
"	"	Gorey (Courtown)	1.02	1.88	2.22	.41	.15	1.45	5.07	.81	5.54	3.29	.86	7.82	30.52
"	Kilkenny	Inistioge (Woodstock)	1.52	2.79	3.61	.53	.15	2.48	5.29	1.29	6.25	3.83	1.16	8.67	37.76
"	"	Kilkenny (Lavistown)	.82	1.21	3.36	.60	.20	2.49	5.33	1.55	4.88	2.92	1.05	5.81	30.22
"	Wicklow	Bray (Fassaroe)	.76	1.16	3.46	1.16	.09	1.49	6.18	1.10	7.91	5.78	1.05	7.18	37.72
"	Carlow	Browne's Hill	.86	1.38	3.84	.58	.12	2.23	4.76	1.35	5.93	3.90	.93	6.82	32.70

NOTES ON THE MONTHS.

 JANUARY.

This was a dry month almost everywhere, except in the N.W. of Scotland. The total was below an inch in Middlesex and at many stations in the S.E., S.W., W., and N.E. of England, the N.E. of Scotland, and at a few in the S.E. of Ireland.

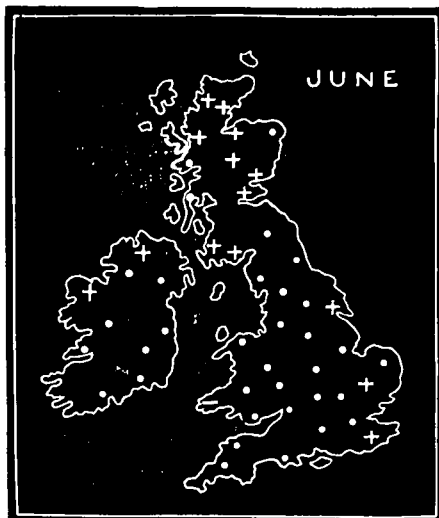
FEBRUARY.

Drier than January at nearly all stations, except those in the W. of Scotland. Very few English stations (except those in Lancashire and the English Lakes) had an inch of rain, but in Scotland the only such stations were a few in the S.E. and N.E., and in Ireland there were few or none. Although both Scotland and Ireland were less dry than England and Wales, we know of no station in the British Isles at which the fall in February reached, or exceeded, the average.

MARCH.

This month was generally wet ; at many stations it was the wettest March for a quarter of a century ; but the totals do not strike us as excessive, and we have not noticed half-a-dozen cases of the fall being twice the average. This suggests an inquiry which has not yet, to our knowledge, been touched—viz., What are the limits of fluctuation in the monthly totals for each month ? We have time to do this for only one station, but if there be a rule, a record for 37 years ought to give some indication of it. The following are the facts :—

MAPS OF MONTHLY RAINFALL, 1896.

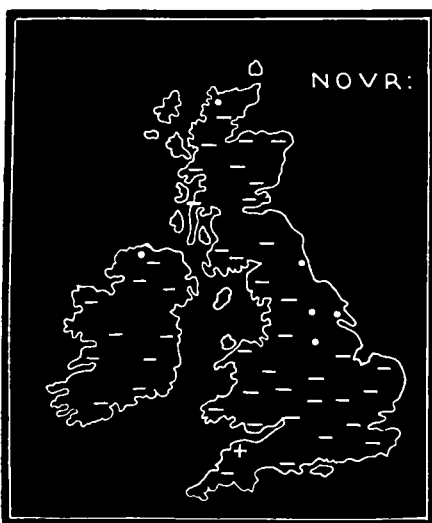


• Within an inch of average.

+ More than 1 in. above average.

— „ „ „ below „

MAPS OF MONTHLY RAINFALL, 1896.



• Within an inch of average.

+ More than 1 in. above average.
— " " " below "

*Abstract of Rainfall Record at Camden Square, London, for 37 years,
1859-95.*

	AVERAGE. 1859-95.	WETTEST.		DRIEST.		Per cent. of Monthly Mean	
	in.	in.	year.	in.	year.	Wettest.	Driest.
January	2·08	4·74	1877	·31	1880	228	15
February ...	1·61	3·77	1879	·01	1891	234	0
March	1·65	3·69	1862	·32	1893	224	19
April	1·65	4·97	1878	·24	1893	302	15
May	1·97	4·79	1886	·26	1880	244	13
June	2·27	6·71	1878	·30	1895	296	14
July	2·46	5·11	1880	·45	1868	208	18
August	2·43	6·72	1878	·45	1880	277	19
September ...	2·34	5·28	1871	·55	1865	226	24
October	2·79	6·22	1865	·80	1879	223	29
November ...	2·41	4·65	1861	·60	1871	193	25
December ...	2·10	6·25	1876	·48	1873	298	23

It is well sometimes to prove a negative, and that is what this table seems to do. In the first three months high monthly totals are rather rare, but the subsequent months give results even more irregular than one would have expected chance to have given ; it is an irregular see-saw, with apparently no rule whatever. The lessons which the table teaches are probably—

- (1) That any month will, sooner or later, have double its average.
- (2) That it is rare, but possible, for a month to have three times its average.
- (3) That it is possible, but very improbable, to have a month with no rain.
- (4) That it is rare for a month to have less than one quarter of its average.
- (5) Therefore, that for a month of the same name the wettest month may be expected to have about ten or fifteen times as much rain as the driest one.

APRIL.

Very dry in England and Wales (except North Worcestershire and Lancashire). Dry, or very dry, at most stations in Scotland and Ireland.

MAY.

Another extremely dry month. Very few stations in the British Isles had even an inch, and for instances of two inches we have to

look solely to the W. and N. of Scotland. In Devon, Cornwall and Somerset the fall was generally less than a tenth of an inch ; and as April also had been very dry in that district, the result was very serious ; for example, at Watcombe Park, Torquay, the fall in April was $\cdot 19$ in. and in May $\cdot 03$ in., less than a quarter of an inch for the two months. Ireland, too, is not often visited by a drought, yet we find several stations with less than three quarters of an inch for the two months—*e. g.*, St. Ann's Hill, Cork, $\cdot 57$ in. ; Brook Lodge, Waterford, $\cdot 54$ in. ; Duneske, Caher, $\cdot 56$ in. ; Courtown, Gorey, $\cdot 56$ in. ; Woodstock, Inistioge, $\cdot 68$ in. ; and Browne's Hill, Carlow, $\cdot 70$ in. in the two months.

JUNE.

This month having come after two dry ones and before a third dry one, seems to have been frequently regarded as wet, but that was certainly not its true character, except in part of Scotland and Ireland. Generally it was a month with very nearly the average rainfall, but decidedly below it in some of the localities where the deficiency had been great in the two previous months ; for instance, in Cornwall, we have—

	April.	May.	June.	Three months.
Penzance	$\cdot 84$	$\cdot 07$	$1\cdot 24$	$2\cdot 15$
St. Agnes.....	$\cdot 78$	$\cdot 09$	$1\cdot 23$	$2\cdot 10$
Bude.....	$\cdot 70$	$\cdot 08$	$\cdot 94$	$1\cdot 72$

on the other side of the Bristol Channel, in South Wales, we have—

Llanelly	$1\cdot 22$	$\cdot 08$	$1\cdot 17$	$2\cdot 47$
Stackpole Court.....	$1\cdot 06$	$\cdot 03$	$1\cdot 00$	$2\cdot 09$

and even in Ireland there was less than $2\cdot 50$ in. in the three months at—

Waterford	$\cdot 46$	$\cdot 08$	$1\cdot 93$	$2\cdot 47$
Gorey	$\cdot 41$	$\cdot 15$	$1\cdot 45$	$2\cdot 01$

JULY.

A dry month instead of, as it often is, a wet one. Very wet in Ireland, but, apparently, had it been followed by a dry August, no harm would have been done. Happily for Devon and Cornwall it was not very dry there, so their dry period was generally ended ; but Gloucestershire now suffered, most stations having less than an inch, so that we get for Pembroke Road, Clifton—

	April.	May.	June.	July.	Four months.
1896.....	·78	·31	1·33	·97	3·39
Average, 1880-9	2·28	2·39	2·58	3·73	10·98
Deficit.....	1·50	2·08	1·25	2·76	7·59

which shows that for the four months the aggregate was less than a third of the average.

AUGUST.

A month of, on the whole, average rainfall ; considerably below it in some places, and not remarkably in excess anywhere. The rain, especially in Ireland, fell chiefly in the latter part of the month, and those who had not got in their hay had little chance of doing so after the 17th.

SEPTEMBER.

A wet month—said to be without precedent at some stations in each of the following counties :—Middlesex, Surrey, Kent, Sussex, Hants, Berks, Wilts, Dorset, Gloucester, Lancashire, Yorkshire, Cork, Limerick, Clare, Wexford, Dublin and Galway. The great excess in part of the S.E. of England will be indicated by the following list of stations at which, in that relatively dry district, upwards of nine inches fell in that one month :—

Total Rain in September in Division II.

<i>Surrey</i>	Dorking, Fir Tor	9·73 in.
"	" Woodcote	9·45 "
<i>Kent</i>	Hythe, Paddlesworth	10·16 "
"	Dover, Dover College	9·45 "
<i>Sussex</i>	Chichester, Forest Side.....	9·57 "
"	" Watergate	9·70 "
"	" Chilgrove	9·50 "
"	Compton [Petersfield]	9·54 "
"	Midhurst, Hollycombe	9·73 "
<i>Hampshire</i>	Ryde, Thornbrough	9·52 "
"	" New Lodge	9·57 "
"	Bournemouth, West Cliff.....	9·37 "
"	Christchurch, Heron Court	10·87 "
"	Horndean, St. Catherine's	10·22 "
"	Bishops Waltham, Swanmore House	9·36 "
"	" " Northbrook Ho..	9·07 "
"	Petersfield, Fairley	9·21 "
"	Liss, Lingwood	9·11 "

OCTOBER.

Very wet in the N.E. of England, and in the S. of Scotland. Not far from an average in other parts.

NOVEMBER.

Generally dry. At many English stations south of Warwick the fall was less than one inch, and the same occurred at a few stations in Scotland and Ireland.

DECEMBER.

This month was wet, almost unprecedentedly so at stations in Devon, Cornwall, the Isle of Man, Dumfries, Kerry, Waterford and Wexford. Below the average only at a few stations in the North of Scotland and of Ireland.

The following totals for this month all exceed *fifteen inches* :—

Div.	County.	Station.	Total.
V.	Devon	Princetown	16·35 in.
X.	Cumberland..	Sprinkling Tarn	17·75 „
„	„ ..	Styehead Tarn	20·55 „
„	„ ..	The Sty— <i>Gauge C</i>	28·50 „
„	„ ..	Seathwaite	19·29 „
„	„ ..	Rosthwaite—M	15·34 „
„	Westmoreland	Little Langdale, Fell Foot	16·30 „
„	„ ..	Dungeon Ghyll	17·16 „
„	„ ..	Mickleden	17·20 „
XI.	Glamorgan...	Neath, Glyncorrwg	17·16 „
„	„ ..	Treherbert (Bute Colliery)	17·83 „
„	„ ..	„ (Tyn-y-waun)—M	18·40 „
„	Brecknock ...	Taff Fechan (Neuadd Reservoir) No. 5.....	15·53 „
„	„ ..	„ „ („ „) No. 8.....	15·80 „
„	Merioneth ...	Bl. Festiniog, New Welsh Quarry	16·47 „

THE DRYNESS OF THE FIRST HALF OF 1896.

IN our last volume we stated, on p. [145], that the fall in the first six months of 1895 was at Camden Square less than in the corresponding period of any one of the previous 37 years, and at Tenterden less than for 32 years, and we gave tables and a special article to show how remarkable the deficiency was.

Few persons would have expected that the very next year would afford a far more remarkable instance—not, it is true, *quite* in the same locality, but nearly so, and much more excessive.

We do not know of any reason to doubt that the facts at Camden Square are typical of those over a large area. If they are, the sudden development of a run of dry first six months is a remarkable phenomenon. Our record covers 38 years. The following table shows when the seven driest first six months occurred :—

Ten years, 1859 to 1868 = None.				
,,	,,	1869 ,, 1878 = Two	1870	6·90 in. or 60 %*
			1874	6·93 ,, ,, 61 ,,
,,	,,	1879 ,, 1888 = One	1887	7·16 ,, ,, 63 ,,
			1892	8·12 ,, ,, 71 ,,
Eight	,,	1889 ,, 1896 = Four	1893	6·39 ,, ,, 56 ,,
			1895	5·48 ,, ,, 48 ,,
			1896	7·24 ,, ,, 64 ,,

So that there have been more instances in the last *five* years than in the previous *thirty-three* years.

Leaving the above figures for thoughtful consideration, we proceed to the next branch of the subject—the locality in which the drought in 1896 was most intense. As the basis for this, we have tabulated the amounts for 1896 and also for 1893 and 1895 at a considerable number of stations, excluding all at which the fall in 1896 reached two-thirds of the average for the corresponding period of 1880–89. We showed last year that the figures for 1895 compared with the 37 years' average were 48 per cent. of that average, and compared with the ten year average, 1880–89, were 51 per cent. of that aver-

* Of the average for the corresponding period during the 37 years, 1859–95.

age ; and we expressed the opinion, based on that and other facts (*Brit. Rain.*, 1895, p. [144]), that for the six months 50 per cent. might be regarded as a probable minimum. But 1896 (in other parts of the country) went far below that. In the following table there are records from 46 stations, and the values for 1896 at 15 of them (nearly one in three) are below 50 per cent., three are only 44, one is 43, two are 42, one is 40, and one (Roche's Point) is only 38 per cent.

It is out of the question to attempt to impugn the observations ; they agree too well for that to obtain a moment's credence, and we leave it to students of the great general features of atmospheric circulation to explain why, over an area of many thousand square miles, with (apparently in 1896) its centre off the S. of Ireland, and extending northwards about half-way up Ireland, and eastwards nearly to London, the fall of rain in the first six months of 1893 and 1895 was at many stations scarcely three-quarters of the average, and in 1896 only half the average, or even less.

In order to bring out this fact we have in the following table used heavy type for all the cases in which the fall of the first six months of 1896 was less than half of the 1880-89 average. It will be found that they are grouped along the S.E. shore of Ireland, in Pembroke-shire, Cornwall, Devon, Somerset, and along the sides of the Severn and the Wye.

RELATIVE DRYNESS OF THE FIRST SIX MONTHS OF
1893, 1895, and 1896.

Div.	County.	Station.	Average 1880-9	1893		1895		1896	
			Amount	Amount	Per cent.	Amount	Per cent.	Amount	Per cent.
			in.	in.		in.		in.	
III.	Bucks	Winslow	11·57	8·21	71	6·50	56	7·36	64
„	Oxford	Magdalen College	11·50	5·92	51	6·43	56	6·42	56
„	Northants ..	Wellingborough, Croyland ..	12·13	6·46	53	7·23	59	7·48	62
V.	Wilts	Bishops Cannings ..	13·09	10·80	83	11·09	85	7·94	61
„	„	New Swindon	12·62	8·22	65	9·24	73	6·32	50
„	Dorset	Langton Herring	12·56	7·89	63	11·09	88	6·91	55
„	Devon	Devonport, Rowden Res. ...	14·52	10·95	76	13·33	92	7·84	54
„	„	Ashburton, Druid	21·92	18·96	87	18·21	83	12·18	56
„	„	Coryton, Lew Down	19·19	17·21	90	17·29	90	8·89	46
„	„	Polapit Tamar	15·08	11·80	78	11·54	77	8·97	59
„	„	Clevelands [Lyme Regis] ...	14·92	8·39	56	12·08	81	8·08	54
„	„	Bideford, Horwood	14·08	12·26	87	9·83	70	9·06	64
„	„	Lynmouth, Glenthorne	17·66	13·31	75	11·45	65	9·97	56
„	Cornwall ...	Marazion	15·51	10·06	65	12·97	84	6·65	43
„	„	Redruth, Trewirgie	19·11	11·85	62	14·91	78	7·63	40
„	„	St. Austell, Trevarna	19·56	11·47	59	15·15	78	8·64	44
„	Somerset ...	White Lackington	14·90	10·28	69	12·09	81	6·77	46
„	„	Glastonbury, Street	12·93	7·45	58	10·05	78	7·43	58
VI.	Gloucester ..	Clifton, Pembroke-road	14·94	9·65	65	10·91	73	6·97	47
„	„	Stroud	13·53	8·99	66	9·85	73	7·73	57
„	Hereford ...	Ross	14·32	8·19	57	10·53	74	6·03	42
„	„	Kington, Lynhales	15·46	13·56	88	11·26	73	6·84	44
„	Worcester ..	Great Malvern, Church-st. ...	13·30	8·28	62	10·25	77	7·21	54
„	„	Orleton	13·94	10·75	77	9·88	71	7·23	52
VII.	Leicester ...	Barkby	11·70	7·05	60	7·96	68	7·21	61
„	Notts	Hesley Hall [Tickhill]	10·84	7·56	70	9·40	87	6·02	56
IX.	Yorks	Wetherby, Ribston	11·22	6·69	60	7·59	68	6·81	61
XI.	Monmouth ..	Llanfrechfa Grange	18·60	13·87	75	14·33	77	9·90	53
„	„	Abergavenny, Larchfield ...	18·62	13·63	73	13·62	73	7·78	42
„	Glamorgan ..	Cardiff Castle	15·92	11·82	74	11·84	75	10·37	65
„	„	Neath	20·69	15·39	75	13·23	64	11·78	57
„	Carmarthen ..	Llandilo, Dynevor Castle ...	22·31	16·34	73	15·43	69	12·86	58
„	Pembroke ..	Pembroke, Stackpole Court ..	16·25	11·49	71	13·46	83	7·61	47
„	„	Haverfordwest	19·33	13·29	69	14·92	77	9·35	48
„	„	Castle Malgwyn [Llechryd] ..	19·47	11·40	59	15·04	77	9·93	51
„	Radnor	Rhayader, Nantgwillt—o.g. ..	26·65	21·80	82	18·11	68	16·43	62
XVI.	Forfar	Dundee, E. Necropolis	11·68	10·05	86	9·30	80	7·20	62
XVII.	Aberdeen ...	Braemar	15·51	10·98	71	11·12	72	10·06	65
XX.	Cork	Roeche's Point	21·20	17·69	83	15·46	73	7·95	38
„	Kerry	Derreen	33·39	25·13	75	25·67	77	21·43	64
„	Waterford ..	Waterford	17·31	12·50	72	17·16	99	8·08	47
„	„	Portlaw, Mayfield	20·40	14·85	73	18·66	92	9·16	45
XXI.	Wexford ...	New Ross, Longraigue. ...	18·05	11·91	66	13·94	77	9·86	55
„	„	Gorey, Courtown House. ...	16·32	10·24	63	13·78	85	7·13	44
„	Carlow	Browne's Hill	14·81	11·02	74	13·60	92	9·01	61
„	Dublin	Dublin	11·93	9·63	81	12·29	103	7·85	66

ON THE RELATION OF THE TOTAL FALL OF RAIN IN 1896 TO THE AVERAGE.

THE remarkable figures already given respecting the dryness of the first six months of 1896, will have prepared our readers for a statement that 1896 has been a dry year—in some places a very dry one and not, as its precursors 1836, 1848, 1860, 1872, had led us to expect, a wet one. So much for precedents. May someone else be more successful than we have been.

1896, however, has not been dry everywhere, and it is our duty here to point out by the tables on pages [130] to [133], by the accompanying map, and by some remarks upon them, where the rainfall has been most below, and where most above, the average, and what has generally been its relation to the average.

First, as to the greatest deficiencies: We will give stations at which there was a deficiency of 25 per cent., *i.e.*, at which the fall was less than $\frac{3}{4}$ of the average:—

<i>Somerset</i>	Glastonbury	--27 per cent.
<i>Hereford</i>	Ross	—32 ,,
"	Kington	—30 ,,
<i>Worcester</i>	Great Malvern	—26 ,,
<i>Monmouth</i>	Abergavenny	—27 ,,
<i>Montgomery</i>	Newton	—33 ,,
<i>Cork</i>	Roche's Point	—34 ,,

The relation between the area indicated by these values, and that in which the extraordinary drought in the first six months of 1896 occurred, is so close that we may at once accept it as the cause.

Of correspondingly great excesses we have but one, the station furthest distant from the above area—Scourie, in Sutherlandshire, where we get an excess of 40 per cent. Unfortunately, Sutherland for its size has fewer stations than any county, and so the Scourie value has no close followers; but all the Ross-shire and Inverness-shire stations show excesses, and so do most of those in the North of Ireland, so that there is certainly nothing to prove that Scourie was incorrect. These isolated and distant stations are often the cause of considerable thought. There is the entry on p. [133] from Raphoe; it, and in that neighbourhood it alone, shows a consider-

DIFFERENCE OF TOTAL RAINFALL IN 1896 FROM THE AVERAGE OF 1880-89.



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.

able deficiency in 1896. We have written to the observer concerning it, but receiving no reply, have left it in the table, but added the ? to indicate uncertainty.

ABSTRACT.

COUNTRIES.	No. of Records.	Average 1880-89.	1896.	Diff. from Average. 1880-89.	
				Amount.	Per cent.
		in.	in.	in.	
England and Wales...	95	34·07	30·94	3·13	— 9
Scotland	44	42·27	42·11	·16	— 0
Ireland	35	39·11	37·35	1·76	— 5
Mean of all Stations...	174	37·16	35·06	2·10	— 6

The year, though drier than the average, will be seen by the abstract table not to have been very dry even in England, for the mean deficiency is only 9 per cent; in Scotland the fall was just the average; in Ireland it was 5 per cent. below it, and on the mean of all the type stations there was a deficiency of six per cent.

One feature of the deficiency, indicated by our maps from 1892 onwards, merits attention, viz., the strip of country stretching W. to E. from Carnarvonshire to the Wash, in which each of the five consecutive years appears to have been dry. The following figures for the Thornton Reservoir of the Leicester Water Works will illustrate the case :—

YEARS.....	1892	1893	1894	1895	1896
	per cent.	per cent.	per cent.	per cent.	per cent.
Deficiency compared } with 1880-89..... }	—21	—22	—16	—10	—10

COMPARISON OF THE RAINFALL OF THE YEAR 1896,
WITH THE AVERAGE OF THE YEARS 1880-89.

ENGLAND & WALES.

DIV.	COUNTY.	STATION.	Average, 1880-9.	Depth in 1896.	Difference from average, 1880-9.	
					Per Amount.	cent.
			in.	in.	in.	
I.	Middlesex	London (Camden Square)	25·45	23·52	1·93	— 8
II.	Surrey	Dorking (Abinger Hall)	30·60	32·98	2·38	+ 8
„	Kent	Tenterden (<i>Snowdon</i>)	28·11	28·01	·10	— 0
„	„	Maidstone (Hunton Court) ...	24·59	28·08	3·49	+ 14
„	„	Sheldwich	28·70	31·64	2·94	+ 10
„	Sussex, West...	Chichester (Chilgrove)	32·83	36·04	3·21	+ 10
„	„ East	Maresfield (Forest Lodge).....	31·41	30·64	·77	— 2
„	Hampshire.....	Isle of Wight (Osborne)	27·29	25·84	1·45	— 5
„	„	Christchurch (Mudford)	27·01	25·77	1·24	— 5
„	„	Alresford (Ovington)	31·02	26·99	4·03	— 13
„	Berkshire	Newbury (Welford Park) <i>n.g.</i>	30·27	27·73	2·54	— 8
III.	Hertfordshire..	Hertford (Bayfordbury)	25·04	25·06	·02	+ 0
„	Buckingham ...	Slough (Langley)	24·37	24·85	·48	+ 2
„	„	Winslow (Addington Manor) ..	27·97	25·49	2·48	— 9
„	Oxfordshire ...	Oxford (Magdalen Coll.)	26·19	22·02	4·17	— 16
„	Northampton...	Wellingboro' (Croyland Abbey)	28·67	22·38	6·29	— 22
„	Bedfordshire...	Bedford (Milton Ernest)	23·87	25·26	1·39	+ 6
„	Cambridgeshire	Ely (Stretham)	22·39	21·09	1·30	— 6
„	„	Wisbech (Bank House).....	25·27	23·70	1·57	— 6
IV.	Essex	Chelmsford (High Street).....	23·01	24·16	1·15	+ 5
„	„	Saffron Walden (Newport) ...	24·82	25·17	·35	+ 1
„	Suffolk	Rendlesham Hall	24·83	20·58	4·25	— 17
„	„	Ixworth (Walsham-le-Willows)	26·13	26·66	·53	+ 2
„	Norfolk	Rushall Vicarage	25·44	25·50	·06	+ 0
„	„	Swaffham (Pickenham Hall)...	27·33	30·65	3·32	+ 12
„	„	Sprowston (Oak Lodge).....	26·11	23·74	2·37	— 9
„	„	Hillington School	28·10	29·66	1·56	+ 6
V.	Wilts	Salisbury Plain (Chitterne Ho.)	28·26	23·82	4·44	— 16
„	„	New Swindon	28·38	22·50	5·88	— 21
„	Dorset.....	Weymouth (Langton Herring)	29·36	24·31	5·05	— 17
„	Devon.....	Ashburton (Druid House).....	51·28	43·76	7·52	— 15
„	„	Coryton (Lew Down)	46·29	37·95	8·34	— 18
„	„	Bampton (Huntsham)	44·52	37·64	6·88	— 15
„	„	Barnstaple (Arlington Court)..	52·85	47·38	5·47	— 10
„	Cornwall	Marazion... ..	38·68	30·80	7·88	— 20
„	„	St. Austell (Trevarna)	47·10	36·75	10·35	— 22
„	Somerset	Glastonbury (Street)	31·16	22·87	8·29	— 27
VI.	Gloucestershire	Clifton (Pembroke Road)	36·08	27·34	8·74	— 24
„	„	Stroud (Upfield).....	30·91	24·07	6·84	— 22
„	Hereford	Ross (The Graig)	31·18	21·11	10·07	— 32
„	„	Kington (Lynhales)	35·32	24·75	10·57	— 30
„	Shropshire.....	Bishop's Castle (Castle Street).	34·08	26·84	7·24	— 21

ENGLAND & WALES.—*Continued.*

DIV.	COUNTY.	STATION.	Average, 1880-9.	Depth in 1896.	Difference from average, 1880-9.	Per Amount, cent.
			in.	in.	in.	
VI.	Shropshire	Shifnal (Haughton Hall)	28·54	22·24	6·30	— 22
"	"	Adderley Rectory	28·80	26·04	2·76	— 10
"	Stafford	Dennis [Stourbridge]	28·07	23·60	4·47	— 16
"	"	Burton (Shobnall)	25·86	20·79	5·07	— 20
"	"	Cheadle (The Heath House) ...	32·71	29·28	3·43	— 10
"	Worcester	Northwick Park	30·09	23·94	6·15	— 20
"	"	Grt. Malvern (Church Street).	29·49	21·74	7·75	— 26
"	Warwick	Shipston (Compton Wynyates)	28·67	23·24	5·43	— 19
"	"	Coventry (Priory Row)	28·94	26·19	2·75	— 10
VII.	Leicester	Thornton Reservoir	27·69	24·90	2·79	— 10
"	Rutland	Market Overton	28·54	26·99	1·55	— 5
"	Lincoln	Stubton [Newark]	27·44	22·51	4·93	— 18
"	"	Horncastle (Bucknall)	25·96	21·80	4·16	— 16
"	"	Brigg	27·22	27·22	·00	0
"	Nottingham ...	Worksop (Hodsock Priory) ...	25·84	23·69	2·15	— 8
"	Derby	Matlock Bath	36·62	28·16	8·46	— 23
VIII.	Cheshire	Chester Nurseries	29·08	24·70	4·38	— 15
"	"	Chelford (Astle Hall)	30·73	30·91	·18	+ 1
"	"	Torrside Reservoir	44·65	45·01	·36	+ 1
"	Lancashire	Ormskirk (Rufford)	31·86	33·51	1·65	+ 5
"	"	Over Darwen (St. James's Vic.)	46·56	50·62	4·06	+ 9
"	"	Kirkham (Weeton)	37·04	36·42	·62	— 2
"	"	Cartmel (Holker)	42·25	43·04	·79	+ 2
IX.	York, W. Ridng.	Wakefield Prison	28·02	25·06	2·96	— 11
"	" "	Otterburn-in-Craven	41·19	38·28	2·91	— 7
"	" "	Knaresborough (Farnham) ...	27·37	24·14	3·23	— 12
"	" E. Riding.	Pocklington (Warter)	30·46	26·56	3·90	— 13
"	" N. Riding.	Old Malton	26·90	23·66	3·24	— 12
"	" "	Bedale (Thorpe Perrow)	27·75	24·07	3·68	— 13
"	" "	Guisborough (Hutton Hall) ...	33·97	35·74	1·77	+ 5
X.	Durham	Darlington (South End)	26·45	23·43	3·02	— 11
"	"	Wolsingham	35·27	29·03	6·24	— 18
"	Northumberland	Haltwhistle (Unthank Hall)...	35·97	32·83	3·14	— 9
"	"	Rothbury (Cragside)	34·03	39·16	5·13	+ 15
"	"	Pawston [Coldstream]	30·00	34·24	4·24	+ 14
"	Cumberland	Borrodale (Seathwaite) <i>4 in. g.</i>	129·00	125·06	3·94	— 3
"	"	Carlisle Cemetery	30·34	33·00	2·66	+ 9
"	Westmoreland ..	Kirkby Stephen	39·62	37·19	2·43	— 6
XI.	Monmouth	Abergavenny (Larchfield)	38·65	28·09	10·56	— 27
"	Glamorgan	Cardiff Castle	39·55	36·34	3·21	— 8
"	"	Neath	50·13	42·34	7·79	— 16
"	Carmarthen ...	Llandilo (Dynevor Castle) ...	51·17	48·61	2·56	— 5
"	Pembroke	Pembroke (Stackpole Court) ..	41·59	33·71	7·88	— 19
"	"	Castle Malgwyn [Llechryd] ...	45·29	41·29	4·00	— 9
"	Brecknock	Brecknock (Cantreff)	<i>o.g.</i> 51·27	40·13	11·14	— 22
"	Radnor	Rhayader (Nantgwillt) ... <i>o.g.</i>	62·80	53·61	9·19	— 15
"	Montgomery ..	Newtown (Dolfor)	39·77	26·58	13·19	— 33

ENGLAND & WALES.—*Continued.*

DIV.	COUNTY.	STATION.	Average, 1880-9.	Depth in 1896.	Difference from average, 1880-9.	
					Amount.	Per cent.
			in.	in.	in.	
XI.	Denbigh.....	Colwyn (Nant-y-Glyn)	31·55	36·60	5·05	+ 16
„	Merioneth	Llanderfell (Palé)	47·47	39·44	8·03	— 17
„	Carnarvon	Llanystumdwy (Talarvor) ...	36·53	34·58	1·95	— 5
„	Anglesea	Llanerchymedd Lwdiarth Esgob	36·63	36·81	·18	+ 0
„	Isle of Man ...	Douglas (Victoria Road)	40·60	42·54	1·94	+ 5
„	Scilly	St. Mary's	32·42	25·79	6·63	— 20

SCOTLAND.

XII.	Kirkcudbright.	Dalbeattie (Colvend Manse) ...	36·08	39·29	3·21	+ 9
„	„	Gatehouse (Cally)	49·15	46·12	3·03	— 6
„	„	Cargen [Dumfries]	39·74	38·82	·92	— 2
„	Dumfries	Moffat (Ericstane)	52·63	46·40	6·23	— 12
„	Roxburgh	New Castleton (The Flatt) ...	43·90	42·00	1·90	— 4
„	„	St. Boswells (Elliston)	28·73	27·42	1·31	— 5
XIII.	Berwick	Marchmont House	34·01	31·38	2·63	— 8
„	Haddington ...	Haddington Asylum	26·24	26·02	·22	— 1
„	Edinburgh.....	Pentland Hills (Glencorse) ...	39·21	38·35	·86	— 2
XIV.	Lanark	Biggar (Cambus Wallace).....	29·98	28·87	1·11	— 4
„	„	Airdrie (Hillend Res.)	35·80	36·28	·48	+ 1
„	Ayr	Girvan (Pinmore)	48·25	46·85	1·40	— 3
„	„	Kilmarnock (North Craig) ...	35·77	44·10	8·33	+ 23
„	„	Ardrossan (Kirkhall).....	34·92	38·29	3·37	+ 10
„	Renfrew.....	Gorbals W.W. (Waulk Glen)..	43·32	46·45	3·13	+ 7
XV.	Dumbarton ...	Arrochar	74·10	63·94	10·16	— 14
„	Stirling	Stirling (Polmaise Gardens)...	33·79	30·14	3·65	— 11
„	Bute	Rothsay (Barone Cottage) ...	46·04	42·46	3·58	— 8
„	Argyll	Lochgilphead (Kilmory)	58·49	58·58	·09	+ 0
„	„	Appin (Airds)	53·62	54·01	·39	+ 1
„	„	Strontian (Laudale)	78·71	63·81	14·90	— 19
„	„	Islay (Ardbeg)	45·25	44·86	·39	— 1
„	„	Mull (Quinish)	57·28	57·24	·04	— 0
XVI.	Perth	Bridge of Turk	66·09	49·95	16·14	— 24
„	„	Crieff (Ochertyre).....	40·30	34·75	5·55	— 14
„	„	Dalnaspidal	57·61	57·91	·30	+ 1
„	Forfar	Broughty Ferry (Douglas Ho.)	27·27	24·64	2·63	— 10
XVII.	Kincardine ...	Fettercairn (The Burn).....	33·07	30·00	3·07	— 9
„	Aberdeen	Braemar	35·57	30·26	5·31	— 15
„	„	Cromar (Logie Coldstn. Manse)	28·62	28·52	·10	— 0
„	„	Aberdeen (Rose Street).....	27·76	29·78	2·02	+ 7
„	„	Old Deer	30·57	33·80	3·23	+ 11
„	Banff	Keith	29·98	36·78	6·80	+ 23
„	Elgin	Grantown	28·65	31·56	2·91	+ 10
„	Nairn	Nairn (School House)	22·61	24·75	2·14	+ 9
XVIII.	Ross, West ...	Strathconan [Beauly]	49·76	52·82	3·06	+ 6
„	„	Braemore House.....	57·94	65·40	7·46	+ 13

SCOTLAND—*Continued.*

DIV.	COUNTY.	STATION.	Average 1880-9.	Depth in 1896.	Difference from average, 1880-9.	
					Per Amount.	cent.
XVIII.	Ross, East	Alness (Ardross Castle).....	35·31	35·46	·15	+ 0
"	Inverness, West	Glenquoich	102·64	108·85	6·21	+ 6
XIX.	Sutherland.....	Invershin	31·50	27·92	3·58	— 11
"	"	Golspie	30·47	34·39	3·92	+ 13
"	"	Scourie	40·58	56·74	16·16	+ 40
"	Caithness	Watten	27·01	29·39	2·38	+ 9
"	Orkney	S. Ronaldshay (Roeberry).....	31·61	37·70	6·09	+ 19

IRELAND.

XX.	Cork	Cork (Roche's Point).....	46·46	30·72	15·74	— 34
"	Kerry	Kenmare (Derreen)	67·99	58·15	9·84	— 14
"	Waterford.....	Waterford (Brook Lodge).....	38·31	34·94	3·37	— 9
"	"	Glenam [Clonmel]	42·15	33·99	8·16	— 19
"	Tipperary	Derry Castle [Killaloe]	46·33	46·98	·65	+ 1
"	Limerick	Pallaskenry (Kilcornan)	30·76	29·53	1·23	— 4
"	Clare	Miltown Malbay.....	44·12	44·02	·10	— 0
XXI.	Wexford	Enniscorthy (Ballyhyland) ...	42·80	38·32	4·48	— 10
"	"	Gorey (Courtown House)	35·39	30·52	4·87	— 14
"	Kilkenny	Inistioge (Woodstock)	41·67	37·76	3·91	— 9
"	Wicklow	Bray (Fassaroe)	43·28	37·72	5·56	— 13
"	Carlow	Carlow (Browne's Hill).....	33·59	32·70	·89	— 3
"	King's Co.	Parsonstown (Birr Castle)	32·22	32·42	·20	+ 1
"	Dublin	Dublin (Fitz William Square)..	27·47	26·90	·57	— 2
"	West Meath ...	Athlone (Twyfard).....	38·97	35·69	3·28	— 8
"	"	Mullingar (Belvedere)	34·69	38·01	3·32	+ 10
"	Louth.....	Dundalk (Farndreg)	29·30	30·94	1·64	+ 6
"	Longford	Edgeworthstown (Currygrane)	35·43	37·20	1·77	+ 5
XXII.	Galway	Ahascragh (Clonbrock)	39·91	36·92	2·99	— 7
"	"	Tuam (Gardenfield) 1 ft.	44·28	40·87	3·41	— 8
"	Mayo	Crossmolina (Enniscoe)	51·41	53·74	2·33	+ 5
XXIII.	Armagh	Armagh Observatory	32·16	31·21	·95	— 3
"	Down	Warrenpoint (Summer Hill)...	37·88	38·83	·95	+ 3
"	"	Seaforde	37·89	34·60	3·29	— 9
"	"	Banbridge (Milltown)	31·44	30·59	·85	— 3
"	"	Donaghadee	31·58	29·88	1·70	— 5
"	Antrim	Belfast (Antrim Road)	34·57	35·10	·53	+ 2
"	"	Ballymena (Harryville).....	39·41	39·20	·21	— 1
"	"	Bushmills (Dundarave)	37·87	38·19	·32	+ 1
"	Londonderry ...	Garvagh (Moneydig)	39·02	39·33	·31	+ 1
"	"	Londonderry (Creggan Res.) ..	40·78	43·55	2·77	+ 7
"	Tyrone	Stewartstown (The Square) ...	34·90	36·18	1·28	+ 4
"	"	Omagh (Edenfel)	36·63	37·28	·65	+ 2
"	Donegal	Raphoe (Convoy House)	46·94	39·98?	6·96	— 15
"	"	Moville (Prospect Villa)	41·23	45·32	4·09	+ 10

EXTREMES OF RAINFALL IN 1896.

Largest Rainfall, at The Sty, Cumberland.....	160·30 in.
Least Rainfall, at Hope under Dinmore (Hampton Court).....	17·21 ,,

ENGLAND.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
X. The Sty	160·30	VI. Hope-u-Dinmore (Hamp. Ct.)	17·21
„ Seathwaite	125·06	„ Bodenham Vicarage.....	17·34
„ Styhead Tarn	124·45	„ Worcester (Diglis Lock)....	17·50
„ Sprinkling Tarn	119·32	III. Biggleswade (Caldecote).....	17·60
„ Mickleden.....	116·35	VI. Worcester (Bevere Lock)....	17·68
„ Little Langdale, Fell Foot... ..	109·00	„ Tewkesbury	17·71

MONMOUTH, WALES AND THE ISLANDS.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
XI. Bl. Ffestiniog (New Welsh Qy.) ..	107·14	XI. Meifod (Tan-y-fron)	22·53
„ Rhiwbryfdir=Oakley Quarries ..	88·79	„ Monmouth (School House)..	22·73
„ Llanbedr-y-Cennin (Llyndulyn) ..	87·55	„ Llandwyn Island.....	23·19
„ Rhayader (Nant-y-car).....	78·85	„ Monmouth (Pentwyn).....	24·06
„ Neath (Glyncorrwg)	78·75	„ Rosset (Trevalyn Hall)	24·11
„ Treherbert (Tyn-y-waun).....	76·45	„ Welshpool (Park Lane)	24·32

SCOTLAND.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
XVIII. Ben Nevis Observatory ...	133·56	XIII. Dalkeith	19·17
„ Glenquoich	108·85	„ Leith	21·66
„ Loch Shiel (Glenaladale) ...	107·55	XII. Kelso (Springwood Park)....	22·31
„ Loch Torridon (Bendamph) ..	94·93	XVIII. Fearn (Lower Pitkerrie).....	22·84
„ Glencarron Lodge	87·34	XVI. Tayport	23·12
XV. Ballachulish (Craiggrannoch) ..	81·88	XIII. Drummole [Musselburgh] ...	23·20

IRELAND.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
XX. Mangerton	77·75	XXIII. Banbridge (Katesbridge)	24·63
XXII. Clifden (Kylemore House)...	76·90	XXI. Rathmines (Terenure)	25·32
„ „ „ Castle)...	64·68	„ Victoria Lock [Meelick].....	25·47
XXIII. Killybegs.....	61·61	XX. Mallow (Longueville)	26·12
XX. Dunmanway (Coolkelure) ..	61·23	XXI. Rathmines (Leinster Road)..	26·89
„ Kenmare (Derreen)	58·15	„ Dublin (FitzWilliam Square)	26·90

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 more than 3 ft. above the ground.

NOTES ON THE PRECEDING TABLE OF EXTREMES OF RAINFALL.

It is some years since any remarks were made upon the table of "Extremes of Rainfall" on page [134]; this has been largely due to a feeling that the facts are brought out so clearly that no comments are needed. It is possible, however, that the facts are not so clear to all our readers as they are to those who compile them, so we offer a brief commentary—

Firstly, as to selecting the returns; this can be done only after all the returns have been verified and the General Tables printed. The pages are then gone through, and all very large, or very small, totals are copied out. As regards greatest falls, the only disqualifications for being quoted are—(1) the returns being marked with a ?; or, (2) there being several gauges close together—then only the heaviest fall is quoted; this prevents a single small locality being alone represented, *e.g.*, this year the two stations of The Styne and Seathwaite (not a mile apart) would have monopolized all the "Greatest" entries for England. Even as it is, all the "Greatest" for England come from within five miles of The Styne. The "Greatest" in Wales are, on the contrary, widely scattered: the first three entries are from N. Wales, Snowdon and south thereof; the fourth is from the watershed recently appropriated to Birmingham; and the last are south of the Brecknock Beacons.

In Scotland the "Greatest" are not very widespread; all are on the West Coast and towards the centre thereof—Ben Nevis heads the list, but not by nearly so much as usual.

In Ireland the "Greatest" (which as usual are comparatively small) are scattered all along the west coast from Kerry to Donegal.

As regards "Least," it is well known that the higher the funnel of a rain gauge is above the ground, the less (as a general rule) will it collect—for which reason all records from gauges more than 3 ft. above the ground are excluded.

The English "Least" this year are very remarkable ; not for their extreme smallness, they have often been smaller, but for the locality which furnishes them—chiefly Herefordshire and Worcestershire—in which neighbourhood they have occurred only once in the past thirty years—viz., in 1892, and then were not nearly so small as in 1896. Hampton Court, near Leominster (the least in the British Isles), which had only 17·21 in., is within 37 miles of Nant-y-car, one of the Welsh "Greatest," with 78·85 in.

In Wales, Scotland and Ireland, the "Leasts" are distributed much as usual, except that one would not have expected to see among them Mallow, in county Cork ; it is probably intimately related to the remarkable drought at Roche's Point, mentioned on page [126].

GENERAL TABLES
OF
TOTAL RAINFALL IN 1896,
AT MORE THAN
3000 STATIONS
IN THE
BRITISH ISLES.

EXPLANATION OF THE ARRANGEMENT OF THE FOLLOWING GENERAL TABLES.

The divisions 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 an alphabetical list of the counties is given, whereby the page or pages on which all returns from each county will be found, can be at once ascertained.

The stations in each county are arranged nearly in the order of their latitude from South to North.

To facilitate 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 Directory* ; the second name is generally added to fix accurately the site of Observation ; but, in a very few instances, when in [] instead of (), it is that of the nearest town in an adjoining county ; *e.g.*, “Lowestoft (Somerleyton Rectory)” means Somerleyton Rectory near Lowestoft, both in one county ; but “Geldeston [Beccles]” means Geldeston, Norfolk, near Beccles, in another county—Suffolk.

The contents of the columns are sufficiently explained by the headings, except that in that headed “diameter,” figures will be noticed of old-style type ; these figures 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 perfect throughout the year, and that the printed amount is the correct total of these 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 either as to possible overflow, or as to the measurement of snow.

An asterisk * denotes that the gauge was tested before erection, and a † that it has been visited and examined since. A note of interrogation (?) implies doubt, not necessarily error. ... indicates the absence of information.

In the column of altitudes several symbols are used, their meaning is as follows :— ∇ , that a series of levels has been taken from the gauge to an Ordnance bench mark ; \dagger , that the height is estimated or ascertained approximately from the same source ; \perp , that levels have been taken from the gauge to the sea, or to some datum other than Ordnance mean sea level ; \mathcal{B} , that the altitude has been taken by the barometer ; and ? , that the height is uncertain.

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ENGLAND AND WALES.

DIVISION I.—MIDDLESEX.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1896.	
			ft. in.	feet.	inches.	
MIDDLESEX.						
Hampton (Southwark W. W.)...	J. W. Restler, Esq., C.E.	5	0 10	...	21·67	126
Sunbury (Hanworth Road)	W. B. Bryan, Esq., C.E.	8	1 0	50 ∇	23·55	177
Teddington (Gomer House)	R. D. Blackmore, Esq.	5	0 10	26 ∇	24·33	156
Staines (Belle Vue)	J. Gundry, Esq.	5	1 0	51 ∇	25·45	163
„ (Knowle Green)	Miss Pellatt	5	5 2	...	27·24	145
„ (Cherry Orchard)	J. B. Jordan, Esq.	5	1 0	50 ∇	24·71	171
Twickenham (Hampton Road)..	T. Gale, Esq.	5	1 3	37 ∇	22·20	152
„ (Manor Road) ...	G. B. Laffan, Esq., C.E.	5	1 9	56 ∇	22·28	167
„ (Sewage Works)...	„ „ „	5	1 6	36 ∇	21·97	149
„ („ „) M	„ „ „	5	1 6	36 ∇	21·22	...
Isleworth (Warkworth House)...	W. H. Odium, Esq.	5	0 6	...	24·42	146
Chelsea (Pumping Station)	Sir A. R. Binnie, C.E.	8	1 0	19 ∇	22·20	143
„ (St. Luke's Gardens) ...	T. W. E. Higgins, Esq. CE	5	1 0	25 ∇	22·55	159
Isle of Dogs	Sir A. R. Binnie, C.E.	8	1 0	15 ∇	20·90	151
Gunnersbury Station	E. Mann, Esq.	5	0 11	35	20·53	138
Acton (Newburgh Road)	Miss Baker	5	1 0	86 ∇	23·24	157
Ealing (Public Buildings)	C. Jones, Esq., C.E.	5	9 0	114	23·37	157
„ (Gordon Road)	J. Box, Esq.	5	10 0	85 ∇	21·60	148
„ (Castle Bar Road)	T. Simpson, Esq.	5	1 0	152	25·61	159
Westminster (Spring Gardens)(3)	Sir A. R. Binnie, C.E.	8	6 0	35 ∇	20·89	...
„ („ „)(1)	„ „ „	8	66 4	95 ∇	20·67	...
„ („ „)(2)	„ „ „	12	65 11	95 ∇	20·67	...
Kensington (Edith Road)	G. von U. Searle, Esq.	5	0 10	16 ∇	21·84	168
„ Museum	Genl. Festing, F.R.S.	8	0 8	27 ∇	23·60	169
„ (Holland House) ...	Mr. C. Dixon	5	4 6	68 ∇	21·76	153

DIVISION I.—MIDDLESEX.—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1896	
			ft. in.	feet.	inches.	
MIDDLESEX—(con.)						
d Kensington (Addison Gardens)...	G. H. M. Whish, Esq..	5	1 1	23 T	22·23	151
d „ (Campden Hill).....	M.W.Hervey, Esq., C.E.	8	4 10	130 T	23·20	157
d London (Westbourne Grove, W.)	A. P. Baker, Esq.	5	0 9	64 T	22·87	155
d „ (Strand, W.C.)	J. J. Steward, Esq. ..	5	45 0	80	23·69	144
d „ (Guildhall, E.C.)	D. J. Ross, Esq., C.E..	8	2 6	49 T	21·69	148
d „ („ „ „)	„ „ „ „ ..	8	51 0	98 T	21·89	148
d „ (Mile End, E.)	J. Metson, Esq.	5	14 0	...	24·11	136
d „ (Old Street, E.C.)	The Royal Meteor. Soc.	5	1 0	70 T	23·87	172
Perivale (Sewage Farm)	C. Jones, Esq., C.E. ...	5	12 0	56	22·94	154
d London (Gloucester Place W.) ...	W. B. Heberden, Esq..	5	4 0	...	23·20	160
d „ (Regent's Pk.R.Bot.Soc.)	J. B. Sowerby, Esq. ...	8	1 0	126 T	23·66	151
d „ (Randolph Gardens, W.)	K. I. Marks, Esq.	5	1 0	97 T	19·68	159
d „ (Portsdown Road, W.)...	Rev. G. B. R. Bousfield	5	5 0	90	22·56	...
d „ (Barrow Hill, N.W.) ...	M.W.Hervey, Esq., C.E.	5	3 4	190 T	21·34	148
d „ (Old Ford, E.)	Sir A. R. Binnie, C.E...	8	1 0	35 T	21·13	140
d† „ (Camden Square, N.W.)	G.J.Symons, Esq. F.R.S	8	0 8	111 T	23·52	159
† „ („ „ „)	M „ „ „ „ ..	5	1 0	111 T	23·57	...
d Willesden Green (Strode Road)..	Miss Lamport.....	5	1 0	150	24·77	171
d Hampstead (Kidderpore Reserv.)	M.W.Hervey, Esq., C.E.	8	1 6	323 T	26·02	177
d „ (Branch Hill Lodge)	B. Woodd Smith, Esq.	8	0 10	380 T	29·12	143
† „ (Squire's Mount) ...	Rogers Field, Esq. C.E.	5	1 0	388 T	22·87	145
d „ (The Pryors)	„ „ „ „ ..	5	1 0	327 T	23·53	155
Lea Bridge	W. B. Bryan, Esq., C.E.	8	1 0	23 T	21·69	154
d Stoke Newington Reservoirs ...	J. Francis, Esq., C.E...	5	1 2	102 T	22·76	152
d Finsbury Park (New River Works)	E. L. Morris, Esq., C.E.	5	1 0	101	25·54	136
d Highgate (North Hill)	E.J.Lovegrove, Esq., CE	5	4 6	302	24·62	153
d† Child's Hill (Helenslea).....	A. J. Woodhouse, Esq.	5	1 6	245 T	23·29	140
Harrow	T. Charles, Esq.	5	1 0	215	26·88	168
Crouch End (Aubrey Road).....	W. B. Butler, Esq. ...	5	1 0	140	24·43	160
d „ „ (Fairfield Rd.)gardn.	Mrs. Sowerby Wallis...	5	1 0	144 T	24·79	162
d „ „ („ „ „)tennis ct.M	„ „ „ „ ..	4	1 0	144 T	24·33	...
d Hornsey (Tottenham Lane)	E.J.Lovegrove, Esq., CE	8	4 6	157	24·97	149
d „ (High Street)	„ „ „ „ ..	6	3 2	97	24·91	155
d „ (Burghley Road)	„ „ „ „ ..	5	4 0	74	24·21	145
d Muswell Hill	Miss Abethell.....	5	0 10	310 T	24·26	154
d „ (Irish Corner-Sew.Farm)	E.J.Lovegrove, Esq., CE	8	4 8	216 T	24·92	158
d Hendon (Hillwood)	W. H. Kesteven, Esq..	5	1 0	191 T	24·76	170
d† Finchley (Etchingham Park) ...	J. W. Scott, Esq.	5	1 2	295 T	24·79	163
d† „ („ „ „ „)	„ „ „ „ ..	8	1 3	295 T	24·76	163
d Harrow Weald (Hill House) ...	A. Crossman, Esq.....	5	0 8	280	27·15	191
Uxbridge (Harefield Park)	Mr. W. Batchelor .....	...	...	...	25·17	150
Stanmore Observatory	S. T. Klein, Esq.	5	1 0	268	26·78	162
d Friern Barnet (Sewage Works)..	Baldwin Latham Esq CE	5	1 0	156 T	21·80	147
d Whetstone	„ „ „ „ ..	5	1 0	315 T	24·40	156
d Enfield (Old Park)	A. L. Ford, Esq.	5	1 9	156 T	25·17	155
d „ (Southbury Road).....	J. Francis, Esq., C.E..	5	0 9	106 T	23·41	155

DIVISION II.—SOUTH EASTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which not or more fell
		Diameter	Height Above Ground	Height Above Sea Level	1896	
			ft. in.	feet.	inches.	
SURREY.						
D Haslemere (Lower Street).....	J. W. Penfold, Esq. ...	8	4 0	481 ∇	35.80	176
D „ (Hazelhurst)	T. P. Newman, Esq. ...	5	1 0	550 ∇	37.45	189
D „ (Grayswood Hill) ...	B. E. C. Chambers, Esq.	5	1 0	480 ∇	31.74	...
D Chiddingfold	A. F. Parbury, Esq. ...	5	1 0	174 ∇	29.10	175
D „ (Beaconscroft)	Adl. Maclear	5	0 10	174 ∇	28.59	...
D Dunsfold Common	Mr. W. Underwood ...	5	1 6	166	26.61	...
D Haslemere (Weycombe)	G. B. Buckton, Esq. FRS.	5	1 0	562 ∇	30.36	...
D Hambledon (Matteryes)	J. Borrowman, Esq. ...	5	5 8	300	26.39	171
D Witley (Fernside)	Mrs. Foster	5	1 0	350 ∇	27.23	148
D „ (The Mount)	„ „	5	1 0	370	29.81	171
D Hascombe Rectory	Rev. Canon Musgrave..	8	1 0	450 ∇	26.39	...
D „ (Hall Place)	E. S. Rowcliffe, Esq. ...	8	2 6	273 ∇	27.90	...
D Cranleigh Common	W. Welch, Esq.	5	1 0	182 ∇	30.50	...
D „ (County School)	Admiral Maclear	5	1 0	232 ∇	28.33	173
D „ (Winterfold)	Mr. R. Turvey	8	3 6	603 ∇	32.40	151
D Ewhurst (Malquoits)	W. Webb, Esq.	5	1 6	400	31.34	175
D „ (Coneyhurst)	Miss Ewart	8	1 0	561 ∇	33.20	176
D „ (Heathside)	J. Sparkes, Esq.	5	1 6	600 ∇	32.22	141
D Felbridge Place	Dr. C. H. Gatty	8	1 0	305	29.25	...
D Capel (The Cottage)	J. Lee Jardine, Esq. ...	5	1 0	270	30.30	166
D Wonersh (Shamley Green) ...	Mr. A. Nash	5	1 0	400	29.08	167
D Godalming (Charterhouse)	O. H. Latter, Esq.	5	1 0	200 ∇	28.71	174
D Bramley (Cloverlea)	J. Bartlett, Esq.	5	1 0	147	31.02	180
D Abinger Rectory	Miss Brodie Hall	5	1 0	381	33.15	146
D „ Hall	Rt. Hon. Lord Farrer..	8	2 0	320 ∇	32.98	166
D Holmwood	A. Sconce, Esq.	5	1 2	320 ∇	33.19	122
D Farnham (The Bourne Vicarage)	Rev. T. W. Sidebotham	5	1 0	308 ∇	26.67	181
D „ Castle	Mr. H. Dowding	8	1 0	300	24.99	125
D „ (Hampton Lodge)	Mr. J. Foster	5	1 0	...	29.13	174
D „ (Great Down, Seale)...	Mrs. Kitchin	8	1 0	490	25.01	148
D Dorking (Fir Tor)	F. Taylor, Esq.	5	1 0	260	33.20	...
D „ (Woodcote)	Stanley Single, Esq. ...	5	1 0	300 ∇	33.56	167
D „ (West Street)	Mrs. W. A. Marsh	10	26 0	224 ∇	25.23	154
D „ (The Denbies)	Mr. J. Beesley	5	0 9	610 ∇	30.10	148
D Brockham (North Lodge)	H. R. Kempe, Esq. ...	8	0 9	...	30.41	121
D Guildford (Epsom Road)	Miss Johnston	5	0 11	...	26.54	186
D „ (Listoke)	Genl. Battersby	5	1 0	...	24.94	145
D „ (Craigie, Merrow)	Miss Lomer	5	0 9	220	25.49	154
D „ (Wern, Stoke)	Miss Mathew	5	4 0	170	25.52	145
D Reigate (Woodhatch Lodge) ...	T. B. Haywood, Esq. ...	5	1 0	270 ∇	30.32	180
D „ (Ringley Mead)	R. L. Hesketh, Esq. ...	5	1 0	345 ∇	32.46	190
D „ (Sewage Farm)	F. D. Clark, Esq., C.E.	8	1 0	196 ∇	28.46	141
D† Red Hill (Oxford Road)	W. H. Tyndall, Esq. ...	8	1 0	300 ∇	31.00	176
D Reigate (Dovers Lodge)	R. W. Clutton, Esq. ...	5	0 7	192	30.31	172
D „ (Aldersyde)	H. Rosling, Esq.	5	0 10	...	33.74	136
D „ (Castle Grounds)	F. D. Clark, Esq., C.E.	5	1 6	350 ∇	30.75	172

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
SURREY—(con.)						
D Reigate (The Briars)	F. C. Bayard, Esq. ...	5	1 0	430	31·52	158
D „ (Doods)	G. E. Pym, Esq.	5	1 3	350 ∇	32·49	168
D „ (Nutwood)	H. E. Gurney, Esq. ...	5	0 9	440 ∇	30·43	175
D Nutfield Priory	Mrs. Fielden	8	1 2	468 ∇	30·08	175
D „ (Holmesdale)	C. T. Maw, Esq.	8	2 0	500 ∇	28·04	165
D Dorking (High Ashurst)	The Hon. H. D. Ryder	5	10 0	550	31·48	171
D Reigate Hill (Margery Hall)	W. F. Taylor, Esq. ...	5	2 0	756	31·40	182
D Walton Heath (The Hermitage)	F. C. Bayard, Esq. ...	5	1 2	650	38·81	214
D Merstham (Rockshaw)	„ „ „ ...	5	1 0	475	32·86	175
D „ (Harp's Oak Cottage)	„ „ „ ...	5	1 0	454	31·99	189
D Upper Gatton	F. Druce, Esq.	5	1 0	601	30·96	180
D Bookham Lodge	Hon. Rev. H. Waldegrave	8	0 7	140	25·13	164
D Horsley (Woodcote Lodge)	Sir H. E. Roscoe, F.R.S.	7	0 6	650	31·69	128
D Pirbright Camp	Sergt. Elwick	5	1 0	201 ∇	24·61	154
D Leatherhead (Downside)	A. Tate, Esq.	5	1 0	250	28·67	143
D „ (Newlands)	E. B. Falwasser, Esq. ...	5	1 0	210	27·55	156
D Chaldon Rectory	F. C. Bayard, Esq. ...	5	1 0	542	34·01	179
D Chipstead (Shabden Park)	„ „ „ ...	5	1 0	550	30·94	185
D Caterham Asylum	Dr. Elliot	5	1 0	610 ∇	34·55	167
D „ Valley (Birchwood Ho.)	Mrs. Rutley	5	1 0	471 ∇	26·58	155
D Coulsdon Grange	F. C. Bayard, Esq. ...	5	1 4	525	27·80	152
D Warlingham Vicarage	„ „ „ ...	5	1 0	614	34·99	...
D Kenley (The Cottage)	J. B. Snell, Esq.	5	1 0	294 ∇	30·69	189
D Ashted (Caen Leys)	J. D. Robertson, Esq. ...	8	3 0	185 ∇	25·20	156
D „ (D'Abernon Chase)	Sir W. Vincent, Bart. ..	5	1 0	280 ∇	27·26	163
D Pyrford Vicarage	Rev. T. M. Ridsdale ...	4	0 7	107	23·25	105
D Horsell (Lindisaye)	H. Horncastle, Esq. ...	5	3 8	130 ∇	23·48	175
D „ („)	M „ „ „ „ ...	5	0 9	130 ∇	23·54	...
D Oxshott	W. H. Dines, Esq. ...	5	1 0	206 ∇	26·31	167
D Banstead (The Larches)	Rev. C. J. Taylor	8	1 0	488 ∇	32·73	162
D Camberley (Brackendale)	Mr. J. Bryan	5	1 0	267 ∇	24·81	180
D Purley (Tudor Cottage)	F. C. Bayard, Esq. ...	5	1 0	216 ∇	30·22	178
D Chobham (The Elms)	Mrs. Brown	5	2 3	90	26·23	134
D Esher (Claygate)	Gen. Sir W. G. Davies. ...	5	1 2	10	25·10	143
D Chertsey (Ottershaw)	R. H. Otter, Esq.	5	1 0	200 ∇	23·40	174
D Windlesham (Erlwood)	E. S. Currey, Esq.	5	1 0	216 ∇	24·57	165
D „ (Woodside)	J. Williams, Esq.	5	0 8	200 ?	24·77	...
D Weybridge (Field Place)	G. A. Yool, Esq.	5	1 0	119 ∇	23·54	172
D „ („ „)	M „ „ „ „ ...	5	1 0	100	23·93	...
D „ (West Oaks)	A. Whittet, Esq.	5	1 0	36 ∇	22·69	153
D Esher (Sewage Works)	F. C. Bayard, Esq. ...	5	1 0	42 ∇	23·19	179
D Addington (Hares Bank)	„ „ „ ...	8	1 0	331 ∇	30·22	171
D „ (Park Farm)	„ „ „ ...	5	1 0	268 ∇	32·73	167
D „ Hills	„ „ „ ...	8	0 9	473 ∇	29·87	184
D Wallington	„ „ „ ...	5	4 1	140 ∇	26·29	158
† Sutton (Mulgrave Road)	W. Goode, Esq.	5	5 10	230 ∇	27·08	171
D Beddington (Riverside)	The Royal Meteor. Soc.	5	1 0	120	27·43	159
D Croydon (Heathfield Road)	Registrar Gen. Returns ...	...	...	185	28·20	151

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1896	
			ft. in.	feet.	inches.	
KENT—(con.)						
Tenterden (Little Westwell)	W. Hilder, Esq.	5	1 0	140 T	28·26	...
„ (Ashbourne Mills)	A. Pinyon, Esq.	5	1 0	45	28·18	...
Woodchurch	Rev. A. Welch	5	5 0	107	29·45	116
† Hythe	Messrs. Mackeson & Co.	8	0 6	12 T	32·37	188
D „ (Saltwood)	Rev. H. M. Spooner ...	8	2 6	200 T	31·84	145
† „ (Hillhurst Farm)	G. F. Deedes, Esq. ...	5	2 0	280 T	30·90	177
Sandgate	A. R. Bowles, Esq., C.E.	5	1 0	56 T	31·99	159
Cranbrook (Swattenden)	Miss Appach	8	1 2	350 T	29·73	157
† „ (Hartley)	G. Pile, Esq.	5	4 0	405 T	30·68	168
Folkestone	The Royal Meteor. Soc.	5	1 0	110	32·75	168
D „ (Cherry Gardens)	H. Turner, Esq.	8	3 6	140 T	33·91	152
„ (Capel Lodge)	E. Norton, Esq., M.D.	5	1 0	480 T	36·93	175
D Hythe (Frogholt)	G. Lipscomb, Esq.	5	1 0	186 T	35·51	147
† „ (Paddlesworth)	Mrs. Dixon	8	1 0	608 T	44·67	...
Dover (Dover College)	A. M. Pooley, Esq.	5	7 6	14	37·07	254
„ (Water Works)	H. E. Stilgoe, Esq., C.E.	5	1 6	200 L	34·78	159
Kearsney Abbey	The Meteor. Council ...	5	1 0	100 ?	35·99	184
Acrise Place	Miss Mackinnon	5	1 0	484 T	42·53	...
D† „ (School House)	G. C. Woollett, Esq.	8	1 0	504 T	42·56	140
D Ashurst (Stone Ness)	S. Poyntz Wright, Esq.	5	1 0	400	28·93	190
D Tunbridge Wells (Camden Park)	J. Weston, Esq.	5	0 9	424 T	30·39	170
„ „ (Bredbury)	F. G. Smart, Esq.	5	1 0	416 T	30·07	168
D Cranbrook (Camden Lodge)	Mr. A. Habbitts	5	1 0	276 T	31·62	169
D Ashford (Bethersden)	W. H. Mold, Esq.	5	4 0	111 T	26·67	171
D „ (Beavor Green)	T. Nickalls, Esq.	5	1 0	155 T	29·44	182
Elham Vicarage	Rev. W. Wodehouse	5	1 3	300	34·18	173
D Tunbridge Wells (Etherton Hill)	E. W. Winton, Esq.	5	1 5	276 T	25·15	143
„ „ (Southborough)	Rev. R. W. Kennion ...	8	0 8	380	26·60	125
D „ „ (Pembury)	T. E. W. Mellor, Esq. C.E.	8	1 8	181 T	26·10	148
Staplehurst	<i>News cutting</i> .....	...	...	...	30·90	...
D Chiddingstone Rectory	Rev. J. T. Pearce	5	0 5	170	27·35	157
Tunbridge (Penshurst Place)	Hon. P. Sidney	5	0 11	115 T	28·33	...
D „ „ (Park)	Mr. J. M. Sturgess ...	5	0 4	265 T	29·51	158
D „ „ (Beech Hurst)	W. C. Punnett, Esq.	5	1 6	102	28·71	154
„ „ „ (Snowdon)	„ „ „	5	1 6	102	28·39	154
„ „ „ „	„ „ „	8	4 0	105	28·13	...
D Ashford (Westwell)	Rev. H. H. D'Ombraim	5	1 0	272	31·86	177
D „ „ (Monkery)	F. Kingsnorth, Esq.	5	4 6	...	31·26	190
D Edenbridge (Falconhurst)	Rt. Hon. J. G. Talbot, MP	5	1 0	300	29·49	172
Wye (Bilting)	Mr. A. H. Briggs	6	1 3	158	37·40	165
Hadlow	F. W. E. Shrivell, Esq.	5	1 0	100	24·19	...
D Harrietsham (Stede Hill)	Sir C. Domville, Bt. ...	5	2 6	620 T	33·80	163
D† Maidstone (Hunton Court)	Mr. E. Hall	8	0 6	80 T	28·08	109
D „ „ (Linton Park)	Mr. C. Pratt	5	1 0	...	28·76	145
D „ „ (Lower Tovil)	Lawrence Green, Esq.	5	1 0	30 L	27·38	177
D „ „ (Mount House)	C. A. Case, Esq.	5	1 0	160 T	29·84	159
D „ „ Hospital	M. A. Adams, Esq.	5	0 8	200	26·09	131
D „ „ (Bearsted)	Rev. A. L. Brine	5	1 1	204 T	32·44	211

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	1896	
			ft. in.	feet.	inches.	
KENT—(con.)						
Eastry.....	W. V. Lister, Esq.	5	1 0	25	26·60	161
East Malling (Broadwater)	C. B. Mercer, Esq.	5	1 6	80	28·51	141
D West Malling (St. Leonards) ...	G. Phillips, Esq.	5	1 0	...	30·94	184
D Debtling	R. Cooke, Esq.	5	1 2	330 T	33·49	189
Aylesford (Preston Hall)	Mr. W. Jarman.....	5	1 6	80	28·59	...
Sheldwich	Rev. B. S. Malden.....	5	1 0	250 T	31·64	160
† Selling (Harefield).....	M. G. Neame, Esq.....	5	2 6	217 T	31·61	152
D Westerham (The Fishponds) ...	F. C. Bayard, Esq.....	5	1 0	380	31·34	142
D Canterbury (Burgate Street) ...	B. Rigden, Esq.....	5	9 6	58 T	28·21	146
Seven Oaks (River Hill)	J. T. Rogers, Esq.....	8	4 0	530	29·66	...
D† „ (The Rectory)	Rev. T. S. Curteis....	5	1 0	490	30·48	151
D† „ (Riverhead Vic.) ..	Rev. J. M. B. Murdoch	5	0 6	300 T	29·03	147
„ (Chevening Gardens)	Mr. J. C. Sutton	5	1 0	360	31·14	...
D „ (Kemsing)	T. Stonham, Esq.	5	6 0	300	33·02	166
D Sittingbourne (Sharsted Court)..	A. J. Rayfield, Esq. ...	5	1 0	276 T	28·87	131
D Ospringe (Lorenden)	W. C. Stunt, Esq.	5	1 4	180 ?	26·77	144
Knockholt (Kent Waterworks)..	F. C. Bayard Esq.....	5	1 0	785	33·06	...
D Keston (Bradfield)	A. Hill, Esq.	5	1 0	350 T	28·78	172
D „ Tower.....	late G. Buchanan Esq. CE	8	0 11	351 T	32·15	178
D Farnborough (Feniton).....	Rev. P. H. Percy	5	1 0	376 T	31·66	198
D Ash (Pettings House)..... <i>new g.</i>	C. J. G. Hulkes, Esq...	5	1 0	540 T	28·85	165
Herne Bay (Eddington) ...	Miss Hawksworth	5	1 0	4 ?	25·02	...
„ „ (Water Works)	J. W. Thorpe, Esq. ...	5	0 6	106 T	24·80	...
D Birchington (Thor)	Mr. W. H. Euden	5	1 0	40 T	29·01	162
D Reculver (Brook)	A. Collard, Esq.....	5	6 3	40	25·07	153
D Hayes Common (The Warren)...	Miss Akers	5	1 0	296	29·31	186
D West Wickham (Wickham Court)	F. C. Bayard, Esq. ...	5	1 2	300	32·27	154
D Orpington (Kent Waterworks)...	„ „ „	5	1 0	220	30·64	164
D Farningham Hill	„ „ „	5	3 0	300	28·76	168
Chatham.....	The Meteor. Council ...	8	1 3	137	23·52	137
D Rochester (Knights Place)	J. Pye, Esq.	5	2 3	320	27·61	169
D St. Peter's	Rev. H. C. V. Snowden	5	4 0	144	22·06	153
North Foreland	The Meteor. Council ...	8	1 0	115	26·44	158
D Margate (Apsley House)	J. Stokes, Esq.	5	1 0	84 L	28·89	160
D „ „ „ „) <i>Snowdon</i>	„ „	5	1 0	84 L	28·76	160
Strood Water Works	W. Banks, Esq.....	5	3 0	112	23·69	157
D Sheppey (Leysdown)	Rev. A. Farbrother ...	5	1 2	47	22·01	145
D Frindsbury (Manor Farm)	F. Baker, Esq.	5	1 0	100	23·78	153
D Bromley Common (Elmfield) ...	Rev. J. P. Faunthorpe..	5	0 9	235 T	26·51	176
D Bickley (The High Field)	J. Batten, Esq.	5	1 2	295	25·50	160
Bromley (The Palace)	F. C. Bayard, Esq. ...	5	1 0	187	25·25	154
„ (Widmore Road)	Miss Scott	5	1 0	230	25·03	158
Chislehurst (Southlaund)	T. O. Hutton, Esq. ...	5	1 2	...	24·76	...
„ „	H. F. Tiarks, Esq.....	...	4 6	250	25·83	173
D „ (The Oaks).....	Miss Dalton	5	0 11	325	28·97	168
D Wilmington (Kent Waterworks)	F. C. Bayard, Esq. ...	5	1 0	25	23·02	150
D Sidecup (Hatherley Road)	Dr. L. Burrell	5	1 2	350 ?	23·97	166
D Rochester (Abbot's Court, Hoo)...	Warwick Stunt, Esq....	5	1 0	10	20·25	138

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	1896	
			ft. in.	feet.	inches.	
KENT—(con.)						
D Beckenham (Cedars Road)	F. C. Bayard, Esq.	5	1 0	105	23·95	174
Sydenham (Elmfield).....	O. Jepson, Esq., M.D..	5	1 0	...	22·06	168
„ (Gorrevod)	Mrs. Stephenson	5	1 0	...	23·17	...
D Forest Hill (Newfield House) ...	F. C. Bayard, Esq.	5	1 0	220	23·43	156
D „ (The Nurseries).....	Messrs. J. Carter & Co.	5	0 5	76	23·55	127
D „ (Barr Beacon).....	J. W. Restler, Esq., C.E.	5	1 0	344	23·07	176
D Catford Hill (Avalon)	F. M. Lark, Esq.	5	0 9	...	21·59	159
Higham (Oakleigh)	C. Lake, Esq.....	8	1 2	25	20·28	...
D Rochester (Lodge Hill, Cooling)...	E. W. Wood, Esq.....	5	5 6	247	18·01	119
D „ (Cooling)	J. Filmer, Esq.	5	3 0	10	19·80	122
D „ (Hoo St. Mary).....	H. Pye, Junr., Esq. ...	5	5 6	146	22·63	163
D Eltham (Cliefden)	Miss Yeatman	5	0 10	198	23·29	165
D „ (High Street)	F. C. Bayard, Esq. ...	5	1 0	245	23·14	166
Blackheath Park (Elmsdale) ...	C. Lethbridge, Esq. ...	5	0 11	90	23·44	198
Greenwich (Royal Observatory)..	W. H. Christie, Esq. C.B.	8	0 5	155	22·42	161
D Deptford (Kent Waterworks) ...	F. C. Bayard, Esq.	5	1 0	20	19·53	148
D „ (Pumping Station).....	Sir A. R. Binnie, C.E....	10	1 6	15	24·32	146
D Erith (Crossness)	No. 3 „ „ „ ..	14	0 6	16	19·61	133
WEST SUSSEX.						
Bognor (Lidsey Lodge).....	H. Neale, Esq.	8	1 2	...	26·24	134
Littlehampton (Surrey House)...	G. Neame, Esq.	5	1 8	20	25·66	...
Worthing	The Royal Meteor. Soc.	5	1 0	33	23·96	149
„ (Ellesmere)	C. Kelly, Esq., M.D....	5	1 0	26	25·74	152
D Arundel (Yapton)	W. A. Hounsom, Esq..	5	1 0	24	25·10	141
D „ („ Drove Farm). ..	„ „ „ „ ..	5	1 0	14	24·05	141
Angmering	Rev. J. B. Orme.....	5	1 3	44	26·11	...
D Chichester (Sewage Works)	Baldwin Latham Esq. C.E.	5	1 0	10	27·34	140
„ (Westgate Meadow)...	Dr. Tyacke.....	8	0 6	40	28·19	123
„ (Little London)	C. F. Porter, Esq.....	5	1 6	56	29·54	135
„ (Oaklands)	G. A. Tyacke, Esq. ...	8	0 9	80	28·37	168
D Arundel (Clapham Rectory) ...	Rev. A. H. S. Barwell	5	1 0	150	29·53	177
„ (Patching)	J. Drewitt, Esq.....	5	1 0	180	28·81	156
D „ („)	Mrs. Joad	5	0 10	130	28·41	168
D „ (The Parade)	A. Holmes, Esq.....	8	3 1	75	28·35	128
D Steyning (Selehurst)	W. E. Hubbard, Esq..	5	1 6	305	29·59	146
D† „	Col. Ingram	5	1 0	80	31·43	125
Chichester (Eartham House) ...	Sir P. Milbanke, Bt....	3	4 6	240	26·26	..
D „ (Forest Side Vic.) ...	Mrs. J. C. Parson	5	1 0	341	32·28	151
D „ (Watergate).....	R. Christy, Esq.	5	3 6	240	33·91	171
„ (West Dean)	Mr. W. H. Smith .....	...	1 6	190	34·41	149
„ (Charlton)	C. O. Newman, Esq....	5	1 1	190	34·80	142
† „ (Chilgrove)	J. W. Woods, Esq. ...	5	0 6	284	36·04	..
D Compton [Petersfield]	Rev. H. M. Langdale...	5	1 0	255	36·01	179
† Petworth Rectory	Rev. Preb. Holland ..	5	4 0	180	31·55	153
„ Park	Mr. E. W. Pull	5	1 0	182	29·18	146
Cowfold (The Laurels)	Mr. S. Ford	6	1 6	273	31·65	..
D Midhurst (St. Ann's)	Genl. Paxton	8	1 8	120	29·98	162

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which 10 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1896	
			ft. in.	feet.	inches.	
WEST SUSSEX—(con.)						
Midhurst (Cowdery Park)	Rt. Hon. Lord Egmont.	5	1 0	150	31·27	174
„ (Borden Wood)	T. J. Hare, Esq.	5	1 2	280 T	32·67	181
„ (Lynch Farm)	G. Eames, Esq.	5	0 6	160 T	35·49	..
„ (Hollycombe)	J. C. Hawkshaw, Esq..	8	6 6	...	34·73	120
Horsham (Bourne Hill)	F. W. Pigott, Esq.	5	1 0	250 T	27·79	160
„ (Manor House)	H. Padwick, Esq.	8	0 10	140 T	33·01	153
„ (Wimblehurst)	Miss F. E. Allcard ...	5	1 0	200 T	29·47	184
EAST SUSSEX.						
+Beachy Head	Miss Brodie Hall	5	1 0	515 T	23·69	...
Eastbourne (Wilmington Square)	R. Sheward, Esq.	8	0 6	39	32·56	175
+ „ (Osborne House) ..	Miss Hood	5	1 0	12 T	31·32	174
„ (Glenthorne)	Miss Woodd	8	1 6	86 T	31·83	144
+ „ (Trevella)	H. S. B. Whitley, Esq.	5	0 6	64 T	34·33	...
+ „ (Cemetery)	Miss Brodie Hall	5	4 0	160 T	30·51	139
+Brighton (Kemp Town)	Mr. Wyatt	5	1 0	82 T	26·78	141
+ „ (Old Steine)	A. Newsholme, Esq., MD	5	1 0	32 T	27·84	169
„ (W. W. Goldstone Bottom)	J. Johnston, Esq., C.E.	8	0 7	140 T	25·66	147
„ (W. W., Lewes Road) ..	„ „ „	8	3 6	88	28·60	144
„ „ („ Patcham)	„ „ „	5	1 6	207	28·18	157
Bexhill (The Grange)	Miss A. Scrivens	8	4 6	140 T	26·34	108
„ (Barrack Hall)	„ „ „	8	4 6	149 T	28·81	167
St. Leonards (Gensing Gardens).	The Meteor. Council ...	5	1 0	166 T	30·12	175
„ „ (The Grove)	W. B. Young, Esq. ...	5	1 1	110 T	30·11	152
Selmeston Vicarage	C. L. Prince, Esq. ....	...	...	...	31·13	180
+Iford (Swanborough)	R. H. Verrall, Esq. ...	5	3 10	115 T	34·10	154
„ Hailsham	Rev. F. Clyde Harvey..	5	1 0	105	31·26	143
+Falmer	R. R. Verrall, Esq. ...	5	3 0	312 T	32·89	155
+Lewes (Bedford Lodge)	Mrs. Kemp	5	1 0	85 T	24·93	168
+ „ (Saxonbury)	A. Hillman, Esq.	5	1 0	75 T	29·58	158
+ „ (Southmalling)	Miss M. H. Rickman...	5	1 0	40 T	26·52	156
+ „ („) mound g.	„ „ „	5	1 5	63 T	20·03	152
„ Hastings (Newgate Res.)	P. H. Palmer, Esq., CE	8	0 10	240	28·02	156
+ „ (High Beech Hollington)	Col. Lewis	5	1 0	320 T	30·11	158
„ „ (Guestling Rectory) ...	Rev. E. N. Bloomfield.	5	1 5	125 T	31·00	166
Clayton Rectory	Rev. T. H. R. Shand...	5	1 1	201	30·26	...
„ Hurstpierpoint (Danny Park)	Mr. J. Bunney	8	1 3	180	30·91	115
„ „ (Hampton Lodge)	I. F. H. C. Greg, Esq.	5	1 0	174	25·81	154
„ Winchelsea (The Friars)	Miss Stileman	5	1 2	115 T	25·71	149
„ Battle (Whatlington)	Miss H. Gripper	5	1 3	70	30·29	143
„ Horsted Place	C. L. Prince, Esq. ....	...	...	149	28·67	151
+Isfield Place	old g. Major H. King	5	1 0	50 T	29·46	162
„ Heathfield (Spring Lodge) ...	J. R. Reid, Esq.	5	1 2	500	31·14	174
„ Playden (East Guldeford Lane).	G. Pile, Esq.	5	1 0	...	28·67	...
„ Uckfield House	C. L. Prince, Esq.	8	0 10	200 B	29·44	166
„ Cross in Hand (Montpellier)	A. Brown, Esq.	5	1 0	475	31·73	167
„ „ „ (Heatherden) ..	J. Crossley, Esq.	8	2 0	450	32·59	...
„ Wivelsfield (Abbots Leigh)	Mr. R. Inglis	5	1 0	190 T	26·48	156

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
EAST SUSSEX—(con.)						
D Haywards Heath	C.E. Saunders, Esq. MD	5	1 1	281	25·83	129
D Buxted Park	Mr. H. C. Prinsep.....	8	1 0	94	31·35	166
„ (Strawberry Hall)	C. Rintoul, Esq.....	5	1 0	220	30·38	161
D† Maresfield (Forest Lodge)	Capt. W. Noble	8	1 2	242 ½	30·64	165
„ Cuckfield (Workhouse)	The Meteor. Council ...	1	0	389	25·61	144
„ Lindfield (Wood Knoll)	L. Weedon, Esq.	5	1 0	188 ½	28·66	169
D† Mayfield Vicarage	late Rev. H. T. M. Kirby	8	0 8	425 ½	31·44	150
D Nutley Vicarage	Rev. H. J. Peckham ...	5	1 0	386 ½	30·04	186
D Crowborough (South View)	H. C. Malden, Esq. ...	8	0 4	700	34·13	159
D† „ (The Observatory).	C. L. Prince, Esq.....	8	0 8	770 ½	33·55	158
„ Haywards Heath (Brook House)	H. R. G. Clarke, Esq..	5	1 0	240	28·27	132
D Balcombe Place	Mr. Warren	8	1 3	289 ½	30·31	172
D „ (Highley Manor)	H. M. Baker, Esq.....	8	1 6	422 ½	31·04	121
„ Ticehurst	Mr. Jordan	5	4 9	423 ½	31·48	157
D Wadhurst (Lower Couselly Wood)	F. Wilkin, Esq.....	5	1 0	416 ½	30·51	166
„ Frant (Eridge Castle)	Mr. A. Wilson	5	2 0	400	34·44	119
„ Forest Row (Harbury)	N. W. Grieve, Esq. ...	8	4 0	280 ½	27·71	132
D Worth (South Hill)	P. E. Ravenshaw, Esq.	5	1 6	558 ½	32·61	208
D East Grinstead Station	Mr. G. Mitchell	8	2 2	410	30·44	161
„ „ (Halsford Park).	W. I. Stenning, Esq....	5	1 6	365 ½	29·93	151
HAMPSHIRE.						
ISLE OF WIGHT.						
D Ventnor	J. S. Ineson, Esq.	10	2 0	70	26·13	148
„ (Consumption Hospital)	The Royal Meteor. Soc.	5	1 0	75	27·01	157
D* Bonchurch (The Lilies)	Mr. W. C. Moseley ...	5	1 0	300 ½	26·65	159
D Sandown (Belgrave House)	W. E. Green, Esq.....	5	1 0	110	29·50	132
„ Brading Vicarage	Rev. E. Summers	5	1 6	50 ?	25·98	..
D Totland Bay (Wilmington)	J. Dover, Esq.	8	1 0	85 ½	24·70	151
D Carisbrooke (Rainsgrove)	Baldwin Latham Esq. CE	5	1 0	180	30·86	164
D Newport (Castle Hold)	A. Le Mesurier, Esq....	5	1 0	45	27·32	153
D Parkhurst (Brookfield)	Rev. J. B. Wheeler ...	5	1 0	100 ½	26·58	151
D Ryde (Thornbrough)	Col. Clarke	5	1 0	143 ½	30·83	167
„ (New Lodge)	Capt. W. A. Dobie.....	5	1 1	147	29·33	...
D „ (Town Hall)	F. Newman, Esq.	8	1 0	83 ½	25·02	166
„ Wootton (Fernhill)	C. G. Brodie, Esq.....	8	0 6	118 ½	27·50	...
D† Osborne (Newbarn Cottage)	R. Scott, Esq.....	8	0 8	172 ½	25·84	161
D West Cowes (Holmwood)	C. T. Maw, Esq.....	8	0 8	40 ½	23·15	150
<hr/>						
„ Hurst Castle	The Meteor. Council ...	8	0 11	9	23·14	154
„ Bournemouth (Clarendon Court)..	G. Galpin, Esq.....	5	1 0	110 ½	29·41	...
D „ (Wellington House)	Messrs. Primavesi Bros	5	1 0	100 ½	28·14	169
D Milford-on-Sea	R. Bruce, Esq.	5	1 0	40	18·72	126
D Christchurch (Mudford)	F. H. D. Eyre, Esq. ...	5	0 3	15 ½	25·77	154
„ (Winkton Lodge)..	Miss J. Lassell	5	0 9	34 ½	25·57	122
D „ (Heron Court)	Earl of Malmesbury ...	8	0 6	25	32·28	164
D Portsmouth (Fort Cumberland)..	P. Murch, Esq., C.E....	8	0 9	16 ½	18·67	118
D „ (Milton)	Dr. Fraser	5	1 0	18	25·54	156

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which 61 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
HAMPSHIRE—(con.)						
North Hayling	F. Padwick, Esq.	5	1 0	10	23·90	151
Porchester (Noel Cottage).....	Miss Montgomery Frost	5	1 0	...	24·12	...
Havant (Farlington).....	H. R. Smith, Esq., C.E.	5	1 0	77 T	23·17	149
" (").....	M " " "	5	1 0	77 T	23·21	...
"	" " "	5	1 0	25 T	25·68	132
"	M " " "	5	1 0	25 T	25·68	...
Emsworth (Redlands)	F. Jacomb Hood, Esq.	5	1 0	90 T	27·12	165
Southampton (Cadland)	J. Laurie, Esq.	8	4 6	52 T	28·15	150
Lyndhurst (Cuffnells)	R. Hargreaves, Esq. ..	5	0 9	200 T	30·51	155
Southampton (Netley)	Prof. J. Lane Notter...	8	0 5	37 T	28·86	142
" (" Lake Ho.)	Col. Pennington	8	1 0	54 T	25·49	171
" (Ordnance Surv. Off.)	Col. Farquharson, C.B.	5	1 0	79 T	26·30	146
" (Totton).....	Mr. W. F. Harold	5	5 0	85	30·93	176
Wickham (The Croft)	Rev. Stanhope Rashleigh	5	0 11	315 T	26·02	161
Botley (Fairthorne)	Mr. W. Gurman	8	1 0	70	25·89	154
" (Hall Court)	Adml. Murray-Aynsley	8	2 0	105 T	27·69	146
" (Botley Hill)	A. Jenkyns, Esq.	5	1 6	36 T	25·57	153
" (Beachcroft, Curdridge)..	Miss Pasley	8	2 0	100	26·16	157
" (The Hollies, ")...	Mr. P. Elcock	5	1 0	150 T	25·82	150
Horndean (St. Catherines)	Miss Barnes	8	1 7	417 T	33·89	175
Southampton (Red Lodge)	R. C. Hankinson, Esq..	5	0 6	206	24·92	165
Fordingbridge (Oaklands)	Mrs. Westlake	8	1 0	135 T	28·58	139
Hambledon (Rosecroft).....	Mr. L. Dawes.....	5	2 6	200	30·37	171
Bishops Waltham (Swanmore House)	W. H. Myers, Esq., M.P.	8	1 0	390 T	28·74	137
" " (Hill Place)	Major W. A. Daubeney.	8	0 9	260	28·68	165
" " (Northbrook Ho.) ..	H. W. Trinder, Esq....	5	1 0	140	28·28	161
Droxford (Fir Hill)	Rev. S. King	5	3 6	212	26·87	170
Fordingbridge (Wood Green) .	H. Hinxman, Esq.....	5	1 2	140 T	27·36	...
† Otterbourne Hill Reservoir ...	M W. Matthews, Esq., CE	5	18 0	273 T	17·21	...
† " (W. W., Shawford). ..	" " "	5	1 0	113 T	23·28	157
† " (" ") M	" " "	5	1 0	113 T	23·44	...
Petersfield (Fairley).....	A. W. Leachman, Esq. MD	5	0 7	202	35·58	173
" (Steep Vicarage) ...	Rev. E. L. Puxley... ..	5	0 7	245	28·66	172
Kilmeston Manor	F. W. C. Read, Esq....	5	4 0	...	29·20	162
Liss (Liss Place)	F. Coryton, Esq.....	7	0 7	250 T	33·67	...
" (Lingwood)	R. Barnes, Esq., M.D.	5	0 9	510	35·18	170
† Alresford (Hinton Ampner).....	Rev. J. Heberden	8	4 4	340 T	29·07	153
" (Ovington).....	Rev. H. F. La M. Stowell	5	1 0	221 T	26·99	152
" (Itchen Stoke Rectory) ..	Rev. C. H. Conybeare..	5	1 0	214 T	27·34	177
Greatham (King's Holt)	Mrs. Parr	5	1 7	279 T	38·81	124
† Winchester (Harestock)	Col. Knight	5	1 0	302 T	28·77	164
Liphook (Fowley)	E. A. Lee, Esq.	5	0 10	296 T	33·96	176
" (White Hill Chase) ..	Col. R. H. Maude	5	1 0	300 T	30·11	157
Headley (Eveley)	Mr. T. Carter.....	5	1 3	...	32·18	160
Swarraton Rectory	Rev. W. L. W. Eyre... ..	5	1 0	310 T	28·13	259
Old Lodge [Salisbury].....	E. Lamb, Esq.	8	1 1	480	27·04	188
† Alton (Ashdell).....	F. Crowley, Esq.	8	3 6	433 T	32·93	167
" (Eagles Nest)	" "	5	52 4	505	18·63	...

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which 1/10 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
HAMPSHIRE—(con.)						
Alton (Hill House)	C. H. Dyer, Esq.	5	1 0	361	33·77	175
„ (Shalden Manor)	J. G. Wood, Esq.	8	3 0	594	30·96	...
D Whitchurch (Long Parish)	C. Durnford, Esq. ....	...	...	...	25·31	159
Andover (The Knoll)	G. H. Westbury, Esq..	5	0 10	196 T	32·73	145
D Tedworth House [Ludgershall]..	Mr. G. A. Inglefield ...	5	1 8	357 T	28·83	155
D Crondall (Warren Corner)	F. Wilkin, Esq.	5	1 3	575 T	24·99	146
D Basingstoke (Chapel Hill)	G. Stephens, Esq.	5	1 0	328 T	23·67	159
Rotherwick (Tylney Hall) ...	C. E. Harris, Esq.	5	0 10	330	23·96	149
D† Basingstoke (Sherborne St. John)	Rev. D. W. Chute	5	1 2	267 T	25·51	173
D Winchfield (Bylands)	Lady Mary Scott	8	1 4	222	22·86	161
D „ (Elvetham Park) ...	Mr. G. B. Mitchison ...	8	1 0	217 T	27·89	192
Farnborough (The Grange)	Major Holt	5	1 0	232 T	28·59	158
D „ (The School)	Rev. G. C. Carter	5	1 0	257 T	25·11	149
Hartley Wintney	Mr. W. G. Machin ...	5	1 2	222 T	24·51	145
„ Grange	F. Walkinshaw, Esq..	5	1 0	221 T	24·87	179
† Strathfield Turgiss	Mrs. Griffith	5	3 0	200 T	22·75	...
Strathfieldsaye Gardens	Mr. J. W. McHattie...	5	2 0	164	27·38	161
Heckfield (Park Corner)	J. Martineau, Esq.	5	1 2	257	22·48	143
BERKS.						
D Sandhurst Lodge	Sir W. J. Farrer	8	2 9	263	24·72	170
D Wellington College	S. A. Saunder, Esq. ...	5	1 0	283 T	24·60	165
D Sunninghill (Lynwood)	G. Rodie Thompson, Esq.	5	1 0	266 T	24·66	169
D Ascot (Manor Farm)	C. A. Ferard, Esq.	5	0 10	240 T	23·26	174
Newbury (Donnington Sq.)	W. J. Cowper, Esq. ...	5	3 6	282 T	24·41	168
„ (Benham Park)	Mrs. Myers	8	1 3	...	25·17	168
D Arborfield Rectory	Rev. J. Jones	5	1 2	158 T	23·03	161
Shinfield (Clares Green)	A. Palmer, Esq.	5	4 6	160 T	22·87	153
D Hungerford (Kintbury)	Sur.-Gen. Woolfryes, CB	5	1 0	297 T	25·82	197
„ (Denford Park)	Gen. Cherry-Garrard...	5	1 2	430 T	28·64	178
Benham House	H. Waring, Esq.	8	2 2	320	22·16	...
Winkfield (Elm Lodge)	E. Bailey Denton, Esq CE	5	2 8	...	22·39	143
D Bracknell (Warfield)	Rev. B. C. Littlewood .	5	0 4	199 T	22·74	176
D Old Windsor (Beaumont College)	Rev. J. Scoles	5	1 1	96	23·51	138
„ „ (The Friary)	Mr. J. Williams	5	1 0	100	22·60	...
D Windsor (Royal Gardens)	Mr. T. Edwards	5	1 0	...	23·05	175
Reading (Maiden Erlegh)	Mr. T. Turton	5	1 0	200	24·62	160
„ (Englefield)	late R. Benyon, Esq.	5	1 1	...	24·81	147
D „ (Calcot Place)	General Swettenham...	5	1 4	176	23·64	176
D „ (Ellerslie)	Rev. A. Cheales	5	1 0	195 T	24·62	152
D „ (Forbury Gardens)	J. Bowen, Esq., C.E.	5	1 5	145 T	24·08	167
„ (East Thorpe)	A. Palmer, Esq.	5	3 0	157 T	24·39	148
„ (Earley)	M. J. Sutton, Esq. ...	8	1 6	...	22·44	...
Twyford (Hurst Grove)	Mrs. Finch	5	1 0	...	23·43	132
D „ (Haines Hill)	Mrs. Wedderburn	5	0 7	155	21·99	151
D Newbury (Welford Park) <i>old g.</i>	Mr. C. Ross	5	1 0	335 T	27·41	196
D „ „ „ <i>new g.</i> „ „	„ „	5	1 0	341 T	27·73	196
D „ (Weston)	R. Osmond, Esq.	5	0 6	338 T	24·85	179

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge			Depth of Ram., 1896	Days on which 101 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
BERKS—(con.)						
Yattendon Court	Mr. R. Maker.....	5	1 0	450 T	25·73	155
Maidenhead (Lowood)	Gen. Davies	8	1 0	167 T	25·10	157
„ (Castle Hill House)	F. C. Young, Esq.....	5	1 0	163	26·57	195
„ (Pinkney's Green)	G. Norsworthy, Esq....	5	1 6	240	25·65	168
„ (Cookham Vic.)	Rev. R. W. Rogers ...	5	1 3	90 T	23·83	166
Temple House [Marlow]	Mrs. Owen Williams...	5	1 0	106	25·85	186
Wantage (Letcombe Regis)	S. W. Silver, Esq.	5	0 9	...	23·54	160
„	W. Hanson, Esq.	5	1 0	304	22·52	138
Wallingford Castle	J. Kirby Hedges, Esq..	5	0 9	175 T	22·50	164
Little Wittenham Rectory	Rev. Percy Burd	5	1 0	187 T	21·83	170
„	T. J. Latham, Esq.	5	2 0	187	21·83	132
Long Wittenham (Manor Ho.)	Capt. Clutterbuck, R.N.	12	1 0	165 T	23·46	149
„ „ (Lovegrove's Cott.)	Rev. F. C. Clutterbuck	5	1 0	165	23·47	150
Faringdon (The Elms)	W. Dundas, Esq.	5	1 0	340 T	23·22	176
Abingdon Union	Mr. J. Fray	5	2 0	196	20·84	165
„ (Sewage Works)	G. Winship, Esq., C.E.	5	0 6	169	18·83	113

DIVISION III.—SOUTH MIDLAND COUNTIES.

HERTS.

Southgate (The Lawns)	G. A. Church, Esq.	5	0 6	240 T	24·21	185
Rickmansworth (Moor Park)	Rt. Hon. Lord Ebury ..	5	2 0	340	31·37	171
Elstree (Aldenham House)	Mr. E. Beckett	10	4 9	305	25·54	143
Watford (Frogmore)	A. P. Blathwayt, Esq.	5	1 0	182 T	27·44	158
„ (Colne Valley W.W.)	J. Hopkinson, Esq.	5	1 0	220	26·29	160
„ (Oaklands)	E. Harrison, Esq.	5	5 6	273	29·24	172
„ (St. Alban's Road)	H. Ruddle, Esq.	5	0 6	...	26·94	117
Barnet (Gas Works)	J. Hopkinson, Esq.	8	0 9	212	25·80	139
„ (Trent Park)	Mr. W. H. Lees	5	1 0	254 T	26·89	140
Cheshunt Old Nurseries	Messrs. Paul & Son ...	5	1 0	92 T	24·48	178
Kings Langley (Laurel Bank)	I. Butler, Esq.	5	1 0	283 T	28·44	...
Broxbourne (Stafford House)	G. J. Newbery, Esq....	5	1 0	118 T	26·24	170
Hemel Hempstead (Nash Mills)	Messrs. J. Dickinson & Co.	12	3 9	237 T	26·55	154
„ „ (Apsley Mills)	„ „ „ „	24	0 9	260	28·67	161
St. Albans (The Grange)	J. Hopkinson, Esq.	5	1 0	380 T	26·80	178
„ (Bone Hill)	„ „ „ „	5	1 0	336 T	26·47	159
„ (Gorhambury)	Mr. Newberry	5	1 0	425 T	27·84	172
Great Berkhamstead (Rosebank)	E. Mawley, Esq.	8	1 0	401 T	27·30	165
„ „ („ „)	„ „ „ „	8	1 0	401 T	27·26	...
„ „ (Fairhill)	W. B. Hopkins, Esq....	5	1 0	548 T	26·33	178
„ „ (Northchurch)	F. L. Sutton, Esq.....	5	1 0	400	26·82	154
„ „ (Gt. Gaddesden)	Rev. W. Tyrwhitt Drake	8	1 0	426 T	28·40	170
Hertford (Bayfordbury)	W. C. Baker, Esq.....	8	1 2	250	25·06	163
„ (Marden Hill, Tewin)	R. Hoare, Esq.....	5	1 0	257 T	25·39	156
Tring (Pendley Manor)	J. G. Williams, Esq....	5	2 0	500 P	29·59	210
„ (Elm House)	E. J. Le Quesne, Esq...	5	1 2	460	27·57	183

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which not or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1896	
			ft. in.	feet.	inches.	
HERTS—(con.)						
Tring (New Mill)	R. Leah, Esq.....	5	1 4	420	27·91	181
D „ (Cowroast)	G. Thomas, Esq.....	5	3 8	394 T	27·92	138
Harpenden (Rothamstead)	Sirs J. Lawes & J. Gilbert	5	0 9	420 T	29·53	171
„ { „ }	„ „ „	8	0 9	420 T	28·98	161
D „ { „ }	„ „ „	72x87	0 9	420 T	31·33	180
D Ware (Red House).....	J. Francis, Esq., C.E..	5	0 9	112 T	27·92	150
D „ (Fanham's Hall)	Miss Joyce Croft	8	1 0	253 T	28·54	159
Sawbridgeworth (Cowicks)	J. Hopkinson, Esq. ...	6	1 0	240	31·47	165
D Welwyn (Bridge House)	B.W. Thomas, Esq., MD	5	6 6	...	26·57	176
D „ (Danesbury)	A. M. Blake, Esq.....	5	2 0	400	26·51	164
D „ (Datchworth Rectory) ..	Rev. J. Wardale	5	1 0	386 T	24·09	148
D Much Hadham	T. W. Mott, Esq.	5	1 0	222 B	26·81	168
D Kensworth [Dunstable]	Miss Jones	5	1 0	630 B	29·12	169
D Bennington House.....	Rev. Dr. Parker.....	5	1 0	408 T	26·47	170
D „	Miss C. Nihill.....	5	1 0	...	27·53	181
D Buntingford (Hamels Park)....	Mr. E. Wallis	5	1 0	400 T	26·31	151
D† Hitchin (Wratten).....	W. Lucas, Esq.	5	2 1	238 T	23·72	178
„ (The Maples)	W. Hill, Esq.....	8	1 1	220 T	24·14	161
D „ (Bancroft)	F. Ransom, Esq.	5	0 9	212 T	24·98	179
„ (High Down)	J. Pollard, Esq.....	5	1 1	422 T	24·37	164
D Weston Park	M. R. Pryor, Esq.....	5	0 8	470 T	27·27	163
D Buntingford (Throcking Rectory)	Rev. C. W. Harvey ...	5	1 0	484 T	26·60	177
D Royston (Therfield Rectory).....	Rev. J. G. Hale	5	4 3	500 ?	25·54	181
D† „	H. Wortham, Esq.....	8	0 6	269 T	23·09	169
BUCKINGHAMSHIRE.						
D Slough (Langley)	R. H. Major, Esq.....	8	0 10	85 T	24·85	156
D „ (Upton Hall).....	R. Bentley, Esq.	5	3 0	90 T	21·48	157
„ { „ „ }	„ „ „	8	3 0	90 T	21·32	...
„ { „ „ }	„ „ „	5	1 0	80 T	23·29	...
„ (Upton Park)	H. M. Baker, Esq.....	5	1 5	80 T	22·22	...
Burnham (Fair View)	G. J. Williams, Esq....	5	3 0	180	23·74	...
D Taplow Court	W. H. Grenfell, Esq....	8	1 0	217 T	22·55	144
Greenlands [Henley-on-Thames]	Hon. W. F. Smith, M.P.	8	1 3	116	26·28	153
D Hedsor	Rt. Hon. Lord Boston.	8	1 0	170 T	25·79	166
D Marlow	T. H. Wright, Esq. ...	8	2 0	105	27·28	133
High Wycombe ..	H. S. Wheeler, Esq....	8	0 9	253 T	24·97	...
D Chalfont St. Giles (The Stone)...	Col. Phipps.....	5	1 0	270 T	27·37	173
D Amersham (The Plantation).....	G. Weller, Esq.	8	1 0	464 T	28·90	161
D Princes Risboro' (Little Kimble)	T. W. Morris, Esq. ...	5	1 3	322	28·60	112
D Wendover (Halton Gardens) ...	Mr. Sanders	5	1 10	400	28·75	171
Bulbourne [Tring]	G. Thomas, Esq.	5	2 3	401	26·35	164
Aylesbury (New Road)	J. Copeutt, Esq.....	12	1 0	280 T	26·70	143
Waddesdon Manor	Mr. J. Jaques.....	6	1 6	364 T	25·82	154
Mentmore	J. Smith, Esq.	5	1 1	...	23·56	...
D† Winslow (Addington Manor) ...	Rt. Hon. Lord Addington	8	1 0	309 T	25·49	180
„ { „ „ } M	„ „ „	5	1 0	309 T	25·48	...
D† Buckingham (Adstock).....	J. E. S. Weston, Esq...	5	0 9	350 T	23·96	168

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain. 1896	Days on which 101 or more fell.
			Height Above Ground.	Height Above Sea Level		
			ft.	in.	feet.	inches.
BUCKINGHAMSHIRE—(con.)						
Stony Stratford (Thornton)	Mr. W. Sturdy	5	1	3	25·08	155
Woburn Sands (Sandymount) ...	Miss Stuart.....	5	1	1	350	26·52
Newport Pagnell	F. Littleboy, Esq.....	5	2	0	196 T	25·29
Olney (Filgrave Rectory).....	Rev. J. Tarver	8	0	8	280	25·72
OXFORD.						
Whitchurch Rectory	Rev. Canon Slatter ...	10	1	0	150 T	22·10
Caversham (Cane End House) ...	D. Vanderstegen Esq..	5	0	4	400 ?	25·74
(Kidmore Grange) ...	M. J. Sutton, Esq.....	5	1	0	...	24·37
Henley-on-Thames (Greys)	Rev. N. Pinder	5	2	6	370 T	26·32
" " " (Northfield Ho.)	J. W. Guy, Esq.	5	1	0	120	23·88
" " " (Assenton) ...	Mr. J. Ratty	5	1	0	281	28·25
Dorchester ...	Col. Blunt	5	0	6	169 T	23·33
Abingdon (Culham)	Rev. F. C. Clutterbuck	5	1	0	200 T	22·25
Watlington (Pyrton Manor)...	Cecil Hamersley, Esq..	5	1	0	321 T	28·51
Nuneham Park Gardens	Mr. Nichols	8	3	0	280 T	22·77
Wheatfield Rectory	Rev. C. V. Spencer ...	5	1	3	...	26·27
Toot Baldon (Potlands) ...	the late E. Clinkard, Esq	5	1	0	288	21·07
Waterstock.....	W. H. Ashhurst, Esq..	8	3	0	206 T	24·63
Thame (Tythrop House)	Miss C. A. Wykeham..	8	1	2	255 T	22·42
Oxford (Mag. Coll. Laboratory).	E. Chapman, Esq.	5	1	0	186 T	22·02
" " " " " " " "	late E. J. Stone, Esq. FRS	5	33	11	223 T	19·87
" " " " " " " "	late E. J. Stone, Esq. FRS	8	1	8	210 T	23·68
" " " " " " " "	" " " " " " " "	11	2	4	210 T	24·98
" " " " " " " "	" " " " " " " "	10	22	0	230 T	23·85
" " " " " " " "	" " " " " " " "	10	112	0	320 T	16·93
" " " " " " " "	" " " " " " " "	8	1	3	211 T	24·76
" " " " " " " "	" " " " " " " "	10	1	2	220 ?	23·46
" " " " " " " "	" " " " " " " "	5	0	10	354	24·54
" " " " " " " "	" " " " " " " "	5	1	0	330 T	23·73
Stanton St. John's.....	Miss Thomson	8	1	0	340	24·45
" " " " " " " "	J. Thomson, Esq.	6	1	0	399 T	24·34
Witney (Lynton House)	J. Opie, Esq.	5	1	0	300 T	19·55?
Charlbury	E. Sturge, Esq.	5	1	6	442	23·66
Chipping Norton (Kingham).....	E. Lockwood, Esq. ...	5	4	0	442	25·70
" " " " " " " "	G. Edmonds, Esq.....	5	1	0	450 T	24·73
Bicester (Middleton Park)	Rt. Hon. Earl of Jersey	5	2	6	336	24·16
Steeple Aston (The Grange).....	Adl. Bradshaw, C.B....	8	1	0	400 T	22·63
Swerford	Mr. W. Hall ..	5	1	0	...	25·88
Barford St. Michael (Irondown).	S. N. Baker, Esq.	5	1	2	540	25·25
Banbury (Adderbury)	G. H. Norris, Esq.....	5	1	1	338	22·61
" " " " " " " "	W. H. Warriner, Esq.	8	3	10	387 T	22·43
" " " " " " " "	J. Lamb, Esq.	5	1	0	590 T	24·45
" " " " " " " "	J. F. Starkey, Esq. ...	8	1	3	388 T	23·72
" " " " " " " "	A. J. Beale, Esq.	5	1	0	310	23·00

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Height Above Sea Level	Depth of Rain. 1896	Days on which 401 or more fell.
			Height Above Ground	feet.			
NORTHAMPTON.							
Brackley (East Hill)	Sir G. Bannerman, Bt.	5	1	0	425	25.52	166
D Grimsbury [Banbury] ..	W. E. Wood, Esq.	5	1	3	320 †	21.65	154
Thorpe Mandeville [Banbury] ..	Mr. S. Baines	5	1	0	530	25.82	144
D Towcester (Whittlebury)	W. S. Miller, Esq.	5	1	6	350	28.15	178
D "	P. Phipps, Esq.	5	1	0	290	26.82	152
" (Easton Neston)	Mr. E. Slarke	8	1	0	240 †	24.10	164
D Byfield (Woodford Halse)	Rev. F. A. Smith	5	1	6	488 †	26.93	160
D Blisworth (Grafton House)	A. Westley, Esq.	5	5	0	320	24.31	177
D "	T. W. Millner, Esq. ...	5	1	6	300 †	22.07	163
D Litchborough Hall	E. Grant, Esq.	5	1	1	500	32.51	196
D Daventry (Fawsley)	Lady Knightley	5	1	0	477 †	24.30	165
D Castle Ashby	R. G. Scriven, Esq. ...	5	1	0	263 †	25.36	186
Little Houghton	C. A. Markham, Esq. ...	...	...	...	...	23.84	152
Northampton (Berrywood)	R. Greene, Esq.	8	1	4	399 †	24.63	157
" (Pytchley Street) ..	Mr. E. Ball	5	1	6	270	22.10	167
D " (Kingsthorpe)	S. Law, Esq.	5	1	0	280	24.06	181
D Althorp House	Miss Chowler	8	3	10	310 †	19.99	146
Great Brington	C. A. Markham, Esq. ...	...	...	...	...	22.62	164
D Pitsford (Sedgebrook)	" " " "	5	1	0	311 †	24.94	171
" (")	M "						

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued.)

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which -01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
HUNTS.						
St. Neots (Waresley Park)	Lady C. Duncombe ...	5	0 11	190	25·50	166
„ (Great Paxton)	Rev. A. G. Cane	5	1 0	100 †	18·13	150
Offord D'Arey	W. Priestley, Esq.	5	0 9	50	19·02	158
Huntingdon (Brampton)	Miss May Bird	5	1 1	39 †	23·62	188
„ (Bosworth House)	F. J. Howson, Esq. ...	5	0 11	...	22·96	157
Alconbury	Rev. R. Conway	5	1 0	...	19·20	170
Whittlesea Mere	A. Lunn, Esq., C.E. ...	8	1 6	...	21·49	161
Yaxley (Norman Cross)	Mr. W. Allen	8	1 0	106 †	22·24	156
BEDFORD.						
Luton (Pumping Station)	A. J. L. Evans, Esq., C.E.	5	1 0	343 †	26·23	170
Amphill (Higham Bury)	E. Jekyll, Esq.	5	1 0	310 †	24·83	172
„ (Silsoe)	H. Trethewy, Esq.	5	1 0	214 †	27·92	156
„ (Wrest Park)	Mr. McKinlay	5	1 1	...	23·65	...
† Aspley Guise (Oaklands)	E. E. Dymond, Esq. ...	5	1 0	410 †	23·24	179
Woburn (Crawley Farm)	J. J. Forrester, Esq. ...	5	3 8	285 †	22·90	142
Stotfold [Baldoek]	Dr. Swain	5	1 0	220 †	23·71	173
Amphill (Maulden)	S. Street, Esq.	5	1 6	...	21·52	...
Woburn (Hulcote Rectory)	Rev. B. Chernocke Smith	5	1 0	310	23·46	158
Biggleswade (Old Warden)	Mr. G. R. Allis	8	1 2	...	25·17	161
„ (Chilworth)	R. F. Conder, Esq. ...	5	1 0	129 †	21·26	126
„ (Caldecote)	Rev. M. E. Ruston ...	5	0 10	...	17·60	158
Cardington	J. F. Hickman, Esq. ...	...	...	...	19·33	...
Potton (Wrestlingworth)	H. J. King, Esq.	5	1 0	...	24·75	163
„ Vicarage	Rev. G. E. Gwynne ...	5	0 10	145	22·18	...
Sandy (The Lodge)	Rt. Hon. Lord Peel ...	5	1 0	...	22·81	173
Bedford (The Grove)	W. B. Graham, Esq. ...	5	1 0	108 †	21·65	141
„ (Milton Ernest)	F. Newbery, Esq.	5	5 0	137 †	25·26	142
Sharnbrook (Colworth Gardens)	Mr. J. Hoad	5	0 8	250	22·04	120
CAMBRIDGE.						
Odsey [Royston]	H. G. Fordham, Esq. ...	5	1 0	256 †	23·76	181
Foxton House [Royston]	A. P. Humphry, Esq. ...	5	0 10	60 †	24·18	184
Abington Pigotts [Royston] ...	W. G. F. Pigott, Esq. ...	8	0 8	130	22·66	175
Carlton	G. H. Long, Esq.	5	1 0	340 †	29·33	170
„ Hall	A. S. Nice, Esq.	5	1 6	...	29·01	164
Longstowe Rectory	Rev. J. P. Sharp	5	1 3	227 †	26·66	220
Trumpington	F. Parsons, Esq.	5	1 0	50	24·95	171
„ (Gilmerton)	S. Nutter, Esq.	8	0 9	...	22·57	190
Granchester Mill	H. G. Fordham, Esq. ...	5	5 0	31 †	24·98	179
Cambridge (Fulbourne Pumping Sta)	W. W. Gray, Esq., C.E.	5	1 0	37 †	23·95	197
„ „ (Asylum)	Dr. E. C. Rogers .....	...	...	...	30·52 ²	124
„ „ (W. W. Cherryhinton)	W. W. Gray, Esq., C.E.	5	1 0	35 †	22·49	165
„ „ (Sidney Street)	W. E. Pain, Esq.	8	60 0	92 †	20·79	177
„ „ (Pinehurst)	C. F. Foster, Esq.	5	0 10	36	21·91	204
„ „ (Trinity College)	Registrar Gen. Returns	8	4 0	40	21·33	181
† „ Observatory	Sir R. S. Ball, F.R.S.	5	1 0	84 †	20·82	154
„ „ „	„ „ „	8	0 10	84 †	20·71	149

DIVISION IV.—EASTERN COUNTIES.

D	Grays	A. C. James, Esq., C.E.	8	2	3	12	20-91	154
D	Orsett	W. Powell, Esq.	8	21-09	136
D	Barking Outfall.....	Sir A. R. Binnie, C.E.	8	0	6	6	21-56	156
D	Shoeburyness	The Asst. Super. Expts.	8	2	6	3	19-68	134
 M		5	2	6	3	20-11	...
D	West Ham (Abbey Mills).....	Sir A. R. Binnie, C.E.	8	1	0	11	20-08	155
D	Barking Burial Ground	C. H. Mills, Esq.	5	1	0	...	23-35	136
D	Southend (Water Works)	C. S. Bilham, Esq.	8	1	0	112	21-74	141
D (..... Eastwood)	8	1	0	50	20-12	143
D	Romford (North Ockendon)	Rev. R. T. Crawley	5	1	3	100	21-53	134
	Manor Park (Albany Road).....	A. J. Wilmshurst, Esq.	5	3	0	...	19-85	...
	Ilford (Great Gearies)	Mr. J. Douglas	5	1	0	120	21-59	...
D	Upminster Hall	Captain Swinton	5	1	0	120	23-56	154
D	Walthamst'w (Prospect Hill Ldge)	J. E. Goodchild, Esq.	5	1	3	140	24-95	146
 (Ferry Lane)	W. B. Bryan, Esq., C.E.	8	1	0	...	23-50	140
	Woodford (Hagger Lane)	8	1	0	176	21-09	130
D	Billericay (Burghstead Lodge) ..	General Branfill	5	1	0	310	22-57	157
D	Wickford (Runwell Hall).....	Col. H. Kemble	5	1	0	75	24-01	140
D	Havering-atte-Bower	Mrs. Pemberton Barnes	5	1	0	...	23-57	161
D Grange	G. P. Hope, Esq.	5	1	0	255	25-63	220
	Buckhurst Hill	W. B. Bryan, Esq., C.E.	8	34	0	305	22-94	132
	Chingford Mill	8	1	0	40	23-09	126
	Brentwood (Sawyers Hall)	Rogers Field, Esq., C.E.	5	1	0	270	25-45	...

DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain.	Days on which full or more fell.
			Height Above Ground	Height Above Sea Level	1896	
			ft. in.	feet.	inches.	
ESSEX—(con.)						
Loughton (High Beech)	W. B. Bryan, Esq., C.E.	8	1 0	376 ∇	23·74	152
Waltham Abbey	" " "	8	1 0	62 ∇	26·25	168
^D " " (Gunpr. Factory)	The Superintendent ...	5	1 6	70	26·41	111
Epping (The Hemnalls)	J. Nicholl, Esq.	8	0 8	345	33·31	133
Norton Mandeville (Readings)...	C. Clarke, Esq.	5	2 6	...	25·32	117
Bradwell-on-Sea (Bradwell Hall)...	J. C. Chillingworth, Esq.	5	1 1	27	19·05	...
" " (Down Hall)...	R. Page, Esq.	5	1 0	20	20·69	140
Maldon	T. Isaac, Esq.	5	0 2	100 ∇	23·25	153
^D Writtle (Melbourne)	E. Rosling, Esq.	5	0 9	140 ∇	22·24	137
"	Miss Osborne	5	4 0	100	22·28	...
Chelmsford (High Street)	F. Chancellor, Esq. ...	8	1 0	86 ∇	24·16	127
" " (Spergula)	J. C. Thresh, Esq., M.D.	5	1 0	136 ∇	24·11	145
" " (Roxwell)	R. W. Christy, Esq. ...	5	1 0	190 ∇	23·75	102
" " (Broomfield)	W. Impey, Esq.	5	1 4	144 ∇	22·96	...
^D Hatfield Peverel (Cardfields) ...	A. Rosling, Esq.	8	1 2	76 ∇	21·63	144
^D East Mersea Rectory	Rev. F. J. Ball	5	1 0	56 ∇	20·07	173
^D Harlow (Sheering)	Rev. Canon Hill	5	1 0	214 ∇	27·82	142
Witham (Little Braxted Hall)...	J. Taber, Esq.	5	1 0	50	24·55	156
^D " " (Freebournes)	J. Wakelin, Esq.	5	0 6	200	25·30	168
Fingringhoe (Ballast Quay Farm)	T. B. Grubb, Esq.	5	3 0	70	20·90	134
Colchester (Surrey Villa)	J. C. Hopwood, Esq. ...	5	1 0	110 ∇	23·46	131
^D "	H. Goodyear, Esq., C.E.	8	16 10	82 ∇	22·84	146
^D " (Hill House, Lexden)	S. F. Hurnard, Esq. ...	5	1 0	90 ∇	22·07	143
" " (Home Farm, ")	" " " " " " " " " " " "	5	1 0	90 ∇	22·19	...
^D " " (Home Farm, ")	Mr. W. Bird	5	1 0	125 ∇	22·17	149
^D Braintree (Bocking, Fennes)	H. S. Tabor, Esq.	5	1 0	240 ∇	24·29	157
" " (" Place)	S. Courtauld, Esq. ...	8	2 3	212 ∇	24·44	151
Earls Colne (Chalkney House)...	H. F. Hills, Esq.	5	1 0	180 ∇	25·11	121
[†] Harwich (Ramsey)	A. Hempson, Esq.	5	0 6	150	22·14	131
Halstead	The Royal Meteor. Soc.	5	1 0	144	25·93	162
^D Manningtree Vicarage	Rev. W. Cree	8	1 0	17 ∇	24·28	171
Langham Rectory	Rev. T. S. Raffles	5	0 7	134	24·99	157
^D Saffron Walden (Newport)	Rev. G. F. Tamplin ...	5	3 6	208 ∇	25·17	151
^D " "	S. Leverett, Esq.	5	1 0	199 ∇	26·66	177
^D " " (Audley End)	Mr. J. Vert	5	1 0	155 ∇	26·08	181
SUFFOLK.						
^D [†] Erwarton Hall [Harwich]	J. A. Hempson, Esq. ...	8	0 6	75	23·49	135
^D [†] Ipswich (Woolverstone Park) ...	C. H. Berners, Esq. ...	8	1 0	100 ∇	23·16	155
^D [†] " (Orwell Park)	Mr. J. Wallis	8	1 0	60 ∇	26·71	165
^D [†] * " (Belstead Hall) .. new g.	A. Harwood, Esq.	8	1 6	120 ∇	23·21	121
" " " " " " " " " " " " " " " "	" " " " " " " " " " " "	8	9 0	120 ∇	22·69	121
^D Alderton Rectory	Rev. C. G. Archer	8	2 2	...	24·46	138
^D Sudbury (Friars Street)	E. Ransom, Esq.	5	1 7	93 ∇	24·36	196
^D " (Newton Road)	J. Alexander, Esq. ...	5	1 2	130 ∇	23·81	179
[†] Ipswich (Bishop's Hill)	G. A. Biddell, Esq., C.E.	5	1 0	104 ∇	23·05	...
^D [†] " (Burwood)	S. Alexander, Esq. ...	5	1 0	150	25·08	155
^D [†] " (Clare Lodge)	E. R. Turner, Esq., C.E.	5	1 0	178 ∇	25·44	160

DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain. 1896	Days on which 90 or more fall.
			Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
SUFFOLK—(con.)						
Boyton Rectory	Rev. A. Washington...	...	...	...	21·73	134
D Cavendish	S. J. Garrett, Esq.....	5	1 0	...	26·02	171
Lavenham Hall	W. Biddell, Esq.	5	2 9	220	25·02	114
+ Woodbridge (Co. Asylum, Melton)	Dr. Whitwell	8	1 4	100	24·41	177
D+ " (The Cedars, ")	W. P. T. Phillips, Esq.	5	1 0	54	21·64	131
D+ Rendlesham Hall	Rt Hon Lrd. Rendlesham	5	1 0	88	20·58	154
D Haverhill (Great Thurlow)	A. Boa, Esq.	5	1 0	241	26·06	190
Clare (Stansfield)	J. Slater, Esq.	5	1 0	...	26·28	...
D " (Hawkedon Rectory)	Rev. B. P. Oakes	5	3 4	305	25·44	175
Ash Bocking Vicarage.....	old g. Rev. M. B. Cowell.....	5	7 3	231	23·23	154
" " " " " new g. " " " " "	" " " " " " " " " " "	5	3 4	231	24·00	154
Parham (The High House)	H. R. Smith, Esq.....	5	1 0	...	21·40	...
D Aldborough (Aldringham Ho.)..	F. Garrett, Esq.....	8	4 5	50	22·49	173
D Great Glenham	Col. Bloomfield	5	0 10	80	24·98	138
D Framlingham (Mount Pleasant)..	Mr. R. Whitehead.....	5	1 2	125	22·01	155
D Little Saxham.....	Rev. H. J. Kilner	8	0 10	220	29·22	178
Moulton [Newmarket]	Newmarket Journal...	...	...	...	27·36	...
D Bury St. Edmunds (Abbeygate St.)	Mr. O. A. Clark	5	65 0	...	23·81	161
D " " " (Westley) new g	R. Burrell, Esq.....	5	1 0	226	30·45	160
D " " " (Hengrave) ..	Mr. W. Nichol	5	1 2	91	26·27	120
D Bacton.....	C. H. Woods, Esq.	5	1 6	186	22·00	175
Darsham (Sibton Vicarage)	Rev. J. L. M. Moore...	5	1 0	86	20·05	...
D Ixworth (Walsham-le-Willows)..	Miss M. C. Martineau..	5	1 0	...	26·66	198
Stradbroke Rectory	Rev. Canon Tate	5	1 3	172	23·47	158
D Southwold	A. C. Herbert, Esq.	5	30 0	71	21·61	166
Ixworth (Barningham)	Miss A. K. Lingwood..	8	1 0	136	20·76	...
D Beccles (Sotterley Hall)	Col. St. J. Barne	5	0 11	...	22·91	173
D " (The Staith).....	Clifford Smith, Esq.	5	4 6	...	21·12	159
D Lowestoft (Bryn-y-Môr)	S. H. Miller, Esq.	5	1 0	86	22·58	168
" " " " " M	" " " " " " " " " " "	8	1 0	86	21·96	...
D " (The Clyffe, Corton)...	J. J. Colman, Esq.....	5	1 0	62	22·60	157
" (Somerleyton Rect.)...	The Royal Meteor. Soc.	8	1 0	50	19·66	159
Fritton	H. E. Buxton, Esq.	8	0 11	40	20·66	163
NORFOLK.						
D Scole Rectory	Rev. F. Page Roberts..	5	2 0	90	24·16	186
D Harleston (Rushall Vicarage) ...	Rev. C. Gape	5	1 1	117	25·50	174
Santon [Brandon]	Rev. A. M. Gathercole.	5	0 10	...	25·99	...
Ellingham [Beccles]	H. Youngman, Esq.	5	3 0	...	20·55	...
D+ Geldeston ["]	E. T. Dowson, Esq.	5	1 0	38	21·97	183
" ["]	M " " " " " " " " "	8	1 0	38	20·76	...
D Saxlingham Nethergate	Mrs. Pitt.....	8	1 2	...	23·73	168
D Loddon (Bergh Apton Rectory)..	Rev. T. F. Lloyd	8	2 8	...	21·79	151
D Wymondham	E. B. Pomeroy, Esq....	8	1 3	118	25·26	181
Watton	R. Martin, Esq.....	5	1 0	166	26·71	177
Hingham	G. Dobbs, Esq.	5	1 1	188	26·28	179
Norwich (Dunston Hall)	Rev. Canon Du Port...	...	...	...	25·80	184

DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which "01 or more fell
		Diameter.	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
NORFOLK—(con.)						
D Denver	Rev. Canon Du Port...	8	1 0	80 ∇	24.41	178
D Stoke Ferry (Wereham)	Miss Mason	5	6 0	66	28.34	172
D Cantley (Manor Farm).....	W. S. Horn, Esq.	5	1 0	50	20.94	168
Wymondham (Hethersett)	Mrs. Pinwill	6	1 3	163	23.34	...
Swaffham (Pickenham Hall)	H. Applewhaite, Esq....	5	1 0	104 ∇	30.65	198
Outwell Sluice	A. Lunn, Esq., (C.E.)...	9	...	16	22.03	133
Emneth	F. M. Bland, Esq.....	6	1 0	6	21.95	141
Yarmouth (Sailors' Home)	The Meteor. Council ...	8	4 0	12	21.30	184
D " (Market Place) <i>new g.</i>	W. C. Steward, Esq....	5	1 0	...	21.82	196
D " (Halvergate Hall) ...	H. S. Gillett, Esq.....	5	3 3	48 ∇	20.38	140
D Norwich (Postwick Hall) ..	V. Lanyon, Esq.	5	1 1	5	22.74	135
D " (Carrow House)	J. J. Colman, Esq. ...	5	1 6	35 ∇	24.70	128
D† " (Brundall)	A. W. Preston, Esq....	5	1 0	66 ∇	23.28	190
† " (Thorpe High House) ...	W. Birkbeck, Esq. ...	5	1 0	137 ∇	23.75	169
D " (Essex Street)	F. Dix, Esq.	9	2 6	88 ∇	23.69	181
D " (Ipswich Road)	J. H. Willis, Esq.....	5	1 0	110	25.78	199
" (Newmarket Road)	G. J. Hotblack, Esq....	8	1 2	89	26.07	...
" (Heigham)	J. R. Everitt, Esq. ...	5	3 2	37 ∇	23.48	...
Acle	F. Cufande, Esq.	5	0 6	51	22.01	...
D*Swaffham (London Street) .	H. R. Heyhoe, Esq. ...	5	1 10	247 ∇	28.39	153
D " (Homewood)	W. H. Plowright, Esq.	5	5 0	250 ∇	27.66	177
"	F. Everett, Esq.	5	3 0	...	27.20	147
Honingham.....	Rev. Canon Du Port ...	...	...	...	23.50	...
D Sprowston (Oak Lodge).....	T. Cozens Hardy, Esq.	5	1 0	101 ∇	23.74	187
East Dereham.....	G. H. Cooper, Esq. ...	8	3 0	161	25.68	138
D Drayton	Miss Howell	5	1 2	50	25.01	147
D Swaffham (Dunham).....	A. G. Copeman, Esq....	5	1 1	320	29.01	195
Salhouse	Rev. T. F. Boddington	8	1 0	50	24.38	188
Wiggenhall (Outlet Syphons) ..	A. Lunn, Esq., C.E. ...	8	1 6	...	24.38	146
D Tilney St. Lawrence (Aylmer Hall)	W. B. Parsons, Esq....	8	1 0	9	24.75	204
D Bylaugh Park Gardens	Mr. G. Beeton	5	1 0	130 ∇	29.09	177
Lynn (Valingers Road).....	Rev. J. A. Barrow Clough	5	8 0	23 ?	21.87	...
D Reepham (Whitwell)	F. W. Freeman, Esq....	8	2 0	120	26.44	178
Cawston	Rev. T. H. Marsh	5	1 0	135 ∇	26.35	193
Aylsham (Woodgate)	B. J. W. Purdy, Esq... 100 ∇	5	1 0	100 ∇	26.69	171
D North Walsham (Dilham)	Rev. J. A. Lawrence...	5	0 8	...	22.51	184
D " (Worstead) ...	R. Cross, Esq.	8	1 0	...	23.40	180
Hillington Rectory	Rev. H. Ffolkes.....	8	1 0	89 ∇	29.54	210
D† " School	" " " "	5	3 6	94 ∇	29.66	210
Fakenham (Pensthorpe)	W. Hamond, Esq.....	5	2 6	153	27.58	141
Dersingham Vicarage	Rev. E. W. Penny.....	5	1 0	85	27.60	209
D Cromer (Northrepps Hall)	R. Gurney, Esq.	5	0 4	200	24.53	155
Holt (Field Dalling)	J. H. Pearson, Esq. ...	5	1 3	158 ∇	24.87	160
Holkham.....	J. Davidson, Esq.	12	4 0	43	23.88	102
"	" " " "	8	0 0	39	23.20	...
Blakeney	Rev. Canon Du Port ...	...	...	...	23.78	...

DIVISION V.—SOUTH WESTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which "01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1896	
			ft. in.	feet.	inches.	
WILTS.						
D Larmer Grounds [Shaftesbury]...	General Pitt Rivers, FRS	5	3 0	500 T	32·36	165
D Rushmore [Shaftesbury]	" " " " "	5	3 0	500 T	32·44	161
Landford (Northlands)	Mrs. Wigram	5	1 10	167 T	26·59	153
D Donhead St. Mary (Charlton Ho.)	Col. G. Best	5	0 7	514	32·30	180
Broad Chalke	Rev. T. N. Hutchinson	5	1 0	300	29·56	142
D† Salisbury (Alderbury)	Rev. Canon Hutchings.	5	0 8	263 T	25·88	165
D† " (West Dean)	Rev. E. Wells	5	1 0	137 T	24·51	158
" (Milford Hill)	J. Lardner Green, Esq.	8	1 0	246 T	24·26	...
D " (St. Nicholas)	Rev. A. P. Morres	5	1 0	...	25·13	146
† " (Wilton House)	T. Challis, Esq.	8	0 5	180 T	25·56	182
Winterslow (Roche Court)	T. T. S. Metcalfe, Esq.	5	1 0	485 T	26·71	113
† Mere (Dews House)	J. Farley Rutter, Esq..	5	1 7	...	31·78	141
† " Vicarage	Rev. J. A. Lloyd	5	3 0	350	30·51	...
D† " Down	T. H. Baker, Esq.	5	1 0	702 T	32·05	205
† Maiden Bradley	Duke of Somerset	8	1 6	626 T	32·90	173
D† Warminster (Rye Hill)	S. E. Jefferys, Esq.	8	2 0	466 T	33·95	198
Salisbury Plain (Chitterne House)	R. Hayward, Esq.	11	4 0	319 T	23·82	164
D Warminster (Downside)	Mrs. Stent	8	2 3	393	27·77	176
D Amesbury (Figheldean)	G. Knowles, Esq.	5	1 0	260 T	24·65	177
Ludgershall	Rev. W. H. Awdry ...	8	0 8	422 T	26·80	175
D " (Collingbourne Kingston)	Baldwin Latham Esq CE	5	1 0	470 T	24·25	160
D Market Lavington	Mr. T. Selfe	5	3 6	300	24·44	175
D Trowbridge (Water Works, Biss)	W. W. Gray, Esq., C.E.	5	1 0	311	27·48	149
" (Rood Ashton)	Mr. W. Strugnell	8	1 6	250	22·25	...
D " (Wingfield)	T. H. Clark, Esq.	5	1 0	190 T	24·37	162
D " (Rodney House) ...	W. J. Mann, Esq.	5	1 1	140	22·95	166
D Bradford (The Chantry)	Dr. Beddoe, F.R.S. ...	6	0 9	125	21·17	164
D " (Holt)	A. J. Beaven, Esq. ...	5	1 2	120	23·06	184
D Devizes (Wilts Co. Asylum) ...	Dr. Ireland Bowes	8	2 3	385 T	23·79	168
D Buttermere	Rev. W. E. Burkitt ...	5	2 6	847	29·74	190
D Burbage (Wolf Hall)	Mr. E. Isaacs	8	1 2	546	26·33	143
D Shalbourne	Mrs. Barns	5	1 0	...	25·87	155
D Bishop's Cannings	Rev. C. W. Hony	5	1 0	446 T	27·57	183
D Devizes (Shepherd's Shore)	Mr. J. Carter	5	1 6	555	25·26	176
D Chippenham (Lacock)	Miss Awdry	5	0 11	202	25·46	177
D Marlborough (Preshute House)...	G. E. Mew, Esq.	5	0 9	...	26·48	167
"	The Roy. Meteor. Soc...	5	1 0	450	25·58	184
D " (Mildenhall)	Rev. G. Soames	5	1 0	456	26·22	167
D Calne (High Street)	Mr. H. Wilkins	5	3 6	244	24·99	192
D " (Compton Bassett)	Mr. W. A. Cook	8	1 0	395 T	26·46	182
Yatesbury	Rev. E. D. Guillebaud.	5	3 6	564 T	26·09	167
Ramsbury (The Rookery)	F. C. Batson, Esq.	5	1 0	390	23·34	168
Hilmarton	Rev. R. Walker	5	0 8	314 T	23·70	148
D Wootton Bassett	H. Bevir, Esq.	5	1 6	421 T	27·52	170
D† Swindon, New	H. J. Southwell, Esq...	8	0 11	378	22·50	183
Malmesbury (Charlton Cott.) ...	Lady Victoria Howard	8	1 0	...	30·52	139
Highworth (Hannington Hall)...	A. D. Hussey-Freke, Esq	5	1 0	400	23·01	155
Ashley Rectory [Tetbury]	Rev. M. Church	5	0 10	460 T	29·14	...

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which 1/4 or more fell
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
DORSET.						
Portland (The Manse)	Rev. W. R. Waugh ...	5	1 6	10	20·43	150
Weymouth (Wyke Regis)	Mrs. Pretor	5	0 9	80 B	24·74	157
Swanage (Gordon Villas)	F. A. Burt, Esq.	5	3 0	65 T	29·12	146
„ (Royal Victoria Hotel)	H. B. Vincent, Esq....	5	1 11	26	29·23	147
„	Rev. H. Pix	5	2 0	60	29·70	161
Weymouth	The Royal Meteor. Soc.	5	1 0	79	21·81	144
„ (Langton Herring)	Rev. C. H. Gosset	5	1 0	158 A	24·31	159
Corfe Castle (Creech Grange) ...	N. Bond, Esq.	5	1 2	200	33·27	124
„ (Furzebrook)	L. W. Pike, Esq.	5	1 2	147 T	33·33	143
Portisham	W. Symes, Esq.	5	1 3	260	26·70	161
Winterbourne St Martin	Capt. Acland	5	1 0	260 T	34·97	162
Winterbourne Steepleton	H. Stilwell Esq.	8	1 0	316 A	33·16	166
Wareham (Castle Gardens)	S. W. Bennett, Esq. ...	5	2 6	18	29·80	145
„ (Binnegar Hall)	O. C. Farrer, Esq.	5	1 0	65	29·57	156
Dorchester Water Works	G. J. Hunt, Esq.	8	1 2	315 A	29·92	158
Poole (The Yarrells)	F. Styring, Esq.	5	1 1	60 T	28·61	129
„ (Hamworthy)	J. M. Henderson, Esq..	5	1 6	12	30·01	136
„ (Parkstone)	R. H. Barnes, Esq. ...	5	0 11	198 A	29·70	161
Bridport (Portville)	H. Gordon, Esq., C.E..	5	1 0	10 T	24·37	138
„ (Coneygar)	„ „ „ „	5	1 0	110 T	26·41	140
Bere Regis Vicarage	Rev. W. Farrer	5	1 0	160	27·94	152
„ „ (Bloxworth Rectory)	Rev. O. P. Cambridge FRS	5	1 3	200	31·53	136
„ „ „ (House)	Col. Cambridge	5	2 0	100	28·58	112
„ „ „ (Whitelovington) ...	F. D. Lys, Esq.	8	2 6	150	31·48	163
Powerstock (West Milton)	R. Stanley Clarke, Esq.	8	0 8	200	27·67	138
Maiden Newton (Cattistock Lodge)	H. Hamilton Palairret Esq	5	1 0	350	36·49	182
Wimborne (Rowlands)	General Maclean	5	2 6	110 T	29·72	128
Beaminster Vicarage	Rev. A. A. Leonard ...	5	1 0	216 T	31·16	171
Blandford (Whatcombe)	J. Mansel-Pleydell, Esq.	5	0 10	270 A	31·15	159
Broadwindsor (Blackdown House)	C. E. M. Pinney, Esq..	5	0 9	515	33·52	156
Cerne Abbas (Melbury)	Mr. R. Rintoul	5	1 4	500	34·83	134
Beaminster (Chedington)	S. Creed, Esq.	5	1 6	604 A	37·98	178
*Wimborne Minster (Chalbury)...	Rev. G. H. Billington..	5	2 0	338 A	31·33	153
„ „ (Horton)	H. S. Eaton, Esq. ....	...	...	...	31·91	...
Hazelbury Bryan Rectory	Rev. Canon Wheeler...	5	1 0	305 A	35·57	155
Verwood	W. R. Fryer, Esq.	5	3 0	...	31·16	168
Holwell (Westrow)	H. S. Eaton, Esq.	5	1 0	290 T	29·29	...
Sturminster Newton (Riverside).	A. R. Hallett, Esq. ...	5	1 0	200	24·05	137
Sandford Orcas Rectory	Rev. W. Esdaile	5	1 0	200	25·67	128
Shaftesbury	H. S. Eaton, Esq.	5	1 0	722	28·87	173
Buckhorn Weston	Rev. W. Hughes D'Aeth	5	1 0	285	23·10	149
Gillingham	S. H. Stephens, Esq....	5	1 2	244 T	27·50	171
DEVON.						
Salcombe (Prawle Point)	The Meteor. Council ...	8	1 9	350	25·20	171
„ (Shadycombe)	Mr. T. Langmead	8	1 2	20	27·62	130
South Huish	W. Balkwill, Esq.	5	5 6	68 T	26·33	...
Revelstoke (Membland)	Mr. G. Baker	5	1 0	180 T	33·13	142
Dittisham (Chipton)	Mr. H. Bond	5	1 6	342	35·17	137

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which -01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
DEVON—(con.)						
D Plymouth (The Hoe).....	H. V. Prigg, Esq., C.E.	8	0 10	117 ∇	29-09	179
D „ (Freedom Field)	„ „ „	8	0 10	208 ∇	29-87	176
D „ (Drake's Reservoir)...	E. Sandeman, Esq., C.E.	5	1 0	149 ∇	29-47	170
D*Devonport (Rowdens Res.)	H. Francis, Esq., C.E.	5	1 0	201 ∇	28-23	183
D Ivybridge (Langham Hill)	Miss Glanville	5	1 0	400 ∇	42-10	183
„ (Blackadon Asylum)..	H. V. Prigg, Esq., C.E.	5	1 0	607	48-02	193
Plympton (Hemerdon) ...garden	Rev. G. L. Woolcombe	5	4 0	360	35-08	...
„ („)tennis court	„ „ „	5	1 0	365	36-50	...
Bere Ferrers	Rev. F. T. W. Wintle.	5	1 0	100	38-12	176
D Bickley (Roborough Reservoir)..	E. Sandeman, Esq., C.E.	5	1 0	550 ∇	37-95	196
D Torquay (Cary Green)	C. Shapley, Esq.	5	1 0	12	26-82	159
D „ (Chapel Hill)	A. Chandler, Esq.....	5	1 0	286	26-56	167
D „ (Grey's Lodge)	Col. J. R. Currie	5	1 0	260	27-92	178
D „ (Watcombe Park)	Col. C. Ichabod Wright	5	1 0	483 ∇	28-68	172
†Lee Moor Clay Works	T. Martin, Esq.....	8	1 6	950	52-53	...
Buckfastleigh (Bossel Park) ...	J. Hamlyn, Esq.....	5	1 0	250	49-08	174
Meavy (Yelverton)	H. J. S. Liddell, Esq..	5	1 6	620 ∇	46-87	150
†Sheepstor Vicarage	Rev. C. H. Croke.....	5	0 7	730 ∇	45-76	...
D† „ (Red Stone)	E. Sandeman, Esq., C.E.	5	1 0	760 ∇	48-56	180
D „ (Burrator)	„ „ „	5	1 0	...	48-50	178
D† „ (Head Weir).....	„ „ „	5	1 0	690 ∇	50-44	174
D†Walkhampton (Lowery)	H. Francis, Esq., C.E.	5	1 0	890 ∇	44-89	169
D†Dartmoor (Deancombe Farm) ...	E. Sandeman, Esq., C.E.	5	1 0	830 ∇	50-02	159
D† „ (Leather Tor Farm)...	„ „ „	5	1 0	910 ∇	48-95	175
„ (Cramber Tor)	„ „ „	5	1 0	1435 ∇	44-70	...
D Kingskerswell (Fluder)	E. A. Foster, Esq.	5	1 0	357	22-61	152
Abbotskerswell (Court Grange)..	Mrs. Marcus Hare	5	1 0	130 ∇	29-10	133
D Ashburton (Holne Vic.)	Rev. J. Gill.....	5	1 6	650	44-99	187
D† „ (Druid House).....	Fabyan Amery, Esq....	5	1 0	584 ∇	43-76	171
D Kingsteignton (Teignbridge Ho.)	F. H. Plumptre, Esq....	5	1 2	27 ∇	28-72	158
Teignmouth (Bitton Street).....	W. C. Lake, Esq., M.D.	5	1 0	70	24-06	157
D „ (Woodlands).....	W. B. Harris, Esq.....	8	1 2	98 ∇	24-59	143
D „ (Bonnicliff)	Capt. J. Horner.....	5	1 0	260 ∇	25-36	153
D†Tavistock (Public Library)	Mr. J. Quick	8	20 0	283 ∇	39-36	190
D „ (Rose Villa).....	E. E. Glyde, Esq.....	5	1 0	392 ∇	42-78	191
Princetown	The Royal Meteor. Soc. ....	...	...	...	67-79	175
D†Ilsington (Middlecott House) ...	Alfred Lyon, Esq.	5	3 6	649 ∇	40-16	126
Princetown (Cowsic Valley).....	H. Francis, Esq., C.E.	8	1 6	1352 ∇	63-15	...
D Chudleigh (Ideford) ...	Rev. G. J. Ford.....	4	1 0	300 ∇	28-18	165
Bovey Tracey (Little Bradley)...	Miss C. N. Phillpotts...	5	1 0	120	30-67	137
D „ „ (Colehays)	Mr. E. E. Underdown.	5	1 3	415 ∇	38-65	163
†Milton Abbot (Endsleigh).....	Mr. F. Yole	5	1 0	180 ∇	42-38	...
D Dawlish (Mamhead Rect.)	Rev. W.C. Plenderleath	5	1 0	467 ∇	30-96	187
D Exmouth (Nidderdale)	Mrs. Stewart	5	1 0	51	22-85	144
D Chudleigh (Torquay Waterworks)	W. Ingham, Esq., C.E.	8	4 0	718 ∇	35-20	190
„ (Trusham)	Rev. O. H. Cary	5	1 0	322 ∇	30-67	154
D Budleigh Salterton (Ravenshaw)	Col. Carlile.....	6	0 6	50	24-51	118
D „ „	H. Belfield, Esq.	5	0 9	50	26-11	166

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell
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			ft. in.	feet.	inches.	
DEVON—(con.)						
Budleigh Salterton (Bicton)	Mr. Mayne	5	1 0	90	24·75	147
Kenton (Southtown House)	Major Courtenay	8	2 6	56 A	25·66	143
Coryton (Lew Down)	T. M. Symons, Esq.	5	4 0	445	37·95	170
Polapit Tamar [Launceston] ...	R. C. Coode, Esq.	5	2 9	315 A	32·81	190
Christow (Torquay W. W.)	W. Ingham, Esq., C.E. ...	8	1 0	842 A	34·49	208
Chagford (Batworthy)	F. N. Budd, Esq.	8	1 0	1282 A	50·43	142
†Sidmouth (Sidmount)	The Royal Meteor. Soc. ...	5	1 0	149 A	23·98	179
Branscombe (Hazlewood)	E. W. Knatchbull, Esq. ...	5	0 6	...	27·53	149
*Rousdon [Lyne Regis]	C. E. Peek, Esq.	5	1 0	516 A	27·46	162
" " " " " "	M " " " " " "	3	1 0	516 A	26·54	...
†Clevelands [Lyne Regis]	Mr. C. W. Bloye	5	1 11	465 A	29·99	164
Exeter (Devon & Exet. Inst.) ...	A. R. Allinson, Esq.	5	13 7	155 A	22·63	153
†" " (Manston Terrace)	Miss Dymond	5	1 0	166 A	22·43	159
†Okehampton (Oaklands)	W. H. Holley, Esq.	5	1 0	521 T	38·06	155
Exeter (Brampfod Speke Station)	Mr. A. Tucker	5	1 0	83	25·74	145
Honiton (Ivedon)	Col. James	5	1 0	430 T	27·75	181
Hatherleigh (Broomford Manor)	Mr. Hawking	5	1 4	484 A	31·50	127
Cullompton	T. Turner, Esq.	5	1 0	202 A	27·57	164
Petrockstow (Heanton Satchville)	Mr. A. Eames	5	1 0	332 T	31·80	172
Tiverton (St. Peter Street)	Miss Gill	5	6 0	270	28·60	182
Otterford (Otterhead)	R. Lewis Lloyd, Esq. ...	5	1 0	735 A	32·55	194
Torrington (Langtree)	Mr. A. R. J. Broderick ...	5	1 0	450 B	32·42	...
" " (Stevenstone)	Mr. W. Gillies	5	1 0	420	34·79	164
" " (Little Silver)	Mr. P. H. Griffin	5	1 0	395	34·79	206
Romansleigh Rectory	Rev. J. H. Thompson..	5	1 0	590 T	33·16	210
Bampton (Huntsham)	H. Acland Troyte, Esq..	8	1 0	640	37·64	187
Hartland Abbey	Mr. G. Sleep	5	1 6	222 T	31·80	155
South Molton (East Street)	N.C.Hatherly, Esq.M.D	5	1 0	430 B	36·64	188
" " " " " "	Rev. F. King	5	1 0	505 T	38·04	182
" " " (Castle Hill School)	The Royal Meteor. Soc. ...	8	1 0	363	36·52	203
Bideford (Gammaton W. W.)...	Baldwin Latham Esq CE	5	1 0	335 A	31·34	169
*†" " (Horwood)	Rev. J. Dene	5	1 0	288 T	29·94	169
*†" " (Northam)	Rev. Preb. Churchward	5	1 0	173 A	29·25	176
Barnstaple Athenæum	T. Wainwright, Esq....	8	1 0	25 T	32·01	180
" " (Arlington Court) ...	Lady Chichester.....	5	1 1	613 B	47·38	185
" " " " " "	" " " " " "	5	1 0	613 B	45·52	185
Woolacombe	E. Henshall, Esq., C.E. ...	5	1 0	60 A	27·37	176
Parracombe	Rev. J. F. Chanter ...	5	3 0	795 T	41·67	168
Ilfracombe Hotel..... new gauge	The Royal Meteor. Soc. ...	5	1 0	24	31·35	166
†Lynton (Lee Abbey)	C. F. Bailey, Esq.	5	0 6	320 T	30·98	...
D " (Glenthorne)	W. Halliday, Esq.....	5	0 9	93	34·92	163
CORNWALL.						
B Penzance (Morrabs)	Mr. C. H. Benn	5	1 0	55	32·12	202
" " (Penlee)	J. Branwell, Esq.	5	1 0	71 T	34·08	214
" " (Trevean)	Major Ross	5	1 6	90 B	34·86	220
D " (St. Clare)	Rev.Preben. Hedgeland	5	1 0	213 T	34·64	232
Marazion	T. W. Field, Esq.	5	2 0	30 P	30·80	202
St. Just-in-Penwith	Rev. G. B. Hooper ...	8	5 0	386	26·71	...

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which ·01 or more fell.
		Diameter	Height Above Ground.		Height Above Sea Level	
			ft.	in.	feet.	inches.
CORNWALL—(con.)						
D Falmouth (New Observatory) ...	E. Kitto, Esq.	11	2	0	169 T	35·03
D " " (Gyllyngvase) ...	A " Wilson, Esq.	8	1	9	169 T	35·14
D " " (Trefusis) ...	W. Knatchbull, Esq.	5	0	4	300	32·11
D Falmouth (Carclew) ...	Mr. J. Simmons ...	5	0	9	...	37·63
D St. Ives (Phillack Rectory) ...	Rev. Canon Hockin ...	5	1	0	70	29·45
D " " (Trevince) ...	Dr. J. M. Nicholls ...	5	4	0	30	34·76
D Redruth (Trewirgie) ...	E. B. Beauchamp, Esq. ...	8	0	8	240 T	36·97
D " " (Tehidy Park) ...	S. Trevail, Esq.	5	1	0	400 T	36·15
D " " (Killiow) ...	Mr. A. Mitchell ...	8	1	1	287 T	34·72
D " " (St. Michael Penkevill) ...	J. C. Daubuz, Esq.	5	1	0	230	35·53
† " " (Royal Institution) ...	Rev. A. R. Tomlinson ...	5	3	0	180 T	30·66
Grampound (Heligan) ...	R. A. Greg, Esq.	5	40	0	56 T	31·23
D Probus (Lamellyn) ...	S. Trevail, Esq. ....	...	...	...	...	35·09
St. Agnes ...	H. Tresawna, Esq.	5	0	6	...	31·72
D Fowey (Menabilly) ...	Mr. Opie ...	5	1	3	278 B	29·41
D†*St Austell (Trevarna) ...	Mr. W. H. Bennett ...	5	1	0	150	31·81
Par Station (Penellick) ...	W. Coode, Esq.	5	0	6	300 T	36·75
Empacombe [Devonport] ...	W. E. Geach, Esq. ...	5	0	9	240 T	27·24
D Cremyll " " ...	J. Sandercock, Esq. ...	5	0	6	20	29·45
D St. John's " " ...	Mr. W. E. Marchant ...	5	20	0	25	26·10
D Lostwithiel (Lanwithan) ...	Rev. J. H. Kirwan ...	5	1	0	20	31·03
D Newquay ...	Miss Foster ...	10	1	0	80	35·46
D Menheniot (Coldrenick House) ...	A. Hardwick, Esq., M.D. ...	5	1	0	130	29·11
D†Liskeard (Dean Terrace) ...	E. Jago, Esq.	5	1	4	...	40·56
†Saltash (Pentillie Castle) ...	S. W. Jenkin, Esq., C.E. ...	5	1	1	375 T	40·99
D†Bodmin (Lanhydrock) ...	Mr. W. T. Johnson ...	5	2	4	150 B	41·02
Liskeard (St. Cleer Down) ...	Rev. Prebendary Every ...	5	1	0	390	43·15
Callington (Hingston Down) ...	S. W. Jenkin, Esq., C.E. ...	5	1	1	620	36·75
D†Launceston (Altarnon) ...	Mr. Wadge ...	5	3	0	850 T	40·38
" " " " ...	Rev. A. H. Malan ...	5	1	0	570 B	55·46
North Tamerton (Ogbeare) ...	Captain L. Ching ...	5	0	10	446	38·26
D Bude ...	Mr. J. S. Bray ...	5	4	0	460	32·92
D Stratton (Trelana, Poughill) ...	J. Arthur, Esq.	5	1	0	16 B	25·61
" " " " ...	Col. Field ...	5	1	0	200 T	29·70
" " " " ...	" " " " ...	5	1	0	230	29·55
SOMERSET.						
Chard (Cricket St. Thomas) ...	RtHn. Viscount Bridport ...	5	1	0	444	32·82
D Crewkerne (Bincombe House) ...	Miss Sparks ...	5	1	2	293 T	28·42
D Yeovil (West Coker) ...	Major Aldworth ...	5	1	0	260 T	28·14
D " (Hendford) ...	J. Curtis, Esq.	5	1	0	132 T	26·00
D " (Gas Works) ...	E. Howell, Esq.	5	1	0	110 T	25·55
D Ilminster (White Lackington) ...	Rev. Prebendary Gworing ...	5	1	0	136 T	25·91
D " (Ilton Vicarage) ...	Rev. R. B. Poole ...	5	1	0	100 T	23·56
D South Petherton (Bridge) ...	W. Blake, Esq.	8	0	8	110 T	23·58
D Taunton (Blagdon Hill) ...	H. T. Coles, Esq.	8	1	6	...	29·28
D " (Leigh Hill) ...	" " " " ...	8	1	6	...	27·84

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which ·01 or more fell
		Diameter	Height above Ground.	Height above Sea Level.		
			ft. in.	feet.	inches.	
SOMERSET—(con.)						
Wellington (Windwhistle House)	Mrs. Lyndon	5	0 8	300 T	26·93	167
D „ (The Avenue)	F. J. Burnett, Esq. ...	5	0 10	250 P	25·82	176
Temple Combe (Stowell Rect.)...	late Rev. H. J. Poole ...	8	1 0	376 A	27·93	201
„ „	Rev. J. C. Fox	5	0 6	215	29·37	...
D Taunton (Claremont)	E. Ball, Esq.	8	1 2	80 T	23·04	170
D Milverton (The Lodge)	R. Bere, Esq.	5	1 0	198	29·41	161
Taunton (West Monkton)	<i>Bristol Times</i> .....	...	...	...	24·71	...
D „ (The Mount, Halse) ...	Miss Smith	5	1 1	254	30·16	192
D „ (The Priory, Ash Priors)	Rev. G. S. L. Little ...	5	1 0	...	27·37	168
D Wincanton	Rev. Walter Farrer ...	8	1 0	240	26·95	172
Cothelston House	C. E. J. Esdaile, Esq. ...	5	1 0	430	30·53	177
D Somerton (Butleigh Court)	R. Neville Grenville Esq.	8	1 2	80	24·25	118
Glastonbury (Portway, Street)...	Miss E. C. Impey	5	21 8	80	20·52	...
D „ (Street)	W. S. Clark, Esq.	8	1 0	100	22·87	191
„ (High Street)	J. Spire, Esq.	8	7 0	94 A	21·74	172
D „ (Ynyswytryn)	Major Swayne	5	1 8	245 T	24·10	163
D „ (Magdalene House)	J. G. L. Bulleid, Esq. ...	5	1 6	52 T	23·79	158
D Bridgwater (Enmore Park)	T. P. Broadmead, Esq. ...	8	1 9	268	30·13	145
„ (Nurseries)	H. Corder, Esq.	5	1 0	...	25·12	165
D „ (Ashford)	F. Parr, Esq., C.E. ...	...	...	...	27·30	161
D Shepton Mallet (Charlton)	F. H. Berryman, Esq. ...	5	0 7	480 T	35·05	159
Minehead	Rev. J. Utten Todd ...	5	1 0	41 A	25·06	159
D Cranmore (Cranmore Hall)	Sir R. H. Paget, Bt., M.P.	8	1 0	600	33·61	188
D Frome (Mells Rectory)	Mrs. Horner	5	1 0	344 A	30·81	175
Radstock (Downside College) ...	Rev. O. J. Berkeley ...	8	1 0	596 T	34·59	163
Chewton Mendip (The Priory) ...	Mr. J. Batt	5	1 5	550 T	38·13	182
„ „ (Waldegrave Ho.)	J. Hansford Hill, Esq. ...	10	4 6	450	40·56	178
Ston Easton	H. E. Hippisley, Esq. ...	5	3 0	480 A	33·37	171
Axbridge (Cross)	R. Binns, Esq.	5	0 9	100 P	25·11	...
E. Harptree (Sherborne Reservoir)	Bristol Water Works ...	5	1 0	338 T	30·47	167
D „ (Harptree Court) ...	W. W. Kettlewell, Esq. ...	5	1 0	346 A	33·87	150
Axbridge (Loxton)	Rev. J. G. Tiarks	8	1 0	120	33·63	161
„ (Winscombe Court) ...	Rev. R. F. Follett	8	1 0	180 T	26·64	131
Radstock (Paulton House)	H. L. L. Macdonald, Esq. ...	5	1 0	384 A	28·84	161
D „ (High Littleton)	Rev. A. M. Foster	5	0 10	442 A	27·69	177
D Pensford (Sutton Court)	Sir E. Strachey, Bt. ...	8	1 0	280	31·00	175
Churchill	S. B. Pumphrey, Esq. ...	5	1 1	...	26·14	139
Weston-super-Mare (High St.)...	The Royal Meteor. Soc. ...	5	1 0	20	24·92	145
D „ „ (Beaufort Rd.)	W. A. Fussel, Esq.	8	5 0	23 T	25·49	158
Bath (Combe Hay Manor)	F. G. Smart, Esq.	5	1 0	...	23·40	163
D Wrington (The Rectory)	Rev. G. M. Ashdown ...	5	5 0	68	30·19	167
„ (West Hay)	Gen. Harrison	5	2 0	100	28·08	173
Chew Magna	Bristol Water Works ...	5	1 0	160 T	26·41	175
D† Bath (Royal Institution) ...	P. Hamper, Esq.	6	8 0	75	23·43	139
„ (Bathwick)	Rev. J. Dunn	5	1 0	50 T	24·00	...
„ (Charlcombe)	C. Gilby, Esq., C.E. ...	8	2 0	325 T	27·88	165
D Batheaston	Col. Linley Blathwayt. ...	5	1 0	166 A	24·39	175

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
SOMERSET—(con.)						
Batheaston	Col. Linley Blathwayt.	5	1 0	166 ∇	24·69	...
D „ Reservoir	C. Gilby, Esq., C.E. ...	5	2 0	248 ∇	23·50	179
Yatton (Chelvey)	Bristol Water Works...	7	0 6	...	26·75	147
Barrow Gurney Reservoir	„ „ „ „	5	1 0	320 ∇	26·94	166
D Long Ashton Estate Office	T. Dyke, Esq., C.E. ...	8	1 0	134	28·48	174
D Flax Bourton (Tyntesfield)	A. Gibbs, Esq.	5	1 7	320 ∇	26·52	192
D Clevedon (Water Works).....	E. Button, Esq.....	5	0 9	28 ∇	26·86	139
Bristol (Coronation Road)	H. C. Martin, Esq. ...	5	0 10	50	25·80	161
Wraxall	Rev. H. Vaughan	5	0 11	191	29·76	185
D Abbots Leigh	H. R. Miles, Esq.	5	1 0	333 ∇	29·62	151
D Failand House [Bristol]	Miss Fry	12	2 10	...	26·66	178

DIVISION VI.—WEST MIDLAND COUNTIES.

GLOUCESTER.

D Monkswood Reservoir [Bath] ...	C. Gilby, Esq., C.E. ...	5	2 0	363 ∇	23·67	163
D Bristol Docks (Underfall Yard) ..	J.M. McCurrich, Esq, CE	8	19 6	45 ∇	25·38	172
„ (Small Street)	Bristol Water Works...	12	33 10	52	26·22	142
D Clifton (Royal York Crescent)...	Miss Bridge	5	8 2	226 ∇	27·83	182
D „ (Cecil Road)	Miss Hooper	5	1 5	230	27·02	165
D „ (Pembroke Road)	R. F. Sturge, Esq. ...	8	1 0	215	27·34	175
D „ (College)	D. Rintoul, Esq.	8	1 2	230	27·78	159
„ „ „ „	„ „ „ „	8	1 3	230 ∇	28·78	...
Bristol (Hampton Lodge)	J. H. Dix, Esq.....	5	1 0	310	27·59	173
„ (Redland Green)	T. D. Sibly, Esq.	5	1 3	282	27·86	184
D „ (The Grove, Fishponds)...	H. H. Harding, Esq....	5	1 0	160 ∇	24·93	176
„ (Cote House)	H. St. V. Ames, Esq...	8	1 3	243 ∇	25·28	...
D Horfield (H.M. Prison).....	J.E. Prichard, Esq., MB	5	0 10	202 ∇	24·65	155
Pucklechurch	Rev. S. G. Gillum.....	5	0 10	370 ∇	25·85	169
D Filton	F. W. Gayner, Esq. ...	5	2 0	266	23·08	162
D ChippingSodbury(FramptonCotl)	J. Marsh, Esq.	5	1 6	180 ∇	25·00	167
D „ „ (StanshawesCt)	R. N. Hooper, Esq. ..	5	1 3	280 ∇	28·10	171
D „ „ (Ridge House) ..	Mrs. Burges	5	1 4	357 ∇	27·17	170
D Bristol (Over Court Park)	R. C. C. Lippincott, Esq.	5	0 9	147	26·53	187
D „ „ „ Garden).....	„ „ „ „	8	1 0	137	25·93	182
D Almondsbury	Rev. C. O. Miles.....	5	2 0	144	25·36	170
D Wickwar Rectory	Rev. R. J. Lyon ...	5	2 0	260 ∇	27·98	158
D Thornbury (Prospect House).....	T. H. Taylor, Esq.....	5	2 3	150 ∇	28·11	212
Alderley	Gen. Hale	5	1 0	300 ∇	29·75	...
Tortworth Court	Mr. T. Shingles	8	1 0	264	25·13	171
Tutshill [Chepstow]	P. F. Legh, Esq.	5	1 0	196	26·67	143
Dursley (Farnley)	The Meteor. Council ...	5	0 10	320	28·45	151
D Fairford (Kempsford)	A. T. Iles, Esq.....	5	1 0	...	21·44	156
D „ (Horcott).....	R. A. Iles, Esq.	5	2 6	...	21·83	129
D Berkeley (Castle Gardens)	Mr. R. Shore	5	1 6	60	23·83	160
D „ (Sharpness New Docks)	F. A. Jones, Esq., C.E.	8	3 9	50	20·77	167
D Lechlade	T. Arkell, Esq.	5	0 9	253	21·27	140

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Ruin. 1896	Days on which flood or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
GLOUCESTER—(con.)						
Lechlade (Southrop)	T. Arkell, Esq. ....	...	1 0	...	22.20	132
D Amberley (Highlands)	Mrs. Blackwell	8	0 10	550 T	30.62	130
D Lydney (Clanna)	Capt. Marling	5	1 0	260	27.64	168
D „ (Priors Mesne)	H. Cook, Esq., M.D. ...	5	1 6	500 T	28.70	182
D Cirencester (Claremont Place) ...	R. Gorton, Esq.	8	1 0	356 T	24.68	162
„ { „ „ }	„ „ „	8	2 0	357 T	24.72	162
„ { „ „ }	„ „ „	8	0 6	356 T	24.77	162
„ { „ „ }	„ „ „	8	11 0	366 T	23.12	162
D „ (Royal Agricultural Coll.)	C. C. Duncan, Esq. ...	5	1 0	443 T	23.44	169
D „ (Further Barton)	Miss Brown	5	1 0	422 T	25.65	168
D Stroud (Stanley Park) ...	W. J. Paley Marling, Esq.	8	1 0	365	25.46	157
D „ (The Acre)	P. Witchell, Esq.	5	1 0	300	23.28	135
D „ (Upfield)	Miss Stanton	5	1 0	226 T	24.07	176
D „ (The Slad)	A. Stephens, Esq.	5	1 0	420	23.67	173
Stonehouse (Wycliffe College) ...	F. A. Sibley, Esq.	8	1 0	120	24.78	155
D Fairford (Hatherop Rectory) ...	Rev. R. P. Davies	8	1 3	411 T	23.20	154
D Whitminster	F. A. Jones, Esq., C.E.	5	1 0	32	23.36	169
Haresfield Court	Mr. S. Pearce	5	1 0	100	22.48	172
Coleford (The Coombs)	I. Trotter, Esq.	5	1 0	660	34.26	209
Newnham-on-Severn	D. J. Wintle, Esq.	5	1 3	56 T	28.32	...
D Coleford (Staunton Rectory) ...	Mrs. Jay Jones	5	0 8	726 T	32.29	186
D Westbury-on-Severn (Chaxhill).	H. S. Grant, Esq.	5	1 0	120 T	21.52	138
D Great Barrington	H. J. Barrett, Esq. ...	5	1 6	430 T	23.05	138
Northleach (Sherborne House) ...	Mr. Scott	5	1 0	405	24.58	147
Gloucester (Quedgeley House) ...	W. G. Robinson, Esq..	5	1 0	65 T	22.57	168
D „ (Birdlip Hill)	A. S. Helps, Esq.	5	1 0	800 B	24.79	172
D „ (Witcombe Res.)	R. Read, Esq., C.E. ...	8	3 0	297 T	22.60	154
D Mitcheldean (Blaisdon) ...	P. Stubs, Esq.	5	1 0	117 T	25.34	193
„ { „ „ }	M „ „ „	5	1 0	117 T	25.29	...
D Gloucester (Hempsted)	F. A. Jones, Esq., C.E.	5	1 6	70 T	22.96	182
D „ (Llanthony Lock) ...	E. D. Marten, Esq., C.E.	5	1 2	39 T	19.13	140
D „ (Lower Barton Street)	W. P. Brown, Esq. ...	5	1 0	65 T	20.62	143
D „ (Churcham)	L. H. Hall, Esq.	5	2 1	90	21.08	130
D „ (Wotton Asylum)	Dr. Johnson	8	0 9	90 T	19.92	156
D Cheltenham (Dowdeswell)	J. Hall, Esq., C.E.	5	1 0	357	25.31	177
D† Gloucester (Maisemore Lock) ...	E. D. Marten, Esq., C.E.	5	1 1	39 T	18.40	136
D Bourton-on-the-Water	E. W. Kendall, Esq.	5	1 0	434 T	26.41	159
D Cheltenham (Battledown)	Sir Brook Kay, Bt. ...	5	0 8	393 T	21.99	158
D „ (Northfield)	J. Hall, Esq., C.E.	8	5 0	637 T	21.48	172
D „ (Hewletts Res.) ...	„ „ „	8	1 6	419 T	23.45	172
D „ (Sandford)	„ „ „	5	2 8	210	21.89	153
D „ (Naunton Pk. Villas)	M. Llewellyn Evans, Esq.	5	0 9	240	23.07	177
D „ (Heath Lodge) ...	Rev. M. A. Smelt	8	1 0	206	22.32	176
D „ (Southam Villa) ...	R. Tyrer, Esq.	5	1 0	184 T	21.54	185
„ { „ „ }	„ „ „	5	1 0	184 T	20.54	...
D Moreton-in-Marsh (Longbro) new	W. Arkell, Esq.	5	1 0	...	26.69	157
D† Tewkesbury (Upper Lode)	E. D. Marten, Esq., C.E.	5	1 0	41 T	21.38	119
D „	J. Hall, Esq., C.E.	5	0 10	47	17.71	122
D „ (Beckford)	F. Slade, Esq., C.E. ...	8	1 0	120 T	19.86	164

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Day on which -01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1896	
HEREFORD.						
Wyastone Leys [Monmouth] ...	J. M. Bannerman, Esq.	6	1 0	200 T	25·88	177
Ross (Bishopswood)	„ „ „	6	1 0	120 T	25·74	166
D „ (Croome Hall)	W. E. Hancock, Esq.	8	4 0	288 T	23·63	150
D† „ (The Graig)	H. Southall, Esq.	5	1 0	213 T	21·11	166
Upton Bishop (The Baches).....	W. Hogarth, Esq.	5	1 0	300	20·35	...
Ross (Perrystone Court)	Mrs. Clive	5	1 3	...	19·08	138
Much Dewchurch (Bryngwyn)...	J. Rankin, Esq., M.P.	5	0 9	416 T	23·31	159
D Much Marcle (Homme House) ...	Mr. J. Maxton	5	0 11	280 T	19·27	165
D „ „ (Caerswall)	T. Charles, Esq.	5	1 0	423 B	19·96	155
D Fownhope (Morney Cross)	O. E. Cresswell, Esq.	5	1 5	...	17·96	142
D† Ledbury (Orchardleigh)	M. A. Wood, Esq.	5	3 0	180	18·60	156
D „ (Underdown)	S. H. Bickham, Esq.	5	1 0	307 T	19·75	169
„ „ „ M „ „ „	„ „ „	5	1 0	306 T	19·00	...
„ (Putley Court)	J. Riley, Esq.	5	1 0	290	20·27	155
Hereford (Bullinghope)	Rev. Preb. Elliot	5	1 0	...	19·04	140
D „ (Breinton Court).....	H. A. Wadworth, Esq.	5	1 0	238	18·62	168
„ (St. Michael's Priory) ..	Rev. J. O. Smith	8	1 0	291 T	20·69	175
Yarkhill Vicarage.....	Hereford Times.....	...	...	...	20·56	...
D Canon Frome Vicarage	Rev. M. Hopton.....	8	1 3	252 T	19·29	164
D† Malvern Hills (Upper Wych) ...	Baldwin Latham Esq. CE	5	1 0	1006 T	20·13	159
Hereford (Burghill)	No. 3 C. S. Morrison, Esq. M.D	5	1 0	275	18·16	156
D Brinsop Vicarage	Rev. A. Relton	5	1 0	290	17·81	135
Bodenham Vicarage	Rev. H. C. Sturges	5	0 9	240	17·34	...
Hope-u-Dinmore (Hampton Ct.)	J. H. Arkwright, Esq.	8	1 2	212 B	17·21	151
D Weobley (Dilwyn).....	T. L. Hall, Esq., M.D.	5	0 8	290 T	18·79	170
D Kington (Lynhales)	S. Robinson, Esq.	8	1 0	566	24·75	184
D „ (Gravel Hill)	Col. G. F. Pearson.....	5	0 8	540 T	26·94	193
D Pembridge (Marston)	H. Langston, Esq.	5	1 5	347 T	22·73	168
D Bromyard (Buckenhill).....	R. Phipps, Esq.	8	1 9	...	21·54	128
D Leominster (Farm)	Mrs. Southall.....	5	1 6	268	21·53	168
SHROPSHIRE.						
D Ludlow (Ashford)	Rev. J. Selwood Tanner	5	1 2	265 T	20·58	185
D „ „ (House)	W. Downes Hall, Esq.	5	0 5	315 T	23·81	180
D „ (The Sheet)	R. P. Dansey, Esq.	5	1 0	370 T	24·45	200
D Cleobury Mortimer (The College)	J. Davis, Esq.	5	1 6	440 T	22·41	182
D Bromfield (Priors Halton).....	Miss Beddoes	5	1 0	300	24·42	217
D „ Vicarage	Rev. W. Selwyn	5	1 0	300 T	24·28	186
Cleobury Mortimer (Neen Savage)	Rev. F. Burd	5	0 11	367 T	24·67	175
Craven Arms (Stokesay Vicarage)	Miss La Touche	5	1 0	371 T	21·43	185
D Burwarton	late Rev. A. James	5	1 0	830	28·21	172
D Bridgnorth (Coton Hall)	E. M. Wakeman, Esq.	5	1 2	460 T	24·16	169
Bishop's Castle (Totterton)	W. H. Whitaker, Esq.	5	0 7	...	28·58	...
„ „ (Castle Street)	E. Griffiths, Esq.	5	2 0	720 B	26·84	192
Bridgnorth (Quatford)	Rev. W. J. Pinckney...	5	1 0	170 T	21·88	174
D Church Stretton (Burway Ho.)...	H. Barnett, Esq., M.D.	5	1 0	675 T	28·88	204
D Bridgnorth (Aldenham Park) ...	W. F. De Wend, Esq.	5	3 9	430 T	21·71	152
Church Stretton (Preen Manor)...	A. Sparrow, Esq.	5	1 0	700 T	22·48	180

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which 101 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in.	feet.	inches.	
SHROPSHIRE—(con.)						
D Church Stretton (Woolstaston)...	Rev. E. D. Carr.	5	1 0	800 N	26·25	198
D Middleton Chirbury	Rev. W. Brewster.....	5	1 2	702 N	24·58	215
D Much Wenlock (Willey Park)...	Rt. Hon. Lord Forester	5	1 0	502 N	23·00	183
D Pontesbury (Somerville)	W. R. Cross, Esq.....	5	1 6	355	21·32	143
Minsterley (Hampton Hall)	J. Whitaker, Esq.....	...	1 0	630 T	24·73	...
D „ (Wallop)	J. E. Severne, Esq. ...	8	1 3	700 T	28·78	188
D Shifnal (Neachley).....	Hon. F. Bridgeman ...	5	1 6	280 T	23·17	199
„ (Haughton Hall).....	J. T. Brooke, Esq.	5	3 0	355	22·24	...
D Shrewsbury (The Abbey House)	Miss F. Rouse Boughton	8	1 3	171 N	17·90	168
Newport (Edgmond).....	J. Bodenham, Esq.	8	1 0	261 T	23·10	193
D Wem (The Clive Vic.)	Rev. J. Cooper Wood...	5	1 0	299 N	21·92	241
D Cheswardine (Knighton Res.) ...	G. R. Jebb, Esq., C.E.	8	0 3	351 N	28·65	211
Market Drayton (Buntingsdale)...	Mrs. Tayleur	5	1 0	276 N	26·39	...
D „ „ (Fernleigh) ...	J. Beaumont Piercy, Esq.	5	1 0	310 N	26·40	189
Ellesmere (Oteley).....	Mr. Pearse	8	1 8	292	24·45	184
D Adderley Rectory	Rev. A. Corbet	5	0 9	290 T	26·04	182
STAFFORD.						
Dennis [Stourbridge]	E. B. Marten, Esq., C.E.	8	6 6	270 B	23·60	182
D Netherton (Lodge Farm Res.) ...	G. R. Jebb, Esq., C.E..	5	1 0	445 N	24·03	188
D Dudley (Shavers End)	H. A. Hill, Esq., C.E..	5	1 0	744 T	23·03	178
D Handsworth	A. E. Ellis, Esq.	5	1 0	440	24·66	136
D West Bromwich.....	A. D. Greatorex Esq., CE	8	4 6	547 T	21·66	166
D Wombourne (The Bratch)	Baldwin Latham Esq CE	5	0 9	271	23·59	179
Walsall	E. B. Marten, Esq., C.E.	8	4 0	463 N	25·56	202
D „ Sewage Farm	R. H. Middleton, Esq. CE	8	0 11	376 N	21·72	162
D „ (Wednesbury Sewage Wks.)	T. Wicks, Esq.	5	2 8	...	18·54	174
D Wolverhampton (Town Hall) ...	J. W. Bradley, Esq. C.E.	5	15 6	481 N	15·50	180
„ (West Park) ...	„ „ „ „	5	1 0	432 N	22·60	187
D „ (Tettenhall) ..	R. T. Smith, Esq., C.E.	5	1 0	475 N	21·56	206
D „ (Wrottesley) ...	Mr. E. Simpson	8	1 0	500	21·01	165
D Tamworth (Bonehill House).....	Capt. Chichester.....	5	1 0	289 T	19·93	188
D Bloxwich (Sneyd Res.)	G. R. Jebb, Esq., C.E..	5	1 0	507 N	19·87	166
D Hammerwich (Cannock Chase Res)	„ „ „ „	5	1 0	475 N	22·02	189
D Weston Park [Shifnal].....	Rt. Hon. Earl of Bradford	5	1 6	400 T	21·60	192
Brewood	A. W. Bryans, Esq.	5	1 3	...	22·74	...
D „ (Belvide Res.)	G. R. Jebb, Esq., C.E.	8	1 0	367 N	22·18	160
Lichfield (Maple Hayes)	A. O. Worthington, Esq.	...	...	380	21·57	...
D Penkridge (Rodbaston)	H. Ward, Esq.	5	1 0	324 N	24·10	183
D Hednesford... ..	H. A. Hill, Esq., C.E..	5	1 0	750 N	19·85	173
D Burton (Rangemoor).....	Mr. Bennett	5	5 6	424 T	24·12	193
D „ (Shobnall)	Messrs. Bass & Co. ...	5	5 0	156 T	20·79	160
D „ (St. Paul Street)	J. G. Wells, Esq.	5	1 0	151 T	20·87	196
D „ (Hoar Cross)	F. Lycett, Esq.	8	4 0	400 T	24·55	166
D Salt Vicarage.....	Rev. S. W. Jones	8	0 8	266	25·73	189
D Uttoxeter (Brook House)	Mr. J. J. Gibbons	5	1 0	283 N	27·66	199
D Market Drayton (Old Springs)...	F. E. Harding, Esq. ...	5	0 8	422	28·62	194
D Chaddle (The Heath House).....	J. C. Philips, Esq.....	5	1 0	647 N	29·28	194

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which -01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1896	
			ft. in.	feet.	inches.	
STAFFORD—(con.)						
Longton (The Meir)	J. B. Piercy, Esq.	5	1 0	618 ∇	30.40	194
Newcastle (Madeley Vic.)	Mr. W. Pye	5	1 0	347 ∇	28.41	162
Stoke (Hartshill)	J. Knight, Esq.	5	1 0	485 ∇	31.48	195
„ (Stanley Reservoir)	E. B. Smith, Esq., C.E.	5	3 1	550 ∇	24.73	178
Etruria	„ „ „ „	5	4 2	440	30.09	137
Alstonfield Vicarage	Rev. W. H. Purchas ..	5	1 0	910	40.44	180
Leek (Wall Grange)	J. B. Piercy, Esq.	5	1 0	458 ∇	35.04	187
Knypersley [Congleton]	E. B. Smith, Esq., C.E.	5	3 1	550 ∇	38.52	167
Leek (Rudyard)	„ „ „	5	12 7	500 ∇	40.99	122
WORCESTER.						
Northwick Park	Lady Northwick	8	1 6	410 ∇	23.94	...
Bredon's Norton	G. C. Norman, Esq. ...	8	1 0	200 ∇	20.50	182
Upton-on-Severn (Willow Bank) ..	J. S. Cowley, Esq.	5	1 3	...	19.73	139
Evesham (Lansdowne)	R. Burlingham, Esq.	5	5 0	108 ∇	19.69	114
Great Malvern (Church Street) ..	H. P. Maybury, Esq.	5	1 0	361 ∇	21.74	154
„ „ (Belle Vue House)	A. Mander, Esq.	5	4 0	520	20.99	158
„ „ (Madresfield Rect.)	Rev. G. S. Munn	5	1 4	124 ∇	19.40	141
„ „ („ Court)	Mr. W. Crump	8	2 6	135 ∇	20.08	153
Leigh Lodge	Insp.-Gen. M. W. Cowan	5	1 3	110 ∇	19.66	156
Worcester (Diglis Lock)	E. D. Marten, Esq., C.E.	5	1 0	49 ∇	17.50	155
„ (Belmont Road)	G. B. Wetherall, Esq. ..	5	1 6	175	18.33	169
„ (Water Works)	T. Caink, Esq., C.E. ...	5	0 8	52 ∇	13.94?	170
„ (Bevere Lock)	E. D. Marten, Esq., C.E.	5	1 1	52 ∇	17.68	156
„ (Hawford Lodge)	F. Ames, Esq.	5	1 1	70	20.57	139
Droitwich (Holt Lock)	E. D. Marten, Esq., C.E.	5	1 1	55 ∇	19.01	137
„	T. P. Baylis, Esq., C.E.	5	4 0	161 ∇	19.29	112
Tenbury (Orleton)	No. 2 T. H. N. Davis, Esq. ..	5	0 9	193 ∇	21.82	171
„ (Rochford)	Rev. J. Tomson	5	1 0	317 ∇	26.19	165
Redditch (Prospect Hill)	H. Page, Esq., M.D.	5	1 0	425 ∇	23.66	183
Bromsgrove (Stoke Reformatory) ..	Mr. J. Salter	5	5 0	225 ∇	17.42	141
„ (Tardebigge Res.)	F. A. Jones, Esq. C.E. ...	5	3 0	433 ∇	22.46	172
Stourport (Lincombe Lock)	E. D. Marten, Esq., C.E.	5	1 0	62 ∇	23.81	145
Alvechurch	J. Grubb, Esq. ....	...	3 0	600 ?	24.69	157
Bromsgrove (Lower Bittal Res.) ..	F. A. Jones, Esq. C.E. ...	5	3 0	430 ∇	23.48	162
Bewdley (Winterdyne Gardens) ..	Mr. W. Wrather	8	2 0	...	20.91	148
Kidderminster (Woodfield)	Rev. J. R. Burton	5	3 0	167	19.80	156
„ (Prospect Hill)	Mr. J. T. Cowderoy ...	...	5 9	161 ∇	18.08	166
Stourbridge (Pedmore)	E. B. Marten, Esq., C.E.	8	0 11	350 ∇	26.09	184
„ (Longlands) .....	„ „ „	...	...	...	23.32	186
Northfield (Longbridge)	Mrs. Impey	5	0 9	560 ?	26.93	172
King's Heath [Birmingham] ...	R. Godfrey, Esq., C.E. ..	5	8 0	523 ∇	24.40	170
Selly Oak [Birmingham]	Mr. W. Garden	5	1 4	540 ∇	25.46	172
Moseley (Woodstock Road)	C. J. Fowler, Esq.	5	2 4	440 ∇	23.73	191
Dudley (Trindle House)	E. B. Marten, Esq., C.E.	8	1 0	575	27.39	206
WARWICK.						
Long Compton (Weston Park)	H. A. Warriner, Esq.	8	3 0	510 ∇	23.17	161
Shipston (Compton Wynyates)	J. Sargent, Esq.	5	2 6	480	23.24	178

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	1896	
			ft. in.	feet.	inches.	
WARWICK—(con.)						
d Farnborough	Miss Prater	5	1 0	520 T	27·37	181
Fenny Compton (The Grange)...	Miss E. C. Knott	5	4 0	436	24·21	210
d Stratford-on-Avon (Guild Street)	Rev F. Smith	12	4 0	135 T	19·00	170
d Alcester (Ragley Hall)	The Marquis of Hertford	5	1 0	260 T	22·24	171
d „ („ Gardens)	Mr. A. Christie	5	1 0	150 T	23·10	189
Snitterfield	R. Dixon, Esq.	5	1 0	304 T	20·09	148
d Warwick (Barford Rectory).....	Rev. C. Mills.....	8	0 11	167 T	22·39	178
d Southam	E. Turner, Esq.....	5	1 0	304	23·28	146
Leamington (The Parade).....	J. Barnitt, Esq.....	5	4 8	195 T	20·95	165
Henley-in-Arden (Barrells Park)	T. H. G. Newton, Esq..	5	1 0	318 T	22·67	155
Warwick (Hatton Vicarage) ...	Rev. H. Trethewy.....	5	1 0	384 T	22·24	178
Milverton (Latmos)	Rev. E. Healy	5	1 2	191 T	24·34	...
d Kenilworth (Park Hill).....	Capt. Stringer	8	0 8	300	22·79	174
d „ (The Spring)	W Evans, Esq.....	5	1 0	312 T	23·66	192
Rugby (Dunchurch Hall)	A. H. Harrison, Esq....	5	3 0	...	22·94	...
d „ (Temple Observatory) ...	E. Kitchener, Esq. ...	5	1 3	383 T	24·37	180
d Coventry (City Hospital)	late Dr. Fenton	8	1 0	266 T	25·21	184
„ (Priory Row)	J. Gulson, Esq.	8	1 3	279 T	26·19	188
„ (Stoke)	„ „ „	8	1 3	241	25·11	189
d „ (Coundon)	R. B. Caldicott, Esq....	8	1 11	355 T	25·47	172
d Sparkbrook (Grantham Road) ..	F. O. Lane, Esq.	5	1 0	410 T	24·57	188
d Birmingham (Sheldon Rectory)..	Mrs. Jones Bateman ...	8	1 0	323	26·15	174
d „ (Edgbaston)	A. Cresswell, Esq.....	8	1 0	535	22·31	163
d† „ (Botanic Gardens)..	Mr. Latham	5	5 2	505 T	21·45	188
d „ (The Crescent)	J. J. Gilbert, Esq.....	5	21 0	495 T	21·18	154
„ „ „ } M	„ „ „	5	7 0	480 T	22·86	...
d Bedworth Cemetery	Mr. D. Bosworth	5	1 0	385 T	24·77	156
d Castle Bromwich Hall	Mr. G. M. Allcock.....	5	1 2	363 T	26·50	171
d Witton Reservoir	E. Anty Lees, Esq. ...	5	2 6	345	21·44	172
d Whitacre (Birmingham W.W.)..	„ „ „	5	1 3	269 T	22·91	191
Sutton Coldfield (Ladywood) ...	F. Rathbone, Esq.....	5	0 8	...	21·92	...
d Atherstone	Baldwin Latham Esq CE	5	1 0	286 T	20·73	172

DIVISION VII.—NORTH MIDLAND COUNTIES.

LEICESTER.

Lutterworth (Walcote)	Major Corbet Smith ...	5	0	6	200	25·67	...
Fleckney	J. B. Putt, Esq.	5	1	0	411 T	27·82	...
d† Kibworth Beauchamp	E. V. Phillips, Esq. ...	5	2	6	355 T	26·12	185
Hallaton Hall	Capt. Bankart	8	1	3	324	24·49	158
D Leicester (Town Hall Square) ...	E. G. Mawbey, Esq., C.E.	9	1	7	212 A	21·85	166
" " " " " " " " " "	" " " " " " " " " "	5	0	6	211 A	21·90	167
" (Humberstone Asylum)	J. E. M. Finch, Esq., M.D	8	1	0	244 A	23·86	204
d† Thornton Reservoir	F. Griffith, Esq., C.E..	8	1	2	371 A	24·90	182
D Barkby	late Rev. E. N. Pochin	8	0	4	221 A	25·06	201
D Thurcaston Rectory	Rev. T. A. Preston ...	5	1	0	253 T	20·08	172
D " (Cropston)	F. Griffith, Esq., C.E..	8	1	0	246 A	24·22	183

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
LEICESTER—(con.)						
D Syston	S. K. Daniels, Esq. ...	5	1 6	180 †	22·45	170
Swithland (The Brand)	F. Griffith, Esq., C.E..	8	1 0	...	24·99	194
D Ratcliffe-on-Wreake College ...	Rev. J. Cremonini	5	1 0	288 †	21·83	166
D Rotherby Hall	J. Hames, Esq.	5	1 0	240 †	23·45	209
Ashby-de-la-Zouch (Cole Orton)	Rev. Canon Beaumont.	5	1 6	480	23·67	...
D Loughborough (Nan Pantan Res.)	A. H. Walker, Esq., C.E.	8	2 11	269 †	23·87	168
" (" " " ") M	" " " " " " " "	8	2 0	269 †	23·44	...
D " (Forest Road) ...	W. Berridge, Esq.	5	0 9	147 †	23·49	177
" (" " " ") ...	" " " " " " " "	8	1 0	147 †	23·48	177
D Burton-on-the-Wolds	Lord Percy St. Maur...	...	...	...	24·00	154
D Waltham-le-Wolds	Mr. Higgins	5	1 0	568	25·88	165
†Belvoir Castle	W. H. Divers, Esq. ...	8	1 0	260 †	21·76	...
D " " " " " " " " new g.	" " " " " " " "	8	1 0	260 †	24·46	202
RUTLAND.						
D Uppingham (West Deyne)	Rev. G. H. Mullins ...	8	1 6	485 †	21·20	172
D Tolethorpe Hall [Stamford]	C. O. Eaton, Esq.	8	0 8	160 †	21·38	152
Burley-on-the-Hill	Mr. W. Temple	8	1 0	506	26·10	170
D Market Overton	Miss Grace Wingfield...	8	0 11	475 †	26·99	179
D Stocken Hall	Capt. P. F. Tillard	5	1 0	290	24·20	171
LINCOLN.						
D Market Deeping (Wilsthorpe) ...	J. C. Gill, Esq., C.E....	8	3 10	55 †	20·42	165
D Bourne (Wytham-on-the-Hill)..	Mr. E. Cooling	5	1 0	167 †	20·39	124
Long Sutton	Mr. J. Tilson	5	4 0	18	24·00	155
Spalding (Pode Hole)	Mr. W. Grigg	12	1 0	20 †	22·75	...
Grantham (Stainby)	Rev. W. A. H. Thorold	5	0 9	496	24·95	...
D " (Denton Manor)	Sir W. Welby Gregory Bt.	5	1 6	275 †	26·74	240
D " (Little Ponton Rect.)	Rev. P. R. Worsley ...	5	1 0	250	25·66	202
" (Saltersford)	H. Preston, Esq.	5	0 6	188 †	20·07	166
D " (Guildhall)	F. J. Morris, Esq.	5	13 6	202 †	21·18	161
" (High Street)	News cutting .....	...	...	...	22·42	185
" (Heydour Vicarage)..	Rev. Canon Deedes ...	5	1 10	244 †	25·21	...
" (Syston Park)	Mr. J. Ashby	5	1 0	200	22·63	206
D Boston (Black Sluice, Skirbeck).	H. Clarke, Esq., C.E....	8	1 3	19 †	19·97	171
D " (Grand Sluice)	C. G. W. Phillips, Esq. CE	8	8 0	18	20·57	190
D "	W. H. Wheeler, Esq. C.E	5	6 6	25 †	20·33	156
D Sleaford (Rauceby Hall)	Col. M. Willson, C.B. ...	5	0 6	125 †	22·58	166
D Leake (Lade Bank Engines)	C. G. W. Phillips, Esq. CE	8	1 0	10 †	22·77	139
D Stubton [Newark]	G. Neville, Esq.	5	4 6	94 †	22·51	153
D Fulbeck	Rev. V. F. Willson ...	5	0 11	180 †	21·29	194
Leadenham	Rev. V. E. Skrine	10	4 0	154 †	21·26	128
Sleaford (Bloxholm)	Mr. W. Lumsden	5	1 6	20	22·30	118
D Carlton-le-Moorland	J. Brocklebank, Esq....	5	1 2	...	21·71	141
Kirkstead	Mr. R. H. Brett	5	1 3	...	19·46	...
" (Woodhall Spa)	C. J. Williams, Esq., M.D	5	1 0	37 †	20·83	...

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which " or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
LINCOLN—(con.)						
D Skegness	H. V. Tippet, Esq.	8	1 8	101	27.10	161
D Horncastle (Miningsby)	W. H. Wheeler, Esq. C.E.	5	2 0	135	24.47	126
D Spilsby (Hagnaby Priory)	Miss Pocklington	8	1 8	47	27.70	116
D "	Dr. J. W. Walker.	5	1 0	160	29.31	200
D " (Boston Road)	Mr. J. J. Rainey	8	0 6	130	27.78	178
D " (Hagworthingham)	Mr. R. Wright	5	1 1	252	31.07	186
D " (Dalby Grange)	W. Wright, Esq.	5	1 6	250	28.42	180
D Horncastle (Bucknall)	W. Carter, Esq.	5	1 0	50	21.80	132
D Lincoln (Branston)	A. S. Leslie Melville, Esq.	5	1 0	120	23.72	158
D† " (Boultham)	Mr. F. Terrill.	5	1 0	18	27.79	170
D " (Moorlands, Skellingthorpe)	Capt. Warrenner	5	1 2	27	26.52	166
† " (St. Botolphs)	H. Teague, Esq.	5	1 2	25	25.35	...
" (St. Catherine's)	J. H. Teague, Esq. ...	5	5 0	33	25.95	...
D " (Doddington)	Rev. R. E. Cole	5	1 2	92	25.25	167
" (Station)	M. S. & L. R. Co. ‡ ...	9	3 6	26	24.76	144
D " (The Close)	C. J. Bromhead, Esq. ...	8	1 0	185	24.41	191
" (D'Isney Place)	A. H. Leslie Melville Esq.	4	1 0	215	24.03	176
D " (Brayford Wharf)	Mr. J. W. Horton	5	5 8	28	23.83	179
" (The Quarry)	R. Swan, Esq.	8	1 8	165	23.59	178
" (Skellingthorpe Hall) ...	A. H. B. Coupland, Esq.	5	1 0	...	25.72	154
D Horncastle (Hemingby)	Rev. E. S. Bengough ..	5	1 0	158	26.29	176
Alford (The Burial Ground)	Mr. E. Hodgson	5	1 0	29	24.30	...
D Farforth (Maidenwell House) ...	Miss H. E. Browne ...	5	1 0	380	30.12	197
Gate Burton	M. S. & L. R. Co.	9	3 6	96	22.53	163
D† Louth (Gospelgate)	T. W. Wallis, Esq. ...	5	6 0	111	30.35	182
† " (Westgate)	Dr. F. Fawcett	5	0 9	120	30.27	180
D Market Rasen	Mr. W. B. Jevons	5	0 8	84	28.86	145
" "	M. S. & L. R. Co.	9	...	100	23.76	149
" " (Tealby)	The Meteor. Council ...	5	4 0	255	33.37	157
Gainsborough	M. S. & L. R. Co.	9	...	76	20.02	156
Stockwith	" " " "	9	3 6	21	19.80	178
D North Thoresby Rectory	Rev. H. Garrett	5	1 0	46	25.32	177
Caistor (Cabourne)	Rev. R. Thomas	5	...	...	30.11	...
Brigg	M. S. & L. R. Co.	9	3 6	16	24.85	178
D "	A. Atkinson, Esq., C.E.	8	1 2	11	27.22	182
D Grimsby (Waltham)	Rev. W. Tuckwell	5	1 0	50	25.66	168
"	M. S. & L. R. Co.	9	15 0	42	23.17	157
Barnetby	" " " "	9	3 6	51	30.60	150
D N. Level Engine [Thorne Don's t'r]	A. L. Peace, Esq., C.E.	5	2 3	...	22.08	160
Crowle (Keadby)	M. S. & L. R. Co.	9	...	17	21.70	114
D Burton on Stather Vicarage	Rev. F. A. Jarvis	5	0 6	212	26.80	186
D Horkstow	E. J. Turton, Esq.	5	0 10	...	25.23	149
D West Halton	Rev. R. D. Pierpoint ...	5	1 6	0	27.92	205
Ferriby Sluice	A. Atkinson, Esq., C.E.	5	1 0	18	24.56	132
New Holland	M. S. & L. R. Co.	9	3 6	18	20.15	160

† Kept for the Canals Department of the Manchester, Sheffield, and Lincolnshire Railway Company.
Returns supplied by G. Taylor, Esq.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which .01 or more fell.	
		Diameter	Height Above Ground		Height Above Sea level		1896
			ft.	in.	feet.	inches.	
NOTTS.							
d Kingston Hall [Loughborough]..	Mr. W. English..	5	0	8	...	22·74	156
d Plumtree(Normanton-on-Wolds)	T. A. Hill Esq.	8	1	0	170 T	21·09	172
Cropwell Bishop (CropwellGrove)	H. Smith, jun., Esq....	5	1	1	160 T	22·10	...
Bramcote	H. H. Enfield, Esq. ...	5	3	6	292 T	25·28	205
Bingham (Whatton Manor)	M. H. Hall, Esq.	5	1	5	101 T	23·74	158
d Nottingham (Beeston Fields) ...	G. Fellows, Esq.	5	0	9	206 T	25·20	183
d " (The Castle)	A. Brown, Esq., C.E....	8	1	2	192 T	22·99	166
" (" " ")	" " " " " " " " " "	8	76	0	268 T	20·71	156
d " (ThePark)CarisbrookHo.)	W. Bradshaw, Esq. ...	5	1	0	247	24·85	176
Radcliffe-on-Trent	T. Yates, Esq.	5	1	0	...	22·13	156
" " (Chestnut Ho.)	Mr. J. Green	8	2	0	...	21·96	132
d Nttnghm(StokeBardolphSewFm)	Mr. J. Avis.....	8	10	0	83	21·42	171
d " (StrelleyHall)	T. L. K. Edge, Esq. ...	8	1	0	396 T	23·93	183
d " (" " ")	" " " " " " " " " "	5	1	0	375 T	23·09	178
d " (Mapperley Hill)	E. Powell, Esq.	8	1	0	400 T	24·15	159
d " (Basford)	D.M.F.Gaskin,Esq.,C.E	8	0	10	169 T	23·16	196
Bulwell (Springfield).....	G. W. Walker, Esq....	5	0	9	166 T	24·21	...
d " (Bestwood)	D.M.F.Gaskin,Esq.,C.E	8	1	5	317 T	23·81	182
d Eastwood Colliery	Mr. E. Lindley	5	1	0	245 T	25·09	180
d Hucknall Torkard (Forge Mills)	J. D. Walker, Esq.....	5	1	0	200 ?	21·92	213
d†Gonalston Rectory.....	Rev. F. H. Paley	5	1	0	70	26·06	206
d Papplewick (Water Works)	D.M.F.Gaskin,Esq.,C.E	8	0	10	317 T	25·90	182
Annesley (Selston W.W.).....	MessrsG.&F.W.Hodson	5	1	0	475 T	27·47	171
Newark (Averham Rectory).....	Rev. J. Walker	5	1	0	100	23·66	...
d†Farnsfield	Dr. Wills	5	1	0	210 T	25·47	174
Sutton-in-Ashfield W.W.	MessrsG.&F.W.Hodson	5	1	0	462 T	26·21	154
Mansfield (W.W. Rainworth) ...	" " " " " " " " " "	5	1	0	360 T	26·06	121
" (Market Place).....	Mr. P. J. Shacklock ...	5	1	0	350	30·51	204
d South Scarle	Rev. E. C. Shawfield...	5	1	4	52	22·88	158
d Ollerton (Thoresby Gardens) ...	Mr. A. Henderson	8	0	9	125	27·82	177
Workshop	M. S. & L. R. Co.	9	3	6	127	27·47	169
d " (Osberton Gardens) ...	Mr. T. H. Crasp.....	5	4	0	70	25·91	196
Retford	M. S. & L. R. Co.	9	3	6	52	19·85	184
d " (Morton Hall)	W. H. Mason, Esq. ...	5	1	0	140	23·00	172
d " (Babworth Hall)	Col. Denison	5	0	6	92 T	20·74	131
d Workshop (Hodsock Priory).....	H. Mellish, Esq.	8	1	0	56 T	23·69	181
" (" " ")M	" " " " " " " " " "	5	1	0	56 T	23·28	...
The Gardens [Bawtry Hall] ...	L. T. Baines, Esq.....	5	1	0	31 T	20·27	...
d Hesley Hall [Tickhill]	B. I. Whitaker, Esq....	8	0	11	61 T	19·79	165
DERBY.							
Stanton House [Burton]	J. L. P. Barber, Esq...	5	1	0	210	22·13	201
d Winhill [Burton].....	A. J. Brown, Esq.....	5	1	0	261	22·60	199
d Melbourne (The Grange)	Miss Tasker	5	0	3	...	22·16	179
d " Vicarage	Rev. Canon Singleton ..	5	2	0	...	24·64	186
d " (The Hollow)	Mr. W. Garratt	5	1	0	182 T	21·12	170
Willington (W.W. Milton)	MessrsG.&F.W.Hodson	5	1	0	134	20·61	141
d Chellaston	H. Chambers, Esq.....	5	1	0	...	21·22	180

DIVISION VIII.—NORTH WESTERN COUNTIES.

D	Baddiley (Nantwich W. W.) ... Baldwin Latham Esq C.E.	5	1	0	231	26.82	178
D	Nantwich (Dorfold Hall) J. A. Saner, Esq., C.E.	8	1	6	190	25.99	168
D	(Reaseheath Hall) ... " "	8	1	0	130	26.13	186
	Aldford (Woodhouse) W. H. Phillips, Esq....	5	1	1	43	24.41	170

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which ·01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea level		
			ft. in.	feet.	inches.	
CHESHIRE—(con.)						
D Eaton Hall Gardens	Mr. N. F. Barnes	5	3 0	64 ∇	24·27	182
Eccleston	E. Wells, Esq.	5	1 1	94 ∇	25·56	174
„ Rectory	Rev. A. G. Robins	5	6 0	83 ∇	25·12	187
D Congleton (Buglawton Vic.).....	Rev. W. Besant.....	8	5 0	347 ∇	30·76	175
Bosley Reservoir	M. S. & L. R. Co.	9	3 6	590 ∇	31·15	196
„ Minns	„ „ „	9	3 6	1210 ∇	38·26	191
Macclesfield (Wincle)	E. B. Smith, Esq., C.E.	5	3 0	500	38·84	185
D Chester (Christleton Hall)	Mr. T. Weaver	5	1 2	142 ∇	27·76	188
„ (Waterworks)	A. Bell, Esq.	5	0 10	85 ∇	26·94	190
„ (Northgate Station).....	M. S. & L. R. Co.....	9	3 6	84 ∇	25·67	164
D „ (Parkgate Road)	Rev. Dr. Mitchell	5	1 0	60 ∇	26·03	192
D† „ (The Nurseries)	Messrs. Dicksons	5	1 0	62 ∇	24·70	158
D „ (Hoole Lodge)	Mrs. Hamersley	5	1 0	108 ∇	27·13	180
D „ (Upton Lawn).....	S. May, Esq.	5	2 6	...	23·32	155
Middlewich (Bostock Hall)	Col. France Hayhurst..	5	2 0	157 ∇	32·32	165
D Macclesfield (The Park)	Mr. J. Dale.....	5	1 0	501 ∇	34·13	190
„	M. S. & L. R. Co.	9	3 6	539	40·48	206
D Chelford (Astle Hall)	G. Dixon, Esq.	5	1 0	250 ∇	30·91	161
„ („ „)	M. „ „ „ „	8	1 0	250 ∇	30·45	...
Northwich	M. S. & L. R. Co.....	9	3 6	76 ∇	28·11	137
D „ (Highfield)	J. A. Saner, Esq., C.E..	8	3 4	118 ∇	30·23	203
D „ („) Snowdon	„ „ „	8	1 0	115 ∇	30·43	201
D „ (Winnington).....	Messrs. Brunner Mond & Co	5	3 8	110 ∇	28·83	211
„ (Wincham Hall) ..	H. Neumann Esq.....	8	1 6	120 ∇	30·04	183
D Macclesfield (Swanscoe Park) ...	T. C. Horsfall, Esq. ...	5	1 0	676 ∇	33·56	213
D*Neston (Hinderton) ..	Reginald Bushell, Esq.	5	1 0	215 ∇	27·86	192
* „ („)	M. „ „ „ „	8	1 0	215 ∇	28·45	...
* „ („) Lodge) ...M	„ „ „ „	5	1 0	145 ∇	26·90	...
Frodsham (Fir Grove)	Mrs. Reynolds	5	1 0	...	31·38	...
D „ (Dunsdale)	J. Simpson, Esq.	5	1 1	206	29·15	187
Bollington (Spond's Hill).....	M. S. & L. R. Co.	9	3 6	1279 ∇	38·42	...
D Hooton Grange	W. H. Jones, Esq.....	5	1 0	110 ∇	28·04	176
D Wilmslow (Southside)	G. Pearson, Esq.	8	1 0	255 ∇	31·60	180
„ (Poplar House).....	J. Holden, Esq.	5	1 0	237 ∇	30·73	183
†Whaley	M. S. & L. R. Co.	9	3 6	602 ∇	41·57	220
Disley (Lyne Park).....No. 1	T. Molyneux, Esq.....	9	3 8	720 ∇	46·91	191
D „ („).....No. 2	„ „ „ „	12	2 9	674 ∇	33·35	187
D Runcorn (Weston Point)	J. A. Saner, Esq., C.E.	8	2 4	18	28·80	168
Thurstaston (Dawpool).....	T. H. Ismay, Esq. ....	...	...	...	27·45	...
D West Kirby (Caldy Manor)	Mr. W. Neish.....	5	1 0	129 ∇	29·42	175
D „ (Greenfield)	H. Bell, Esq.	5	1 0	75 ∇	27·21	201
Bowdon (The Firs).....	R. Swindells, Esq., C.E.	5	1 0	215 ∇	30·51	...
D „ (Erlesdene)	E. J. Sidebotham, Esq.	5	1 0	211 ∇	25·43	197
„ („)	M. „ „ „ „	5	1 0	211 ∇	29·88	...
D Thelwall (Highfields)	T. G. Rylands, Esq. ...	5	1 0	118 ∇	28·68	179
„ („)	M. „ „ „ „	5	1 0	118 ∇	28·76	...
D „ (Millington House)	L. W. Reynolds, Esq..	5	1 0	85 ∇	30·45	183
„ („)	M. „ „ „ „	5	1 0	82 ∇	30·45	...

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which 101 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
CESHIRE—(con.)						
Altrincham (Norman's Place)....	A. Griffiths, Esq.	5	7 0	150 T	33·98	181
„ (Barrington House).....	late J. Newton, Esq., CE	8	3 0	105	30·65	...
D Cheadle (Harthill).....	R. A. Grundy, Esq. ...	5	1 0	142 T	30·33	166
Hoylake (The Chase East)	J. F. Leigh Clare, Esq.	5	1 0	29 T	24·78	180
† Birkenhead (Bidston Obs.)	W. E. Plummer, Esq..	8	1 0	189 T	26·63	196
D Northenden (Wythenshawe).....	T. E. Tatton, Esq. ...	5	1 0	114 T	31·13	175
Marple Top Lock	M. S. & L. R. Co.	9	3 6	543 T	31·66	193
„ Aqueduct	„ „ „	9	3 6	321 T	32·07	194
D New Brighton (Rutland House)...	W. Bell, Esq.....	5	1 0	130 B	27·00	178
D Broadbottom (Harewood Lodge)	Col. Sidebottom, M.P...	5	1 0	440	34·76	168
Godley Reservoir	G. H. Hill, Esq., C.E..	12	2 0	500	30·41	...
Newton	M. S. & L. R. Co.	9	3 6	396 T	30·43	178
Mottram	Mr. W. Pitt	8	3 0	679 T	37·14	207
„ (Hill End)	M. S. & L. R. Co.	9	3 6	680 T	36·78	203
„ (Matley's Field)	„ „ „	9	3 6	399 T	34·91	188
D Hadfield (Millbrook).....	Mr. S. H. Doxon	8	3 10	442 T	39·36	219
„ „	„ „ „	12	4 0	442 T	39·53	219
Arnfield Reservoir.....	G. H. Hill, Esq., C.E..	12	2 6	550	42·72	...
† Rhodes Wood Reservoir	„ „ „	12	1 0	520	45·06	...
† Torrside Reservoir	„ „ „	12	1 6	680	45·01	...
Staleybridge (Swineshaw).....	„ „ „	8	3 0	884 T	48·95	...
+ Woodhead Reservoir	„ „ „	12	0 10	660	50·18	...
LANCASHIRE.						
D Garston (Grassendale Park).....	Miss E. C. Abraham ...	5	1 0	35 T	27·91	197
D Aigburth (Kelton).....	J. Sing, Esq.	5	1 0	150 T	28·66	203
D „ (Holmfield)	Miss Maxwell.....	5	1 0	100 T	29·76	197
D Gateacre (The Nook).....	P. C. Hall, Esq.....	5	1 0	90 T	28·79	201
Warrington (Howley)	T. Longdin, Esq.	10	0 10	19 T	29·69	186
„ (The Cemetery)	„ „ „	10	1 0	32 T	26·58	...
„ (Central Station) ...	M. S. & L. R. Co.	9	3 6	59 T	30·12	168
„ (Fever Hospital) ...	J. H. Gornall, Esq., M.D.	5	1 0	...	33·40	186
Liverpool (St. John's Gardens) ..	H. P. Boulnois, Esq., C.E.	9	2 3	48 T	25·85	192
„ „ „ ..	„ „ „ ..	5	0 9	47 T	25·88	192
„ (Grove Park).....	J. R. Darsie, Esq.	3	6 0	160	28·61	...
„ (Huskinson Station) ...	M. S. & L. R. Co.	9	3 6	40 T	30·37	203
D Heaton Mersey [Stockport]	W. B. Leigh, Esq.....	5	3 11	218 T	27·30	207
D Heaton Moor [Stockport] new g.	Dr. F. W. Jordan	5	1 0	235	30·87	204
D Manchester (Withington) No. 2	J. King, jun., Esq. ...	5	1 3	110 T	29·66	188
D „ „ „ No. 3	„ „ „ ..	8	1 6	110 T	29·06	188
D „ (Stretford).....	H. Royle, Esq., C.E....	5	1 0	86 T	31·21	198
D „ (Lady Barn, Fallowfield)	Miss C. Herford.....	5	1 0	122 T	30·00	204
D St. Helens (Eccleston Hill)	J. J. Lackland, Esq., C.E.	12	2 9	268	31·86	174
„ „ ..	The Meteor. Council ...	8	1 0	152	31·29	199
Denton Reservoir	G. H. Hill, Esq., C.E..	12	2 0	324 T	30·07	...
Gorton.....	„ „ „ ..	12	2 0	263 T	29·87	...
D Manchester (Whitworth Park) ..	Prof. Schuster	8	1 6	126	31·58	190
D „ (Plymouth Grove)...	J. F. Roberts, Esq. ...	5	4 2	150 T	30·13	187

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	1896	
LANCASHIRE—(con.)						
† Manchester (Piccadilly)	M. S. & L. R. Co.	9	40 0	194 T	29·53	162
„ (Fairfield)	„ „ „	9	6 0	312 T	33·15	211
D „ (Oldham Road)	Dr. Niven	5	1 0	191 T	33·78	204
D „ (Alexandra Park) ...	J. Casartelli, Esq.	8	3 0	100 T	31·03	196
Eccles (Worsley Hall)	Mr. W. B. Upjohn	8	8 0	80 L	25·46	146
D „ („ Old Hall)	W. Bourke, Esq., C.E. ...	5	1 0	185 T	34·88	196
Blundellsands (Park Corner) ...	T. M. Reade, Esq. C.E. ...	5	1 0	36 T	28·75	...
D Manchester (Newton Heath).....	J. Warren, Esq.	5	1 0	275 T	36·24	190
D „ (Cheetham Hill).....	WB Worthington Esq CE ...	5	1 0	264 T	34·28	201
Ashton (Waterhouses)	M. S. & L. R. Co.	9	3 6	345 T	34·32	198
Prestwich Asylum.....	The Meteor. Council	8	1 0	295	38·42	201
„ Reservoir	G. H. Hill, Esq., C.E. ...	12	2 0	356 T	33·67	...
† Oldham (Gas Works)	„ „ „	5	4 0	600 T	39·92	...
„ (Honeywell Lane)	M. S. & L. R. Co.	8	...	553	39·95	222
„ (Brushes Clough).....	G. H. Hill, Esq., C.E. ...	5	4 0	930 T	45·42	...
„ („ „) <i>New g</i>	„ „ „	5	5 0	955 T	43·69	...
Ormskirk (Aughton Springs) ...	G. Cooke, Esq.	5	0 6	150	31·32	...
D Wigan Waterworks	W. Bolton, Esq.	8	1 6	225 T	35·18	195
D Dalton (Ashurst Beacon)	J. Baxendell, Esq.	5	1 9	540 T	33·08	188
D Bolton (The Park)	W. W. Midgley, Esq. ...	5	1 0	390 T	43·81	209
„ (Heaton) <i>new gauge</i>	RHSwindlehurst Esq CE ...	5	1 0	500	44·97	222
D „ (Ash Lawn, Heaton). ...	F. Taylor, Esq.	5	1 0	406	46·00	212
D „ (Moss Bank)	R. H. Ainsworth, Esq. ...	8	1 6	530 T	52·92	193
D „ (Smithills Hall)	„ „ „	8	1 2	535 T	48·98	181
Bury (Gin Hall)	T. Rigby, Esq.	8	1 0	475	43·87	181
† Milnrow (Piethorne, Kitecliffe)...	G. H. Hill, Esq., C.E. ...	5	4 6	767	40·44	...
„ („ Coldgreave)	„ „ „	5	4 2	894 T	40·85	...
Rochdale (Deeplish Hill)	J. H. Lancashire, Esq. ...	5	1 0	475 T	41·75	192
D „ (Park Observatory) ...	Dr. Henry	8	0 6	472	43·04	222
D „ (Fieldhead)	S. S. Platt, Esq., C.E. ...	8	12 0	484 T	43·43	202
D Ormskirk (Rufford)	T. Hobkirk, Esq.	5	0 8	39 T	33·51	195
Bolton (Belmont) <i>old gauge</i>	RHSwindlehurst Esq CE ...	6	0 9	800	59·90	213
„ („ „) ... <i>new gauge</i>	„ „ „	5	1 0	800	58·48	...
D Southport (Birkdale).....	J. Baxendell, Esq.	5	1 0	29 T	30·69	187
Rochdale (Nayden Dean)	J. Diggle, Esq., C.E. ...	5	1 3	948 T	43·59	...
D† „ (Facit)	T. S. Smithson, Esq.	5	0 6	855 T	51·15	214
D „ (Spring Mill, Whitworth)	W. Tomlinson, Esq. ...	8	1 7	720	49·21	185
D „ (Cowm „ „)	„ „ „	8	1 7	760	50·65	179
Southport (Hesketh Park).....	J. Baxendell, Esq.	5	1 0	22 T	30·82	...
D „ („ „) <i>M.O.g.</i>	„ „ „	8	1 0	22	30·68	183
„ (Lord Street Station)	M. S. & L. R. Co.	9	...	21 T	28·31	174
Entwistle <i>old gauge</i>	RHSwindlehurst Esq CE ...	7	1 0	700	55·80	209
„ <i>new gauge</i>	„ „ „	5	1 0	700	53·16	...
Blackstone Edge (Hollingworth)	Rochdale Canal Compy† ..	10	1 5	650	33·50	...
† „ „ (Windy Bank)	„ „ „	10	1 6	600	38·70	...
† „ „	„ „ „	10	1 9	1225	35·60	...
† „ „ (Canal Summit)	„ „ „	10	1 10	700	34·80	...

† Returns supplied by C. R. Dykes, Esq.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of	Days on which fall or more fall
		Diameter.	Height Above Ground	Height Above Sea Level	Rain.	
			ft in.	feet.	1896	
LANCASHIRE—(con.)						
+Blackstone Edge (Chelbourn) ...	Rochdale Canal Co. ...	10	1 3	800	38.00	...
" " (Lenches)	" " "	10	1 10	800	46.30	...
+ " " (Calf Lee)	" " "	10	1 6	960	35.80	...
Chorley (Crooke Hall)	Carlton Cross, Esq. ...	5	2 6	265 T	36.70	188
Haslingden (Holden Wood)	T. Rigby, Esq.	8	1 0	670	54.68	197
" " (Calf Hey)	" " "	8	1 0	800	52.95	207
D Over Darwen (St. James's Vic.) .	Rev. W. H. Blamire... 5	5	1 0	564 A	50.62	207
" " (Hoddlesden)	W. Stubbs, Esq., C.E.. 8	8	4 0	680	56.80	189
" " "	" " "	8	1 0	675	55.91	187
" " (Daisy Green) No.1	" " "	8	1 0	969	55.10	199
" " " No.2	" " "	8	1 0	969	55.31	200
" " (Pickup Bank) No.1	" " "	8	1 0	720	54.36	199
" " " No.2	" " "	8	1 0	720	53.45	199
D Haslingden	Dr. Harrison	5	1 9	750	52.09	159
D " Vicarage	Rev. A. Spencer..... 8	8	1 6	800 T	49.62	220
D Todmorden (Water Works) No. 1	J. Radcliffe, Esq. 8	8	1 0	980 A	56.59	196
D " " No. 2	" " "	5	1 0	1326 A	54.37	196
D " (Scaitcliffe).....	W. Ormerod, Esq. 8	8	1 0	468 T	50.10	202
Blackburn (Guide Reservoir) ...	W. Stubbs, Esq., C.E.. 8	8	1 0	650	40.84	206
" (Witton)	" " "	8	2 6	315 A	41.89	190
" (Store Yard)	" " "	8	30 0	373 A	33.34	157
" (Waterworks Office).	" " "	8	60 0	436	32.70	185
" (Pumping Station) ...	" " "	8	6 0	600 A	40.82	174
" (Samlesbury)..... M	" " "	8	...	240	31.40	...
D Accrington (Milnshaw Grounds).	Mr. Carr..... 5	5	1 6	464 A	37.13	183
D Preston (Corporation Offices) ...	H. Reah, Esq., C.E. ... 8	8	18 0	148	30.90	139
+Rawtenstall (Clough Bridge Res.)	T. Rigby, Esq. 8	8	1 0	900 A	49.06	223
Burnley Waterworks { +Causeway Side	W. Williamson, Esq. 8	8	2 0	1116	41.10	...
{ +Shedding	" " "	8	2 0	960	41.11	...
{ +Cant Clough, S. Side	" " "	8	2 0	900	41.01	219
{ + " " N. Side	" " "	8	2 0	900	38.81	219
{ +Rams Clough Head	" " "	8	2 0	1260	42.11	...
Rishton Reservoir	Leeds & L'pool Canal Co. ...	...	...	467	33.05	...
Huncoat (Burnley Road Res.) ...	C. Harrison, Esq. 9	9	1 6	620 A	41.81	191
+Burnley (Yorkshire Street)	W. Williamson, Esq... 8	8	30 0	420 A	39.57	212
+ " (Swinden, Upper)	" " "	8	12 0	820 A	41.09	230
+ " " Lower)	" " "	8	2 0	745 A	41.86	230
+ " (Extwistle Moor)	" " "	8	2 0	1310 T	44.23	...
D " (Gawthorpe Hall)	A. Ford, Esq..... 8	8	1 3	316 T	38.53	183
D Preston (Haughton)	J. J. Myres, Esq., C.E. 5	5	1 2	255 A	36.38	196
Alston	H. Reah, Esq., C.E. ... 8	8	1 2	320 A	40.59	...
Kirkham (Weeton)	C. Arthur, Esq. 10	10	1 0	95 T	36.42	...
D Blackpool Hospital	Dr. Anderson..... 5	5	1 0	59 A	32.88	180
D Barton (Anderton Fold)	W. H. Mason, Esq. ... 5	5	0 6	90 T	38.51	178
Nelson (Coldwell Reservoir).....	C. E. Newton, Esq., C.E. 8	8	2 0	950	28.98?	...
Wycoller (Brink End Allotment)	A. Varley, Esq. 5	5	1 0	1050	41.21	...
" " " Moor)	" " "	5	1 0	1320	41.75	...
Worthdale (Watersheddes) ... M	W. H. Hopkinson, Esq. C.E. 5	5	1 0	1115 T	46.42	...

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	1896	
			ft. in.	feet.	inches.	
LANCASHIRE—(con.)						
Wycoller.....	A. Varley, Esq.	5	1 0	700	41·78	...
Emmott Moor.....	" " "	5	1 0	1300	44·70	...
" "	" " "	5	1 0	1200	44·70	...
Laneshaw <i>old g.</i>	" " " .....	...	...	...	34·32	...
" <i>new g.</i>	" " "	5	1 0	845	36·57	...
D Eccleston (Elswick Lodge) <i>old g.</i>	S. King, Esq.	5	1 4	50 T	35·18	184
" { " " } <i>Field</i>	" " "	5	1 0	52 T	38·84	...
" { " " } " "	" " "	5	6 0	56 T	36·78	...
Stonyhurst College	Rev. W. Sidgreaves ...	11	1 0	376 T	44·49	202
D " "	" " "	11	2 0	377 T	44·17	202
" "	M " " "	11	1 0	376 T	43·40	...
Preston W. Works. { Knowle Green	M H. Reah, Esq., C.E. ...	8	1 2	400 T	39·51	...
" { Loud-scales	M " " "	8	1 2	400 T	40·66	...
" { Spade Mill	M " " "	8	1 2	400 T	41·63	...
" { Jeffrey Hill	M " " "	8	1 2	900 T	45·48	...
D St. Michael's-on-Wyre Vic. No.3	Rev. P. J. Hornby	5	1 0	26 T	38·96	200
D Beaton Fell (Barnsfold Res.) ...	J. J. Myres, Esq., C.E. ...	5	1 6	506 T	38·62	186
" (" ") M	" " " "	5	1 6	506 T	38·60	...
Barrowford Reservoir	Leeds & L'pool Canal Co. ...	...	...	473	42·17	...
Foulridge (Canal Office) .....	" " " " .....	...	...	497	40·49	...
" (Cragg Nook Hill) ...	" " " " .....	...	...	690	37·40	...
" (Upper Reservoir) ...	" " " " .....	...	...	582	38·81	...
D Garstang (Bruna Croft)	Sydney Wilson	5	0 6	71 T	39·40	190
Clitheroe (Downham Hall)	R. Assheton, Esq.	10	1 6	464 T	35·23	...
Chatburn (Middlewood)	W. K. Wilkinson, Esq. ...	5	1 3	363 T	40·80	132
Garstang (Barnacre Reservoir)...	C. Arthur, Esq.	10	1 0	617 T	46·80	...
" (Grizedale Reservoir)...	" " " "	10	1 0	519 T	46·42	...
" { " " Stake House)	" " " " .....	...	...	775	47·97	...
D " (Forton).....	W. G. Welch, Esq. ...	5	2 0	130 T	38·55	195
Wyresdale (Abbeystead)	J. Cook, Esq., C.E. ...	8	1 0	366 T	44·31	172
Quernmore (Old Gauge Basin) M	" " " "	8	1 0	963 T	44·83	...
Wyresdale (Wardstone) M	" " " "	8	1 0	1440 T	64·70	...
Quernmore (Brow Top).....	" " " "	8	1 0	552 T	40·88	158
Heysham House.....	Miss Tomlinson	5	1 6	80	44·56	146
D " Hall	Mrs. Grafton	5	1 0	96	39·88	200
Lancaster (Marton Street Yard).	J. Cook, Esq., C.E. ...	8	1 9	70 T	38·06	197
" (Greg Observatory)...	Dr. Schloesser.....	8	1 0	312	40·48	193
" (Escowbeck, Caton)...	A. Greg, Esq.	10	3 0	150 T	41·25	171
Hest Bank	T. Ransome, Esq.	5	2 0	58 T	34·41	157
D Wray Vicarage	Rev. C. L. Reynolds... 5	5	1 0	165 T	41·92	185
Melling (Hornby Castle)	Col. Foster	8	1 8	100	37·71	147
Barrow-in-Furness	W. Fergusson, Esq. ...	11	1 6	36 T	40·95	180
Arkholme (Storrs Hall)	F. F. Pearson, Esq. ...	5	1 0	220	43·46	...
D Ulverston (Urswick)	Rev. R. B. Billinge ...	5	0 6	...	46·07	196
Lindal (Berkune Mines)	Messrs. Newton & Co....	5	9 0	215	44·62	...
†Cartmel (Holker)	Mr. W. Fox	8	4 8	155 T	43·04	181
D†Ulverston (Poaka Beck)	W. Fergusson, Esq. ...	11	1 6	512 T	52·32	221
D Cartmel (Pit Farm)	Mr. W. R. Nash	5	1 0	122 T	46·30	194

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	1896	
LANCASHIRE—(con.)						
Cartmel (Broughton Hall)	Col. Ainsworth	5	2 8	210 ∇	49·43	201
d Colton	Rev. A. Christopherson	5	1 0	226 ∇	56·49	194
”	” ” ”	8	1 0	226 ∇	56·61	...
d Finsthwaite Vicarage	Rev. S. Inman	8	1 2	250	55·44	172
d Broughton-in-Furness	Rev. F. A. Malleeson ...	5	1 3	40	59·19	149
d Blawith	Rev. J. Ashburner.....	5	0 10	185 ∇	60·02	183
d Cartmel Fell Vicarage	Rev. W. Summers.....	5	0 8	220 ∇	58·88	196
d Hawkshead (Esthwaite Lodge)..	Major Alcock-Beck ...	5	3 6	232 ∇	69·03	211
” (” Strickland Ease)	” ” ”	5	3 6	254 ∇	60·94	...
d† Duddon Valley (Seathwaite Vic.)	Rev. S. R. M. Walker	5	1 0	330 ∇	78·83	227
d† Monk Coniston Park	Mr. Wray	5	1 2	305 ∇	85·37	185
Hawkshead (Black Fell)	M. S. A. Marshall, Esq. .	5	1 6	1055 ∇	67·72	...
d Skelwith Fold [Ambleside]	” ” ”	5	1 0	333	82·46	220
” ” [”]	M. ” ” ”	5	1 0	333	81·39	...

DIVISION IX.—YORKSHIRE.

WEST RIDING.

† Sheffield (Brincliffe Rise)	A. W. Chadburn, Esq.	5	1 0	500 ∇	27·70	175
† " (,, Edge)	M. S. & L. R. Co.	9	3 6	336 ∇	25·94	168
† " (Redmires Res.)	E. M. Eaton, Esq., C.E.	10	5 0	1110 ∇	39·41	211
" (,,) weekly	"	8	4 0	1110 ∇	39·14	...
d " (Tylecote, Ranmoor)	J. Dixon, Esq.	5	1 0	610 ∇	30·42	186
" (Rivelin)	E. M. Eaton, Esq., C.E.	10	4 0	564 ∇	32·92	195
" (,,) weekly	"	8	4 0	564 ∇	32·96	...
† " (Crookes)	"	10	2 0	629 ∇	27·27	181
† " (,,) weekly	"	8	2 0	629 ∇	27·28	...
d " (Weston Park)	E. Howarth, Esq.	8	1 0	430 ∇	26·84	184
† " (Victoria Station)	M. S. & L. R. Co.	9	3 6	188 ∇	23·03	190
" (Tinsley Locks)	"	9	...	117 ∇	23·46	169
" (,, Vicarage)	News cutting .....	...	...	...	23·10	...
d Tickhill (Sandbeck Park)	Mr. G. Summers	8	1 0	150 ∇	23·90	167
† Rotherham (Moorgate Grove) ..	the late R. Chrimes, Esq.	5	1 0	262 ∇	21·31	164
" (Thrybergh)	W. H. R. Crabtree Esq. C.E.	8	1 0	184 ∇	21·50	190
d Tickhill	G. G. Phillips, Esq. ..	8	1 0	61 ∇	23·02	162
d Sheffield (Chapelton)	Mr. D. Bell	8	5 0	582 ∇	24·63	171
Doncaster (Firsby)	W. H. R. Crabtree Esq. C.E.	8	1 3	189 ∇	24·90	191
d " (Wadworth Hall)	Rev. J. C. Ross	8	1 0	190 ∇	23·65	191
" (,,)	"	5	1 0	190 ∇	23·65	191
d Bolsterstone (Waldershaigh) ..	C. M. Wilson, Esq.	8	3 1	950 ∇	31·38	210
d Wentworth Woodhouse	Mr. J. Hughes	5	0 6	360	23·69	114
Wortley	M. S. & L. R. Co.	9	3 6	548 ∇	26·27	190
Elsecar	"	9	3 6	181 ∇	22·75	159
† Langsett Moor (Pike Lowe)	G. J. Symons, Esq. F.R.S.	5	1 0	1358 ∇	45·95	...
† " (Ewden Height)	"	5	1 0	1099 ∇	44·73	...
† " (Range Moor)	"	5	1 0	1040 ∇	44·41	...
† " (Upper Midhope)	"	5	1 0	912 ∇	40·19	...

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	1896	
			ft. in.	feet.	inches.	
WEST RIDING—(con.)						
D Hoyland (King Street).....	J. W. Wilson, Esq. ...	5	1 0	330	22·48	142
D Wath-upon-Deerne (Chapel St.)	Dr. Burman	8	1 0	185 ∇	20·29	169
Worsborough	M. S. & L. R. Co.	9	...	225 ∇	23·05	152
D Stainborough (Wentworth Castle)	W. Fisher, Esq.....	8	2 6	520 ∇	27·20	164
Doncaster	M. S. & L. R. Co.	9	...	32 ∇	20·00	160
„ (Pumping Station) ...	WHR. Crabtree, Esq CE	8	1 2	30 ∇	22·87	168
D „ (Magdalens)	Mr. C. Parkin	5	4 9	46 ∇	21·34	173
Dunford Brdg. (Up. Windleden) M	H. Dearden, Esq., C.E.	12	2 2	...	48·86	...
† „ „ (Dearden Res.) M	„ „ „ „	12	1 6	1244 ∇	50·29	...
† „ „ Station	M. S. & L. R. Co.	9	3 6	954 ∇	47·72	191
D† „ „ Reservoir	H. Dearden, Esq., C.E.	12	2 0	1111 ∇	49·18	206
Greenfield (Chew Mount)	G. H. Hill, Esq., C.E..	7	0 7	...	54·40	...
„ (Yeoman Hey)	„ „ „ „	7	0 7	759	48·90	...
† Penistone (Carl cotes)	M. S. & L. R. Co.	9	4 0	1075 ∇	47·24	209
† „ „	„ „ „ „	9	3 6	717 ∇	32·67	177
† „ (Hazlehead)	„ „ „ „	9	3 9	868 ∇	41·07	203
† „ (Ingbirchworth Res.)..	J. H. Taylor, Esq. C.E.	8	1 3	853 ∇	34·72	185
Holmbridge (Yateholme)	O. J. Kirby, Esq., C.E.	7	1 0	861 ∇	57·80	...
† „ (Holme Styes)	Mr. L. Hinchliffe	7	2 0	830 ∇	45·60	...
† „ (Boshaw Whams) ...	„ „ „ „	7	2 6	930 ∇	50·20	...
† „ (Bilberry Reservoir)..	„ „ „ „	7	2 6	820 ∇	57·30	...
D Barnsley (Church Street)	Dr. Sadler	5	5 2	350 ∇	25·86	196
„ (Beckett Square)	J. H. Taylor, Esq., C.E.	...	...	...	25·47	161
„	M. S. & L. R. Co.	9	...	317 ∇	21·59	125
† Saddleworth Station	M. L. K. Jones, Esq.....	5	4 2	630 ∇	42·90	...
Barnsley (Cawthorne)	Rev C. T. Pratt.....	5	1 6	340 ∇	26·54	167
Strinesdale [Oldham]	G. H. Hill, Esq., C.E..	5	4 0	815	35·42	...
† Meltham (Harden Moss)	J. W. Schofield, Esq....	8	1 2	1212 ∇	47·17	...
„ „ „ „ new g. „ „ „ „	„ „ „ „	8	1 0	1212 ∇	47·73	...
Wessenden Head	„ „ „ „	8	1 0	1270 ∇	43·71	...
„ (Hollin Bank Moss) ..	„ „ „ „	8	1 0	1360 ∇	30·17	...
„ (Great Butterley) ...	„ „ „ „	8	1 0	1110 ∇	38·74	...
„ (Bobus)	„ „ „ „	8	1 0	1200 ∇	41·94	...
Standedge (Castleshaw)	G. H. Hill, Esq. C.E..	8	4 6	876 ∇	43·91	...
„ (Redbrook Res.) old g.	L. K. Jones, Esq.	8	1 8	1150	46·06	...
„ „ „ „ new g. „ „ „ „	„ „ „ „	8	1 6	1150	45·09	...
† Meltham (Brow Grains)	J. W. Schofield, Esq....	8	1 0	900 ∇	44·40	...
Denshaw (Ox Hey)	G. H. Hill, Esq., C.E..	5	4 6	1030	43·33	...
„ (New Year's Bridge)...	„ „ „ „	5	4 0	1012 ∇	48·59	...
„ (Ready Con Dean)	„ „ „ „	5	4 6	1414	38·62	...
Meltham (Royd Edge)	C. L. Brook, Esq.	8	1 0	585 ∇	47·55	...
D „ (Harewood Lodge) new g	„ „ „ „	8	1 0	514 ∇	43·57	212
† „ Grange	J. W. Schofield, Esq....	8	1 2	850 ∇	40·36	...
† Marsden (Deer Hill)	„ „ „ „	8	1 0	1149 ∇	43·64	...
„ „ „ „ new g. „ „ „ „	„ „ „ „	8	1 0	1149 ∇	43·94	...
D Doncaster (Kirk Bramwith)	late BS Brundell, Esq CE	5	1 0	17 ∇	22·16	200
D† Slaithwaite (Blackmoorfoot)	J. W. Schofield, Esq....	8	1 0	800 ∇	40·30	223
Honley (Northgate House)	W. Brooke, Esq.	5	1 0	350 ∇	30·75	...

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which not or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in.	feet.	inches.	
WEST RIDING—(con.)						
Wakefield (Walton)	E. Simpson, Esq.	5	1 0	140 T	20·22	137
Huddersfield (Bankfield, Golcar) ..	J. E. Ramsden, Esq.	5	1 0	400 T	35·20	202
„ (Firth Obs.=Cemetery) ..	Mr. J. Firth	8	4 0	400	27·91	193
„ (Dalton)	J. W. Robson, Esq.	12	1 0	350 T	35·73	191
Longwood (Bilberry Edge)	J. W. Schofield, Esq.	8	1 0	1090 T	30·02	...
Ackworth (Nostell Priory)	Mr. J. Easter	5	4 0	...	24·97	148
Mirfield (Cote Wall)	late E. B. W. Balme, Esq.	8	0 9	200	26·46	172
Wakefield Prison	Dr. H. Clarke	8	1 0	96 T	25·06	143
„ (Field Head)	R. Porter, Esq.	8	1 6	250 T	25·07	142
„ (Stanley Grange)	F. E. Haworth, Esq.	5	1 0	235 T	25·54	183
Goole (Swinfleet)	Mr. G. Harrison	5	5 6	...	25·98	140
„	W. E. Grayburn, Esq.	5	1 0	18 T	22·54	168
Rastrick	Messrs. J. T. Clay & Sons	5	20 0	380	25·59	153
Batley (Staincliffe Reservoir) ...	O. J. Kirby, Esq., C.E.	7	1 0	492 T	23·60	...
Sowerby Bridge (Haugh End) ...	J. S. Rawson, Esq.	5	0 8	450 T	37·90	201
Halifax (Bents, Norland)	„ „ „	5	0 8	800 T	34·52	...
„ (Bermerside Observatory) ..	J. Gledhill, Esq.	8	0 6	500	31·36	196
„ (Hall Ings, S. Oworm) ...	Rev. G. E. Aspinall ...	5	0 7	750 T	29·85	196
„ (Thorpe)	J. S. Rawson, Esq.	8	0 8	345 T	40·28	...
„ „	„ „ „	5	0 8	345 T	40·56	...
„ (Public Library)	J. Whiteley, Esq.	8	1 0	625 T	32·02	173
„ (Albert)	J. A. Paskin, Esq., C.E.	5	1 0	795 T	32·76	...
„ (Gibbet)	„ „ „	5	6 0	568 T	30·34	...
„ (Ramsden Wood)	„ „ „	8	1 2	816 T	36·08	...
Methley Park	J. Richardson, Esq. C.E.	5	0 9	98 T	26·49	157
Mytholmroyd (Ewood Hall)	Mrs. Riley	8	4 5	500 T	38·45	190
Hebden Bridge (Falling Royd) ..	A. R. Crossley, Esq.	4	1 0	479 T	42·79	198
„ (Summerfield) ..	J. Hoyle, Esq.	5	0 8	875 T	39·87	223
Halifax (Castle Carr)	J. A. Paskin, Esq., C.E. ....	...	...	1060 T	39·04	...
„ (Midgley Moor)	„ „ „	7	0 6	1350 T	46·62	...
„ (Warley Moor)	„ „ „	7	0 6	1425 T	42·42	...
„ (Ogden)	„ „ „	8	1 3	990 T	42·88	...
„ (Ovenden) .....	„ „ „ .....	...	...	1375	47·95	...
„ (Widdop) .....	„ „ „ .....	...	...	1050	50·56	...
„ (Walshaw Dean)	„ „ „	8	0 3	1380 T	45·19	...
South Milford Rectory	Rev. F. J. Young	5	1 2	70 T	22·35	182
Bradford (Queensbury)	R. J. Foster, Esq.	8	2 2	1050	34·35	142
„ (Bowling Dyeworks) ..	H. Ripley, Esq.	8	1 0	490 T	28·73	185
„ (Brayshaw Reservoir) ..	J. Watson, Esq., C.E.	5	1 0	982 T	35·22	206
„ (The Exchange)	H. A. Johnson, Esq., C.E.	8	65 6	395 T	28·46	191
„ (Allerton Road)	J. Clayton, Esq.	5	1 0	522 T	33·54	203
„ (Thornton Moor)	J. Watson, Esq., C.E.	5	1 0	1218 T	45·91	255
„ (Stubden) <i>old gauge</i> ...	„ „ „	8	1 0	1075 T	48·78	262
„ „	„ „ „	5	1 0	1071 T	40·01	263
„ (Nan Scar, Oxenhope) M	„ „ „	5	1 0	1101 T	48·41	...
„ (Stairs Top)	„ „ „	5	1 0	1401 T	46·66	...
„ (Leeming Reservoir) ...	„ „ „	5	1 0	850 T	34·03	...
„ (Doe Park) <i>old gauge</i> ...	„ „ „	8	1 0	810 T	46·71	226

DIVISION IX.—YORKSHIRE.—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
WEST RIDING—(con.)						
Bradford (Doe Park)	J. Watson, Esq., C.E..	5	1 0	811 ∇	41·21	225
„ (Manningham)	J. McLandsborough, Esq.	5	6 6	428 ∇	29·36	...
„ „ „ (Lodge)	J. Priestman, Esq.	5	1 0	507	30·99	180
„ (Leeshaw Res.)	J. Watson, Esq., C.E..	5	1 0	875 ∇	45·46	...
„ (Chellow Dean)	„ „ „	5	1 0	645 ∇	36·09	209
„ (Hewenden Res.) <i>old g.</i>	„ „ „	5	1 0	700 ∇	43·16	211
„ „ „ „	„ „ „	5	1 0	701 ∇	41·19	211
„ (Heaton Res.) <i>old g.</i>	„ „ „	8	1 0	530 ∇	31·59	192
„ „ „ „	„ „ „	5	1 0	531 ∇	26·57?	190
Leeds (Wortley Res.)	T. Hewson, Esq., C.E..	8	0 9	307 ∇	29·10	185
„ (Knostrop)	„ „ „	8	0 9	72 ∇	24·28	166
D „ (Holbeck)	Messrs. J. Rhodes & Co.	10	32 0	127 ∇	22·68	133
D „ „ (W. Works Depot)	T. Hewson, Esq., C.E..	8	0 9	93 ∇	25·57	171
D „ (Museum)	H. Crowther, Esq.	10	46 0	177	24·78	169
„ (Woodhouse Moor)	T. Hewson, Esq., C.E..	8	0 9	307 ∇	27·43	187
D „ „ (Cliff)	R. Reynolds, Esq.	5	1 0	330	26·84	191
D „ (Elmet Hall, Roundhay)..	J. H. Kitson, Esq.	5	1 6	400 ∇	27·73	178
„ (Weetwood Reservoir) ..	T. Hewson, Esq., C.E..	8	0 9	328 ∇	26·04	160
„ „ „ (Lodge)	J. P. Reay, Esq.	5	0 9	400 ∇	26·19	176
D „ (Allerton Hill)	T. Fenwick, Esq., C.E..	5	0 7	418 ∇	27·15	195
D „ (Oliver Hill, Horsforth)..	C. France, Esq.	3	1 0	250 ∇	34·55	193
Shipley (Crag End)	Leeds & L'pool Canal Co.	...	...	304	28·93	...
„ (Moor Head)	Mrs. Knowles	8	10 0	500	28·64	160
D Oakworth (Oldfield)	W. H. Hopkinson, Esq. CE	5	1 0	1008 ∇	42·87	161
Bingley (Gilstead Filters)	J. Watson, Esq., C.E..	5	1 0	572 ∇	25·79	185
Keighley (The Knowle)	W. Clough, Esq.	5	1 0	380	36·55	195
Adel (Lawns Wood)	Mr. C. S. Irvine	5	1 0	475 ∇	26·27	185
„ (Eccup South)	T. Hewson, Esq., C.E..	8	0 9	390 ∇	27·94	182
„ „ (East)	„ „ „	8	0 9	375 ∇	27·90	166
† Bingley (Sunnydale)	J. Watson, Esq., C.E..	5	1 0	975 ∇	33·99	190
Harewood (Arthington)	T. Hewson, Esq., C.E..	8	0 9	139 ∇	28·84	162
Ben Rhydding (Dunluce)	H. A. Hering, Esq.	5	1 0	...	34·24	...
D Ilkley	G. W. Worfolk, Esq.	5	20 0	331 ∇	33·96	159
† „ (Cherry Bank)	Mrs. H. Richardson	8	1 3	600	34·86	118
Skipton (Silsden Reservoir)	J. Watson, Esq., C.E..	5	1 0	560 ∇	27·93	173
Leathley (Lindley Wood S)	T. Hewson, Esq., C.E..	8	0 9	312 ∇	30·51	200
„ „ „ (N)	„ „ „	8	0 9	320 ∇	30·61	200
Slaidburn (Hareden Brook) ... M	H. Reah, Esq., C.E..	8	1 2	540	71·90	...
„ (Langden Brook) ... M	„ „ „	8	1 2	556	72·40	...
„ (Whiteholme)	W. K. Wilkinson, Esq.	5	1 3	475 ∇	48·30	156
Skipton (Cringle's Reservoir) ...	J. Watson, Esq., C.E..	5	1 0	760 ∇	29·02	173
„ (Chelker Reservoir) ... M	„ „ „	5	1 0	730 ∇	30·75	...
„ „ „	The Meteor. Council ...	5	0 10	568	34·98	201
† „ (Craven Herald Office) ...	E. Townsend, Esq.	8	2 0	360	32·06	184
„ (Hawthorne Cottage) ...	Leeds & L'pool Canal Co.	...	...	380	32·32	...
Gargrave (Banks Hill Bank Newtn)	„ „ „ .....	...	...	545	28·72	...
„ (Ray Bridge Hill) .....	„ „ „ .....	...	...	459	29·32	...
„ (Great Scarnber Hill) ...	„ „ „ .....	...	...	676	31·88	...

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
WEST RIDING—(con.)						
Slaidburn (Dunsop Houses)	W. Stubbs, Esq., C.E..	8	1 0	450 T	60·48	183
„ (Middle Knoll)..... M	„ „ „	8	2 6	1298 T	52·85	...
„ (Brennand)	„ „ „	8	1 0	820 T	73·24	198
„ (Whitendale)	„ „ „	8	1 0	830 T	70·52	198
„ (Cabin Hill)..... M	„ „ „	8	3 1	1559 T	56·85	...
„ (Baxton Fell)	„ „ „	8	2 6	1540 T	56·45	...
Winterburn (Long Hill)	Leeds & L'pool Canal Co.	...	...	705	34·51	...
„ (Brown Hill).....	„ „ „	...	...	961	40·46	...
D York (Mount Villas)	J. S. Rowntree, Esq....	5	1 0	70	21·36	204
D „ (Burton Croft)	G. Crawhall, Esq.	5	1 0	45 T	23·32	199
D „ (Cherry Hill)	Mrs. H. Richardson ...	5	1 6	40	21·12	192
„ (Phil. Soc. Gardens)	The Meteor. Council ...	8	1 9	53 T	22·15	189
„ („ „ „)	„ „ „	8	1 9	53 T	21·98	190
„ (Bootham)	J. E. Clark, Esq.	5	0 10	50	21·14	...
D Wetherby (Ribston)	Mr. Jones	5	1 2	130 T	21·74	111
Bolton Abbey Estate Office	A. Downs, Esq.....	5	1 2	350	36·84	187
Fewston (Swinsty E).....	T. Hewson, Esq., C.E.	8	0 9	460 T	34·38	199
„ („ W)	„ „ „	8	0 9	425 T	34·76	199
„ (Timble)	„ „ „	8	0 9	720 T	33·11	215
„ South	„ „ „	8	0 9	525 T	35·67	211
„ North	„ „ „	8	0 9	525 T	32·77	211
„ (Spinksburn)	„ „ „	8	0 9	636 T	31·02	188
Blubberhouses	„ „ „	8	0 9	575 T	35·22	195
†Harrogate (Bog Valley Gardens)	J. Farrah, Esq.	5	1 0	344 T	28·26	198
D „ (The Stray)	Mr. Gledhill	5	1 0	...	26·88	198
D „	„ „ „	5	1 0	...	27·55	198
D „ (St. Mary's Avenue).....	G. Paul, Esq.....	5	1 0	589	30·54	185
Barden Reservoir	old g. J. Watson, Esq., C.E..	8	1 2	746 T	39·68	238
„ „	„ „ „	5	1 0	746 T	38·15	238
Otterburn-in-Craven.....	W. Gomersall, Esq. ...	5	1 0	510 T	38·28	171
West End	T. Hewson, Esq., C.E.	8	0 9	795 T	39·46	205
„ „ (Thruscross)	„ „ „	8	0 9	900 T	36·54	218
Upper Barden Reservoir	J. Watson, Esq., C.E..	5	1 0	1250 T	37·79	232
Burnsall (Thorpe Fell)..... M	„ „ „	5	1 0	1661 T	37·01	...
„ (Sandbed Beck)	„ „ „	5	1 0	676 T	38·47	...
„ Rectory	Rev. W. J. Stavert ...	8	4 5	503 T	43·00	214
†Knaresborough (Conyngh'm Hall)	Mr. G. Knight	5	1 3	200 T	23·86	128
D „ (Farnham)	R. Elmhirst, Esq.	5	1 0	170 T	24·14	193
D Ripley Castle	Mr. J. Tunnington.....	5	1 0	230 T	27·12	177
D Settle (The Terrace)	J. W. Shepherd, Esq..	8	1 2	525 T	42·93	204
D†Pateley Bridge (Castle Stead) ...	Mr. C. May	5	1 0	410	39·47	189
Grimwith Reservoir	old g. J. Watson, Esq., C.E..	8	1 0	890 T	42·64	226
„ „	„ „ „	5	1 0	893 T	42·76	226
„ (Trunla Hill)	M „ „ „	5	1 0	1201 T	37·40	...
Pateley Moor (Smaden Head) ...	T. Hewson, Esq., C.E..	8	0 9	793 T	27·57	162
D†Malham Tarn.....	Mr. Coulthard	5	1 0	1296 T	55·39	217
D „ „	new gauge „ „	8	1 0	1296 T	55·00	217
D Austwick (Crow Nest)	J. Howson, Esq.....	8	1 0	570	41·05	192

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which -01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
WEST RIDING—(con.)						
Dallow Moor (High Skeldon) ...	T. Hewson, Esq., C.E..	8	0 9	719 A	33·25	168
" " (Harper Hill)	" " "	8	0 9	859 A	33·93	185
d† Ripon (The Red House)	F. D. Wise, Esq.	5	1 0	120	23·93	165
D " (W.W. Lumley Moor) ...	Mr. G. Craggs	8	0 6	572 T	37·47	155
† Ramsgill (Raygill House)	J. Watson, Esq., C.E..	5	1 0	925 T	47·72	215
" "	" " "	5	1 0	450 T	43·91	195
d† Arncliffe Vicarage	Rev. W. A. Shuffrey..	8	3 0	734 T	58·00	196
D " (Amerdale)	J. Hammond, Esq. ...	8	1 6	734	56·61	214
† Nidderdale (High Riggs)	J. Watson, Esq., C.E..	5	1 0	1010 T	46·83	185
" " (East Gill Head) ...	" " "	5	1 0	1710 A	50·22	...
† " (Rain Stang) M	" " "	5	1 0	1470 T	41·86	...
† " (Angram)	" " "	5	1 0	1150 T	49·00	142
† " (New Houses)	" " "	5	1 0	755 T	42·26	184
Kirkby Malzeard (Drovers' Inn)..	T. Hewson, Esq., C.E.	8	0 9	633 A	32·22	175
" " (Hawset)	" " "	8	0 9	820 A	35·05	205
" " (Hambleton Hill)	" " "	8	0 9	1106 A	41·33	...
" " (Bagwith Brae).	" " "	8	0 9	697 A	32·81	202
" " (Stone & Ears Wham)	" " "	8	0 9	1118 A	37·87	...
D Ripon (High Bank, Mickley) ...	Miss Harrison	5	1 6	225 T	26·79	153
Masham Moor (Benjy Guide) ...	T. Hewson, Esq., C.E..	8	0 9	1412 A	46·34	...
" " (W Somerside)... ..	" " "	8	0 9	960 A	38·78	151
" " (High Sour Mire)	" " "	8	0 9	884 A	33·97	182
" " (Leighton)	" " "	8	0 9	636 A	30·93	172
" " (Low Houses).....	" " "	8	0 9	693 A	35·22	191
D Oughtershaw Hall	Miss Woodd	8	1 6	1175 T	65·96	202
Sedbergh (Gate)	The Meteor. Council ...	5	0 6	400 T	53·92	190
d† " (Brig Flatts)	J. Handley, Esq.	5	1 0	300 T	49·75	196
" " (Akay)	C. E. Taylor, Esq.....	5	1 0	400 T	52·73	...
D " (Cemetery)	Mr. J. Anderson.....	5	1 0	374 A	53·75	209
† " (Thorns Hall)	Miss Sedgwick	5	1 0	400 T	51·61	197
EAST RIDING.						
Patrington (Spurn Head)	The Meteor. Council ...	8	1 0	27	21·19	172
D "	W. B. Pugh, Esq.	5	2 6	46 A	23·66	137
d† Hull (Pearson Park)....	E. A. Peak, Esq.	5	0 6	6	27·10	174
D Hedon (The Vicarage)	Rev. J. H. Richardson	5	1 0	...	22·05	175
D Cottingham	J. H. Hill, Esq.....	8	1 3	26 T	26·92	173
D Beverley (East Riding Asylum).	Dr. Macleod	5	1 0	175 T	25·03	196
D " (Register House)	G. A. Thompson, Esq. .	5	1 0	22	26·43	195
" " (New Walk)	W. Evans, Esq., C.E...	5	3 0	38	26·10	173
" " (Hull Bridge).....	" " "	5	2 6	11 A	24·59	182
D Cherry Burton	H. J. Hildyard, Esq....	8	0 8	...	26·40	191
D Market Weighton (Dalton Hall)	Mr. J. Allsop	8	1 4	150 T	25·79	182
D Hornsea (Elim Lodge)	T. B. Holmes, Esq.	8	1 3	30 B	26·94	193
Brandesburton (Hempholm).....	W. Evans, Esq., C.E...	5	2 6	11 A	22·93	191
Middleton-in-the-Wolds	Rev. H. D. Blanchard.	5	1 0	156	23·53	162
D Pocklington (Warter)	J. Coxon, Esq.	5	1 10	230 T	26·56	167
Catton Rectory [York].....	Rev. H. L. Puxley.....	5	0 2	50 T	24·80	...

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which 101 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
EAST RIDING—(con.)						
D Driffield (Beverley Road).....	Rev. J. T. Harwood ...	8	8 0	68 T	21·68	198
„ (York Road) <i>Snowdon</i>	W. F. Lovel, Esq. ...	5	1 0	76 T	24·31	198
„ („)M	„ „ „	5	1 0	76 T	23·64	...
„ (Highfield)	Mr. G. R. Merryweather	5	1 0	76	23·83	172
Wetwang	Rev. E. M. Cole	5	1 0	235 T	25·00	173
D Thixendale.....	Rev. W. H. Fox	10	0 10	425 T	31·13	201
D Lowthorpe (The Elms)	H. Onslow Piercy, Esq.	5	1 0	63 T	25·31	184
D Ganton Hall [Scarborough].....	Mr. Sherwood.....	...	...	...	26·11	128
Hunmanby (Holly Bank).....	Miss Suter	5	7 4	...	25·19	...
NORTH RIDING.						
Terrington Hall.....	Mr. T. Suffield	5	1 5	300 T	24·56	208
†Old Malton	H. Hurtle, Esq. ...	10	1 0	75 T	23·66	...
D Hovingham (Wigganthurpe) ...	Mr. J. S. Upex	5	1 0	350 T	25·11	212
D Melmerby (Baldersby)	W. Gregson, Esq.	5	1 0	101 T	22·51	177
D Thirsk (Sowerby)	C. M. Swarbreck, Esq..	5	1 0	105 T	21·47	190
D „ („)	A. C. Bamlett, Esq. ...	5	...	...	24·14	110
D Pickering (The Vicarage).....	Rev. G. H. Lightfoot..	5	0 8	180	22·76	169
D Bedale (Thorpe Perrow)	Mr. W. Culverwell ...	5	1 6	170	24·07	151
†Hawes Junction.....	The Meteor. Council ...	8	1 0	1135	55·37	219
†Aysgarth Vicarage.....M	Rev. F. W. Stow	3	1 0	644 T	38·98	...
D „ „ „	„ „ „	8	1 0	659 T	35·93	193
D†Leyburn (Bolton Hall)	Mr. F. Scrivener	8	1 0	420	30·38	189
D Seamer (Irton)	W. Millhouse, Esq. C.E.	8	1 0	94	26·84	172
D Scarborough (Osgodby).....	„ „ „	8	1 0	166	23·61	136
D „ (Observatory)	E. W. Ellerbeck, Esq..	8	...	...	22·57	176
D Boltby.....	A. C. Bamlett, Esq. ...	...	...	...	24·03	118
Cloughton (Burneston)	Rev. J. T. Hartley ...	5	3 9	110 T	23·33	...
D Hawes (South Lunds School) ...	Mr. Masheter	5	1 0	1100	50·06	165
D Northallerton (The Lodge)	W. Stead, Esq., C.E....	8	1 0	130	25·86	186
D „ (Osmotherley).....	T. Yeoman, Esq.	8	0 8	650	23·56	149
Richmond (The Grove)	G. Roper, Esq.	5	1 3	430 T	27·28	...
D „ „ „	Mrs. Davidson	5	1 1	463 T	27·36	184
Northallerton (Rounton Grange).	The Royal Meteor. Soc.	8	1 0	242	25·61	183
D Ingleby Manor	The Hon. P. Sidney.....	5	0 11	440 T	35·62	206
D „ Greenhow Vicarage.....	Rev. J. Hawell	5	1 0	448 T	32·93	201
Fylingdales Vicarage	Rev. R. J. Cooper	5	0 5	120	20·65	...
East Layton	Mrs. Proud	5	1 0	575 T	27·62	145
D Stanwick Park [Darlington].....	Mr. W. Higgle	5	1 1	300 T	27·34	179
D Forcett Park [„].....	Capt. Michell	5	1 0	360 T	26·94	193
Whitby (Royal Crescent)	T. Newbitt, Esq.	8	1 0	145 T	20·05	150
D „ (Mulgrave Castle)	Mr. J. Corbett	5	1 0	410 T	25·96	233
Bowes	G. J. Symons, Esq. F.R.S	8	1 0	950	27·60	...
Guisborough (Hutton Hall)	Sir J. W. Pease, Bt., M.P.	5	1 3	400 T	35·74	217
D „ (Lockwood Beck Res.).....	W. P. Anson, Esq., C.E.	8	1 0	632 T	34·72	211
Middlesborough (Albert Park)...	J. M. Parnaby, Esq. ...	8	2 0	30	24·15	169
D Barnard Castle (Hury Res.).....	D. D. Wilson, Esq. ...	8	1 0	866 T	35·00	206
D Mickleton	G. J. Symons, Esq. F.R.S	8	1 0	...	28·74	165
† „ (Lime Kiln Pasture)M	„ „ „	8	1 0	1175 T	27·80	...
† „ („ „ „)M	„ „ „	8	1 0	1175 T	28·75	...

DIVISION X—NORTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which 1/10 or more fell.
		Diameter	Height above Ground.	Height above Sea Level	1896	
			ft. in.	feet.	inches.	
DURHAM.						
Darlington (Hurworth Grange)...	J. E. Backhouse, Esq..	5	1 0	161 π	22·96	178
" (Elcott, Hurworth)...	Rev. W. E. Stewart ...	5	1 0	121 π	22·56	220
" (Dinsdale Rectory)...	late Rev. J. W. Smith.	5	2 0	54 π	22·54	161
" (South End)	Mr. N. Black	8	0 10	140	23·43	205
† " (Cleveland Parade)...	S. Hare, Esq.....	5	1 0	160 π	23·25	197
" (Langholme Crescent)...	J. H. Simpson, Esq. ...	5	1 6	165 π	24·62	193
" (Hummersknott) ...	Mr. J. Short	5	1 0	...	23·98	139
" (Brinkburn)	Mr. H. Waud.....	8	1 6	165	21·78	124
Barnard Castle (County School)...	E. Wells, Esq.	5	1 6	540 π	25·24	168
† Staindrop (Raby Castle)	Mr. R. W. Smith	8	0 9	460 π	35·85	...
Stockton (Rimswell)	W. Anderson, Esq., C.E.	5	1 0	150 π	24·10	205
Bishop Auckland (Mt. Pleasant)...	E. Lingford, Esq.	6	3 0	408	23·62	162
" (The Castle)...	Mr. E. Ford	5	1 0	300	23·78	196
Witton-le-Wear (Witton Tower)...	W. R. I. Hopkins, Esq.	5	0 8	420 π	25·59	167
West Hartlepool (Lynn Street)...	Mr. H. Lamb.....	5	63 0	84	17·63	163
Hartlepool (Heugh Lighthouse)...	W. Belk, Esq., C.E. ...	5	0 6	34 π	22·59	205
" (Hurworth Burn) ...	T. Fenwick, Esq., C.E.	5	0 7	360	27·09	128
" (Hart Reservoir).....	" " " "	8	0 9	164	23·01	170
† Wolsingham	Mr. A. Mitchell	5	1 0	464 π	29·03	203
Tow Law	Rev. T. E. Espin	5	1 0	990	26·85	192
Durham Observatory.....	The Meteor. Council ...	12	4 0	340	24·51	210
Ushaw College	Rev. J. Corbishley	5	0 9	600 π	28·63	...
Weardale W.W. (Tunstall) ...	R. Askwith, Esq., C.E.	8	1 2	724 π	31·91	170
† " " (Waskerley 6) ...	" " " "	8	4 2	1229 π	31·99	...
" " (" 3) ...	" " " "	8	4 6	1433 π	32·14	...
† " " (" 4) ...	" " " "	8	4 7	1321 π	32·09	...
† " " (" 5) ...	" " " "	8	4 2	1244 π	31·86	...
D " " (" 11) ...	" " " "	8	0 11	1179 π	33·14	158
† " " (" 2) ...	" " " "	8	4 5	1367 π	31·95	...
† " " (" 1) ...	" " " "	8	4 4	1317 π	32·01	...
D Consett W.W. (Smiddy Shaw)...	" " " "	8	1 3	1128 π	31·10	209
D Seaham Harbour Cemetery	Mr. R. Leith	8	1 6	150	26·58	210
" Vicarage	Rev. A. Bethune	5	0 6	80 π	24·67	...
D " Hall	Mr. R. Draper	5	1 0	106 π	26·94	128
Houghton-le-Spring (Myre Hall)...	D. Balfour, Esq., C.E.	5	1 0	261 π	26·91	170
D Shotley Bridge	E. H. Hayward, Esq. ...	5	0 8	345 π	26·87	125
D Sunderland (W. Hendon Ho) No. 5	T. W. Backhouse, Esq.	5	1 0	130 π	24·07	174
" (" " ") No. 6	" " " "	5	1 0	130 π	24·25	...
D " (Fever Hospital)	H. Scurfield, Esq., M.D.	5	5 0	105	21·19	159
D Gateshead (Eighton Cottage) ...	Miss Favell.....	5	3 1	515	26·96	202
D Ryton-on-Tyne	J. W. Smith, Esq., M.D.	5	1 6	...	27·79	173
NORTHUMBERLAND.						
D Haltwhistle (Unthank Hall).....	Rev. D. Dixon Brown..	5	0 9	380 π	32·83	195
D Ovingham (W. Tyne Colliery)...	T. Gilchrist, Esq.	8	2 0	179 π	25·74	190
D Corbridge (Howden Dene)	J. H. Straker, Esq. ...	5	0 9	200	27·14	193
D Newcastle (Clifton Road).....	R. Foster, Esq.	8	1 6	314 π	26·22	174
" (" ")	" " " "	5	1 0	314 π	26·12	...

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which 40 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level		
			ft. in.	feet.	inches.	
NORTHUMBERLAND —(con.)						
† Newcastle (Lit. and Phil. Soc.)..	H. Richardson, Esq. ..	8	55 0	160	27.58	141
† „ (Chronicle Office).....	A. Yarrow, Esq.....	8	30 0	148	26.31	178
† „ (Northumberland Rd.)	N. H. Martin, Esq. ...	8	45 0	200	25.19	206
† „ (Gladstone Terrace)...	Mr. W. Smurthwaite...	2	6 0	156 †	28.20	134
„ (Claremont Road) ...	Mr. T. Bone	4	2 0	240 †	27.37	165
D „ (Leazes Park)	The Borough Engineer.	5	1 0	250 †	27.81	190
† „ (Town Moor)	A. Wright, Esq.	5	2 0	201 †	26.91	176
† „ (Wellburn, Jesmond).	W. H. Holmes, Esq....	5	1 6	161 †	27.67	194
North Shields (Post Office)	The Meteor. Council ...	8	1 4	100	23.18	170
D „ „ (Tynemouth)	late P. J. Messent Esq. CE	5	1 8	65 †	23.55	186
Newcastle and Gateshead W. W. { Whittle Dean	G. Smith, Esq.	10	...	...	26.91	...
{ Swinburn (Woodford).....	„ „ „	10	0 6	500 †	30.46	...
{ North Tyne (Green Crag) ..	„ „ „	10	0 6	800 †	30.30	...
{ „ „ Valley	„ „ „	10	0 6	300 †	28.53	...
{ Hallington	„ „ „	10	0 6	469 †	28.94	...
{ „ (Fawcett)	„ „ „	10	0 6	563 †	27.59	...
{ Gunnerton Burn (Camphill)..	„ „ „	10	0 6	676 †	28.11	...
Scots Gap (Wallington)	Lady Trevelyan	5	...	...	29.63	...
D Angerton Hall	Mr. R. Elliott	5	1 0	320	31.88	154
D Morpeth (Meldon Park)	Mr. J. Finlay	5	1 0	350	31.23	167
D „ (Bothalhaugh Garden)..	Hon. & Rev. W. C. Ellis	5	0 10	35 ?	29.86	187
„ { „ „ „ „ M	„ „ „ „ „	5	0 10	35	29.43	...
D „ { „ „ „ „ M	„ „ „ „ „	5	0 10	130	28.78	192
„ { „ „ „ „ M	„ „ „ „ „	5	0 10	135	28.66	...
D Scots Gap (Rothley Crag).....	J. Daglish, Esq.....	5	0 6	665 †	30.19	192
Rothbury (Brinkburn Priory)...	Mrs. Hugh Fenwick...	8	1 2	257 †	31.37	...
„ (Craggside)	Lord Armstrong, C.B..	8	1 0	400 †	39.16	184
† Redewater (Blakehope).....	G. Smith, Esq.	8	1 1	830	32.65	...
† „ (Ellis Crag)	„ „	8	1 0	1200	40.85	...
† „ (Chattlehope)	„ „	8	1 0	830	38.40	...
† „ (Catcleugh)	„ „	8	1 0	794	39.05	...
D Alwinton (Harbottle Castle) ...	Mr. J. Clark	5	1 0	500	31.08	137
„ (Biddleston Hall)	P. Dodds, Esq.	5	1 0	820 †	35.19	152
Whittingham (Callaly Castle) ..	Major Browne.....	10	3 10	...	26.60	...
Alnwick Castle	The Meteor. Council ...	5	0 4	178	34.46	197
D Howick Hall	Rt. Hon. Earl Grey ...	8	0 10	121 †	30.69	190
Ilderton (Lilburn Tower)	E. J. Collingwood, Esq.	10	6 0	300 †	28.93	...
Wooler	Dr. R. Walker	5	0 10	176 †	33.26	...
D Bamburgh	Mr. W. C. Good	5	1 0	75 †	27.33	176
D Pawston [Coldstream]	B. P. Selby, Esq.	8	1 0	328 †	34.24	221
Wooler (Milfield)	G. Grey, Esq.	5	0 6	215 †	29.28	...
„ { „ „ Hill)	„ „ „	5	3 0	695 †	22.89	...
D Ancroft (Cheswick)	Gen. Sir W. Crossman.	5	0 8	100 †	27.24	210
CUMBERLAND.						
D Millom (Leyfield)	Cedric Vaughan, Esq CE	5	1 2	81 †	44.00	203
Kirksanton (The Croft).....	J. E. Brockbank, Esq..	5	1 5	...	42.91	188
D Duddon Valley (Ulpha Vic.) ...	Rev. W. Kewley	5	1 3	175	74.53	212

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which .01 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level	1896	
			ft. in.	feet.	inches.	
CUMBERLAND—(con.)						
d Eskdale	Rev. R. H. Snape	5	1 6	130?	67·13	234
Seascale (Whinthwaite)	Dr. Hellon.....	5	1 0	52	35·84	...
Braystones	W. H. Watson, Esq....	10	3 6	36	37·62	...
Sprinkling Tarn	M G.J.Symons, Esq.F.R.S.	4	0 6	1985	119·32	...
Wastdale Head	M " " "	4	0 6	204	84·50	...
Styehead Tarn	M " " "	4	0 6	1472	124·45	...
†The Stye A	M " " "	4	0 6	1077	156·74	...
† " B New S.E. gaugeM	" " "	4	1 0	1077	159·31	...
" C	M " " "	4	1 0	1077	160·30	...
" D	M " " "	4	1 0	1077	133·52	...
†Seathwaite	M " " "	4	0 6	422	125·06	...
d "	" " "	5	1 0	422	123·72	214
*† "	M John Marshall, Esq....	5	1 0	420	123·48	...
Ullscarf	M G. H. Hill, Esq., C.E..	7	1 0	2100	108·10	...
Egremont (Park Ho., Bigrigg)...	P. L. Addison, Esq. ...	5	4 6	290	46·23	216
d Cleator (The Floss)	D. Ainsworth, Esq. ...	5	1 11	208	49·21	175
" Moor Water Works ...	R. Robertson, Esq.....	5	1 3	395	114·96?	...
†Helvellyn (Birkside)	M G. H. Hill, Esq., C.E..	7	1 0	1900	72·30	...
†Wythburn	M " " "	7	1 0	580	84·30	...
d Borrowdale Vic.=Rosthwaite ..	Rev. A. J. Heelis	5	1 0	330	92·97	198
" " M	" " "	5	1 0	330	100·41	...
d†Buttermere (Hassness)	Mr. S. Stewart	5	1 0	355	97·71	213
d†Borrowdale (Grange)	Mr. Threlkeld	5	0 9	271	84·30	194
Armboth Fells (The Pewitts)....	G. H. Hill, Esq., C.E..	7	1 0	1650	83·70	...
Helvellyn (Whiteside)	" " "	7	1 0	2100	73·10	...
Thirlmere (Dale Head Hall) ...	" " "	7	1 0	620	75·20	...
d Winder	G. Scoutar, Esq., C.E..	8	0 8	572	49·70	...
d†Whitehaven (Irish Street)	Dr. P Anson	5	1 1	21	41·38	193
d†Keswick (Barrow House)	Miss E. G. Langton ...	8	0 6	282	70·45	225
Distington (Gilgarron)	Mr. A. Kydd	5	4 9	470	42·75	181
Ullswater (Hallsteads)	S. A. Marshall, Esq. ...	5	2 0	497	46·05	...
Keswick (Deer Close)	John Marshall, Esq. ...	7	1 9	300	59·15	210
" (Derwent Island)... old	" " "	5	0 7	280	57·08	214
" (")... new	" " "	5	0 6	290	55·40	214
" (Derwent Hill)	Mr. T. Moffat.....	9	1 0	...	46·56	...
d " (Eskin Place)	J. Postlethwaite, Esq..	8	6 4	298	55·33	182
d† " (Bank)	late J F Crosthwaite, Esq	5	1 0	265	53·07	199
d† " (Shu-le-crow)	A. Mitchell Dawson, Esq.	5	0 7	296	57·11	206
d Cockermouth (Whinfell Hall) ...	W. Robinson, Esq. ...	5	2 0	265	48·87	233
d " (Brandlingill)	Col. F. R. Sewell	5	1 0	320	53·78	212
Bassenthwaite (Mire House) ...	Lady Jane Spedding ..	5	0 6	300	52·09	...
d " (Bassenfell)	Mrs. S. G. Rathbone...	8	1 0	384	40·65	207
d†Cockermouth (Higham)	Miss Hoskins	5	1 0	478	43·30	212
d " (Broughton Grange)	G. S. Wilson, Esq. ...	5	1 3	209	41·70	195
Penrith (Nandana)	G. Varty Smith, Esq....	5	4 0	650	31·86	...
+ " (Fell Lane, Fir Bank) ..	T. Lester, Esq.	5	1 0	575	32·78	178
" (Greystoke)	H. Walker, Esq.	5	1 3	650	43·34	...
d " (" Belle View)	Mr. M. Rowe	5	4 0	680	38·37	214

DIVISION X.—NORTHERN COUNTIES—(continued.)

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain.	Days on which "01 or more fell.
			Height Above Ground.	Height Above Sea Level	1896	
			ft. in.	feet.	inches.	
CUMBERLAND—(con.)						
D Penrith (Edenhall Vicarage) ...	B. W. Lovejoy, Esq....	5	1 0	310 T	32·33	214
„ (Kirkland Vicarage) ..	Rev. A. Edwards	5	1 0	640 T	28·77	...
Maryport (Netherhall)	H. P. Senhouse, Esq....	8	0 6	27 T	39·39	180
D Penrith (Nunwick Hall)	Mrs Heywood Thompson	5	1 0	298 T	30·93	197
D Melmerby	Rev. W. Y. Craig	5	0 6	...	38·69	...
Maryport (Gilerux)	The Meteor. Council ...	8	1 0	262	46·56	275
D Aspatria (Brayton Hall)	Mr. W. Stewart	8	2 0	200	49·63	186
D Wigton (Brookfield)	J. J. Jopling, Esq.....	5	0 9	124 T	39·85	231
Carlisle (Wreay Vicarage)	Rev. A. R. Hall	5	2 0	310 T	33·51	209
† „ (Cemetery)	S. Cartmell, Esq.	8	3 6	114 T	33·00	197
„ (Rickerby House)	M. MacInnes, Esq. ...	8	1 0	50 T	26·48	...
D „ (Stanwix)	B. Scott, Esq.....	8	1 6	100	31·63	198
„ (Scaleby)	The Royal Meteor. Soc.	5	1 0	112	33·95	210
D Brampton (Denton House)	Mr. J. Charlton	5	1 5	541 T	32·99	213
„ („ „) ...M	„ „	5	1 2	541 T	33·09	...
WESTMORELAND.						
D Kirkby Lonsdale (Barbon Manor)	Mr. J. Kidd	6	1 3	650 T	49·77	200
D Kendal (Natland Park)	Mrs. Shipley	5	1 0	195 T	44·84	189
D „ (Kent Terrace)	R. J. Nelson, Esq.....	5	1 6	146 T	48·09	187
D „ (Hawesmead)	G. F. Braithwaite, Esq.	8	0 6	175 T	48·72	192
„ (Ellergreen)	J. Cropper, Esq.	5	1 6	270 T	57·31	210
D Bowness (Fallbarrow)	H. E. Rawson, Esq....	8	1 0	135 T	61·20	193
Longsleddale	Mrs. Burrows	5	6 0	512 T	66·21	204
D Ambleside (Skelwith Bridge) ...	A. J. Adams, Esq.....	5	1 8	190 T	81·62	195
Little Langdale (Fell Foot) ...M	S. A. Marshall, Esq....	5	2 2	380	109·00	...
Ambleside (Gale House)	G. A. Johnston, Esq. M.D.	5	1 0	200	80·76	150
† „ (Lesketh Howe)	F. M. T. Jones, Esq....	5	2 6	175 T	78·62	190
D Elterwater (Birch Hill)	Capt. Robinson	5	1 1	243	88·44	201
D Dungeon Ghyll	S. A. Marshall, Esq. ...	5	0 5	310	107·17	207
„ „ „	„ „ „	5	1 6	311	104·60	...
Mickleden	„ „ „	5	1 6	490	116·35	...
D† Grasmere (High Close)	late E. B. W. Balme, Esq	8	0 9	553 T	78·49	200
D „ (Pavement End)	T. A. Green, Esq.	5	1 0	214 T	83·07	216
D Ravenstonedale (Brownber)	J. Fothergill, Esq.....	5	3 0	826 T	37·85	173
Orton Vicarage	Rev. E. Holme	5	3 6	770 T	50·28	132
D† Kirkby Stephen (Redmaine Ho.).	Mrs. T. Mason	5	1 0	574 T	37·19	207
Fairfield	T. A. Green, Esq.	5	1 0	2860 T	69·24	...
„ „ „	„ „ „	8	1 0	2860 T	75·45	...
Shap (Oddendale)	Mr. W. Scott	5	0 6	1060 T	45·32	...
„ (Church View)	W. Wilkinson, Esq. ...	8	0 6	830 T	43·68	...
D „ (Hillfield)	A. B. Whiteside, Esq...	5	1 0	834 T	44·60	203
Grisedale (Ruthwaite Lodge) M	Mr. A. Milne	8	1 6	1750	99·14	...
D† Patterdale Hall	„ „	7	1 3	490 T	78·14	215
„ (Greenside Mine)	W. H. Borlase, Esq. ...	7	1 6	1000 T	82·93	...
Appleby (Ormside)	Rev. J. Brunskill	5	4 0	480	29·97	175
D „ (Castle Bank)	C. R. Rivington, Esq...	5	1 2	440 T	33·09	204
Ullswater (Swarth Fell)	G. J. Symons, Esq. F.R.S.	5	1 3	1000 T	47·90	...
„ (Sharrow Bay)	Mr. A. Greenlees	5	0 7	500	44·42	...
Lowther Castle [Penrith]	Mr. F. Clarke	8	3 0	750 T	39·69	147

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge.		Depth of Rain.	Days on which '01 or more fell.
			Height Above Ground.	Height Above Sea Level	1896	
			ft. in.	feet.	inches.	
MONMOUTH.						
d† Marshfield (Llwynarthan)	F. G. Evans, Esq.	5	1 1	72 B	35·77	184
d Portskewett (Sudbrook)	T. D. Roberts, Esq. C.E.	8	1 6	53 T	26·04	154
„ (Caldicot Hall)	Rev. E. T. Williams...	9	1 3	40	25·53	...
Newport (Friar Street Yard) ...	The Meteor. Council ...	...	...	...	32·96	186
„ (Ynis-y-bro)	„ „ „ „	5	1 0	115	28·75	166
d Ynysddu (W W. Pontllanfraith)	O. Thomas, Esq.	5	1 0	801 T	44·13	152
d Chepstow (Shirenewton Hall) ...	E. J. Lowe, Esq., F.R.S.	8	1 0	531 T	33·58	187
„ (The Mount)	G. M. Smith, Esq.	5	1 0	150 T	28·50	...
d „ (Piercefield Park)	H. Clay, Esq.	5	1 6	300	28·18	155
d „ (Itton Court)	E. Curre, Esq.	8	4 6	390	31·52	155
d Llanfrehfa Grange	F. J. Mitchell, Esq.	5	4 0	326 T	34·63	160
Tredunnoch	Rev. C. T. Salusbury...	5	2 3	170 T	29·42	162
Abersychan (The Hawthorns)...	J. W. Mulligan, Esq. MD	5	1 0	755 T	41·70	197
d Tredegar (The Willows)	G. A. Brown, Esq.	8	1 0	1024 T	51·06	185
Blaenavon Gas Works	C. White, Esq.	5	0 9	980	44·03	...
d Monmouth (School House)	E. H. Culley, Esq.	5	1 3	76	22·73	179
d „ (The Hendre)	Mr. Coomber	8	1 0	176 T	24·63	171
Abergavenny (Larchfield)	Dr. Glendinning	5	1 0	240 T	28·09	172
„ (Dyne House)	Dr. Steel	5	1 2	220 T	30·85	180
d „ (The Chain)	W. Baker Gabb, Esq. ...	5	1 0	250	32·17	193
d Llantilio Court	Sir H. M. Jackson, Bt.	5	0 10	207 T	26·17	115
d Llanvihangel Court	Col. Sturt	5	2 4	508 T	28·70	183
„ „ „ „ „ „	„ „ „ „ „ „	5	2 4	508 T	29·82	...
„ „ „ „ „ „	„ „ „ „ „ „	5	1 0	489	28·57	...
d Monmouth (Pentwyn)	Rev. J. T. Harding ...	5	1 0	191 B	24·06	147
GLAMORGAN.						
d Barry	J. Bell, Esq.	5	4 0	191 T	33·92	169
* Cowbridge (Fonmon Castle)	O. H. Jones, Esq.	8	1 2	130	40·17	163
d Barry W. W. (Biglis)	E. W. Waite, Esq., C.E.	5	1 0	20 T	29·21	162
„ (Pencoedtre)	„ „ „ „	5	1 0	200 T	34·65	...
Penarth (Curt-y-Vil)	Western Mail .....	...	...	...	36·70	...
Cardiff (Cogan Pill, Llandough).	C. H. Priestley, Esq. C.E.	5	1 0	122 T	34·11	185
d „ „ Sanatorium	Dr. Walford	5	6 3	...	35·42	159
d „ „ Castle	Mr. A. Pettigrew	5	1 0	38 T	36·34	172
d „ „ (Ely)	C. H. Priestley, Esq. C.E.	8	1 0	53 T	39·19	188
d „ „ (Lisvane)	„ „ „ „	5	1 0	150	31·38	181
„ „ (New Filters, Heath)	„ „ „ „	5	1 0	132	37·91	187
„ „ (Llanishen Res.)	„ „ „ „	5	1 0	155	35·56	180
d Porthcawl (The Rest)	G. Evans, Esq.	5	1 0	60	27·12	139
Cowbridge (Ash Hall)	E. Tudor Owen, Esq. ...	8	1 0	315 T	40·68	182
Gower (Penmaen)	Miss Bostock	5	1 0	300 T	35·46	136
d Oystermouth (Newton)	Rev. S. Jones	5	0 9	279 T	38·02	185
d Pontypridd (The Reservoir)	W. Jones Esq.	5	1 0	300	50·20	147
d „ „ (Maesderwen, Graig)	T. Bowen, Esq.	5	10 0	425	48·90	180
d Swansea (St. James' Gardens) ...	T. T. Wood, Esq.	5	1 6	141 T	40·54	195
Morryston (Glanravan)	J. Naysmith, Esq.	5	1 0	53 T	41·29	175
d Neath	E. C. Pole, Esq.	5	1 0	204 T	42·34	187

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
			ft. in.	feet	inches.	
GLAMORGAN—(con.)						
d Neath (Fairly Land).....	Major Green	5	1 9	170 B	42·08	200
d† „ (Glynecorrwg)	T. F. Brown, Esq., C.E.	5	4 6	717 B	78·75	201
d Mountain Ash (Maesydderwen)..	M. Morgan, Esq.	5	1 0	483 A	47·55	172
d Treherbert (Bute Colliery)	Sir W. T. Lewis Bt. ...	5	1 0	670	74·47	193
d† „ (Tyn-y-waun)	A. R. Cawley, Esq. ...	5	1 0	800	75·53	198
† „ „ „ „ „ M „ „ „ „ „	„ „ „ „ „ „ „ „ „ „ „	5	1 0	800	76·45	...
d Gorseinon (Penllergaer).....	Sir J.T.D.Llewelyn,Bt	5	3 0	240 T	42·14	162
d Rhondda (Castell-nos Res.)	W. Jones, Esq.	5	1 0	1110	61·22	172
d Aberdare (Cwmaman)	W. J. Heppell, Esq. ...	5	2 3	740 T	60·03	153
d „ (The Mardy)	Sir W. T. Lewis, Bt. ..	5	2 0	431 A	50·04	203
d† „ (Abernant).....	Evan Jones, Esq. ...	5	4 6	430	47·35	143
d Felindre (Lliw Reservoir).....	R. H.Wyrill, Esq., C.E.	8	1 3	426 T	46·59	184
d Crynant (Gelli Dochleithe)	B. H. Cunningham, Esq.	5	5 6	...	46·93	176
d Dowlais (Gwernllwyn)	R. C. Harrison Esq....	5	1 9	1035 A	44·50	193
„ „ (Brynonen, Pant)	„ „ „ „ „ „ „ „ „ „ „	...	1 0	712	41·65	203
d „ „ (Cwm Bargoed)	G.A.Lundie, Esq., C.E.	5	1 0	1237 A	40·64	162
d Ystalyfera (Wern Schools)	Mr. J. Williams	5	1 3	240 T	57·00	180
d „ „ (Tanyrallt)	Miss H. A. Lewis	8	1 6	300	57·65	191
CARMARTHEN.						
Llanelly (Old Market Place) ...	G. Watkeys, Esq.. C.E.	5	10 0	35 T	37·14	186
d „ „ (Cwmlledi W.W.).....	„ „ „ „ „ „ „ „ „ „ „	5	3 0	240 A	41·45	193
Llandilo (Dynevor Castle)	Rt. Hon. Lord Dynevov	8	1 0	202 T	48·61	181
d Llandovery.....	J. Watkins, Esq.	5	1 0	217 T	41·82	212
PEMBROKE.						
Pembroke (Stackpole Court).....	Rt.Hon. Earl of Cawdor	6	1 6	60 A	33·71	176
St. Ann's Head	The Meteor. Council ...	8	0 8	150	30·67	167
d Haverfordwest (High Street) ...	E. P. Phillips, Esq. ...	5	1 0	95 T	40·69	212
Clarbeston (Penty Park)	Capt. F. Lloyd Phillips	...	...	320	44·82	...
d Brawdy (Pen-y-cwm)	W. H. Hillyer, Esq. ...	5	3 4	300 T	37·64	195
d St. David's	Dr. W. P. Probert.....	5	1 0	216	31·71	185
d Llanrhian Vicarage	Rev. Prebendary Lewis	5	1 0	295 T	37·58	193
d Castle Malgwyn [Llechryd] ...	Mr. Evason.....	5	1 0	...	41·29	184
CARDIGAN.						
Tregaron Vicarage.....	Rev. T. Phillips.....	5	1 0	520 ?	43·91	...
d Strata Florida (Hafod).....	T.J. Waddingham, Esq	5	1 0	580 T	54·14	218
Aberystwith (Castle Grounds) ...	A. Thomas, Esq.	8	1 0	59	26·35	194
„ „ (N. Parade)	„ „ „ „ „ „ „ „ „ „ „	8	1 0	15	33·28	194
d „ „ (Gogerddan)	Sir Pryse Pryse, Bart..	5	1 0	80 B	41·76	187
BRECKNOCK.						
d†Nanthir Reservoir [Aberdare]...]	O. Williams, Esq.,C.E.	5	1 0	860 A	51·11	211
„ „ „ „ „ „ „ „ „ „ „	„ „ „ „ „ „ „ „ „ „ „	5	1 0	860 A	51·65	...
d Colbren (Penwyllt)	Mr. G.Palmer	5	1 0	1108 T	60·51	156
d†Taff Fechan (Pentwyn Res.) ...	T. F. Harvey,Esq.,C.E.	5	1 0	1120	55·05	206
† „ „ „ „ „ „ „ „ „ „ „	„ „ „ „ „ „ „ „ „ „ „	5	1 0	1120	55·08	...

DIVISION XI.—MONMOUTH, WALES AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which 701 or more fell
		Diameter	Height above Ground.	Height above Sea Level		
			ft. in.	feet.	inches.	
BRECKNOCK—(con.)						
†Cardiff WW (Cwm Taff Fawr No 5)	C. H. Priestley, Esq., C.E.	5	1 0	1143	56.34	...
" " (Storey Arms)	" " "	5	1 0	...	62.05	...
† " " (Cwm Taff Fawr No 1)	" " "	5	1 0	2350	62.08	...
" " (Cantref Res)	" " "	5	1 0	1120	60.89	215
" " (Cwm Taff Fawr No 6)	" " "	5	1 0	1328	66.47	220
" " (Nant Penig)	" " "	5	1 0	...	74.35	...
† Taff Fechan (Neuadd Res.) No. 1	T. F. Harvey, Esq., C.E.	5	1 0	1462	56.98	197
† " " (" ") No. 1 M	" " "	5	1 0	1462	56.91	...
" " (" ") No. 4	" " "	5	1 0	1487	65.07	198
" " (" ") No. 2 M	" " "	5	1 0	1993	64.49	...
" " (" ") No. 5 M	" " "	5	1 0	1515	70.58	...
" " (" ") No. 7 M	" " "	5	1 0	2017	70.05	...
" " (" ") No. 8 M	" " "	5	1 0	1723	73.34	...
" " (" ") No. 3 M	" " "	5	1 0	1843	48.65	...
" " (" ") No. 9 M	" " "	5	1 0	1997	49.29	...
" " (" ") No. 6 M	" " "	5	1 0	2099	74.52	...
Crickhowell (Glanusk Park)	Sir J. R. Bailey, Bt. ...	5	1 0	290	36.43	172
" (Penmyarth)	S. H. Cowper Coles, Esq.	5	1 0	330	34.94	171
Talybont (Cui)	H. Jones Williams, Esq.	5	1 0	490	39.85	...
† Cantref Rectory	Rev. J. J. Evans	5	1 0	630	40.13	149
" "	" " "	5	1 0	630	39.00	149
Llanfrynach (Tymawr)	Capt. R. D. G. Williams	5	1 0	450	37.99	200
† Brecknock (The Barracks)	Colonel Bromhead	5	5 0	447	32.65	193
† " (Llandefaelog-fach) ..	Rev. W. Williams	5	1 0	660	42.03	204
" " (" ")	" " "	5	1 0	660	36.68	199
Hay (Gwernyfed Park)	Major Wood	5	1 0	350	26.88	209
† Llanwrtyd Wells	Mrs. Stanley	5	1 0	700	47.91	...
† Builth (Tyn-y-berllan)	Dr. Baldock Fry	5	1 0	430	30.87	185
† " (Abergwesyn Vic.)	Rev. J. Jones	5	1 0	904	65.23	218
Newbridge (Brynwern Hall) ..	Rev. W. Clifton Mogg.	5	1 6	520	32.00	187
" (Llys dinam)	Mrs. Lister Venables	5	1 3	640	32.34	193
RADNOR.						
Glasbury (Woodlands)	A. Battiscombe, Esq. ...	5	1 0	300	28.17	189
† Welfield [Builth]	E. A. Thomas, Esq.	5	1 10	740	30.84	178
Caerwnon [Builth]	Capt. Thomas	5	1 0	530	30.49	191
Old Radnor (Evancoyd)	Mrs. Mynors	8	1 0	760	27.57	140
† New Radnor (Ednol)	Mr. W. Jones	5	1 0	950	36.45	197
Llandegley (Gwern-i-Arglwydd)	Mr. J. Campbell	5	2 0	1000	32.14	200
† Pen-y-bont	Mr. J. Hamer	5	3 6	788	29.10	198
† Rhayader (Nant-y-car)	M. G. J. Symons, Esq., FRS	5	1 0	1545	78.85	...
" (Tyrmynydd)	G. M. Yourdi, Esq., CE	5	1 0	832	56.98	218
† " (Nantgwillt)	" " "	5	1 0	768	53.61	210
† " (" ")	" " "	5	1 0	764	56.59	210
† " (Bwlchyrhendre)	M. G. J. Symons, Esq., FRS	5	1 0	1585	65.50	...
† " (Claerwen)	" " "	5	1 0	1250	62.05	...
† " (Pryddellau)	" " "	5	1 0	1710	62.20	...
† " (Abergwny)	" " "	5	1 0	1200	58.55	...
Knighton	E. P. Fairbairn, Esq., C.E.	5	1 0	570	28.28	...

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which of or more fell.
		Diameter	Height above Ground.		Height above Sea Level	
			ft.	in.	feet.	inches.
MONTGOMERY.						
†Llangurig (Esgair Clochfan) M	G. J. Symons, Esq., FRS	5	1	2	1330	40·30 ...
† „ (Ystrad-olwyn-fawr) ...M	„ „ „	8	1	0	950	44·60 ...
Llandinam (Plas Dinam)	The Meteor. Council ...	5	4	0	500	29·25 182
D Newtown (Dolfor)	W. B. Pugh, Esq.	5	2	6	1027 T	26·58 183
D† Churchstoke (Mellington Hall) ..	P. Wright, Esq.	5	1	6	540 T	27·00 200
† „ „ „ „ M	„ „ „	5	1	6	540 T	27·17 ...
Welshpool (Park Lane).....	Mrs. Hawksworth	5	1	3	325	24·32 ...
D „ (Pool Quay Vic.).....	Rev. R. J. Roberts ...	5	1	0	230	28·07 208
Meifod (Tan-y-fron)	A. George, Esq.	5	1	0	...	22·53 ...
D Lake Vyrnwy	E. D. Marten, Esq. C.E.	5	0	7	770	43·11 198
FLINT.						
Caergwre	S. A. Sharman, Esq. ...	5	4	2	250 B	28·09 204
Hawarden	M. S. & L. R. Co.	9	3	6	35	24·18 190
† Flint (Soughton Hall, Northop).	J. Eldon Bankes, Esq..	5	1	0	418	32·79 183
St. Asaph (Nantllys)	P. P. Pennant, Esq. ...	5	1	0	173 T	27·82 ..
D† Halkyn	Capt. Williams	5	1	3	895 T	31·78 191
D Rhyl (Sedgley House)	W. T. Girdlestone, Esq.	5	2	6	21 T	27·41 171
D Prestatyn (Edlestone House) ...	T. J. Scott, Esq.	5	0	6	30	28·43 144
DENBIGH.						
Llangollen (Plas Berwyn).....	Col. Tottenham	5	0	5	440	35·26 163
Wrexham (Pack Saddle Res.) ...	F. Storr, Esq.	5	0	9	370 T	28·88 203
„ (Cae Llwyd Res.) ...	„ „	8	0	9	918 T	36·36 167
„ „ „ „ „	„ „	5	0	9	918 T	35·34 167
D „ (Broughton).....	J. Hall, Esq.	5	1	0	500 T	31·34 199
Gresford (Trewythen)	Miss Howell Evans ...	5	1	0	350	24·78 177
D Rosset (Trevalyn Hall).....	Capt. Griffith Boscawen.	5	1	0	58 T	24·11 180
Nantglyn (Pant-y-maen)	W. Barker, Esq.	8	1	0	1320 T	51·68 ...
D Llangerniew (Hafodunos).....	Col. Sandbach	5	1	0	512 T	46·50 183
D Denbigh (Ystrad)	Miss E. V. Hughes ...	5	0	10	250	29·64 210
D „ (Garn).....	W. D. W. Griffith, Esq.	5	1	0	447 T	35·25 197
Dolben [St. Asaph]	T. G. Dixon, Esq.	5	1	2	...	33·25 213
Trefnant (Maes Elwy)	Major Birch	5	2	0	157 T	29·84 151
D Colwyn Bay (Nant-y-Glyn) ..	A. O. Walker, Esq. ...	5	1	0	180 T	36·60 182
„ (Bryn Euryr)	Mr. T. Hutchings	5	1	0	125 T	32·65 189
MERIONETH.						
† Dolgelly (Werngoch).....	O. Hill, Esq.	5	1	6	465 T	65·10 ...
D Bala (Eryl Arran)	Mrs. Burton	8	1	0	590 T	47·62 211
D Llanderfel (Palé Gardens)	Mr. T. Ruddy.....	8	1	0	606 T	39·44 209
Arenig (Bodrennig)	E. Jones, Esq.	5	1	0	1100 T	58·22 199
D Bl. Ffestiniog (New Welsh Quarry)	New Welsh Slate Co. ...	8	1	2	1060 T	107·14 220
D Rhiwbryddir = Oakley Quarries..	Mr. R. Roberts	5	10	0	1100	88·79 205
Corwen (Rhug Gardens)	Mr. J. Bennett	5	1	0	500	31·44

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which 101 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level.	1896	
			ft. in.	feet.	inches.	
CARNARVON.						
*Llanystumdwy (Talarvor)	Dr. J. Roberts	5	5 0	49	34·58	160
Llandwrog (Glynllivan Park) ...	Hon. F. G. Wynn.....	5	1 0	100	47·31	...
„ („ Garden) ...	„ „	5	1 0	170	49·27	193
„ („ Fort)	„ „	8	1 0	180	44·63	174
„ (Bodfean)	„ „	5	1 0	100	45·14	...
D Llanberis (Glyn Padarn)	Major Allen	6	6 0	370	74·17	180
Capel Curig (Lake Cowlyd)	T. B. Farrington, Esq. ...	8	1 3	1168 A	66·10	...
Carnarvon (Belan Fort).....	Hon. F. G. Wynn.....	5	1 0	15	40·11	...
„ (North Road)	Dr. Taylor Morgan ...	5	0 8	80	36·12	...
Llanbedr-y-Cennin (Llyndulyn). ..	E. P. Stephenson Esq. CE	8	1 6	1622 †	87·55	175
D Llanfairfechan	R. Luck, Esq.	5	0 8	150 B	37·32	174
D† Llandudno (Warwick House) ...	Dr. Nicol	8	0 8	99 A	30·40	188
ANGLESEA.						
Llandwyn Island	Hon. F. G. Wynn	5	1 0	30	23·19	...
D Llangadwaladr (Bodorgan)	Mr. J. Gray	8	3 6	...	36·54	175
D Penmynydd Vicarage	Rev. H. D. Owen	5	5 0	300	35·46	193
Holyhead	The Meteor. Council ...	8	...	...	35·32	197
Llanerchymedd Llwydiarth Esgob	T. Prichard, Esq.	5	1 0	112 L	36·81	203
D Lligwy	Rt. Hon. Lord Boston..	5	1 0	180	37·16	172
ISLE OF MAN.						
Castletown (Langness)	Bd. of Northern Lights ...	...	...	...	34·45	...
Derbyhaven	A. W. Moore, Esq.....	5	1 0	20	34·39	...
Santon Vicarage .....	„ „ „ .....	...	...	250	36·73	170
D Douglas (Derby Square)	P. Killey, Esq.	5	1 1	78	35·68	184
D „ (Victoria Road)	H. Story, Esq.	5	0 9	160 L	42·54	178
„ (Cronkbourne)	A. W. Moore, Esq. ...	8	0 10	138 A	41·72	177
„ (Clype, Onchan)	„ „	8	1 0	439 †	41·35	192
Ramsey	„ „	8	1 3	18	43·14	...
Point of Ayre.....	Bd. of Northern Lights ...	...	...	...	22·84	...
ISLES OF SCILLY.						
St. Mary's	The Meteor. Council ...	8	1 6	77 L	25·79	194
D† Tresco Abbey	T. A. D. Smith, Esq... 11	3 0	40	25·26	189	
JERSEY.						
D St. Helier (St. Louis Observatory)	Rev. M. Dechevrens ...	8	5 0	180	29·92	171
St. Aubins	The Meteor. Council ...	8	1 0	...	33·20	199
GUERNSEY.						
D St. Martin's (Les Blanchés)	B. T. Rowswell, Esq....	5	1 0	310 †	32·36	205
D L'Eree (Claire Mare)	J. J. Carey, Esq.	5	1 0	30	28·06	179
D St. Peter Port (Beaulieu)	A. Collenette, Esq. ...	5	1 0	190 L	32·97	191
Cobo	Rev. E. B. R. de Jersey	5	0 9	...	30·32	184
D Villa Carey.....	Dr. Carey	8	1 2	180	29·48	196
„ „	„ „	5	1 2	180	28·60	...

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which 401 or more fell.
		Diameter	Height Above Ground.	Height Above Sea Level.		
			ft. in.	feet.	inches.	
WIGTON.						
Mull of Galloway	Bd. of Northern Lights ...	...	...	...	30·01	153
D Garliestown (Galloway Ho.).....	Mr. J. Day.....	5	4 6	20 ?	39·49	156
D Stoneykirk (Ardwell House).....	Sir M.J. Stewart, Bt. MP	8	5 0	125	34·16	114
Loch Ryan	Bd. of Northern Lights ...	...	...	...	31·44	147
Corsewall .....	„ „ „ ...	...	3 4	22 ?	32·29	133
KIRKCUDBRIGHT.						
Little Ross	Bd. of Northern Lights ...	...	3 3	130 ?	28·83	105
D Kirkcudbright (Senwick).....	A. J. Corrie, Esq.	5	1 0	113 A	39·66	207
„ („)..... M	„ „ „ ...	5	1 0	113 A	39·36	...
Auchencairn (Torr House)	W. Ovens, Esq.	5	0 8	50	46·57	...
Dalbeattie (Colvend Manse).....	Rev. Dr. Fraser.....	5	1 6	120 T	39·29	...
Gatehouse (Cally)	Dr. Buchan.....	5	1 0	50	46·12	178
Creetown (Cassencary)	J. A. Caird, Esq.	8	0 8	40	40·08	...
D „ (Cuil Park).....	J. McTurk, Esq.	5	0 6	80	43·34	150
Dalbeattie (Station Road).....	Mr. W. McBride	5	1 3	50	49·58	147
Kirkpatrick Durham (Glenlair)..	Major Maxwell	5	0 8	250	43·54	...
D Cargen [Dumfries]	R. F. Dudgeon, Esq....	5	1 0	80 A	38·82	147
D New Galloway (Glenlee)	Mr. W. Melville.....	5	1 3	208	50·71	212
D Dalry (Glendarroch).....	J. Barbour, Esq.	5	0 11	192 T	47·35	173
„ (Old Garroch).....	T. R. Bruce, Esq.....	8	6 0	440	52·87	178
Irongray (Drum park).....old g.	D. J. Kay, Esq.	3	0 6	230	49·57	...
„ („ „)	„ „ „ ...	5	1 0	230	45·10	...
Glenhead of Trool.....	Mr. J. McMillan	5	0 11	320	67·64	116
Carsphairn (Holm of Dalquhairn)	R. McMillan, Esq.....	5	1 2	800	63·94	...
DUMFRIES.						
D Dumfries (Ivy Bank)	Rev. W. Andson	5	0 10	70 T	33·93	196
Canobie (Byreburnfoot)	Mr. D. Crabbe	3	...	...	41·75	...
D Lochmaben (Esthwaite)	W. J. Halliday, Esq....	5	1 0	166 B	36·50	214
Shieldhill (Tinwald Reservoir)...	Mr. J. Bell	5	1 6	470 A	37·48	...
Moniaive (Glencrosh)	Miss M. R. McMillan...	5	1 2	350	50·93	...
D „ (Maxwelton House) ...	Rev. Sir E. Laurie, Bt.	8	1 2	400 A	42·71	202

DIVISION XII.—SOUTHERN COUNTIES (*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell
		Diameter	Height Above Ground.	Height Above Sea Level	1896	
DUMFRIES—(con.)						
Langholm (Ewes School)	Mr. J. C. Lyall	3	1 0	445 T	49·40	...
„ („ Burnfoot)	J. C. Little, Esq.	3	1 0	541 T	53·55	...
Thornhill (Capenoch House) ...	Mr. J. Dunlop	5	0 6	...	38·00	...
Durrisdeer (Drumlanrig Gardens)	Mr. D. Thomson	4	0 9	191	30·00	...
Moffat (Craigielands).....	Mr. L. Frazer.....	5	0 9	360 T	47·39	...
„ (Ericstane)	J. J. Welsh, Esq.	3	0 6	550	46·40	...
ROXBURGH.						
New Castleton (The Flatt)	J. Elliot, Esq.	3	0 9	350 T	42·00	...
„ „ (Kirn dean)	J. M. Elliot, Esq.	3	0 8	450 T	51·01	...
Hawick (Wolfelee)	Dr. Buchan.....	5	0 6	601	34·92	197
D „ (Branxholme)	J. G. Winning, Esq.....	5	0 6	457 T	31·07	177
„ (Ladylaw)	The Meteor. Council ...	8	0 10	462	32·92	209
D*Jedburgh (Sunnyside)	G. Hilson, Esq.	5	6 0	351 T	26·94	157
Lilliesleaf (Riddell)	Gen. Sprot	5	0 8	550 T	30·09	210
„ („)	Mr. R. Hogarth	5	0 8	500	30·97	204
D St. Boswell's (Elliston).....	The Hon. G. Dalrymple	5	1 0	352	27·42	192
Kelso (Springwood Park)	Mr. W. Chaplin	10	1 0	130 L	22·31	155
„ (Broomlands)	Dr. Buchan.....	...	...	205	29·74	177
D Melrose (Asylum).....old g	Mr. Pattman	5	0 6	480 T	27·55	220
„ („)	„ „	5	1 0	480 T	27·55	220
Wooplaw [Galashiels]	J. Murray, Esq.	5	1 0	880 T	29·72	195

DIVISION XIII.—SOUTH EASTERN COUNTIES.

SELKIRK.						
D Selkirk (The Hangingshaw) ...	Miss Johnstone	5	0 6	670 T	32·87	155
Galashiels (Abbotsford Rd.)	Dr. Somerville	5	0 6	416 T	29·10	208
„ (Stantling Craigs)	Mr. W. Ross	12	1 3	650	31·37	...
PEEBLES.						
Stobo Castle	Dr. Buchan .....	...	...	600	29·60	157
Innerleithen (Leithen Lodge) ...	Mr. D. Clark	11	0 0	700	35·46	...
Eddlestone (Portmore Res.)	W. Anderson, Esq.	11	0 6	1000	31·62	186
D N. Esk Reservoir [Penicuik] ...	Mr. W. Tod	11	0 6	1150 T	36·55	168
BERWICK.						
D Coldstream (The Hirsell) ... <i>new g.</i>	Mr. Cairns	5	1 0	94 T	28·80	195
D Marchmont House	Mr. J. A. Wood	5	1 0	500 T	31·38	202
D Dunse Castle	Mr. R. Aikman	5	1 0	500	34·49	161
West Foulden	H. H. Craw, Esq.	5	1 0	250 T	25·21	...
Longformacus (Rawburn)	„ „ „	3	0 6	920 T	33·10	...
Eyemouth	Dr. Buchan .....	...	...	30	25·82	..
St. Abb's Head	Bd. of Northern Lights	...	0 4	211	25·47	135

DIVISION XIV.—SOUTH WESTERN COUNTIES.

b Biggar (Cambus Wallace)	Captain Paul	6	0	6	748	28·87	172
b Cleghorn	W. Elliott Lockhart, Esq.	3	0	3	720	36·83	206

DIVISION XIV.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which 61 or more fell.	
		Diameter	Height Above Ground	Height Above Sea Level	1896		
			ft. in.	feet.	inches.		
LANARK—(con.)							
D Dalzell House	Rt. Hon. Lord Hamilton	6	5 6	89 T	31·17	158	
Hamilton Water Works	Mr. R. Watson	7	1 6	436 T	34·50	...	
D „ (Ardenclutha)	Rev. T. M. B. Paterson	5	1 9	260 T	34·09	167	
Bothwell Castle	Mr. W. F. B. Archibald	10	18 0	146 T	28·61	141	
Uddingston (View Park)	J. Addie, Esq.	5	1 6	180	31·64	...	
Glasgow (Green Park)	J. Whitton, Esq.	5	0 6	35	33·44	...	
„ (Alexandra Park)	„ „ „	5	0 6	141	33·14	...	
„ (Kelvin Grove Park)...	„ „ „	5	0 6	48	35·22	...	
„ Observatory	J. Connell, Esq.	11	2 0	182	35·89	193	
„ (Springburn Park).....	J. Whitton, Esq.	5	0 6	361	36·78	...	
D Airdrie (Hillend Reservoir)	Mr. W. A. Ritchie	6	4 6	620 T	36·28	108	
AYR.							
Barrhill (Dochroyle)	M Mr. J. Scott	6	0 6	548 T	49·72	...	
D Colmonell (Clachanton).....	R. Aitken, Esq.	6	0 6	140 T	45·74	178	
D Girvan (Pinmore) ..	Capt. Hamilton	5	1 0	187 T	46·85	193	
D Barr Manse	Rev. G. Dods.....	5	1 0	330	52·96	218	
Loch Finlas	J. Eaglesham, Esq. ...	5	1 0	849	46·06	...	
Girvan (Turnberry)	Bd. of Northern Lights	...	...	...	43·75	155
D Dalmellington (Benquhat).....	A. Gillespie, Esq. ....	...	1 6	1068	51·75	195
Maybole (Culzean Gardens)	Mr. D. Murray	9	3 0	200	36·25	...	
D „ (Sauchrie)	E. A. Miller, Esq.	5	1 0	380	44·98	227	
Muirkirk (Glenbuck)	Mr. W. F. Hamilton...	6	1 0	900	45·20	...	
Kilmarnock (North Craig)	R. Blackwood, Esq. ...	12	1 0	319 T	44·10	...	
Ardrossan	The Meteor. Council ...	8	1 0	10	31·46	209	
D „ (Kirkhall)	H. F. Weir, Esq.	8	2 9	106 T	38·29	197	
Paisley W. W. (Camphill)	J. W. Moncur, Esq. C.E.	12	1 6	611	60·39	...	
Shaws W. Works (Kelly Dam)...	R. Gilmour, Esq., C.E.	6	1 0	640 ?	53·70	...	
„ „ (Knockencorsan)	„ „ „	6	1 0	1040	54·80	...	
RENFREW.							
Lochwinnoch (Garthland).....	H. Macdowall, Esq. ...	5	0 11	150	64·00	193	
„ (Castle Semple) ..	Mr. J. M. McMillan ...	6	30 0	240	39·18	170	
Paisley W. Works Gorbals's Dist.	{ Ryat Lynn	J. M. Gale, Esq., C.E..	8	0 5	310	47·85	...
	{ Waulk Glen	„ „ „	12	0 5	280	46·45	...
	{ Middleton	„ „ „	12	0 5	550	53·95	...
	{ Nether Cairn.....	„ „ „	12	0 5	700	54·70	...
	{ Stanely ..	J. W. Moncur, Esq., C.E.	12	1 0	190	31·73	...
	{ Back Thornleymuir.....	„ „	12	1 0	646	51·82	...
	{ Muirhead	„ „	12	1 0	482 T	48·64	...
D	{ Springside ..	„ „	12	1 0	532 T	51·44	...
	Glasgow (Queen's Park)	J. Whitton, Esq.	8	0 9	144 T	33·90	157
	„ (Maxwell Park)	„ „ „	5	0 6	69	35·64	...
Paisley (Crookston)	Major Hotchkis	3	0 5	...	31·35	127	

DIVISION XIV.—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	1896	
			ft. in.	feet.	inches.	
RENFREW—(con.)						
Duchall Moor	R. Gilmour, Esq., C.E.	...	...	1150	63·60	...
Creuch Hill	" " "	6	1 0	1100	61·10	...
Largs Road .....	" " "	...	...	910	58·19	...
Green Water	" " "	6	1 0	788	62·90	...
Gryfe Reservoir	" " "	6	1 0	640	58·80	169
Mansfield	" " "	5	1 0	573	58·65	245
Compensation Reservoir	" " "	5	1 0	600	52·49	259
Loch Thom	" " "	5	1 0	643	51·72	259
Shielhill	" " "	6	1 0	962	50·90	...
Darndaff Moor .....	" " "	...	...	850	62·90	...
Spango Burn	" " "	6	0 9	757	53·70	...
Hole Glen	" " "	5	1 0	603	55·14	249
New Yetts Dam	" " "	5	1 0	800	58·59	248
Prospect Hill	" " "	5	1 0	233	52·59	207
Port Glasgow (Douglichill Res.)	S.W. Dalzell, Esq., C.E.	5	1 0	549	51·76	182
" " (Auchendores Res)	" " "	5	1 0	321	44·92	182

DIVISION XV.—WEST MIDLAND COUNTIES.

DUMBARTON.

d New Kilpatrick (Chesters)	J. Kennedy, Esq.	5	1 0	245	38·04	...
d Dumbarton (Leven Shipyard) ...	Messrs. Denny, Bros...	5	1 0	9	43·50	235
d Helensburgh (Victoria Road) ...	L. P. Muirhead, Esq....	5	6 0	90	37·51	176
d " (Water Works) ...	J. R. Wilson, Esq. ...	...	...	300	36·61	201
Arrochar	Rev. J. Dewar	5	0 9	12	63·94	...

STIRLING.

d Strathblane (Mugdock Reservoir)	J. M. Gale, Esq., C.E..	8	0 6	320	43·55	...
" (Craigend Castle) ...	Sir J. Buchanan, Bart.	5	0 9	543	52·84	243
Banton by Bonnybridge Craigdouffie	J. J. Cadell, Esq.	5	0 6	715	46·78	...
Duntreath	Dr. Buchan .....	...	...	204	48·62	167
Falkirk (Kerse)	C. Brown, Esq.	8	1 0	18	28·00	...
Larbert (Carron Park)	J. J. Cadell, Esq.	5	0 4	80	31·27	...
Little Denny	W.W. Neilson, Esq., C.E.	...	4 6	315	42·30	...
Earlsburn Reservoir	" " "	...	4 6	1205	48·20	...
St. Ninians (Faughlin)	" " "	...	4 6	737	44·10	...
Stirling (Touch Reservoir)	Col. J. S. Stirling .....	...	...	700	42·21	...
" (Polmaise Gardens)	Mr. W. W. Ritchie ...	6	1 3	12	30·14	...
" (Victoria Place)	Mr. R. Kidston	5	2 10	100	35·14	...
d " (Ravenna Cottage)	Mr. G. McDougall	5	1 8	14	32·05	206
d Buchlyvie (The Manse).	Rev. J. A. Macdonald..	5	1 3	118	45·44	216
Gargunock	Col. J. S. Stirling	5	5 8	85	40·82	...
Kippen (Arngomery) .....	" " "	...	...	...	40·69	...
" (Garden House) .....	" " "	...	...	...	43·86	...
Ben Lomond	J. M. Gale, Esq., C.E....	...	...	1800	68·70	...

DIVISION XV.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain 1896	Days on which -01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level		
			ft. in.	feet.	inches.	
BUTE.						
Holy Island (Lamlash)	Bd. of Northern Lights	...	...	...	51·50	138
Kingarth (Plan)	H. Hastings, Esq.	5	1 0	40	41·29	...
^D Rothesay (Barone Cottage)	J. Kay, Esq.	5	1 0	116 π	42·46	220
^D „ (Crichton Road)	H. Lauder, Esq.	5	4 0	97	47·75	213
ARGYLL—(MAINLAND.)						
Tighnabruaich	A. S. Cousland, Esq.	6	4 0	30	50·74	214
^D „	„ „ „	12	5 0	50	53·06	213
Loch Eck (Benmore)	H. J. Younger, Esq.	5	1 0	40	79·74	212
^D Lochgilphead (Kilmory) <i>Snowdon</i>	Sir J. Campbell Orde, Bt.	5	...	...	58·58	227
^D „ (Poltalloch)	Mr. D. S. Melville	3	4 6	135	46·03	202
„ „ „	„ „ „	8	0 6	135	44·49	...
^D Inverary Castle	Mr. G. Taylor	5	1 0	40	71·00	228
^D „ (Newtown)	Mrs. Little	5	1 0	17	64·96	232
^D Oban (The Corran)	Dr. Bailly	5	1 0	20	56·35	232
Appin (Airds)	M. R. Macfie, Esq.	5	0 11	41 π	54·01	...
^D Morvern (Drimnin)	Mrs. Gordon	5	1 0	225	65·29	255
^D Ballachulish (Ardsheal)	Dr. W. D. Anderson ...	8	1 0	103 \uparrow	72·52	222
„ (Craiggrannoch)	D. Campbell, Esq., M.D.	8	1 0	15	81·88	223
^D Strontian (Laudale)	A. Fletcher, Esq.	8	1 0	15 π	63·81	252
Loch Sunart (Glenborrodale) ..	C. D. Rudd, Esq.	5	0 2	60 \downarrow	69·35	...
Ardgour House	Mrs. Maclean	3	0 9	72	68·60	...
Ardnamurchan	Bd. of Northern Lights	...	3 6	28 ?	46·45	218
Loch Eil (Corran)	„ „ „	...	0 4	14 ?	76·12	168
ARGYLL—(INSULAR.)						
Kintyre (Campbeltown, Devaar) ..	Bd. of Northern Lights	...	3 4	75 ?	46·43	191
„ (Skipness Castle) ...	Mr. P. McLean ...	5	1 6	27	45·96	...
„ (Stonefield, Tarbert) ..	Colin G. Campbell, Esq.	5	0 9	90	67·74	233
^D Islay (Ardbeg)	C. Hay, Esq.	5	7 0	46	44·86	196
„ (Rhinn)	Bd. of Northern Lights	...	3 0	74 ?	32·98	164
„ (Lochindaul) .....	„ „	...	...	...	45·59	170
„ (McArthurshead) .....	„ „	...	...	...	39·06	193
^D „ (Eallabus)	J. Forbes, Esq.	5	1 0	68 \uparrow	49·37	207
^D „ (Gruinart School House) ...	Mr. D. MacGilp	5	1 0	214 \uparrow	36·88	183
Jura (Bay of Small Isles)	H. Evans, Esq. ....	...	...	80	61·80	...
„ (Fladda)	Bd. of Northern Lights	...	...	...	61·00	132
„ (Ardfin)	Miss J. H. Campbell ...	5	0 6	130	56·69	...
Lismore (Mousedale)	Bd. of Northern Lights	...	3 4	37 ?	40·57	166
^D Mull (Quinish)	J. N. Forsyth, Esq.	5	0 9	35	57·24	243
„ (Sound of)	Bd. of Northern Lights	...	...	...	43·67	184

DIVISION XVI.—EAST MIDLAND COUNTIES.

CLACKMANNAN.

Alloa (Mar Street)	J. Melville, Esq.	5	0 6	70	28·70	...
Alva House	Miss Johnston	5	1 2	180	34·40	...
^D Dollar	Mr. A. Blackwood	9	1 0	178	38·10	173

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell
		Diameter	Height Above Ground	Height Above Sea Level	1896	
			ft. in.	feet.	inches.	
KINROSS.						
Blairingone [Dollar]	Rev. J. F. Cameron ...	5	1 6	300 T	35·91	189
Loch Leven Sluice	Mr. W. Clark.....	7	0 7	360 L	34·00	...
1 Kinross (Gellybank)	G. Henderson, Esq. ...	5	0 6	440 M	31·49	204
FIFE.						
Inchkeith	Bd. of Northern Lights	...	...	...	25·10	102
2 Dunfermline (Keavil)	L. Dalgleish, Esq.	5	0 2	150	25·56	168
Carnock (Luscar House)	A. Mitchell, Esq.	5	0 10	430 T	30·99	...
" "						

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	1896	
FORFAR.						
Buddonness	G.C.Buchanan, Esq., CE	5	1 0	17	24·68	178
D Dundee (Harbour).....	" " " "	5	0 10	14	25·66	196
D Broughty Ferry (Douglas Ho.)...	Mr. K. Graham	5	5 6	60	24·64	162
" " (Corona Gardens)	Mr. J. Machar	5	4 6	96	24·09	196
D Dundee (Eastern Necropolis) ...	Mr. J. Carnochan	3	0 4	199	25·55	135
D " (" ") new	" " " "	5	0 4	199	26·02	186
" (Dens Works)	Messrs. Baxter Bros.	5	...	119	24·99	183
D " (Camperdown Works)...	Messrs. Cox Bros.	5	3 8	290	21·57	127
Monifieth (Fountain Brae)	Messrs. Laird & Sinclair	5	1 0	55	24·10	175
D†Craigton	G. Baxter, Esq., C.E...	8	1 0	481	35·99	149
† "	" " "	11	0 3	481	33·39	...
†Crombie Reservoir	" " "	11	0 3	522	33·48	...
†Hill Head	" " "	11	0 3	570	33·33	...
D Arbroath (Waterworks)	W. Stewart, Esq., C.E.	5	0 11	57	24·30	153
" (")	" " "	5	1 0	57	24·14	...
D " (") Tower...	" " "	5	48 0	157	18·36	144
" (") " M	" " "	5	48 0	157	17·25	...
D " (Dishland Hill)	Mr. J. Campbell	5	0 11	69	24·65	179
D Inverarity Manse	Rev. P. Stevenson	5	1 0	301	30·11	146
Kirriemuir (Lintrathen)	G. Baxter, Esq., C.E..	8	1 0	700	31·00	...
D " (" Balnakeilly)	" " " "	8	1 0	700	30·86	175
" (" ") M	" " " "	8	1 0	700	28·82	...
" (" Creich Hill) M	" " " "	8	1 0	1500	28·80	...
" (" Longdrum)	" " " "	8	1 0	1142	34·60	...
" (" Glen Dye)	" " " "	8	1 0	1409	41·10	...
" (" Barney)	" " " "	8	1 0	1145	34·90	...
" (" Glen Damff)	" " " "	8	1 0	1480	35·90	...
D " (Lednathie).....	Mr. W. Morrison	5	1 0	720	39·80	187
Montroseness	Bd. of Northern Lights	...	...	...	23·80	108
D Montrose (Melville Gardens) ...	Mr. J. R. Findlay.....	5	9 0	23	24·35	141
D " (Sunnyside Asylum)...	Dr. J. C. Howden	5	0 10	200	26·84	146
D " (Kinnaber W.W.).....	Mr. J. R. Findlay.....	5	1 0	38	28·14	170
Brechin (Stracathro Gardens) ...	J.A.Campbell, Esq. M.P.	5	1 0	200	30·49	..

DIVISION XVII.—NORTH EASTERN COUNTIES.

KINCARDINE.

Laurencekirk (Johnstone Lodge)	Dr. Buchan .....	...	...	...	30·34	...
The Burn [Brechin]	Col. McInroy, C.B. ...	5	0 6	250	30·00	...
Girdleness	Bd. of Northern Lights	...	...	...	28·43	171

ABERDEEN.

D† Braemar	J. Aitken, Esq.	8	0 9	1114	30·26	198
Forest of Glen Tana ...	Sir W. C. Brooks, Bt..	5	1 0	576	21·46	...
D Cromar (Logie Coldstone Manse).	Rev. Dr. Davidson	5	1 0	694	28·52	189
D " (" " School).	Mr. H. Cowie	5	1 0	607	28·53	196
" (" " Loanhead)	Mr. A. Farquharson ...	5	1 0	743	31·56	178

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	1896	
ABERDEEN—(con.)						
Cromar (Tillypronie).....	Mr. R. Littlejohn	5	1 0	1120 ∇	30·45	201
d Aberdeen (Cranford).....	D. McHardy, Esq. ...	5	1 0	120 ∇	33·03	225
† „ (Rose Street).....	Dr. A. Cruickshank ...	5	0 5	95 ∇	29·78	...
„ (Gordon's Hospital) ...	Dr. Buchan	8	1 6	66 ∇	30·74	237
„ (King's College)	The Meteor. Council ...	8	2 0	48	31·17	238
Ellon (Kermuck)	Mr. T. Mair	11	0 6	300 ∇	33·48	..
Haddo House	Mr. J. Forrest	5	0 5	180 ∇	31·95	222
Peterhead (Buchanness)	Bd. of Northern Lights ...	...	...	...	24·86	125
„	Dr. Buchan .....	...	...	126	23·85	149
d Old Deer	J. Walker, Esq.	5	2 0	135 ∇	33·80	231
Kinnairdhead	Bd. of Northern Lights ...	...	...	...	23·55	...
BANFF.						
Aberlour	J. McGowan, Esq.	5	1 0	...	32·05	...
d Keith (H.R.S.)	The Station Agent.....	5	1 0	364 ∇	36·78	191
Banff (Earl Hill)	A. Ramsay, Esq.	5	1 0	115 ∇	30·44	270
d Boyndie (Whitehills)	Rev. W. Anderson ...	5	1 0	68 ∇	29·85	224
Cullen House	Mr. J. F. Smith.....	5	1 0	100 ∇	33·75	...
ELGIN OR MORAY.						
Grantown	Mr. W. Duncan.....	5	1 1	712 ∇	31·56	195
Craigellachie (Wester Elchies Sch)	Mr. J. Milne	5	1 0	560 ∇	33·19	177
Forres (Grange Hall)	J. Grant Peterkin, Esq. ...	5	1 0	52 ∇	24·30	..
Kinloss	J. Mackessack, Esq. ...	5	1 3	20	25·18	...
d Gordon Castle.....	Mr. C. Webster	8	1 0	107 ∇	31·64	204
d Elgin (Highfield)	R. C. Cameron, Esq....	5	1 0	80 ∇	28·15	187
NAIRN.						
d Cawdor (Budgate).....	J. Joss, Esq.	5	1 0	250 ∇	30·01	202
d Nairn (Achareidh).....	Col. Clarke	8	1 0	59	24·26	199
„ (School Ho.).....	The Meteor. Council ...	8	1 9	84	24·75	225

DIVISION XVIII.—NORTH WESTERN COUNTIES.

WEST ROSS.‡

Applecross Gardens	Mr. D. McCowan	5	1 0	70 ∇	64·97	...
d Strathconan [Beaully]	Mr. D. McIver	5	1 0	450	52·82	150
d Glencarron Lodge	Mr. D. D. Munro	5	1 0	504	87·34	259
Loch Torridon (Bendamph)	Mr. K. MacPherson ...	5	0 5	25	94·93	...
d „ „ (Shieldaig)	C. D. Rudd, Esq. ....	...	4 0	30	67·98	253
Loch Vraon.....	Sir J. Fowler, Bt.	8	0 7	750	74·95	...
Braemore House.....	„ „ „	8	0 7	750	65·40	...
„ „ „ = Foich	„ „ „	8	0 7	100	58·53	...
Isle of Lewis (Stornoway)	Bd. of Northern Lights ...	3	4	31 ∇	36·07	230
„ „ „	The Meteor. Council. ...	8	1 0	24	59·03	240
„ „ (Butt of Lewis)	Bd. of Northern Lights ...	3	6	..	44·23	170

‡ Including Cromarty.

DIVISION XVIII.—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	1896	
EAST ROSS.‡						
Contin (Kinnahaird).....	W. Ross, Esq.	5	1 2	74	27·38	...
d Strathpeffer Spa (Ambatovory)..	J. T. Fox, Esq.	5	1 0	254	30·11	239
d „ Station	Mr. J. Baxter	5	2 0	150	34·12	219
Dingwall (Uplands)	A. Beattie, Esq.....	3	1 3	360 †	37·70?	...
Evanton (Swordale House)	Dr. Buchan .....	...	...	...	32·12	...
Cromarty	Bd. of Northern Lights .....	...	...	...	24·92	118
d Alness (Ardross Castle)....	Mr. R. Massie.....	5	1 0	450 †	35·46	207
d Fearn (Lower Pitkerrie)	R. Gordon, Esq., C.E..	5	1 0	95	22·84	124
„ (Geanies Mains).....	Miss Hope Douglas ...	5	1 0	200	23·94	...
Tarbetness	Bd. of Northern Lights .....	...	3 4	61 ?	25·38	...
WEST INVERNESS.						
Ben Nevis Observatory.....	Dr. Buchan.....	5	...	4407	133·56	...
Fort William (Observatory).....	The Meteor. Council ...	8	1 8	33	71·07	244
d Moidart(Roshven,Glenmutchkin)	Mr. J. McPherson	5	1 0	100	80·13	244
d „ („)	Prof. Blackburn	5	1 0	68 †	64·08	253
d Loch Shiel (Glenaladale)	Major Macdonald	5	1 2	50 ?	107·55	256
d Arisaig	Mr. A. Grant.....	5	1 0	20 ?	67·11	243
d Glenquoich	Mr. D. Grant.....	8	2 4	660	108·85	249
Skye (Oronsay)	Bd. of Northern Lights .....	...	0 6	15 ?	47·67	158
„ (Kyleakin) .....	„ „ „ .....	...	...	...	56·05	188
Barra (Barrahead).....	„ „ „ .....	...	3 0	640 ?	29·76	176
S. Uist (Ushenish).....	„ „ „ .....	...	0 4	157 ?	46·10	112
N. Uist (Monach) .....	„ „ „ .....	...	...	...	42·54	176
d „ (Loch Maddy)	J. M. Fraser, Esq.....	5	1 0	...	52·84	210
Harris (Island Glass).....	Bd. of Northern Lights .....	...	...	...	43·66	152
EAST INVERNESS.						
Invergarry	Mrs. Ellice	5	1 0	...	56·22	...
Kingussie	Dr. Buchan.....	...	...	761	26·47	197
d Fort Augustus (St. Benedict's)...	Rev. M. Wall... ..	5	1 6	68	42·65	228
d Aviemore (H.R.S.).....	The Station Agent.....	5	1 0	710	31·43	242
Killin	British Aluminium Co. ...	5	...	1060	67·13	...
Loch Ness (Foyers)	„ „ „	5	...	70	34·83	...
d „ „ (Drumnadrochit).....	Mr. A. Grant.....	5	1 0	104 †	35·19	222
Inverness (High School)	Dr. Buchan.....	...	...	114	27·13	191
d Beaully (Lovat Estate Office) ...	J. T. Garrioch, Esq. ...	5	1 3	25	28·31	158

DIVISION XIX.—NORTHERN COUNTIES.

SUTHERLAND.

d Invershin	Mr. G. Young	5	4 0	20 †	27·92	169
d Golspie (H.R.S.)	The Station Agent.....	5	0 9	27	34·39	150
d " (Dunrobin Castle)	Mr. D. Melville	5	1 0	14 †	33·83	178
" (" ").....	M. " "	3	0 3	13 †	31·45	...
Stourhead	Bd. of Northern Lights .....	...	...	...	38·50	173
Scourie	J. Simpson, Esq.	5	0 4	28	56·74	...
Cape Wrath	Bd. of Northern Lights	3	3 6	355	44·25	131

‡ Including Cromarty.

DIVISION XIX.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain 1896	Days on which 701 or more fell.
		Diameter	Height Above Ground.		Height Above Sea Level	
			ft.	in.	feet.	inches.
CAITHNESS.						
Wick	The Meteor. Council ...	8	1	9	77	34·65
† „ (Nosshhead)	Bd. of Northern Lights	8	4	8	127 ?	28·19
† Watten (H.R.S.) ...	The Station Agent	5	2	6	75 †	29·39
Thurso (Holburnhead)	Bd. of Northern Lights	3	0	8	60 ?	41·60
Dunnethead	„ „ „	...	3	0	...	27·99
Pentland Skerries	„ „ „	...	3	3	72 ?	25·48
ORKNEY.						
South Ronaldshay (Roeberry) ...	J. Gray, Esq.	5	1	2	101 †	37·70
Hoy (Cantickhead)	Bd. of Northern Lights	...	0	6	...	34·40
„ (Graemsay Sound, West=Low)	„ „ „	...	3	4	...	38·63
Pomona (Deerness)	Dr. Buchan .....	...	1	0	172	41·87
„ (Kirkwall)	Mr. J. W. Cursiter	3	1	3	20	42·68
Hellyar Holm	Bd. of Northern Lights	...	...	...	...	38·82
Auskerry .....	„ „ „	...	...	...	...	22·73
Shapinsay (Balfour Castle)	Mrs. Balfour	5	0	6	50	37·24
Sanda (Start Point)	Bd. of Northern Lights	11	0	6	29 ?	43·15
North Ronaldshay .....	„ „ „	...	...	...	...	36·72
SHETLAND.						
Fair Isle, S.	Bd. of Northern Lights	...	...	...	...	30·30
„ „ N. ....	„ „ „	...	...	...	...	34·70
Sumburghhead .....	„ „ „	...	...	...	...	45·82
„ (Dunroseness) ...	The Meteor. Council ...	8	1	0	84	43·61
Bressay	Bd. of Northern Lights	...	...	...	...	39·00
Sule Skerry .....	„ „ „	...	...	...	...	44·87

IRELAND.

DIVISION XX.—MUNSTER.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which not or more fell
		Diameter	Height above Ground.	Height above Sea Level		
CORK.						
d Castletownshend (Glen Barrabane)	E. B. Coghill, Esq. ...	5	3 0	25 L	27·55	156
Bantry House.....	The Meteor. Council ...	...	...	...	55·89	150
Dunmanway (Coolkelure)	Col. Shuldham	5	1 6	500 T	61·23	220
Roche's Point.....	The Meteor. Council ...	8	1 9	32	30·72	150
d Douglas (Villa Franca).....	R. C. Sikes, Esq.	5	1 0	49 T	32·47	183
d Cork (Queen's College)	Prof. Jack	8	1 0	60	32·22	179
d „ (The Palace)	Rt. Rev. Bishop of Cork	5	1 0	40 L	29·58	156
d „ (Wellesley Terrace)	W. Miller, Esq.....	5	1 0	190 B	31·49	182
d „ (St. Ann's Hill)	Dr. M. Altdorfer	5	1 0	240	32·61	183
d Mallow (Summer Hill)	J. F. Williamson, Esq.	5	1 10	230 T	32·32	200
d „ (Longueville)	R. E. Longfield, Esq....	5	0 10	300	26·12	215
Doneraile	The Meteor. Council ...	5	1 0	267	33·56	199
KERRY.						
d Darrynane Abbey ..	D. O'Connell, Esq.....	5	1 0	13 T	44·66	232
d Waterville (Iveragh Lodge).....	T. J. Wilmot, Esq.....	5	1 0	86 T	46·39	242
Kenmare (Derreen)	Mr. W. Holbrow	5	1 0	74 T	58·15	202
Valencia (Glenleam)	The Meteor. Council ...	8	1 0	12	53·39	239
Cahirciveen	„ „ „	8	2 0	32	48·42	241
Mangerton	M. Ven Archdeacon Wynne	8	3 0	1760	77·75	...
d Killarney (Woodlawn)	„ „ „	5	1 1	96 T	48·84	220
WATERFORD.						
d Cappoquin ..	Mr. W. Doolan	5	0 9	283	34·96	179
d Knockaderry	M. J. Fleming, Esq. C.E.	5	0 9	230 T	34·07	201
d Waterford (Rockenham)	A. E. Graves, Esq. ...	8	2 6	140 T	31·59	108
d „ (Brook Lodge).....	C. P. Bolton, Esq., C.E.	5	1 0	104 T	34·94	163
d „ (Cove Lodge)	T. N. Harvey, Esq. ...	11	4 9	88	29·07	159
d „ („ „)	„ „ „ „	5	1 0	72	30·38	...
d „ (Ticor)	M. J. Fleming, Esq. C.E.	5	0 7	171 T	30·14	129
d Portlaw (Mayfield).....	J. Anderson, Esq.	5	4 0	70	33·57	156
d Glenam [Clonmel]	Miss Grubb.....	8	1 4	80 T	33·99	187
TIPPERARY.						
d Clonmel (Bruce Villa)	J. H. Grubb, Esq.....	5	1 3	110 T	30·89	192
d Caher (Duneske)	G. N. Smith, Esq.	5	0 11	193 T	29·49	179

DIVISION XX.—MUNSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground	Height Above Sea Level	1896	
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TIPPERARY—(con.)						
Ballina [Killaloe]	T. Crosthwaite, Esq. C.E.	5	2 0	124 T	44·79	213
D Derry Castle [Killaloe]... ..	Mr. T. Manly.....	5	1 6	580 T	46·98	215
D Nenagh (Clashnevin).....	J. Mounsey, Esq.	5	1 2	300 T	33·09	204
D „ (Castle Lough)	A. Parker, Esq.....	5	1 3	120 T	39·44	206
D Ballingarry (Hazelfort)	Mrs. Fraser.....	5	1 0	...	30·78	221
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LIMERICK.						
Foynes	The Meteor. Council . .	5	1 0	104	37·41	194
Pallaskenry (Kilcornan)	Mr. J. Smyth... ..	5	1 0	130	29·53	112
Limerick (Roxborough).....	A. W. Shaw, Esq.	8	1 6	112 T	33·66	218
„ (Victoria Terrace) ...	J. Horan, Esq.	5	1 0	60 T	32·83	166
<hr/>						
CLARE.						
Carrigaholt Castle.....	W. C. V. Burton, Esq.	...	...	30	36·25	212
D Killadysert (Paradise Hill)	Rev. H. Henn	5	0 11	105 T	42·76	217
D O'Briensbridge (Ross)	J. Digan, Esq.	10	2 0	93	37·99	182
D Broadford (Hurdlestown).....	Major Bentley	5	1 0	167 T	29·56	225
Ennis (Roslevan)	Mrs. Scott	5	1 11	40	34·74	184
D Miltown Malbay	M. Molohan, Esq.	5	1 0	400 T	44·02	212

DIVISION XXI.—LEINSTER.

WEXFORD.						
D New Ross (Longraigue).....	J. W. Deane, Esq.....	5	1 0	210 T	36·00	176
D Wexford (Bann-aboo)	Col. Magrath	8	4 0	9	32·95	154
D „ (Alma)	E. F. Ryan, Esq.	5	1 5	50 T	34·47	171
D Templeudigan (Ballindoney) ...	J. Budgen, Esq.	5	1 0	...	41·38	195
D Enniscorthy (Ballyhyland)	Mrs. Moffat	5	1 0	365 T	38·32	181
D „ (Monksgrange).....	E. M. Richards, Esq... ..	5	1 0	565 T	47·06	234
D Oulart (Wells)	C. M. Doyne, Esq... ..	5	1 0	215 T	33·75	153
Gorey (Courtown House)	Rt Hon Earl of Courtown	5	3 0	80 T	30·52	149
KILKENNY.						
D Inistioge (Woodstock)	Lady Louisa Tighe ...	5	1 0	400 T	37·76	165
Graigie (Brandondale).....	R. R. Burtchaell, Esq.	5	2 0	90 T	33·53	101
Kilkenny (Lavistown)	D. A. Milward, Esq....	5	2 0	180 T	30·22	172
„ Castle	The Meteor. Council ...	8	1 0	208	29·24	178
D „ (Sion Villa)	J. O'Connell, Esq., C.E.	5	1 0	198	28·93	186
WICKLOW.						
D Laragh (Glendalough)	Wyndham H Wynne Esq	5	2 9	460 T	52·23	179
Greystones (Knockdolian).....	R Catheart Dobbs Esq CE	5	1 2	68 T	36·10	169
D† Bray (Fassaroe)	R. M. Barrington, Esq.	10	5 0	250	37·72	163
CARLOW.						
Bagnalstown (Fenagh House) ...	D. R. P. Beresford, Esq	5	1 0	340	30·30	152
D Carlow (Browne's Hill).....	W. Browne Clayton, Esq	5	1 0	291 T	32·70	169

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	1896		
QUEEN'S COUNTY.			ft.	in.	feet.	inches.	
Abbey Leix (Blandsfort)	J. L. Bland, Esq.	5	3	0	532 ∇	33·51	197
KING'S COUNTY.							
d Parsonstown (Birr Castle)	Rt Hon Earl of Rosse FRS	8	1	0	180	32·42	189
" "							

DIVISION XXII.—CONNAUGHT.

GALWAY.

Woodpark [Scariff]	R. F. Hibbert, Esq. ...	5	1 0	170 ∇	37·65	208
Galway (Queen's College)	Prof. Anderson	5	9 0	30	39·58	207

DIVISION XXII.—CONNAUGHT—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of	Days on which 301 or more fell
		Diameter	Height Above Ground	Height Above Sea Level	Rain, 1896	
GALWAY—(con.)						
D Ballinasloe	W. H. Kempster, Esq.	5	3 0	160 ∇	37·07	208
D Woodlawn	Mr. A. Porter	5	3 6	300 ∇	42·15	206
Ahascragh (Clonbrock)	Rt. Hon. Lord Clonbrock	10	5 4	200 ∇	36·92	...
D Clifden (Kylemore House)	Mr. T. McNab	5	1 0	105	76·90	234
„ („ Castle)	Mr. W. Comfort	5	0 9	...	64·68	220
Tuam (Castle Hacket)	Mrs. Percy Bernard ...	5	1 0	...	41·33	216
„ (Gardenfield)	M H. Kirwan, Esq.	5	1 0	155 ∇	40·87	...
„ („) ... <i>Snowdon</i>	„ „ „	5	6 0	160 ∇	40·84	...
ROSCOMMON.						
Athlone	T. Crosthwaite, Esq. C.E.	5	2 0	130 ∇	33·62	181
Donamon (Castle Coote)	Mr. A. Chute	5	0 10	197 ∇	37·78	172
Rooskey	T. Crosthwaite, Esq. C.E.	5	2 0	136 ∇	30·83	187
MAYO.						
D Cong (The Glebe)	Rev. R. Y. Lynn	5	1 11	112 ∇	44·59	227
Ballinrobe (Cranmore)	Miss Knox	5	0 9	99	45·20	..
„ (Kilrush)	J. Simson, Esq.	5	1 0	120 ∇	41·44	...
D Crossmolina (Enniscoe)	J. Pratt, Esq.	5	0 11	74 ∇	53·74	255
Belmullet	The Meteor. Council ...	8	1 0	40	48·40	218
SLIGO.						
Ballymote (New Park)	R. A. Duke, Esq.	5	1 2	300	42·44	...
D Collooney (Markree Observatory)	A. Marth, Esq.	5	1 0	130 ∇	42·27	240
„ („)	„ „ „	5	16 6	148 ∇	37·65	236
D Ballysadare Bay (Glen Lodge)...	Vernon Cockram, Esq..	5	1 0	14	43·92	223
LEITRIM.						
Jamestown (Albert Lock)	T. Crosthwaite, Esq. C.E.	5	2 0	142 ∇	31·31	198
D Ballinamore (Lawderdale) ...	J. O. Lawder, Esq., C.E.	5	1 0	275 ∇	44·00	214
Drumshanbo (Lough Allen)	T. Crosthwaite, Esq. C.E.	5	2 0	165 ∇	38·36	141

DIVISION XXIII.—ULSTER.

CAVAN.						
D Lough Sheelin (Arley).....	No. 2 Rt. Hon. Lord Farnham	8	1 0	225 ∇	37·02	229
D Stradone House	Mr. J. Hart	5	1 0	280	37·63	203
Cavan (Water Works)	M Mr. W. H. Morris	8	...	304	32·97	...
Killeshandra (Castle Hamilton)..	W. J. Hamilton, Esq. ...	5	1 0	251 ∇	33·71	186
D Belturbet (Cloverhill)	Mrs. Sanderson	5	1 0	200	31·74	216
D „ (Red Hills)	Mrs. Whyte Venables..	5	0 9	208 ∇	37·83	230
MONAGHAN.						
D Dartrey [Cootehill]	Mr. F. Prince	5	3 0	265	37·38	192
Monaghan (Rowantree House)...	Dr. J. C. Hall.....	5	5 6	240	30·19	186

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	1896	
ARMAGH.						
Edward St. Station [Newry] ...	J. L. D. Meares, Esq...	5	1 0	22 ∇	35·19	...
∇ Armagh Observatory.....	Dr. Dreyer ..	8	1 0	205 ∇	31·21	21
∇ Rich Hill (Fruitfield)	Messrs. Lamb Bros. ...	5	3 9	...	31·38	211
∇ Loughgall (Manor House)	Mrs. Cope	5	1 0	205 ∇	31·17	195
∇ Charlmont Lock [Moy].....	W.J. O'Neill, Esq., C.E.	5	1 0	61	28·76	150
∇ Lurgan (Belle Vue)	S. A. Bell, junr., Esq..	5	0 5	200 ∇	29·02	194
DOWN.						
∇ Warrenpoint (Summer Hill).....	Mr. B. M. Kernan.....	5	1 0	30 ∇	38·83	133
Mourne Mountains (Windy Gap)	FWMcCulloughEsq.CE	5	3 6	1625 ∇	56·05	...
Newcastle (Fairleigh)	Rev. Canon Seymour...	5	1 2	12	52·44	171
∇ Rathfryland (Ballynagappoge)...	J. Smyth, Esq., C.E....	5	1 0	300	32·25	167
∇ Castlewellan (Lough Island) ...	" " " "	5	1 0	440 ∇	40·33	161
Banbridge (Katesbridge)	A. Mulligan, Esq.	5	1 0	230	24·63	...
∇ Seaforde	Rt. Hon. Col. Forde ...	8	0 5	180 ∇	34·60	180
Banbridge (Corbet Reservoir) ...	J. Smyth, Esq., C.E....	5	1 0	234	27·74	140
∇ " (Milltown)	" " " "	8	0 8	200 ∇	30·59	208
∇ Waringstown.....	Col. Waring, M.P. ...	8	0 8	191 ∇	35·24	194
∇ Lisburn (Union Locks).....	W.J. O'Neill, Esq., C.E.	5	1 0	138	33·17	169
Donaghadee	The Meteor. Council ...	8	1 6	30	29·88	214
ANTRIM.						
Stonyford (Belfast W. W.) ...	FWMcCulloughEsq.CE	5	1 6	437 ∇	38·77	241
∇ Belfast (Queen's College).....	Mr. W. Taylor	11	7 4	68 ∇	32·83	172
∇ " (Springfield)	J. Firth, Esq.....	5	1 0	150 ∇	42·80	208
∇ " (Antrim Road).....	FWMcCulloughEsq.CE	7	7 0	144 ∇	35·10	176
∇ Antrim (The Manse).....	Rev. W. A. Adams ...	5	4 0	150	32·70	207
Carriekfergus (Dorisland).....	FWMcCulloughEsq.CE	5	1 0	250 ∇	41·60	245
" (South Woodburn)	" " "	5	1 0	640 ∇	41·81	235
" (North Woodburn)	" " "	5	1 0	735 ∇	44·39	237
" (Copeland)..... M	" " "	5	1 0	380 ∇	37·42	...
" (")	" " "	5	1 0	424 ∇	39·47	238
" (Lough Mourne)...	" " "	5	1 0	596 ∇	42·23	237
Ballynure (Ballyboley).....	Mr. T. H. Craig.....	5	1 4	400	44·66	198
∇ Ballymena (Harryville)	J. R. Williams, Esq....	5	1 5	150 ∇	39·20	228
∇ Broughshane (Quolie)	H. O'Hara, Esq.	5	1 4	893	43·77	211
Glenarm Castle).....	Rt.Hon. Earl of Antrim ...	...	...	50	42·21	139
∇ Ballymoney (Balnamore)	W. H. Lawlor, Esq. ...	5	1 5	50 ∇	37·60	254
Stranocum (Gardenvale)	A. McNeill, Esq.	5	1 0	160	42·01	195
∇ Bushmills (Dundarave).....	Sir F.E. Macnaghten, Bt	5	1 0	162 ∇	38·19	221
LONDONDERRY.						
∇ Garvagh (Moneydig).....	H. R. Morrison, Esq... 5	1 0	121	39·33	190	
∇ Londonderry (Clooney Terrace)..	Mr. J. Conroy	5	1 0	68 ∇	41·87	253
∇ " (The Asylum)	T. Campbell, Esq.....	5	1 0	36 ∇	39·53	223
∇ " (Creggan Res.).....	Mr. J. Hutchison	8	1 0	320 ∇	43·55	246
Limavady (Drenagh)	C. T. McCausland, Esq	5	1 0	80	38·56	247
∇ Coleraine.....	J. Kennedy, Esq.	5	4 0	52 ∇	37·46	216

DIVISION XXIII.—ULSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1896	Days on which >01 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	36·18 184
Dungannon (Rockdale).....	Col. Lowry	5	1	0	300 T	37·02 205
d Omagh (Edenfel)	Col. Buchanan	8	1	0	280 T	37·28 217
d Newtown Stewart (Baron's Court)	Mr. R. Bell.....	5	1	0	250 T	41·80 206
DONEGAL.						
d Killybegs	A. Brooke, Esq.....	5	1	0	30	61·61 244
Raphoe (Convoy Ho.)	Col. Montgomery	5	1	0	110 T	39·98? 273
Rathmullen	Dr. Loughnan	5	1	0	1	44·43 227
„ (Fort Royal)	Genl. Montgomery.....	5	1	0	35	43·74 ...
Bloody Foreland (Ardnadrean)..	Rev. W. S. Griffith ...	5	0	9	39	47·84 ...
d Buncrana (Rockfort).....	T. Colquhoun, Esq. ...	5	1	0	40 T	41·07 227
d Moville (Prospect Villa)	Mr. J. Lowry	8	3	0	80	45·32 242
d „ Rectory.....	Rev. S. R. Craig	5	1	0	110 B	48·88 223
d Horn Head	C. F. Stewart, Esq. ...	5	1	0	160	46·31 244
Lough Swilly (Carrablagh)	H. C. Hart, Esq.	5	1	0	130	45·79 244
Malin Head	The Meteor. Council ...	8	1	0	220	38·26 232

ARRANGEMENTS
FOR THE
SYSTEMATIC OBSERVATION
AND
RECORD
OF THE
RAINFALL OF THE BRITISH ISLES.

COMPILED BY

G. J. SYMONS, F.R.S.,

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Colonial Institute; Membre correspondant étranger Soc. Royale de
Médecine Publique de Belgique; Socio correspondiente Sociedad
Científica Antonio Alzate, Mexico, &c., &c.*

THIRTEENTH EDITION.

LONDON:
EDWARD STANFORD, COCKSPUR STREET, S.W.
1897.

Introductory and Historical.—I cannot help this section appearing to be egotistical ; the rainfall organization being entirely my own creation, it is impossible for it to be otherwise.

In the early part of the year 1859 I began collecting copies of records of the fall of rain, and early in 1861 wrote to all the observers of whom I was then aware, and asked them to send me all the records for the year 1860 that they could. I received 168 returns, and printed a table showing the total fall at all those places, being a larger number than had ever before been classed together. This publication gave a stimulus to observers, and from that time onwards their number has steadily increased until it now exceeds 3,000.

The amount of information published has increased even more, for whereas at first I printed only the total annual fall, I now publish essays on various branches of rainfall enquiry, and full abstracts of the most remarkable falls in short periods (ten minutes, half-an-hour, and so on), the heaviest falls in one day, tables of the monthly fall at several hundred stations, and, in short, give all the information which I can collect and which it seems expedient to print.

From the foregoing it will be evident that the compilation of the present annual volume (of which the short title is "British Rainfall, 1896," &c.) is a very serious labour. The mere checking of more than three thousand returns takes a long time, and so does the due arrangement of the various facts reported, and by no means the least onerous matter is ensuring the accuracy of the printing of the whole.

During the first few years I not only gave my own time gratuitously to the work, but also bore all the cost of postages and of printing. It soon, however, became far too great for me to bear, and my correspondents kindly offered to share it with me. In 1865 the price of the annual volume was fixed at five shillings, and, although the size and cost of the volume has since so largely increased, that the price to the general public has had to be doubled, those observers who desire it are still allowed one copy at the old price. There are two reasons for this : (1) Because as the book could not be compiled without the help of observers, they ought to be allowed to have it as cheaply as possible ; (2) Because a small number of the observers (about 300, whose subscriptions are duly published) contribute annually from one to ten guineas towards the general expenses of the work.

The existing state of matters is, therefore, shortly as follows. There are more than 3000 persons, well spread over England and Wales,

Scotland and Ireland, each of whom is, I hope, strictly obeying the rules on p. [219]. To each of them I send on December 31st each year, blank forms for them to return to me filled with the facts observed by them. At the same time I send a list of the various publications, and invite such pecuniary aid as it may be agreeable to them to send.

I ought, perhaps, to say what becomes of the subscriptions. I will mention some of the outlets. (1) There are nearly a thousand observers whose returns have to be collected, examined, discussed, and printed, who do not contribute sixpence towards the cost thereof. (2) In some localities it is impossible to obtain volunteer observers, and there the observers receive regular salaries. (3) The mass of office work, correspondence, &c., is far beyond what I can myself accomplish; two regular assistants are, therefore, employed, and besides that, considerable sums are paid for extra assistance at times of pressure. (4) The expenditure for printing and postages is very large.

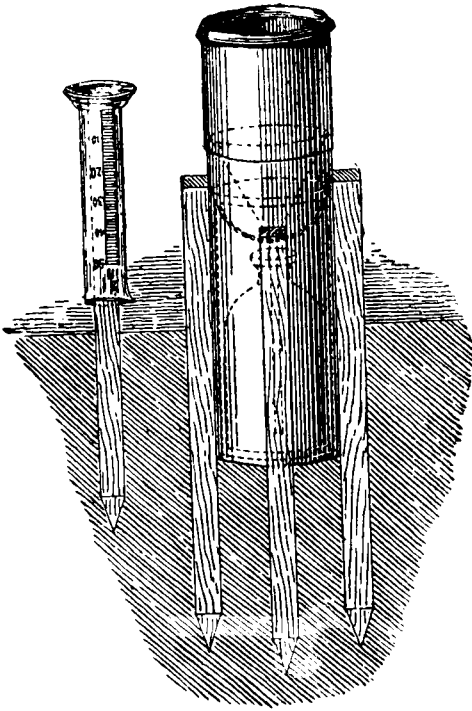
In addition to the annual volume, I publish a monthly periodical, *Symons's Monthly Meteorological Magazine*, giving, in addition to a full chronicle of the progress of meteorology, details of rainfall at upwards of 100 stations. This is sent free to subscribers.

It may, perhaps, be added that it always affords me pleasure to reciprocate as far as possible the assistance which the observers render to me, either by affording them meteorological information, data as to the height of their stations above sea level, or advice as to the purchase of instruments.

In short, the state of the case is this: I have given myself up to the collection of statistics of rainfall—old ones and current ones; I invite everybody to help me, both with observations and with funds, and I promise, in return, to render to all my correspondents all the help that is in my power.

Patterns of Rain Gauges, and where to Buy them.—This is not a pleasant section to write, for there is considerable jealousy among the manufacturers, and I am almost certain to be accused of favouritism by some one. However, I have never patented any pattern of rain gauge, and therefore leave the field open to all.

Upon one point it is necessary to be despotic, viz., that amateurs never try to make their own gauges; they are almost certain to go wrong in some respect, and nothing is more vexing, both to the observers and to myself, than for it to be discovered after observations have been recorded for a long time that the labour of years is vitiated by an inaccurate instrument.



For use in ordinary localities. I recommend the Snowdon gauge; it is five inches in diameter, is easily fixed by four stakes, as shown; the glass jar, each division on which denotes $\frac{1}{100}$ th of an inch of rain, when filled up to the top division holds 0·50 in., or half an inch; the bottle holds about three inches of rain, and, of course, in the very rare case of the fall exceeding that, the excess is saved by the can, and must be carefully measured. It costs 12s. 6d. or £1 1s., according as it is made of galvanized iron, or of copper. Where cost is no object, it is, by some, thought better to have a larger gauge, viz., eight inches diameter, cost-

ing from £2 to £3, but I do not advise it.

Snowdon pattern rain gauges can be obtained from any optician but it may be convenient to give, in alphabetical order, the names and addresses of a few of the principal makers (the gauges can easily be sent by Parcel Post) :—

CASELLA, L., 147, Holborn, E.C.

HICKS, J. J., Hatton Garden, E.C.

NEGRETTI & ZAMBRA, Viaduct, E.C., and Regent Street, W.

PASTORELLI, F., 10, New Bond Street, W.

Testing.—Wherever, and of whomsoever, a rain-gauge may be bought it is very desirable that the purchaser should insist upon having a certificate of its accuracy. Rain gauges are examined, and certificates issued, by Kew Observatory, and by myself, the charge in each case is the same, namely, 2s. 6d.

Blank Forms.—All blank forms required for returns to myself, and additional ones wherever desired, are supplied gratuitously, and even those sold are charged at little more than their actual cost.

Change of Residence.—Each observer is requested to decide upon a specific name for his station, and to notify immediately any change in the position of the gauge or the discontinuance of his record.

SUGGESTIONS FOR SECURING UNIFORMITY OF PRACTICE AMONG RAINFALL OBSERVERS.

I.—SITE.—A rain gauge should not be set on a roof, a slope, or a terrace, but on a level piece of ground, at a distance from shrubs, trees, walls, and buildings—at the very least, as many feet from their base as they are in height. Tall-growing flowers, vegetables, and bushes must be kept away from the gauge. If a thoroughly clear site cannot be obtained, shelter is most endurable from N.W., N., and E., less so from S., S.E., and W., and not at all from S.W. or N.E.

II.—OLD GAUGES.—Old established gauges should not be moved, nor their registration discontinued until, at least, two years after a new one has been in operation, otherwise the continuity of the register will be irreparably destroyed. Both the old and the new ones must be observed at the same time, and recorded for comparison. Changes, where inevitable, are least objectionable if made on January 1st.

III.—LEVEL AND FIXING.—The funnel of a rain gauge must be set quite level, and the gauge so firmly fixed that it will remain so in spite of any gale of wind or ordinary circumstance. Its correctness in this respect should be tested from time to time.

IV.—HEIGHT.—The funnels of gauges newly placed should be 1 ft. above grass. Information respecting height above sea level may be obtained from the Editor.

V.—RUST.—If the funnel of a japanned gauge becomes so oxidised as to retain the rain in its pores, or threatens to become rusty, it should have a coat of gas tar, or japan black. Copper gauges are free from this evil, and far the best.

VI.—FLOAT GAUGES.—The measuring rod should be detached from the float, and never be left in the gauge. If it is attached to the float, it should be pegged or tied down, and only allowed to rise to its proper position at the time of reading. To allow for the weight of the float and rod, these gauges are generally so constructed as to show 0 only when a small amount of water is left in them. Care must always be taken to set the rod to the zero or 0.

VII.—CAN AND BOTTLE GAUGES.—The measuring glass should always be held upright, or placed on a level slab; the reading is to be taken midway between the two apparent surfaces of the water.

VIII.—TIME OF READING.—Nine a.m. daily; if taken only monthly, then 9 a.m. on the 1st.

IX.—DATE OF ENTRY.—The amount measured at 9 a.m. on any day is to be set against the previous one ; because the amount registered at 9 a.m. of, say, 17th contains the fall during 15 hours of the 16th, and only 9 hours of the 17th.

X.—MODE OF ENTRY.—If less than one-tenth ($\cdot 10$) has fallen, the cypher must *always* be prefixed ; thus, if the measure is full up to the seventh line, it must be entered as $\cdot 07$, that is, no inches, no tenths, and seven hundredths. There must always be two figures to the right of the decimal point. Even in the case of one-tenth of an inch (usually written $\cdot 1$) a cypher must be added, making it $\cdot 10$. Neglect of this rule causes much inconvenience. All columns should be cast *twice*—once up and once down, so as to avoid the same error being made twice. Never copy a total, always cast the column afresh. When there is no rain, a line should be drawn rather than cyphers inserted.

XI.—CAUTION.—The amount should always be written down before the water is thrown away.

XII.—SMALL QUANTITIES.—The unit of measurement being $\cdot 01$, observers whose gauges are sufficiently delicate to show less than that, are, if the amount is under $\cdot 005$, to throw it away, if it is $\cdot 005$ to $\cdot 010$ inclusive, they are to enter it as $\cdot 01$.

XIII.—ABSENCE.—Every observer should train some one as an assistant ; but where this is not possible, instructions should be given that the gauge be emptied at 9 a.m. on the 1st of the month, and the water bottled, labelled, and tightly corked, to await the observer's return.

XIV.—HEAVY RAINS.—When very heavy rains occur, it is desirable to measure immediately on their termination, and it will be found a safe plan after measuring to return the water to the gauge, so that the morning registration will not be interfered with. Of course if there is the slightest doubt as to the gauge holding all that falls, it must be emptied, the amount being written down, and added to the subsequent measurement.

XV.—SNOW.—In snow three methods may be adopted—it is well to try them all. (1) Melt what is caught in the funnel by adding to the snow a previously ascertained quantity of warm water, and then, deducting this quantity from the total measurement enter the residue as rain. (2) Select a place where the snow has not drifted, invert the funnel, and turning it round, lift and melt what is enclosed. (3) Measure with a rule the average depth of snow, and take one-

twelfth as the equivalent of water. This being a very rough method, is not to be adopted if it can be avoided. Some observers use in snowy weather a cylinder of the same diameter as the rain gauge, and of considerable depth. If the wind is rough, all the snow is blown out of a flat-funnelled rain gauge. Snowdon pattern gauges are much the best.

XVI.—OVERFLOW.—Hardly a year passes in which some gauges are not allowed to overflow, it is therefore necessary to call attention to the fact that there does not seem to be any part of the British Isles where 4 inches may not fall in 24 hours. It is not desirable to purchase any gauge which will not hold 6 inches.

XVII.—SECOND GAUGES.—It is desirable that observers should have two gauges, and that one of them should be capable of holding 8 inches of rain. One of the gauges should be registered daily, the other weekly or monthly as preferred, but always on the 1st of each month. By this means a thorough check is kept on accidental errors in the entries, which is not the case if *both* are read daily. Observers having two gauges and recording both daily, should keep the records distinct, and forward a copy of each. Never take a mean of two.

XVIII.—DEW AND FOG.—Small amounts of water are at times deposited in rain gauges by fog and dew ; they should be added to the amount of rainfall, because (1) they “tend to water the earth and nourish the streams ;” and not for that reason only, but (2) because in many cases the rain gauges can be visited only monthly, and it would then obviously be impossible to separate the yield of snow, rain, &c. ; therefore, for the sake of uniformity, all must be taken together, and as except by watching all night it is never possible to be certain that small amounts are wholly dew, it is best to count all entries of .01 in. or upwards as days with rain.

XIX.—DOUBTFUL ENTRIES.—Whenever there is the least doubt respecting the accuracy of any observation, the entry should be marked with a ?, and the reason stated for its being placed there.

XX.—BREAKAGE.—The Editor has no desire to supply rain gauges or glasses, or in any way to undertake, or interfere with, the business of Opticians ; but the continuity and permanent accuracy of the records of his correspondents is of such importance, that any assistance in his power is always at their service.

XXI.—LEAKAGE.—Observers should test their gauges occasionally to see that the amount collected is neither increased nor decreased by leakage.

LIST OF PUBLICATIONS.

BRITISH RAINFALL,

Cloth 8vo, 10s. (to Observers, 5s.)

This is the general summary and epitome of the year's work ; it contains a report upon the progress of rainfall investigations, and full records of the rainfall of each year. It is published annually, and all the volumes since 1864 can still be had.

SYMONS'S MONTHLY METEOROLOGICAL MAGAZINE,

8vo. 5s. per Annum.

This was established in 1866, to afford a medium for the prompt publication of rainfall statistics, besides which it discusses all branches of meteorology. It numbers among its contributors many of the ablest meteorologists, and circulates in all quarters of the world.

All the volumes except volume V. can still be had.

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G. J. SYMONS.