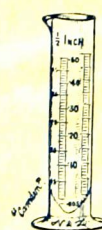


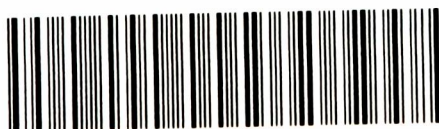
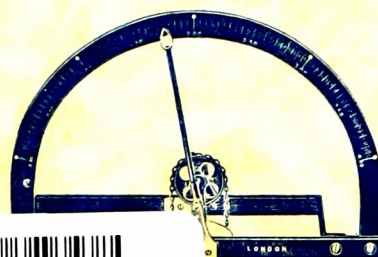
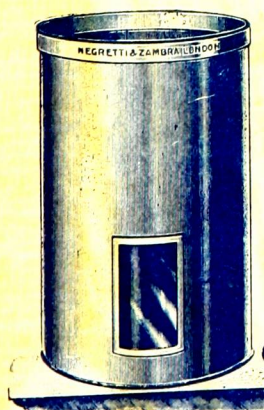
## RAIN GAUGES.

**NEGRETTI & ZAMBRA,**

38, HOLBORN VIADUCT, E.C.,  
45, CORNHILL, E.C., 112, REGENT STREET, W.,  
**LONDON.**



Telephone : 583 Holborn.      Telegrams : "Negretti, London."



3 8078 0009 6365 4



BRITISH RAINFALL,  
1910.

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# BRITISH RAINFALL, 1910.

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## ON THE DISTRIBUTION OF RAIN

IN SPACE AND TIME OVER THE

## BRITISH ISLES

DURING THE YEAR

1910

AS RECORDED BY NEARLY 5,000 OBSERVERS  
IN GREAT BRITAIN AND IRELAND

AND DISCUSSED

WITH ARTICLES UPON VARIOUS BRANCHES OF RAINFALL WORK

BY

HUGH ROBERT MILL

DIRECTOR OF THE BRITISH RAINFALL ORGANIZATION

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THE FIFTIETH ANNUAL VOLUME.

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WITH MAPS AND ILLUSTRATIONS

LONDON:

EDWARD STANFORD, 12, 13 & 14, LONG ACRE W.C.  
1911.

ERRATUM IN BRITISH RAINFALL, 1910.

p. [210], 6 lines from bottom, Dorking (High Ashurst),  
*insert as authority* Dowager Countess of Harrowby.

ERRATA IN BRITISH RAINFALL, 1903-1909.

In General Table, Div. II. : Sussex, *for* Billingshurst (Hawkhurst Court),  
*read* Wisborough Green (Lowfold).

ERRATA IN BRITISH RAINFALL, 1906-1909.

In General Table, Div. XX. : Cork, Dunmanway (The Rectory) ; height of  
gauge above ground, *for* 4 ft. 6 in. *read* 1 ft. 6 in.

ERRATA IN BRITISH RAINFALL, 1907-1909.

In General Table, Div. II. : Kent, Canterbury (Sturry Road),  
*delete* the record.

ERRATA IN BRITISH RAINFALL, 1909.

- p. 31, in first line of table, Day of Year, *for* 74 *read* 46.
- p. 113, line 19, *for* Plymouth *read* Devonport.
- p. 113, line 22, *after* open water-course *insert* similar to that.
- p. [142], line 10, *for* November *read* December.
- p. [203], *for* Cobham (Sandpit Hall) *read* Chobham (Sandpit Hall).
- p. [245], Northwick Park, *for* 31·81 *read* 31·97.
- p. [280], Gresford (Horsley Hall), *for* 23·99? *read* 26·99.
- p. [281], Cerrig-y-Druuidion (Hafod-llan-isaf), *for* 42·69 *read* 45·05.

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## PREFACE.

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THE completion of the fiftieth volume of BRITISH RAINFALL is an achievement on which the five surviving Observers, whose records appear in it as they appeared in the first volume, may well be congratulated. It is not often that an annual publication can boast of the unbroken collaboration of five fellow-workers for half a century. They were five among five hundred once, they are five among five thousand now.

It seemed to us most fitting to celebrate the appearance of the fiftieth volume by endeavouring to increase its usefulness, and we trust that our fellow-Observers will approve of the changes which have been made. Of these the first is the introduction of a Report to the Trustees, in which the Director gives a detailed account of the year's work ; the second and more important is the rearrangement of the nearly 5,000 stations of the General Table in river-basins, the county being retained as the unit. A special article, fully illustrated by maps, explains the new arrangement, the importance of which is self-evident. The cartographic treatment of rainfall material has been carried farther than in previous volumes, a new rainfall average has been introduced, involving much laborious computation, and we may say on behalf of every member of the staff that we have all worked with all our might to make this volume worthy of those which have gone before.

H. R. M.

62, CAMDEN SQUARE,  
LONDON, N.W.

*15th August, 1911.*

Your numeration till we reach the Lakh,  
One, two, three, four, to ten, and then by tens  
To hundreds, thousands . . . . .

. . . . .

But beyond that a numeration is,  
The Kâtha, used to note the stars of night ;  
The Kôti-Kâtha, for the ocean drops ;  
Ingga, the calculus of circulars ;  
Sarvanikhepa, by the which you deal  
With all the sands of Gunga, till we come  
To Antah-Kalpas, where the unit is  
The sands of ten crore Gungas. *If one seeks  
More comprehensive scale th' arithmic mounts  
By the ASANKYA, which is the tale  
Of all the drops that in ten thousand years  
Would fall on all the worlds by daily rain ;  
Thence unto Maha-Kalpas, by the which  
The Gods compute their future and their past.*

*Sir Edwin Arnold.*

## REPORT OF THE DIRECTOR TO THE TRUSTEES OF THE BRITISH RAINFALL ORGANIZATION.

Presented at the Meeting of Trustees held at 62, Camden Square, London,  
on July 19th, 1911—the statistics where necessary are revised to  
date of completion of *British Rainfall*, 1910.

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**Introductory.**—It is gratifying to be able to state that the encouragement given to the work of the Organization by the late King Edward VII. is being continued by His Majesty King George V., who has been pleased to renew the annual subscription which heads the list.

In presenting the first annual Report it is necessary to explain that the year under review is the calendar year 1910 so far as rainfall observations and the accounts of the General Fund are concerned, but the general work of the Organization is dealt with up to the date of the completion of the fiftieth volume of *British Rainfall* for the press. The meeting of Trustees is arranged to coincide as nearly as possible with the publication of the volume, so that this Report may take the place of the "Report" to the readers of *British Rainfall*, which has been the first article in the volume every year for half a century. As marking the end of the first year's working under changed conditions, which have permitted of several new departures, the work of the Organization may be described in somewhat greater detail than has been usual in the past or will be necessary in the future.

**The Office.**—The house, No. 62, Camden Square, and the instruments in the garden with which Mr. Symons's long climatological record has been carried on, have been kept in repair; the woodwork of several of the stands has had to be renewed this year. The observations have been taken daily at 9 a.m. and 3 p.m. by the junior members of the staff, each instrument being read separately by two assistants except on the morning of Sundays and holidays when only one assistant attends, and on the afternoons of those days when the observations have to be omitted. The observations at 9 p.m. are taken from the Redier barograph, and from an electrically

actuated wet and dry bulb thermometer on the principle of Negretti and Zambra's deep sea thermometer. The standard Casella self-recording rain gauge and the Halliwell self-recording rain gauge have been working throughout the year, and other forms of self-recording instruments have been tested from time to time. A complete copy of the observations is forwarded to the Meteorological Office monthly, and the principal readings are telephoned each morning to the Meteorological Office to be included in the Daily Weather Report.

The most important change which has been made was to provide enlarged fireproof accommodation for the accumulated records. A large cupboard in the ground-floor room of the house has been built of slabs of reinforced concrete, with shelves of the same material. It stands on a block of concrete extending from the ground to the level of the floor. An iron frame carrying the doors is bolted to the front of the shelves by iron bars carried through the brick wall at the back, and the doors are made of deal rendered unflammable by a chemical process and covered with sheets of uralite. This safe contains the originals of Form B, and the copy of the monthly totals of rainfall arranged in decades from 1677 onwards. In order to be within reach of these records, the Chief Assistant has removed from the office in the garden to the ground-floor room which has been fitted up for his use.

The number of postal communications, including monthly and annual returns as well as correspondence, received in 1910 was 18,288, and nearly as large a number of postal communications was dispatched, including 2,080 letters referring to the work of the Organization, which were considered to be of sufficient importance to justify the keeping of a press copy. The number of annual returns of daily rainfall received in response to the usual circular was about 3,500, these were all checked by members of the staff, and arithmetical errors were detected in about 930; most of these could be corrected on the spot, but in a good many cases it was necessary to consult the Observer before the discrepancy could be cleared up. About 1,500 returns of monthly rainfall were also received. When the returns were copied and ready for the printer, a second application was made for 478 which had appeared in the previous year, and which there was reason to believe could still be secured, and in 100 cases a third application was sent before the General Table was made up in pages. The total number of returns

received for the year was 4,962 complete, and 210 imperfect, there being thus at least 5,172 stations at work in the country.

The number of rain gauges submitted for testing in 1910 was 74, and for each of these a certificate was given; the number of rain-measuring glasses tested was 135, and certificates were issued for 130. Some of the makers of measuring glasses authorise me to destroy any which are not graduated with sufficient accuracy to allow of a certificate being issued; but other makers require rejected glasses to be returned to them. In addition to *British Rainfall* and *Symons's Meteorological Magazine*, a sheet of Cambridge and Huntingdonshire Rainfall has been prepared and issued monthly and a map of the rainfall of each month and of the year has been prepared and sent in to the Meteorological Office for publication in the *Monthly Weather Report*.

**The Staff.**—During the year Mr. Carle Salter, Chief Assistant, was left in charge of the work of the Organization on several occasions during my absence, the longest time being from October 6th to December 18th when I was on a voyage for my health, and on these occasions he kept up the routine of the Office with complete efficiency and issued the Magazine punctually. At the beginning of 1910 the work was largely rearranged, a greater amount of responsibility being laid on the members of the staff. Mr. Salter has had the chief burden of dealing with the incoming returns, settling minor discrepancies and dealing with the more difficult corrections in consultation with me. He has superintended the general work of the Office in preparing data, and has taken the greatest share of the proof-reading. He wrote the section on Droughts and Rainspells in *British Rainfall*. He has compiled a chapter on the Meteorology of Selsey for a forthcoming book. On my retirement from the Council of the Royal Meteorological Society, the election of Mr. Salter to that body continued the representation of the Organization.

Mr. Lamport has had charge of the records received monthly, checking the returns as they came in, superintending the copying of the cards on Form A (which is done outside the Office), and drawing up the various monthly tables for publication in the Magazine and elsewhere. He also wrote out the MS. of the General Table for the Printer, and made out the list of Maximum Falls from which the Chronicle, as published, is extracted, and he entered up the whole of

the previous year's returns on the "ten-year sheets" for preservation. He also dealt with the acknowledgement of subscriptions.

Mr. Carter has had charge of the Address Book and of the County List with over 5,000 names in each, and a large number of cross-references requiring continual corrections and additions. He compiled several of the large Tables in *British Rainfall*, wrote out all the Observers' Remarks on the Days and the Year from the original notes, and calculated the percentages of the maximum falls; and he has done a large part of the statistical work involved in the various researches carried on.

Mr. Donald Salter has been almost entirely occupied in plotting and copying rainfall maps. He plots the figures from about 1,000 stations on a monthly map of the British Isles, and, after I have drawn the isohyets, he makes a copy for the Meteorological Office. A map of the Thames Valley and surrounding districts, which is published monthly in the Magazine, is prepared in a similar way. He has plotted many special maps including those illustrating the article on Heavy Falls on Rainfall Days; and before publication of *British Rainfall* he prepared the monthly maps of the year for revision by entering nearly 1,000 additional records from the annual returns on each, and after correction made fair copies for reduction. During the last few months he has carried out the laborious part of the new sub-division of the counties into river-areas, including the sketching in of the watersheds on the half-inch maps and the planimetric measurements of the area of each sub-division. The heaviest piece of work in his charge is entering over 4,000 rainfall figures on the annual map.

Mr. Simpson is mainly occupied with taking down letters to dictation, copying Reports and MSS., press-copying and indexing the correspondence, keeping the postage book, addressing circulars and assisting in computations and in the daily observations.

For several months Mr. Norman Edge has been employed temporarily adding up and averaging the monthly values on the ten-year sheets of the decade 1900-1909.

All the members of the Staff have shown the greatest attention to their work and the keenest interest in the progress of the Organization, without which it would be impossible for so small a number to execute so large a mass of work with the accuracy and punctuality they have attained.

My own work has been concerned mainly with the general direction



of the routine, the daily correspondence, which has greatly increased in the last few years, drawing isohyetal lines on the maps from the figures as plotted, marking discordant figures and looking into the less satisfactory returns, editing the Magazine, writing most of the articles for *British Rainfall*, reading the proofs, and revising all work before it is sent out. An increasing amount of time has been taken in reading the proof sheets of books and memoirs relating to Meteorology by authors who desired this help, and also in receiving visitors, chiefly country Observers, foreign Meteorologists and the representatives of the Press, who are always eager for information regarding exceptional spells of weather. When time admitted, I have taken up various pieces of special research work which are referred to later.

**The Observers and Special Services.**—The work of the Staff would be but the winnowing of chaff were it not for the solid value of the returns supplied by the Observers, and it is the chief object of the Organization to present the results of the labours of the Observers in the best and most useful way, as free as possible from prepossessions or prejudice, so that the facts will both check themselves and declare themselves. The changes amongst the Observers in 1910 forms the subject of an article in *British Rainfall*.

Of those who sent records for the first volume of *British Rainfall* in 1861, there has been so far as we can ascertain no loss since last year; and of the ten named below, four, whose names are printed in small capitals, have their observations still appearing in this, the fiftieth, volume. Last year we remarked that Mr. Doncaster had not been heard of for many years, and we are happy now to learn that he is alive and well, and still interested in the weather. The original Observers are :—

R. BURRELL, ESQ., Westley, Bury St. Edmunds.  
W. S. CLARK, ESQ., Street, Somerset.  
D. Doncaster, Esq., York.  
W. Dilworth Howard, Esq., London.  
DR. W. C. LAKE, Teignmouth.  
Rev. C. B. Mount, Bath.  
LORD PECKOVER OF WISBECH, Wisbech.  
W. B. PUGH, ESQ., Patrington.  
Colonel Michael Foster Ward, Slough.  
J. G. Wood, Esq., London.

All the Observers who send records are, in a sense, joint authors of *British Rainfall*, but many assist to a greater extent by collecting and sending in the records of a number of neighbouring Observers. By forming a local centre of interest in rainfall, they are often able to ensure the inspection of rain gauges and the detection and rectification of errors, thereby raising the general level of accuracy. The Meteorological Office, the Royal Meteorological Society and the Scottish Meteorological Society co-operated as usual by supplying data regarding all rainfall observations received by them which had not been sent to the Organization directly, and in most cases a comparison has been made of the records which have been sent in duplicate to more than one of these bodies.

Similar courtesy has been shown by the Commissioners of Northern Lighthouses, the Shannon Navigation, the Great Central Railway (Canals Department), the Croydon Natural History Society, the Dorset Field Club, the Mid-Wessex Rainfall Association, the Cardiff Naturalists' Society, the Hertfordshire Natural History Society, the East Kent Natural History Society, the North Devon Athenæum, the Cornwall County Council, and by a number of individuals who collect and circulate the rainfall of their districts. Among these I must specially notice Mr. A. W. Preston of Norwich, Mr. C. A. Markham of Northampton, Miss Marshall for the Lake District, Mr. Whitehouse of Welshpool, Sir John Moore of Dublin, Messrs. G. H. Hill & Son, Mr. B. T. Rowsell and Mr. A. Collenette for the Channel Islands. In addition to these, the Waterworks Authorities of almost every City, Borough and District in the British Isles have freely supplied all the information regarding rainfall on their gathering grounds or at their works. A complete list would be impracticable, but I may mention the Metropolitan Water Board, the Edinburgh and District Water Trust, the Derwent Valley Water Board, the Newcastle and Gateshead Water Company, the Tees Valley Water Board, the Snowdon Power Company, the British Aluminium Company, and the Corporations of Glasgow, Liverpool, Birmingham, Leeds, Dublin, Belfast, Sheffield, Blackburn, Birkenhead, Bradford, Halifax, Cardiff, Leicester, Oldham, Plymouth, Nottingham, Southend, Merthyr Tydfil, Swansea, Aberdeen, Greenock and Paisley. Many small towns supply records from a few gauges situated in districts which are of extreme interest from the point of view of rainfall. Valuable help is often rendered by local newspapers in all parts of the country, from the columns of which information

regarding new Observers is often obtained; most help has been received from the *Surrey Advertiser* and the *East Anglian Daily Times*.

**Checking Returns.**—The services rendered by the Observers to the Organization are to some extent balanced by the service which the Organization is frequently able to render the Observers by detecting errors in the returns and suggesting the cause. The checking of the arithmetic of all the returns detects simple errors which are easily put right. The preparation of the various special Tables for *British Rainfall* reveals many other errors of a more serious kind, but the most useful detective agency is the preparation of the maps. A map of the British Isles, and a larger-scale map of the Thames Valley and surroundings, were prepared each month from about 1,000 returns, many of them merely monthly totals. The comparison of the figures at the time showed a certain number of entries out of harmony with the rest, and an early enquiry often enabled the total to be corrected. After the annual returns came in the monthly maps were filled up more closely, about 1,000 additional stations being used, and a larger number of discrepancies was thus brought to light. Comparison of the daily figures, where such existed, showed at once which errors were due merely to wrong date of entry, and it is gratifying to have to report that, thanks to the special measures taken last year, this source of uncertainty has much diminished. In every case of discordance that was observed, an effort was made to find the cause. The construction of the rainfall maps of particular days enabled one very common form of error to be detected with certainty. This is the omission or mistaking of the number of whole inches of rain on an individual wet day. As an example may be mentioned the map of April 6th, 1910, where in the centre of a very large area with more than one inch of rain, two stations were found recording .21 in. and .13 in. only, the inference being irresistible that the "1" before the decimal point had been omitted either in entering or in copying the amount. Finally, in constructing the map for the whole year, discrepancies too small to show on the monthly maps have, if they are all in the same direction, become quite distinct. If it were possible, and the only bar is financial, to plot all the figures received on monthly maps, very few errors would escape detection. The check on which Mr. Symons relied most is still kept up. This is the comparison of the total rainfall with that of the previous year. For this purpose when

the "General Table" of *British Rainfall* is being prepared for the printer, the new figures are entered on a copy of the previous year's Table, and the difference between the two entries at each station is examined. It is usually found that neighbouring stations show approximately the same difference, and when one station shows a much greater difference than the neighbouring ones, where the stations do not lie far apart, it is almost certain that the entry for one year or the other is wrong. In this way several instances of rain gauges having either become leaky or too much sheltered by trees growing up round them have been detected. There are several records which I very strongly suspect to be in error on account of the rain gauge being out of order, but as the Observer declares that there is no fault in the gauge, I do not feel justified in suppressing the record without personal inspection.

The final result of all the critical study of the data which precedes the publication of *British Rainfall* is to prove that the vast majority of the records are strictly accurate, and the amount of conscientious attention bestowed on observations which can have only a passing interest for a good many Observers is a splendid tribute to the national character.

**Inspection of Stations.** — The impossibility of adequate inspection on account of difficulties of locomotion no longer exists, and no one would dream now of drawing up a scheme for a Rainfall Organization without including, as a matter of course, a motor-car for use in inspection. The resources of the Organization not justifying the necessary expense, the best must be made in this, as in other departments of the work, of existing means. During the past year I have taken advantage of the lectures which I have delivered for the Gilchrist Trust in Wales, and of visits to various parts of the country for short holidays or on professional work, to inspect all the rain gauges within reach. I have to thank Mr. Gilbert Frith, C.E., for taking me in his motor-car to visit the rain gauges between Baslow and Chesterfield; and the Fylde Water Board for a similar courtesy in visiting gauges in a large part of North Lancashire and Yorkshire, between Blackpool and Settle. I was able altogether to inspect 53 rain gauges between August 22nd, 1910, and July 19th, 1911, in the counties of Hertfordshire, 1; Surrey, 6; Hampshire, 1; Derbyshire, 7; Lancashire, 17; Yorkshire, 2; Monmouth, 1; Brecon, 10; Glamorgan, 3; Merioneth, 2;

Argyllshire, 3. In addition, Mr. C. Salter was able to inspect 18 gauges: in Oxfordshire, 3; Gloucestershire, 7; Worcestershire, 3; Devonshire, 4; and Middlesex, 1. Mr. Carter 7 in Sussex, Mr. D. S. Salter 1 in Hertfordshire, and Mr. Simpson 3 in Hampshire; the total number inspected being thus 82.

While most of the rain gauges were in good condition and well exposed, several were found to require repair, renewal or removal to a better site, and a few records were just saved in time from becoming inaccurate.

**The Records and the New Decade.**—For the decade 1900–1909 there are 2,473 records which are complete for each of the ten years. There is no doubt that the records for the last decade are more accurate, as well as more numerous, than those for any earlier period. Great care has been taken to identify and correct the records which were systematically entered to wrong day, and it is hoped that it may eventually be possible to carry this correction back into earlier decades. Until this is done, it will be impossible to proceed to the construction of satisfactory maps of average monthly rainfall.

**Changes in Arrangement.**—The fiftieth volume of *British Rainfall* exemplifies the tradition of the Organization to expand and improve, but as the income of the Organization and the demand for its publications are practically exempt from this tradition, it is necessary to subordinate expansion to improvement. Space has been saved in Part I. by substituting a concise summary for the long list of gains and losses of observing stations which used to occupy about fifteen pages, and was, I believe, rarely consulted by any reader, and by omitting the page of details of the monthly values of the separate rain gauges at Greenwich Observatory, the totals being given in their proper place in the General Table. In Part II. space has been saved by omitting the Observers' Notes on the Months, which occupied 25 pages in *British Rainfall*, 1909, and the interest of which was always found to be inferior to that of the Notes on the Days and on the Year which are retained undiminished. There used to be a good deal of repetition of the facts regarding the months in the Notes regarding the Year, and a little expansion in the latter has allowed many of the most interesting features of the Months to be recorded. A still more notable saving in working time, though not

in space, has been gained by dropping the Intensity Table which has appeared since 1903. Had this Table proved of the scientific interest or practical utility I had hoped for when it was introduced, it would certainly have been retained, but it attracted little attention, and the great amount of time expended on it has been well applied in other directions. A few alterations in arrangement have also been introduced, chiefly in transferring the sections dealing with the Duration of Rainfall and the ten specimen daily returns from Part I. to Part II., thereby securing a more logical division of the book.

The space saved has been utilized in expanding the sections which experience has shown to be the most valuable. I had hoped that it might have been possible to celebrate the 50th volume by doubling the space allotted to the General Table, and printing the monthly values for every station, but the very moderate response to the appeal for an Endowment Fund quenched this hope. The utmost that was found possible was to enlarge the Tables of Distribution of Rainfall in Time from 73 to 100 stations; that of Monthly Rainfall from 232 to 300 stations; those of Monthly and Seasonal Rainfall as a percentage of the average from 73 to 105 stations, and that of Annual Rainfall as a percentage of the average from 177 to 219 stations. This took up the time saved by omitting the Intensity Table and 6 pages out of the 41 saved by the other omissions. The study of days with heavy rain has been extended, and the number of illustrative maps increased, and this is, I believe, a considerable contribution to Meteorological science.

The most laborious of all the changes is the sub-division of the counties of England and Wales by means of watershed lines, so that all the stations, the rainfall of which drains to the same river are placed together in the General Table. Maps of each division have been prepared showing the county boundaries and watershed lines, and a double index drawn up, giving on one side all the river basins or portions of river basins (with the area of each) in each county, and on the other all the counties or portions of counties in each river-basin. The watersheds were drawn specially on the 2 mile to an inch maps of the Ordnance Survey, and the measurements were specially made by planimeter on a map of the scale of 1 : 1,000,000. This is, I believe, the most important change that has been made in *British Rainfall* since the commencement, and the minimum of disturbance in the order of stations has been secured by retaining



the county as a unit, and the order within each sub-division from south to north. The sub-division of the counties of Scotland and Ireland in the same way has had to be postponed to another year for lack of time.

**Scientific Work.**—I have been obliged to take an inordinate amount of holidays during the year in the hope, which has been justified, of escaping a total breakdown from over-work. For a considerable part of the year I have had to limit my working hours to eight or nine per day, which has greatly reduced the amount of scientific work, apart from the routine of the publications, for the year. The most important undertaking was a map of the average rainfall of Surrey for the Water Supply Memoir of the Geological Survey, which completes the rainfall map of England south of the Thames and east of Wiltshire and Dorset, on a scale of 2 inches to the mile. No other part of the Earth's surface of the same extent could be mapped with the same degree of accuracy, for nowhere else are there so many and such well-distributed long records to go upon. Along with Mr. Salter I communicated to the Royal Meteorological Society a discussion of the number and grouping of rain days on which more than .20 in. of rain fell at Camden Square during 54 years. This brought to light a remarkable change in the weather of September which will be the subject of farther study.

I have continued to take part in the investigation which is being carried out by a Committee of the Royal Geographical Society Research Department on the relation between rainfall and river-flow in the valleys of Exe and Medway. I have also commenced what promises to be an interesting investigation into the proportion of the total annual rainfall which falls in each month in different parts of the country. A set of twelve maps has been got out in rough, and the geographical relationship of the monthly incidence of rain is very clearly marked. Before this can be completed for publication a great deal of supplementary work must be done upon it.

I have not lost sight of the fundamental importance of the great task of completing the annual rainfall maps from 1865 to date; but circumstances already alluded to have made it impossible for me to devote time to it, although various subordinate investigations have been helpful in showing how certain difficulties presented by the main work may be overcome.

In addition to the usual summary of the rainfall of the year,

communicated to *The Times* about January 12th, I have, in pursuance of Mr. Symons's practice, addressed letters to that paper on points connected with rainfall or the weather of London, which were published on March 10th and 23rd, and on June 26th, 1911.

I have been called upon to assist the Committee on the Science Museum by drawing up a scheme for the representation of Geography for the first time in a Museum in this country, the subject including oceanography and physical geography: and I have been consulted from time to time, informally by the officials of several Government Departments and public bodies on matters relating to rainfall.

The professional work which I have carried out under Clause 18 of the Trust Deed, has consisted of monthly reports to the Metropolitan Water Board and the Thames Conservancy, annual reports to the Birmingham and Birkenhead Corporations, the superintendence of rainfall and stream gauging as a Referee under the Abertillery and District Water Act, 1910, and reporting on the rainfall of gathering grounds in connection with four private Bills before Parliament.

**The General Fund.**—On the signing of the Trust Deed on June 3rd, 1910, I retained, as the unpaid Director, full responsibility for the finances of the General Fund. I consider, however, that it is desirable to publish an abstract of the account in order that there may be no break in the practice of the Organization when, in the time of the next Director, the responsibility for this fund falls upon the Trustees. For convenience in order to continue the abstract of accounts for the years 1904-1909, given in *British Rainfall, 1909* (p. 38), I now state the receipts and expenditure as follows:—

*Receipts on Account of British Rainfall Organization, 1910.*

	£	s.	d.
Subscriptions ... ..	1085	15	3
Sales to Public ... ..	79	4	9
Advertisements ... ..	65	7	0
Certificates ... ..	13	10	0
Supplying Data ... ..	17	15	0
Literary Work ... ..			
Interest on Endowment Fund ... ..	18	1	6
Miscellaneous ... ..			
<b>TOTAL</b> ... ..	<b>£1279</b>	<b>13</b>	<b>6</b>

*Expenditure on Account of British Rainfall Organization, 1910.*

	£	s.	d.
British Rainfall and Meteorological Magazine (including postage) ... ..	478	13	7
Salaries and Assistance ... ..	641	8	6
Printing, Stationery and Establishment Expenses ...	207	4	10
Extra Postage, Petty Cash and Miscellaneous Expenses	64	7	1
Donation to Endowment Fund ... ..	30	3	0
	<hr/>		
TOTAL ... ..	£1421	17	0
	<hr/>		
DEFICIT, met by the Director ... ..	£142	3	6
	<hr/> <hr/>		

The main support of the General Fund is the amount paid in subscriptions by Observers who take the publications of the Organization, and I feel sure that the sale of the publications to the general public could be greatly increased if it were possible to reach the very considerable number of persons who are interested in the subject.

There are important improvements waiting only for an increased income to be carried into effect ; and I can promise that the utmost return in public utility as well as in scientific value will be obtained for any augmentation of income.

HUGH ROBERT MILL.

62, CAMDEN SQUARE,  
LONDON, N.W.

*19th July, 1911.*

## TREASURER'S REPORT ON ENDOWMENT FUND.

## STATEMENT FOR THE YEAR 1910.

RECEIPTS.			PAYMENTS.		
	£	s. d.		£	s. d.
Donations announced in			Cheque Book ... ..	0	8 4
<i>British Rainfall</i> 1909 ...	1107	5 0	Commission on Irish Cheque	0	0 3
G. S. Odling Smee, Esq. ...	5	0 0	Purchase of £1041 15s. 3 %		
Mrs. Anne Sanderson ...	3	3 0	Debenture Stock ... ..	875	0 0
Miss Augusta Burrell ...	10	0 0	Purchase of £237 19s. 8d.		
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Miss K. Druce ... ..	5	0 0			
W. M. F. Mellor, Esq. ...	2	2 0			
Cambridge University and					
Town Waterworks Co. ..	5	5 0			
The Rev. Canon Barwell ...	2	2 0			
Harvey R. G. Clarke, Esq.					
(instalment) ... ..	5	5 0			
J. T. Southall, Esq. ...	2	2 0			
Sums under £2 ... ..	6	6 0	Balance in hand...	80	3 5
	<u>£1155</u>	<u>12 0</u>		<u>80</u>	<u>3 5</u>
				<u>£1155</u>	<u>12 0</u>

On July 19th, 1911, the Trustees held as the Endowment Fund £1,399 3s. 10d., North British Railway 3% Debenture Stock and £119 2s. 5d. cash.

They desire to point out that the Fund has not yet reached even a sum equivalent to that for which Dr. H. R. Mill purchased the Records since presented by him to the public, much less a sum which would render the Organization self-supporting. The Trustees are grateful for the support the Fund has already received, but they cannot help thinking that there must be many individuals and Public Bodies who would be glad to contribute, and in such sums as would render the Organization independent. The Treasurer of the Endowment Fund would gladly welcome such gifts.

F. DRUCE,

*Treasurer, Endowment Fund.*

*3rd August, 1911.*

# THE BRITISH RAINFALL ORGANIZATION.

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Jones-Balme, F. M. T., Esq. ....	1	0	0	Merthyr, Lord, K.C.V.O. ....	5	5	0
Kennedy, J., Esq. ....	1	0	0	Metcalfe, T. T. S., Esq. ....	1	10	0
Ker, R. M., Esq. ....	2	0	0	Miles, E. H., Esq. ....	1	3	0
Kerr, Capt. J. ....	1	0	0	Mill, the late Mrs. ....	1	6	0
Kettlewell, W. W., Esq. ....	1	0	0	Mitchell, Alexander, Esq. ....	2	2	0
King, L. G., Esq. ....	1	10	0	Mitchell, F. J., Esq. ....	1	1	0
Knowles, G., Esq. ....	1	1	0	Mond, Robert, Esq. ....	5	5	0
Lamb, E., Esq., M.P. ....	1	0	0	Moore, Sir J. W., M.D., D.Sc. ....	1	0	0
Lancashire, J. H., Esq. ....	1	11	0	Moro, A. R., Esq. ....	1	0	0
Langford, Lord. ....	3	0	0	Morphew, D., Esq. ....	1	6	0
Lassell, Miss. ....	1	18	6	Morrison, W., Esq. ....	2	0	0
Latham, Baldwin, Esq., C.E. ....	2	2	0	Morrison-Bell, Capt. C. ....	1	0	0
Latham, P. H., Esq. ....	1	11	0	Mostyn, C., Esq. ....	1	1	0
Latham, T., Esq. ....	1	0	0	Murray, Sir John, K.C.B., F.R.S., (2 years) .....	2	2	0
Laurie, Rev. Sir E., Bart. ....	2	2	0	Myers, W. H., Esq. ....	1	1	0
Lawson, Graham C., Esq. ....	1	0	0	Nash, W. R., Esq. ....	1	1	0
Leachman, Dr. A. W. ....	1	1	0	Newman, T. P., Esq. ....	1	1	0
Lee, E. A., Esq. ....	1	1	0	Northwick, Lady. ....	1	1	0
Leigh, W. B., Esq. ....	1	1	0	Oakes, Rev. B. Porteous. ....	1	10	0
Leslie & Reid, Messrs. J. & A., C.E.	1	1	0	Otter, R. H., Esq. ....	1	1	0
Lewis, H. C., Esq. ....	1	16	0	Ouvry, P. Arnold, Esq. ....	1	0	0
Lingard, T. D., Esq., J.P. ....	1	1	0	Padwick, H., Esq. ....	2	0	0
Lippincott, R. C. Cann, Esq. ....	1	7	6	Palairot, H. H., Esq. ....	2	0	0
Little, Mrs. ....	1	0	0	Palmer, A., Esq., J.P. ....	1	11	0
Llewellyn, Sir J. T. D., Bart. ....	1	11	0	Palmer, Greville H., Esq. ....	1	1	0
Lloyd, R. Lewis, Esq. ....	1	1	0	Parker, Rev. Dr. J. Dunne. ....	1	10	0

	£	s.	d.		£	s.	d.
Parsons, Miss .....	1	0	0	Shepherd, J. W., Esq. ....	1	0	0
Paterson, Rev. T. M. B. ....	1	0	0	Shorter, A., Esq. ....	1	0	0
Pawle, F. C., Esq. ....	1	1	0	Shorter, L. R., Esq. ....	1	0	0
Peckover of Wisbech, Lord ....	5	15	0	Simpson, Edward, Esq. ....	1	0	0
Peek, Hon. Lady .....	2	2	0	Sing, Roger P., Esq. ....	1	1	0
Peel, W., Esq. ....	1	11	0	Smart, F. G., Esq. ....	2	6	0
Penfold, Miss .....	1	0	0	Smith, Lady Cunliffe .....	2	0	0
Penrose, Dr. F. G. ....	1	5	0	Smith, Rupert T., Esq., C.E. ....	1	1	0
Philipson-Stow, Lady .....	1	11	6	Smith, W. A., Esq. ....	1	1	0
Phipps, Col. R. W. (late R.A.) ..	1	1	0	Smith, Hon. W. F. D. ....	3	0	0
Pickard, W., Esq. ....	1	1	0	Smyth, J., Esq., C.E. ....	1	10	6
Pink, H. R., Esq. ....	1	1	0	Smyth, Lady .....	1	10	0
Pirie-Gordon, E., Esq. ....	1	0	0	Snowden, Rev. H. C. V. ....	1	1	0
Player, J., Esq. ....	1	1	0	Soames, Capt. R. ....	1	5	0
Plenderleath, Captain C., R.N. ....	1	5	0	Somerset, His Grace the Duke of	1	1	0
Pocklington, Miss .....	1	2	0	Southall, Miss .....	1	0	0
Powell, C. M., Esq. ....	1	0	0	Southall, H., Esq. ....	1	0	0
Preston, A. W., Esq. ....	1	0	0	Southall, J. T., Esq. (2 years) ....	4	0	0
Price, C., Esq. ....	1	8	0	Spooner, Albert, Esq. ....	1	1	0
Priestley, W., Esq. ....	1	0	0	Squire, W. W., Esq., C.E. ....	1	1	0
Pullar, Laurence, Esq. ....	5	0	0	Staines, A. J., Esq. ....	1	6	0
Radnor, The Earl of .....	1	11	0	Stansfeld, A. W., Esq. ....	1	0	0
Ramsden, Miss .....	1	1	0	Stanton, Miss E. R. ....	1	1	0
Ramsden, R. C., Esq. ....	1	0	0	Steward, J. J., Esq. ....	1	10	0
Rankin, Sir J., Bart., M.P. ....	1	1	0	Stewart, Mrs. Herbert .....	1	0	0
Ransom, F., Esq. ....	1	5	0	Stewart, Sir Mark J. McT., Bt.,			
Rashleigh, Rev. A. S. ....	1	0	0	M.P. ....	1	1	0
Rashleigh, Miss .....	1	0	0	Stewart, Rev. W. E. ....	1	5	0
Rathbone, Mrs. ....	1	1	0	Stilwell, H., Esq. ....	1	1	0
Ravenshaw, T. E., Esq. ....	2	0	0	Stirling, C., Esq. ....	1	0	0
Rawstorne, Mrs. ....	1	2	6	Storey, Frank, Esq. ....	1	1	0
Rayner, Frank, Esq., C.E. ....	1	1	0	Stothert, Percy K., Esq., C.E. ....	1	0	0
Rees, Blethyn T., Esq., C.E. ....	1	1	0	Strachan & Weekes, Messrs., C.E. ....	1	1	0
Rendlesham, Lord (2 years) ....	3	0	0	Strachey, J. St. Loe, Esq. ....	1	1	0
Richardson, R., Esq. ....	1	1	0	Straker, J. H., Esq. ....	1	0	0
Rideout, Rev. G. A. ....	1	0	0	Strange, J. T., Esq. (2 years) ....	1	0	0
Ridgeway & Co., Ltd., Messrs. T. ....	2	2	0	Strutt, G. Herbert, Esq. ....	1	1	0
Robins, F. Sauderson, Esq., C. E. ....	1	10	0	Sturge, R. F., Esq. ....	1	1	0
Robinson, Stephen, Esq. ....	1	1	0	Sturt, Miss K. M. ....	1	18	6
Robson, J. W., Esq. ....	1	5	0	Sutton, Martin J., Esq. ....	1	1	0
Roe, Surg.-Gen. S. B., C.B. ....	1	1	0	Tabor, H. S., Esq. ....	1	0	0
Rogers, H. Esq. ....	1	1	0	Tailyour, W. Stewart, Esq. ....	1	1	0
Rogers, H. K. G., Esq. ....	1	5	0	Tapp, A. M., Esq. ....	1	0	0
Rogers, Col. J. M., D.S.O. ....	1	5	0	Tate, Alfred, Esq. ....	1	11	0
Roper, Mrs. ....	2	2	0	Tatham, Leonard J., Esq. ....	1	5	6
Ross, Rev. J. C. ....	1	11	0	Tatham, M. T., Esq. ....	1	0	0
Russell, Spencer C., Esq. ....	1	0	0	Tatton, T. Egerton, Esq. ....	2	0	0
Rutter, H. F., Esq., ....	1	1	0	Tawney, Miss E. M. ....	1	0	0
St. Maur, Lord Ernest .....	1	0	0	Taylor, C. E., Esq. ....	1	1	0
Sainty, C., Esq. (2 years) ....	1	1	0	Taylor, Capt. E. R. ....	5	0	0
Sanderson, Mrs. ....	1	5	6	Taylor, F., Esq. ....	1	0	0
Sanger, C., Esq. ....	1	1	0	Taylor, F. J., Esq. ....	1	0	0
Schuster, Rev. W. P. ....	1	16	0	Taylor, Sons & Santo Crimp, Messrs. ....	1	1	0
Scott, Sir Benjamin .....	1	1	0	Taylor, W., Esq. ....	1	1	0
Scott, John, Esq. ....	1	1	0	Tempest, J. H., Esq. ....	2	2	0
Scott, Lady Mary .....	1	0	0	Tew, E. G., Esq. ....	1	0	0
Searle, G., Esq. ....	2	0	0	Thomas, R. E. S., Esq. ....	2	0	0
Selby, C. F., Esq. ....	1	0	0	Thompson, G. Rodie, Esq. ....	1	0	0
Senior, F. G., Esq. ....	1	0	0	Thompson, Mrs. Heywood .....	1	1	0
Sharman, N. Pearce, Esq. ....	1	0	0	Thompson, Mrs. H. Yates .....	1	1	0
Sharman-Crawford, A. F., Esq. ....	2	0	0	Thomson, J., Esq. ....	1	0	0
Shedden, G., Esq. ....	2	0	0	Thresh, J. C., Esq., M.D., D.Sc. ....	1	1	0

	£	s.	d.		£	s.	d.
Tomkins, W. Steele, Esq. ....	1	2	6	Weller, G., Esq. ....	1	0	0
Towse, Sir J. Wrench ....	1	10	0	Westminster, His Grace the Duke of	1	0	0
Travers, Major J. A. (2 years)....	2	2	0	Weston, G., Esq. ....	1	1	0
Trevelyan, Lady.....	1	0	0	Weston, J., Esq. ....	1	1	0
Tritton, J. H., Esq. ....	2	12	0	Whish, G. H. M., Esq. ....	1	1	0
Truell, Rev. W. H. A. ....	1	1	0	Whitaker, B. I., Esq. ....	1	0	0
Tuckett, F. F., Esq. ....	1	5	0	Whitaker, J., Esq. ....	1	0	0
Turner, F., Esq. ....	1	1	0	Whitchurch, J. A., Esq. ....	1	1	0
Tyacke, G. Ashley, Esq. ....	1	2	0	White, J. N., Esq. ....	1	0	0
Urmson, Rev. T. ....	1	15	0	Whittington, C. J., Esq. ....	1	0	0
Vaughan, the late Cedric, Esq., C.E.	2	0	0	Widnell, E. H., Esq. ....	1	1	0
Vernon, J. H., Esq. ....	1	1	0	Wilde, Mrs. ....	1	0	0
Vint, W. F., Esq. ....	1	1	0	Wilkin, Mrs. A. ....	1	6	0
Waddingham, T. J., Esq. ....	2	2	0	Wilkin, F., Esq. ....	2	10	0
Waldegrave, The Earl ....	1	17	6	Wilkinson, W. King, Esq. ....	1	1	0
Walker, A. J., Esq. ....	3	6	0	Williams, C. Theodore, Esq.,			
Walker, A. O., Esq. ....	1	0	0	M.D., M.V.O. ....	1	5	0
Walker, J. H., Esq. ....	1	0	0	Williams, Morgan B., Esq. ....	1	0	0
Walter, Rev. F. W. ....	1	0	0	Wilson, Albert, Esq. ....	1	15	0
Walters, F. R., Esq., M.D. ....	1	1	0	Wilson, Alexander M., Esq. ....	1	1	0
Ward, Mrs. H. ....	1	1	0	Wilson, Mrs. ....	1	1	0
Ward, Col. M. F. ....	1	0	0	Wood, James G., Esq. ....	2	0	0
Waterhouse, Edwin, Esq. ....	1	0	0	Woodhouse, Miss E. D. ....	1	1	0
Webber, W. D., Esq. ....	1	1	0	Woods, Capt. E. G. ....	1	1	6
Wedderburn, E. M., Esq. ....	1	0	0	Woods, J. W., Esq. ....	1	0	0
Welch, J., Esq. ....	1	1	0	Wordsworth, Gordon G., Esq. ..	1	0	0
Welch, J. H., Esq. (2 years) ....	1	0	0	Worthington, W. B., Esq., C.E..	1	0	0
Welch, W. G., Esq. ....	2	0	0	Yool, Mrs. H. ....	1	7	0
Weldon, E., Esq. ....	1	1	0	Younger, H. J., Esq. ....	1	10	0

Cheques and Postal Orders should be crossed "National Bank, a/c British Rainfall Organization, General Fund," and sent to DR. H. R. MILL, 62, Camden Square, London, N.W.

### THE PRINCIPAL DONATIONS TO THE ENDOWMENT FUND ANNOUNCED IN "BRITISH RAINFALL 1909" WERE:—

Boughton, Miss F. H. Rouse .. ..	£100
Brook, Charles L., Esq. ....	£500
Druce, Francis, Esq. .. ..	£100
Mellish, Lt.-Col. H. ....	£100
Murray, Sir John, K.C.B., F.R.S. .. ..	£100

BETWEEN JANUARY 1ST, 1911, AND JULY 19TH, 1911, THE FOLLOWING  
DONATIONS HAVE BEEN RECEIVED:—

	£	s.	d.		£	s.	d.
Adair, R. Shafto, Esq. .. ..	5	5	0	St. Maur, Lord Ernest .. ..	2	0	0
Bowman, Prof. H. L. .. ..	3	3	0	Strutt, G. Herbert, Esq. ....	20	0	0
Cooke, R., Esq. .. ..	4	5	0	Sums under £2 .. ..	6	3	0
Druce, Mrs. Kate (2nd don'n) ..	5	0	0				
Druce, Francis, Esq. (2nd don'n)	25	0	0				
Jenkin, A. Pearse, Esq. ....	3	3	0	Received in 1910 .. ..	138	19	0
Magdalen College, Oxford .. ..	10	0	0		1155	12	0
Mellish, Lt.-Col. H. (2nd don'n)	50	0	0	Total received .. ..	£1294	11	0
Rashleigh, Miss Constance L. ..	5	0	0				

This Fund is invested by the Trustees, and the Income paid into the General Fund of the British Rainfall Organization. Donations should be sent to the Treasurer, FRANCIS DRUCE, Esq., at 62, Camden Square, London, N.W., and cheques may be crossed, "National Bank, a/c British Rainfall Organization, Endowment Fund."

## ON THE GREATEST RAINFALL WHICH MAY OCCUR ON THE WETTEST DAY IN THE YEAR.

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WE have often repeated the dictum that four inches of rain may fall in 24 hours in any part of the British Isles ; but we have never been able to answer the question :—What is the greatest amount of rain which has been recorded on one day in the County of — ?

Feeling that this question ought to be answered, we have gone through the annual lists of maximum falls exceeding 2·50 in. in *British Rainfall* since 1864, and made a chronological list of all maximum falls exceeding 3·00 in. Out of this number we made a fresh list, arranged under counties of all maximum falls exceeding 4·00 in. recorded in the 47 years under investigation, and this list, after making two modifications, we print below. The first modification was to reduce the number of entries for Cumberland and Westmorland, which was out of all proportion greater than for the other counties, by omitting from Cumberland 41 cases, and from Westmorland 27 cases, where the maximum fall was between 4·00 in. and 4·99 in. The second modification was to insert for each of 49 counties in which no instance of 4·00 in. in one day was recorded, the amount of rain on the wettest day which had been placed on record if that exceeded 3·00 in. Twenty counties, mainly in Ireland and Scotland remained, in which no fall of 3·00 in. or over had been recorded.

The list thus compiled, shows in the first entry for each county, the highest rainfall recorded on a rainfall day (9 a.m. to 9 a.m. of the following date) at any station within that county ; and also, when this figure is 4·00 inches or more, all other cases of the highest fall in any year being 4·00 in. or more. But it does not show the number of times falls exceeding 4·00 in. have occurred, since it fails to take account of more than one such fall in a year ; and it does not imply that heavier falls than those recorded may never have occurred. The Table must be consulted merely for positive facts, and no negative deductions can legitimately be made from it.

Thus it shows that in Essex falls of rain exceeding 4·00 in. occurred on one day in three different years, each day being represented, as it

happens, by at least two stations. But it does not show that 4·00 in. never fell in a single day in Suffolk, though the heaviest fall recorded on any day was 3·60 in. A heavier fall most probably took place before 1864, or since that date in some place where no daily record of rainfall was kept. In the case of counties where the number of rain records is very small as in many parts of Ireland, or in counties whence very few stations report daily rainfall, as in many parts of Scotland, it is particularly important to bear this caution in mind. Also in the case of counties where long records exist at stations with a very high rainfall, a long list must be considered in the light of the number of stations represented in it; thus in Cumberland 14 out of the 22 records quoted are from Seathwaite alone, and 20 out of the 22 records are from the one valley of Borrowdale. It would be dangerous also to infer anything from the dates, as the number of records available has been so much greater in recent years that the chance of any very exceptional rainfall being taken account of has become much greater towards the end of the period than near the beginning.

Bearing these various limitations in mind we may derive certain interesting positive facts from a study of the list.

Falls exceeding 4·00 in. in one day have been recorded from the counties of Kent, Sussex, Berkshire, Middlesex, Hertfordshire, Buckinghamshire, Oxfordshire, Essex, Norfolk, Dorset, Somerset, *Devon*, Staffordshire, Leicestershire, Lincolnshire, Cheshire, Lancashire, *Yorkshire West Riding*, *Yorkshire North Riding*, Durham, NORTHUMBERLAND, CUMBERLAND, WESTMORLAND, *Monmouth*, Glamorgan, BRECON, Radnor, Montgomery, *Merioneth*, *Carnarvon*, in England and Wales; Kirkcudbright, Dumfries, Renfrew, ARGYLL, Forfar, Kincardine, Nairn, INVERNESS, *Ross and Cromarty*, SUTHERLAND, Orkney, in Scotland; Kerry, Wicklow, *Dublin*, Galway, Tyrone, and Down, in Ireland. In the counties whose names are printed in italics, falls exceeding 5·00 in. have been reported, and from those printed in small capitals, falls exceeding 6·00 in. in one day.

Though it may be just as much a sign of moderation in rainfall-observing as in rainfall, we may mention that no day with as much as 3·00 in. has been reported from the counties of Nottingham, Peebles, Stirling, Bute, Clackmannan, Kinross, Fife, Elgin, Caithness, Limerick, Wexford, Kilkenny, King's County, Longford, Roscommon, Mayo, Sligo, Fermanagh, Armagh, and Londonderry. With the

exception of Nottingham, the counties cited above have very few observing stations where daily readings are taken.

Every figure given in the following list was the highest value for a year, and extreme values are always subject to an enhanced risk of error. We have reason, however, to believe that sufficient support is forthcoming in each case cited, and we have excluded some records which, though published in *British Rainfall*, were afterwards found to have been taken with rain gauges of an objectionable pattern, which did not exclude the possibility of water reaching the receiver from outside without passing through the funnel.

The list so completed forms a useful memorandum for future reference.

Div.	County	Station.	Date.	M.
I.	London .....	Haverstock Hill.....	April 10, 1878 ...	3·90
II.	Surrey .....	Weybridge .....	Sept. 10, 1902 ...	3·80
„	Kent .....	Hartlip.....	July 26, 1867 ...	4·78
„	„ .....	Dartford .....	July 23, 1903 ...	4·41
„	„ .....	Wilmington .....	July 23, 1903 ...	4·03
„	Sussex .....	Milland House .....	July 31, 1872 ...	4·11
„	Hampshire .....	Idsworth House.....	Dec. 26, 1886 ...	3·65
„	Berkshire .....	Maidenhead .....	July 12, 1901 ...	4·24
III.	Middlesex .....	Hillingdon .....	July 17, 1890 ...	4·00
„	Hertford .....	Rickmansworth .....	July 17, 1890 ...	4·19
„	Buckingham.....	Wooburn .....	July 12, 1901 ...	4·10
„	Oxford .....	Churchill School ...	June 7, 1910 ...	4·25
„	Northampton ...	Kettering.....	June 18, 1872 ...	3·63
„	Huntingdon .....	Huntingdon .....	Aug. 2, 1879 ...	3·75
„	Cambridge.....	Grantchester .....	Aug. 2, 1879 ..	3·92
„	Bedford .....	Luton .....	July 21, 1889 ...	3·71
IV.	Essex .....	North Ockendon ...	Aug. 1, 1888 ...	4·56
„	„ .....	Upminster .....	Aug. 1, 1888 ...	4·50
„	„ .....	North Ockendon ...	Sept. 2, 1889 ...	4·45
„	„ .....	Buckhurst Hill .....	July 23, 1903 ...	4·35
„	„ .....	Upminster .....	Sept. 2, 1889 ...	4·32
„	„ .....	Buckhurst Hill Ho..	July 23, 1903 ...	4·25
„	„ .....	Buckhurst Hill Res.	July 23, 1903 ...	4·16
„	Suffolk .....	Aldringham House..	June 28, 1892 ...	3·60
„	Norfolk .....	Fakenham ..	July 11, 1893 ...	4·48
V.	Wiltshire .....	Thames Head.....	July 14, 1875 ...	3·36
„	Dorset.....	Melbury .....	Aug. 14, 1871 ...	4·24
„	„ .....	Little Bredy .....	Dec. 26, 1886 ...	4·20
„	Devon .....	Tiverton... ..	May 25, 1890 ...	5·20
„	„ .....	Kingsbridge .....	Oct. 16, 1907 ...	4·86

\* Maximum Rainfall in 24 hours for year in inches.

Div.	County.	Station.	Date.	M.
V.	Devon—(con.) ...	Tiverton .....	May 25, 1890 ...	4·85
"	" .....	Eggerford .....	July 6, 1872 ...	4·40
"	" .....	Okehampton .....	July 6, 1872 ...	4·38
"	" .....	Jacobstowe .....	July 6, 1872 ...	4·35
"	" .....	South Molton.....	July 6, 1872 ...	4·15
"	" .....	Princetown .....	July 14, 1875 ...	4·15
"	Cornwall.....	Antony Ho. [Devonport]	Oct. 17, 1898 ...	3·45
"	Somerset .....	Flax Bourton.....	July 16, 1892 ...	4·27
VI.	Gloucester... ..	Amberley .....	Dec. 30, 1900 ...	3·78
"	Hereford .....	Longtown .....	July 14, 1875 ...	3·88
"	Shropshire.....	More Rectory.....	May 13, 1886 ...	3·59
"	Stafford .....	Penkridge .....	June 28, 1892 ...	4·04
"	Worcester .....	Blockley .....	Dec. 30, 1900 ...	3·50
"	Warwick .....	Coventry .....	Dec. 30, 1900 ...	3·87
VII.	Leicester .....	Fleckney .....	Aug. 23, 1865 ...	4·40
"	" .....	Market Harboro' ...	June 18, 1872 ...	4·00
"	Rutland.....	Burley-on-the-Hill..	Aug. 3, 1878 ...	3·03
"	Lincoln .....	Skegness .....	Sept. 29, 1883 ...	4·31
"	Nottingham .....	—	—	—
"	Derby .....	Belper .....	June 28, 1892 ...	3·53
VIII.	Cheshire .....	Macclesfield .....	June 18, 1872 ...	4·27
"	LANCASHIRE ...	Skelwith Fold.....	Nov. 12, 1897 ...	6·03
"	" .....	Little Langdale .....	Aug. 25, 1881 ...	4·85
"	" .....	Coniston .....	Sept. 2, 1875 ...	4·35
"	" .....	Esthwaite Lodge....	Nov. 12, 1897 ...	4·22
"	" .....	Seathwaite Vic.....	Nov. 12, 1897 ...	4·07
"	" .....	Little Langdale.....	Oct. 2, 1879 ...	4·05
"	" .....	Skelwith Fold .....	Nov. 8, 1904 ...	4·00
IX.	York, W.R. ....	Ilkley, Cherry Bank	July 12, 1900 ...	5·40
"	" .....	Golear .....	July 24, 1904 ...	4·85
"	" .....	Nidderdale, LowHo.	Oct. 14, 1892 ...	4·63
"	" .....	" West Ho.	Oct. 14, 1892 ...	4·50
"	" .....	Slaidburn, Whitendale	July 2, 1888 ...	4·57
"	" .....	" Brennand	July 2, 1888 ...	4·50
"	" .....	Bingley, Gilstead ...	July 12, 1900 ...	4·50
"	" .....	Nidderdale, HighRiggs	Oct. 14, 1892 ...	4·45
"	" .....	Ilkley, Eaton Road..	July 12, 1900 ...	4·26
"	" .....	Kingsdale Head .....	Jan. 26, 1903 ...	4·22
"	" .....	Bingley, Sunnydale.	July 12, 1900 ...	4·12
"	" .....	Leeds .....	July 25, 1886 ...	4·10
"	" .....	Masham Moor.....	Oct. 14, 1892 ...	4·07
"	" .....	Upper Barden Res....	June 3, 1908 ...	4·06
"	" .....	High Sour Mire.....	Oct. 14, 1892 ...	4·03
"	" .....	Ramsgill .....	Oct. 14, 1892 ...	4·03
"	" .....	Ilkley .....	July 12, 1900 ...	4·01
"	" .....	Bradford, ChellowDean	July 12, 1900 ...	4·00
"	York, E.R. ....	Warter.....	Sept. 6, 1871 ...	3·62



Div.	County.	Station.	Date.	M.
IX.	York, N.R. ....	Hawes Junction.....	Aug. 7, 1889 ...	4·16
X.	Durham.....	Wolsingham .....	Nov. 12, 1901 ...	4·21
„	NORTHUMBERLAND	Morpeth, Angerton Hall	Sept. 7, 1898 ...	6·70
„	CUMBERLAND ...	Seathwaite .....	Nov. 12, 1897 ...	8·03
„	„ .....	Rosthwaite .. .....	Nov. 12, 1897 ...	6·94
„	„ .....	Seathwaite .. .....	Sep. 30, 1890 ...	6·79
„	„ .....	„ .....	May 8, 1884 ...	6·78
„	„ .....	„ .....	Nov. 13, 1869 ...	6·70
„	„ .....	„ .....	Dec. 4, 1864 ...	6·47
„	„ .....	„ .....	May 30, 1865 ...	6·41
„	„ .....	„ .....	Nov. 16, 1866 ...	6·38
„	„ .....	„ .....	Jan. 28, 1906 ...	6·15
„	„ .....	„ .....	Aug. 24, 1891 ...	6·14
„	„ .....	Grange.....	Nov. 12, 1897 ...	5·93
„	„ .....	Seathwaite .....	Jan. 17, 1872 ...	5·82
„	„ .....	„ .....	Sep. 18, 1892 ...	5·80
„	„ .....	Borrowdale Vic.....	Sep. 30, 1890 ...	5·33
„	„ .....	Seathwaite .....	Dec. 14, 1900 ...	5·32
„	„ .....	Wythburn Vic. ...	Aug. 24, 1891 ...	5·28
„	„ .....	Grange.....	Jan. 18, 1899 ...	5·21
„	„ .....	Wythburn Vic. ....	Oct. 27, 1888 ...	5·20
„	„ .....	Seathwaite .....	Nov. 1, 1898 ...	5·20
„	„ .....	„ .....	Oct. 6, 1874 ...	5·14
„	„ .....	Rosthwaite .....	Nov. 1, 1898 ...	5·12
„	„ .....	Grange.....	Feb. 15, 1900 ...	5·06
(Also 41 cases between 4·00 in. and 4·99 in.)				
„	WESTMORLAND..	Skelwith Bridge.....	Nov. 12, 1897 ..	6·35
„	„ ..	Dungeon Ghyll .....	Nov. 12, 1897 ...	5·90
„	„ ..	„ .....	Nov. 19, 1901 ...	5·66
„	„ ..	Skelwith Bridge.....	Nov. 8, 1904 ...	5·62
„	„ ..	Elterwater Hall.....	Nov. 8, 1904 ...	5·58
„	„ ..	Langdale Brigg .....	Nov. 13, 1869 ...	5·55
„	„ ..	Elterwater Hall.....	Nov. 19, 1901 ...	5·27
(Also 27 cases between 4·00 in. and 4·99 in.)				
XI.	Monmouth .....	Newport W.W.....	July 14, 1875 ...	5·33
„	„ .....	Tintern Abbey ...	July 14, 1875 ...	5·31
„	„ .....	Newport .....	July 14, 1875 ...	5·30
„	„ .....	Caerleon .....	July 14, 1875 ...	4·64
„	„ .....	Newport .....	Aug. 15, 1878 ...	4·24
„	Glamorgan .....	Treorchy .....	Aug. 6, 1875 ...	4·99
„	„ .....	Lisvane .....	July 14, 1875 ...	4·84
„	„ .....	Pentyrch.....	July 14, 1875 ...	4·80
„	„ ..	Treharris.....	Oct. 19, 1908 ...	4·80
„	„ ..	Cardiff, Ely.....	July 14, 1875 ...	4·75
„	„ ..	Aberdare.....	July 6, 1872 ...	4·51
„	„ ..	Treherbert .....	Dec. 29, 1897 ...	4·36
„	„ ..	Rhondda, Castell Nos	April 30, 1891 ...	4·26

Div.	County.	Station.	Date.	M.
IX.	Glamorgan—(con.)	Dowlais .....	Oct. 19, 1908 ...	4·20
"	"	Aberdare .....	May 17, 1881 ...	4·17
"	"	Treherbert .....	Jan. 20, 1899 ...	4·17
"	"	Tyn-y-waun .....	Dec. 29, 1897 ...	4·09
"	"	Aberdare .....	Dec. 29, 1897 ...	4·08
"	"	Nanthir Reservoir...	Dec. 29, 1897 ...	4·07
"	"	Treherbert .....	July 6, 1872 ..	4·00
"	Carmarthen .....	Narberth .....	July 14, 1875 ...	3·48
"	Pembroke .....	Tenby .....	July 14, 1875 ...	3·31
"	Cardigan .....	Aberystwyth .....	Oct. 15, 1886 ...	3·83
"	BRECON .....	Swansea W.W., Bwlch...	Dec. 10, 1909 ...	6·14
"	"	"	July 9, 1908 ...	4·75
"	"	Neuadd Res. No. 11	Dec. 22, 1909 ...	4·66
"	"	" No. 4A	Dec. 22, 1909 ...	4·32
"	"	Swansea W.W., Bwlch...	Nov. 12, 1910 ...	4·05
"	"	" No. 4	Dec. 7, 1901 ...	4·02
"	Radnor .....	Abergwny .....	Jan. 26, 1901 ...	4·60
"	Montgomery.....	Mellington Hall.....	June 26, 1895 ...	4·83
"	Flint .....	Nantlys.....	Aug. 16, 1879 ..	3·75
"	Denbigh.....	Ruabon .....	June 26, 1895 ...	3·95
"	Merioneth .....	Blaenau Festiniog...	Jan. 29, 1898 ...	5·00
"	"	"	Sept. 2, 1875 ...	4·45
"	"	Dolgelly .....	Nov. 27, 1885 ...	4·30
"	"	Blaenau Festiniog...	Sept. 13, 1877 ...	4·27
"	"	"	Mar. 26, 1890 ...	4·25
"	"	"	Nov. 17, 1897 ...	4·16
"	Carnarvon .....	Bryn Gwynant .....	Oct. 6, 1874 ...	5·32
"	"	Lake Cowlyd .....	Oct. 4, 1892 ...	4·90
"	"	Snowdon, Pen-y-Gwryd...	Dec. 16, 1910 ...	4·10
"	"	Glyn Padarn .....	Aug. 9, 1891 ...	4·05
"	Isle of Man .....	The Dhoon .....	Nov. 6, 1890 ...	3·82
XII.	Wigtown .....	Ardwell House .....	Oct. 8, 1903 ...	3·17
"	Kirkcudbright...	Drum Park .....	Aug. 30, 1879 ...	4·00
"	Dumfries .....	Wanlockhead .....	April 21, 1880 ...	4·10
"	Roxburgh .....	Kelso .....	Aug. 12, 1890 ...	3·51
XIII.	Selkirk .....	Galashiels .....	Aug. 10, 1901 ...	3·98
"	Peebles .....	—	—	—
"	Berwick.....	Duns.....	Sept. 25, 1872 ...	3·27
"	Haddington .....	Whittinghame .....	Aug. 10, 1901 ...	3·57
"	Midlothian ...	Glencorse.....	Sept. 20, 1891 ..	3·60
"	Linlithgow .....	Bathgate .....	Oct. 15, 1907 ...	3·24
"	Lanark .....	Bothwell Castle .....	July 21, 1872 ...	3·31
XIV.	Ayr .....	Camphill .....	Sept. 12, 1885 ...	3·50
"	Renfrew.....	Greenock .....	Dec. 9, 1909 ...	4·10
XV.	Dumbarton .....	Arrochar House.....	Mar. 16, 1906 ...	3·80
"	Stirling .....	—	—	—
"	Bute.....	—	—	—

Div.	County.	Station.	Date.	M.
XV.	ARGYLL .....	Lochbuie .....	Dec. 9, 1909 ...	6·32
„	„ .....	Jura, Fladda .....	Nov. 19, 1901 ...	5·75
„	„ .....	Camusinas .....	Jan. 24, 1868 ...	5·60
„	„ .....	Kinlochleven .....	Feb. 2, 1909 ...	5·59
„	„ .....	Conaglen .....	Nov. 1, 1898 ...	5·09
„	„ .....	Kingairloch.....	Dec. 9, 1909 ...	4·55
„	„ .....	Torosay Castle .....	Sept. 17, 1864 ...	4·40
„	„ .....	Dalmally .....	Feb. 2, 1909 ...	4·28
„	„ .....	Corran .....	Jan. 28, 1892 ...	4·25
„	„ .....	Ardgour .....	Dec. 9, 1909 ...	4·12
XVI.	Clackmannan ...	—	—	—
„	Kinross .....	—	—	—
„	Fife.....	—	—	—
„	Perth .....	Stronvar .....	Nov. 1, 1898 ...	3·67
„	Forfar.....	Montrose.....	Sept. 20, 1891 ...	4·00
XVII.	Kincardine .....	Arnhall .....	Feb. 25, 1872 ...	4·00
„	Aberdeen .....	Glentana .....	Aug. 16, 1878 ...	3·50
„	Banff .....	Craigellachie .....	July 17, 1908 ...	3·35
„	Elgin .....	—	—	—
„	Nairn .....	Glenferness .....	Oct. 19, 1906 ...	4·00
XVIII.	INVERNESS .....	Ben Nevis Obs. ....	Feb. 6, 1894 ...	7·74
„	„ .....	„ .....	Oct. 2, 1890 ...	7·29
„	„ .....	Kinlochquoich .....	Feb. 2, 1909 ...	6·46
„	„ .....	Ben Nevis Obs. ....	May 27, 1902 ..	5·92
„	„ .....	Glenquoich .....	Oct. 2, 1890 ...	5·64
„	„ .....	„ .....	Jan. 28, 1892 ...	5·59
„	„ .....	Skye, Sligachan ...	Dec. 14, 1881 ...	5·42
„	„ .....	Glenfinnan .....	Nov. 8, 1884 ...	5·21
„	„ .....	Skye, Strathaird ...	Aug. 11, 1900 ...	5·03
„	„ .....	„ Portree .....	Oct. 14, 1877 ...	4·98
„	„ .....	Ben Nevis Obs. ....	Sept. 1, 1891 ...	4·93
„	„ .....	Glen Dessary .....	Feb. 2, 1909 ...	4·80
„	„ .....	Ben Nevis Obs. ....	Jan. 29, 1903 ...	4·78
„	„ .....	Glenquoich .....	Jan. 30, 1903 ...	4·72
„	„ .....	Glenfinnan .....	Dec. 9, 1902 ...	4·62
„	„ .....	Skye, Dunvegan ...	Oct. 14, 1877 ...	4·53
„	„ .....	S. Uist, Ushenish...	Nov. 19, 1901 ...	4·52
„	„ .....	Glenquoich .....	Nov. 2, 1898 ...	4·50
„	„ .....	Glenfinnan .....	Jan. 28, 1892 ...	4·48
„	„ .....	Corimory .....	Oct. 19, 1864 ..	4·40
„	„ .....	Ben Nevis Obs. ....	Nov. 26, 1899 ...	4·33
„	„ .....	Glenquoich .....	July 18, 1906 ...	4·32
„	„ .....	Ben Nevis Obs. ....	Nov. 28, 1893 ...	4·29
„	„ .....	Glenquoich .....	Feb. 2, 1909 ...	4·26
„	„ .....	„ .....	Sept. 1, 1891 ...	4·07
„	Ross & Cromarty	Glencarron .....	Oct. 2, 1890 ...	5·90
„	„ .....	„ .....	Jan. 28, 1892 ...	4·33

Div.	County.	Station.	Date.	M.
XIX.	SUTHERLAND ...	Tongue.....	Sept. 7, 1870 ...	6·00
"	" .....	Strathmore .....	Sept. 8, 1908 ...	4·06
"	" .....	Tongue.....	Aug. 12, 1868 ...	4·00
"	Caithness .....	—	—	—
"	Orkney .....	Sanday.....	July 9, 1890 ...	5·00
"	Shetland .....	Bressay .....	July 19, 1891 ...	3·00
XX.	Cork .....	Cork .....	Aug. 13, 1868 ...	3·30
"	Kerry .....	Kenmare, Derreen..	Oct. 18, 1882 ...	4·28
"	" .....	Darrynane .....	Oct. 7, 1878 ...	4·00
"	Waterford .....	Carrick-on-Suir .....	Sept. 2, 1902 ...	3·55
"	Tipperary .....	Clonmel .....	Dec. 23, 1895 ...	3·56
"	Limerick .....	—	—	—
"	Clare .....	Miltown Malbay ...	Nov. 11, 1901 ...	3·54
"	Wexford.....	—	—	—
"	Kilkenny .....	—	—	—
XXI.	Wicklow.....	Bray .....	Aug. 25, 1905 ...	4·45
"	" .....	Newcastle .....	Aug. 25, 1905 ...	4·11
"	Carlow .....	Fenagh.....	June 21, 1868 ...	3·05
"	Queen's County..	Mountrath .....	Nov. 11, 1901 ...	3·29
"	King's County ...	—	—	—
"	Kildare .....	Timolin Vic.....	Aug. 30, 1904 ...	3·65
"	Dublin .....	Glen-na-Smoel .....	Aug. 25, 1905 ...	5·71
"	" .....	"	May 8, 1883 ...	5·27
"	" .....	"	Dec. 1, 1910 ...	4·36
"	" .....	Dundrum.....	Aug. 25, 1905 ...	4·04
"	Meath.....	Drumconrath .....	Aug. 25, 1905 ...	3·94
"	Westmeath .....	Twyford .....	June 25, 1880 ...	3·07
"	Louth.....	Drogheda.....	Aug. 25, 1905 ...	4·01
"	Longford .....	—	—	—
XXII.	Galway .....	Galway .....	Sept. 1, 1887 ...	4·93
"	Roscommon .....	—	—	—
"	Mayo .....	—	—	—
"	Sligo .....	—	—	—
"	Leitrim .....	Spencer Harbour ...	Aug. 2, 1876 ...	3·10
"	Cavan.....	Stradone House .....	Aug. 25, 1905 ...	3·08
"	Fermanagh .....	—	—	—
"	Monaghan.....	Dartrey .....	July 8, 1896 ...	3·21
"	Armagh .....	—	—	—
XXIII.	Down .....	Castlewellan, Fofanny	Aug. 2, 1876 ...	4·50
"	Antrim .....	Glenarm .....	July 24, 1896 ...	3·50
"	Londonderry.....	—	—	—
"	Tyrone .....	Ardree Rectory.....	June 27, 1893 ...	4·16
"	Donegal.....	Tamney Rectory ...	Sept. 6, 1908 ...	3·56

## THE ARRANGEMENT OF THE RAINFALL STATIONS IN "BRITISH RAINFALL."

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WHEN Mr. Symons commenced the publication of the annual volume in 1862 he stated in his preface—

"Considerable hesitation has been felt respecting the classification of the stations, mere East and West divisions being inadequate where the number of places is so great. The groups of Counties arranged for Registration purposes by the Registrars-General of England and Scotland have been adopted as on the whole, perhaps, least open to objection; the stations in each county being in the order of their latitude from South to North. As there are no registration districts in Ireland, the arrangement in that country is entirely according to latitude."

"Considerable hesitation" has been the state in which successive Editors of *British Rainfall* have viewed this problem until now; but after various tentative steps we have ceased to hesitate, and have made a very important change in a perfectly definite way.

In *British Rainfall*, 1863, the counties of Sussex, Ross and Cromarty and Inverness were each sub-divided into East and West, and the Irish counties were grouped according to the four ancient provinces. This system of grouping, established when the total number of stations was 671, held good without modification until 1903, when the number of stations had increased to 3,829, and the largest county division, Yorkshire, West Riding, contained itself 298 stations, almost half as many as *British Rainfall*, 1863, gave for the British Isles. In taking over the responsibility of the work in that year I considered that the time had come to make a change. The year being the wettest since 1872, and with that exception the wettest on record for the British Isles, occasioned a great increase in the routine work, and it was impossible then to carry out any thorough system of redistribution. I had to be content with separating London from Middlesex, Kent, Surrey, and Essex, and subdividing the larger counties where the number of stations had grown embarrassing. Lincolnshire was divided according to its ancient parts, Holland, Kesteven, and Lindsey, the two former being taken together as South Lincolnshire, the last by itself as North

Lincolnshire. The other counties subdivided on this occasion were Surrey, Kent, Devon, Somerset, and Gloucester into two divisions each, and Lancashire and Yorkshire (West Riding) into three divisions each. In these cases there was no political line of cleavage, and as I was fully persuaded that the only natural grouping of rain observing stations is according to river basins, we divided up the counties by watershed lines, which would hold good when the time should come, as it has now, for a more comprehensive redistribution. The stations in each of the new divisions were arranged as before in their approximate order from south to north. An unexpected result of the subdivision was to complicate the records kept in the office of the Organization, which are entered in books ruled for ten years at a time, and from 1903 to 1909 we were obliged, with much inconvenience, to keep the books according to the old arrangement and classify the returns according to the new. We could not afford to "scrap" a set of expensive books and employ an extra clerk to copy the entries for three years into a new set, for it must be remembered that improvements in *British Rainfall*, though entailing increased expense, do not increase the income.

The preparation of a new set of books for the new decade now gives an opportunity of rearrangement without entailing future inconvenience, and we have gladly seized upon it. It is desirable, from many points of view, to classify rain observing stations into the basins of the rivers to which the water naturally flows, and to arrange them in order from the highest to the lowest level. Such an arrangement is the most natural and the best from the point of view of physical geography. It is the most convenient for water-works engineers; and it would prove most widely useful if the scheme were realized which has been so often spoken of, by which questions of river-conservation, water supply, sewage and the prevention of pollution, were entrusted to Water Boards responsible for the several river basins. On the other hand, many rainfall observers do not know in what river basin they live, but they all know their own county; many do not know their altitude, but they know their distance and bearing from the nearest village or railway station. There is a good deal of county patriotism which helps people to work for the credit of their county, and a river basin fails to make the same appeal. Again, the county name is quite distinctive while there are several rivers of the same name. When we speak of a rainfall record in Yorkshire or Warwickshire everyone knows where

it is ; but when we speak of a record in the basin of the Ouse or of the Avon, it may be one of several Ouses or Avons in different parts of the country. Hence we do not think the county boundaries should be ignored.

Several friends who are keenly interested in rainfall matters have from time to time sent us suggestions for improving the grouping of stations. Each pleads for a system having some special appropriateness in his own district ; but each has a different system, and in such a work as this it can be laid down as an essential condition that whatever system is adopted must be applicable to all parts of the country equally. At the same time it is convenient to have flexibility as to minor details, and as the result of years of thought, much study of maps on all scales, and many experiments in arrangement, we have arrived at a system of subdividing the country which seems likely to prove practicable and satisfactory. Since for scientific reasons we must adopt the river-basins, and for practical reasons we cannot desert the counties, we have combined the two, keeping the counties in their old grouping as the larger units of classification, and subdividing each county by watersheds into the portions of different river-basins which lie within its borders, these lesser units being termed *river-divisions*. To this principle there is no exception. The stations within each river-division are arranged as nearly as possible in order from south to north so as to make the least disturbance in the familiar arrangement of the pages ; but this arrangement by latitude is varied as before to a slight extent when a strict adherence to it would separate stations which lie near together, *e.g.*, the suburbs of a large town. Additional modifications will, no doubt, be made in succeeding years, and all suggestions for improvement, as well as corrections if we have placed any stations in the wrong river-divisions, will be welcomed.

It has not been found possible without unduly delaying the publication of this volume to carry the system of sub-division beyond England and Wales. We hope next year to extend it to Scotland and Ireland. The delay may be pardoned, for when the counties contain only a few stations there is less need for sub-division, and reform by instalments will be found to cause less inconvenience to our readers than would result from a fortnight's delay in publication.

Having stated the principles on which we have acted, it may not be out of place to enter into a few details. We use the word *Watershed* in the geographical sense of a line separating the streams flowing to

one river from those flowing to another. Engineers frequently speak of all the land draining to a particular stream as the watershed of that stream; but this is termed in geographical parlance a drainage-area, gathering ground, basin, or sometimes less accurately a valley.

The principal difficulty we have met with has been the tracing of the watersheds on a map. On the large-scale maps, such as those on the scale of 6 inches to a mile, it is practically impossible to draw the watersheds in many places, as for example on the great flat-topped moors which form the highest land in Wales and the Pennine Chain. Even on the scale of 1 mile to an inch there are difficulties of this kind, and the area to be covered is so large that the task could not be attempted. We took as our standard the Ordnance Survey map on the scale of 2 miles to 1 inch, on which the contour lines of elevation are shown and the surface tinted to indicate successive zones of height. The county boundaries are shown upon this map, and in most cases it was easy to draw in the watersheds where these ran over high ground, of course, ignoring artificial watercourses. The chief difficulty was encountered in the low-lying land, especially in the Fens which drain to the Wash. Here the natural drainage cannot always be traced, and we only claim to have done our best in the circumstances, and ask for any corrections which local knowledge may enable any of our readers to supply. The map of river-basins issued by the Royal Commission on Inland Navigation was of assistance in our work; but the scale was too small and the drawing of the watersheds not sufficiently definite for our purpose, so that the whole had to be re-worked on the larger scale in our own Office.

As an important object of the sub-division of counties is to have a moderate number of stations under each heading, it was not enough to deal with great rivers like the Thames and Severn; separate account had to be taken of their more important tributaries. On the other hand it was found to be impracticable to separate out the tiny basin of every little stream that finds an independent entrance to the sea, so that occasionally a series of coast streams is taken as one group, and named either after the largest or the central stream or after the portion of the coast on which they debouch.

The most difficult point to decide was the order in which to take the mosaic of fragments of river basins which make up a county. The general rule arrived at after many trials was to start from the Solway Firth and to follow the coast southwards, eastwards and



northwards in the direction from left to right as one looks at the land from the sea, or from right to left as one looks at the sea from the land. In order to overcome a subsidiary difficulty it was necessary to consider the main streams of great rivers as forming inlets of the sea, taking the right-bank tributaries first in order from the mouth towards the source, and then the left-bank tributaries in order from the source towards the mouth.\* So as not to invert the order of the stations in Lancashire, the divisions of South, Central and North Lancashire have been retained, so have the divisions of South and North Devon ; but except that the Ridings of Yorkshire are taken separately, all other counties are divided only into the river-divisions.

For convenience the names of all rivers which enter the sea directly are given in capital letters, and streams tributary to them are given in small type. Spithead, the Solent, Southampton Water, the Thames east of the Nore, and the Humber as far up as Goole, are considered as inlets of the sea. In the last case it is convenient to view the Trent and Yorkshire Ouse as rivers which enter the sea. The portions of coast between the mouths of important rivers which are drained by short streams directly to the sea are divided between the basins of the larger streams, and the fact that this is done is indicated by adding "& c." to the name. The Isle of Man, the Isle of Wight, Anglesey and the Peninsula of Gower are treated as units irrespective of watersheds. The river-divisions in each county are numbered in order, and as some of the portions are very small it often happens that one or more of the divisions may not be represented by rain gauges.

The first list following gives all the important rivers of England and Wales with all their tributaries named in our subdivisions arranged in order from the Solway southwards, and giving in turn the total areas draining to the West Coast, the South Coast and the East Coast. The river-divisions of each county which extends into the river-basin and the area in square miles are given, together with the total area of the larger river basins. The areas were measured by a planimeter on a map on the scale of 1:1,000,000 on which the watershed lines and county boundaries were drawn, and the area makes no pretension to extreme exactness, though it is satisfactory

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\* The terms *right* and *left* as applied to the banks of a river are by universal geographical usage those on the right and left of a person looking down stream.

to observe that the total areas of the river-divisions in each county rarely differ by as much as 1 per cent. from the areas of the counties of England and Wales given in Chisholm's *Gazetteer*. No one who has not tried to obtain authoritative information on the subject would believe how much the various estimates of the area of counties varies, and we are inclined to think that to within 5 or 10 square miles our measurements are as trustworthy as any that can be found. The Table is followed by a summary giving the areas of the largest river-basins and the total area of land draining to each of the three coasts of England and Wales.

The second list gives all the counties in the order which they have always followed in the pages of *British Rainfall*, together with the river-divisions of each, with their area and the total area of the counties, making up between them the same total as in the summary to the first list.

A map of each of the eleven Divisions shows the constituent counties divided by shaded lines, with their numbered river-divisions divided by strong lines.

### LIST OF RIVER BASINS IN ENGLAND AND WALES.

#### West Coast.—

River.	County	River-division.	Area sq. miles.
Eden and Solway ...	Northumberland	...	20
		...	887
		...	373
Derwent ...	Cumberland	...	257
Coast Streams ...	...	...	235
Duddon & C. ...	North Lancashire	...	77
Leven & C. ...	Cumberland	...	50
	North Lancashire	...	136
	Westmorland	...	60
Kent & C. ...	North Lancashire	...	45
	Westmorland	...	188
	North Lancashire	...	136
Lune ...	Yorkshire W. Riding	...	178
	Westmorland	...	122
	North Lancashire	...	215
Wyre & C. ...	Central Lancashire	...	326
Ribble ...	Yorkshire W. Riding	...	225
,, Douglas ...	Central Lancashire	...	156
	...	...	52
	South Lancashire	...	103
Alt & C. ...	Derbyshire	...	93
Mersey, Upper	Cheshire	...	269
	South Lancashire	...	45
	Yorkshire W. Riding	...	35

River.				County River-division.			Area sq. miles.
Mersey--(con.), Irwell	...	...	...	South Lancashire	...	3	299
				Yorkshire W. Riding	...	3	2
„ Lower	...	...	...	Cheshire	...	3	142
				South Lancashire	...	2	240
„ Weaver	...	...	...	Shropshire	...	1	27
				Staffordshire	...	1	50
				Derbyshire	...	2	2
				Cheshire	...	2	489
Dee	...	...	...	Shropshire	...	2	30
				Cheshire	...	4	127
				Flint	...	1	198
				Denbigh...	...	1	270
				Merioneth	...	1	218
Clwyd	...	...	...	Flint	...	2	51
				Denbigh...	...	2	267
				Merioneth	...	2	7
Conway	...	...	...	Denbigh...	...	3	84
				Carnarvon	...	2	146
Menai Straits & C.	...	...	...	„	...	3	221
				Anglesey	...	...	275
Bardsey Island	..	...	...	Carnarvon	...	1	—
Erch & C.	...	...	...	„	...	4	155
Glaslyn	...	...	...	Merioneth	...	3	92
				Carnarvon	...	5	50
Mawddach & C.	...	...	...	Merioneth	...	4	262
Dovey	...	...	...	Cardigan	...	1	20
				Montgomery	...	1	120
				Merioneth	...	5	82
Ystwyth	...	...	...	Cardigan	...	2	347
				Montgomery	...	2	7
Teifi	...	...	...	Carmarthen	...	1	87
				Pembroke	...	1	37
				Cardigan	..	3	260
Nevern	...	...	...	Pembroke	...	2	91
Coast Streams	...	...	...	„	...	3	28
Cleddau & C.	...	...	...	„	...	4	407
Towy & C.	...	...	...	Carmarthen	...	2	715
				Cardigan	...	4	46
				Brecon...	...	1	17
Loughor	...	...	...	Glamorgan	...	1	55
				Carmarthen	...	3	104
Gower Peninsula	...	...	...	Glamorgan	...	2	62
Tawe	...	...	...	„	...	3	47
				Carmarthen	...	4	7
				Brecon	...	2	41
Neath	...	...	...	Glamorgan	...	4	82
				Brecon	...	3	48
Ogmore & C.	...	...	...	Glamorgan	...	5	350
Taff	...	...	...	„	...	6	157
				Brecon	...	4	48
Rhymney	...	...	...	Monmouth	...	1	39
				Glamorgan	...	7	55
				Brecon	...	5	2
Ebbw	...	...	...	Monmouth	...	2	88
				Brecon	...	6	7
Usk	...	...	...	Monmouth	...	3	290

River.				County River-division.			Area sq. miles.
Usk—(con.)	...	...	...	Carmarthen	...	5	5
				Brecon	...	7	299
Wye	...	...	...	Gloucestershire	...	1	50
				Herefordshire	...	1	685
				Monmouth	...	4	117
				Carmarthen	...	6	—
				Cardigan	...	5	15
				Brecon	...	8	271
				Radnor	...	1	424
				Montgomery	...	3	37
Severn—Right Bank Tribs.				Gloucestershire	...	2	176
				Herefordshire	...	2	155
				Shropshire	...	3	722
				Worcestershire...	...	1	231
				Radnor	...	2	50
				Montgomery	...	4	154
„ Left Bank Tribs..				Gloucestershire	...	3	372
				Shropshire	...	4	564
				Staffordshire	...	2	160
				Worcestershire	...	2	194
				Montgomery	...	5	479
				Flint	...	3	7
				Denbigh...	...	4	47
				Merioneth	...	6	—
„ Upper Avon	...			Oxfordshire	...	1	10
				Northamptonshire	...	1	60
				Gloucestershire	...	4	99
				Worcestershire	...	3	260
				Warwickshire	...	1	603
				Leicestershire	...	1	41
„ Lower Avon	...			Wiltshire	...	1	386
				Somersetshire	...	1	300
				Gloucestershire	...	5	198
Yeo, Axe and Brue	...			Somersetshire	...	2	405
Parrett	...	...	...	Dorset	...	1	61
				S. Devon	...	1	7
				Somersetshire	...	3	568
N. Coast Streams	...	...		N. Devon	...	1	77
				Somersetshire	...	4	158
Taw	...	...	...	N. Devon	...	2	442
Torridge	...	...	...	„	...	3	342
W. Coast Streams	...	...	...	„	...	4	32
Camel & N.W. Coast Streams				Cornwall	...	1	458

**South Coast.—**

Fowey & S.E. Coast Streams				Cornwall	...	2	620
Tamar & C.	...	...	...	S. Devon	...	2	395
				Cornwall	...	3	279
Erm & C.	...	..	...	S. Devon	...	3	217
Dart	...	...	...	„	...	4	197
Teign...	..	...	...	„	...	5	209
Exe	...	...	...	„	...	6	445
				N. Devon	...	5	5
				Somersetshire	...	5	122
Axe & C.	...	...	...	Dorset	...	2	25

River.			County River-division.				Area sq. miles.
Axe & C.—( <i>con.</i> )	...	...	South Devon	...	...	7	237
			Somersetshire	...	...	6	42
Frome & C.	...	...	Dorset	...	...	3	502
Stour	...	...	Hampshire	...	...	2	32
			Wiltshire	...	...	2	33
East Avon	...	...	Dorset	...	...	4	388
			Somersetshire	...	...	7	35
			Hampshire	...	...	3	114
			Wiltshire	...	...	3	554
			Dorset	...	...	5	12
Isle of Wight	...	...	Hampshire	...	...	1	150
Test & Solent	...	...	"	...	...	4	551
			Berkshire	...	...	1	2
Itchen & Spithead...	...	...	Wiltshire	...	...	4	77
			Hampshire	...	...	5	422
Lavant & C.	...	...	Sussex	...	...	1	175
Arun	...	...	Surrey	...	...	1	45
			Sussex	...	...	2	285
			Hampshire	...	...	6	32
Adur & C.	...	...	Sussex	...	...	3	237
Ouse	...	...	"	...	...	4	224
Cuckmere & C.	...	...	"	...	...	5	189
Rother & C.	...	...	Kent	...	...	1	217
			Sussex	...	...	6	194
Stour & C.	...	...	Kent	...	...	2	386
<b>East Coast.—</b>							
Swale & C.	...	...	Kent	...	...	3	167
Medway	...	...	Surrey	...	...	2	50
			Kent	...	...	4	506
Thames—Right Bank Tribs.			Sussex	...	...	7	117
			London	...	...	1	67
Darent	...	...	Gloucestershire	...	...	6	15
			Surrey	...	...	3	22
Wandle	...	...	Kent	...	...	5	256
			Surrey	...	...	4	71
Mole	...	...	"	...	...	5	229
			Sussex	...	...	8	27
Wey	...	...	Surrey	...	...	6	236
			Sussex	...	...	9	10
Bourne	...	...	Hampshire	...	...	7	92
			Surrey	...	...	7	55
Loddon & c.	...	...	Berkshire	...	...	2	15
			Surrey	...	...	8	17
Kennet	...	...	Hampshire	...	...	8	164
			Berkshire	...	...	3	162
Ock & c.	...	...	Hampshire	...	...	9	65
			Berkshire	...	...	4	224
Cole & c.	...	...	Wiltshire	...	...	5	169
			Berkshire	...	...	5	319
Thames, Left Bank Tribs.			Wiltshire	...	...	6	156
			London	...	...	2	50
Windrush & c.	...		Oxfordshire	...	...	2	261
			Gloucestershire	...	...	7	333
			Worcestershire	...	...	4	10

River.				County River-division.				Area sq. miles.
Thames	Windrush & c.—(con.)			Warwickshire ...	...	2	...	2
	Cherwell ...	...	...	Buckinghamshire ..	...	1	...	30
				Oxfordshire ...	...	3	...	250
				Northamptonshire ...	...	2	...	77
Thame & c.	...	...	Warwickshire ...	...	3	...	15	
			Hertfordshire ...	...	1	...	10	
			Buckinghamshire ...	...	2	...	158	
			Oxfordshire ...	...	4	...	210	
Wye & c.	...	...	Buckinghamshire ...	...	3	...	129	
			Colne & Brent ...	...	1	...	177	
Lea	...	...	Hertfordshire ...	...	2	...	199	
			Buckinghamshire ...	...	4	...	133	
			Bedfordshire ...	...	1	...	20	
			Middlesex ...	...	2	...	55	
			Hertfordshire ...	...	3	...	340	
			Bedfordshire ...	...	2	...	32	
Roding & c.	...	...	Essex ...	...	1	...	132	
			„ ...	...	2	...	316	
			„ ...	...	3	...	186	
			„ ...	...	4	...	425	
Crouch	...	...	„ ...	...	5	...	283	
			Blackwater ...	...	1	...	17	
Colne & C.	...	...	Cambridgeshire ...	...	1	...	17	
			Stour ...	...	6	...	110	
Orwell	...	...	Essex ...	...	6	...	110	
			Suffolk ...	...	1	...	271	
			„ ...	...	2	...	166	
			„ ...	...	3	...	466	
Deben & C.	...	...	„ ...	...	4	...	208	
			Yare & C.	...	4	...	208	
„ Bure & c.	.....	..	Norfolk ...	...	1	...	658	
			„ ...	...	2	...	368	
			„ ...	...	3	...	288	
			Stiffkeys & C.	...	3	...	86	
Ouse ...	...	...	Hertfordshire ...	...	4	...	86	
			Buckinghamshire ...	...	5	...	293	
			Oxfordshire ...	...	5	...	25	
			Northamptonshire ...	...	3	...	148	
			Huntingdonshire ...	...	1	...	217	
			Bedfordshire ...	...	3	...	408	
			Cambridgeshire ...	...	2	...	655	
			Essex ...	...	7	...	80	
			Suffolk ...	...	5	...	378	
			Norfolk ...	...	4	...	683	
			Northamptonshire ...	...	4	...	622	
			Huntingdonshire ...	...	2	...	149	
			Bedfordshire ...	...	4	...	7	
			Cambridgeshire ...	...	3	...	187	
Norfolk ...	...	5	...	47				
Welland	...	...	Lincolnshire ...	...	1	...	100	
			Northamptonshire ...	...	5	...	96	
			Leicestershire ...	...	2	...	96	
			Rutland ..	...	1	...	125	
Witham & C.	...	...	Lincolnshire ...	...	2	...	411	
			Leicestershire ...	...	3	...	7	
			Rutland ...	...	2	...	5	
			Lincolnshire ...	...	3	...	1015	
Great Eau & C.	...	...	Nottinghamshire ...	...	1	...	10	
			Lincolnshire ...	...	4	...	443	
Humber—Right Bank Tribs.				„	...	5	...	428

River	County River division.	Area sq. miles.
Humber—Left Bank Tribs.	Yorkshire, E. Riding... 3 ...	675
Trent—Right Bank Tribs.	Staffordshire ... 3 ...	518
	Worcestershire ... 5 ...	56
	Warwickshire ... 4 ...	282
	Leicestershire ... 4 ...	680
	Rutland... 3 ...	22
	Lincolnshire ... 6 ...	172
	Nottinghamshire ... 2 ...	218
	Derbyshire ... 3 ...	68
Trent—Left Bank Tribs....	Staffordshire ... 4 ...	193
	Lincolnshire ... 7 ...	77
	Nottinghamshire ... 5 ...	569
	Derbyshire ... 5 ...	84
	Yorkshire, W. Riding... 6 ...	143
Dove ... ..	Staffordshire ... 5 ...	250
	Derbyshire ... 4 ...	156
Derwent ... ..	Nottinghamshire ... 3 ...	2
	Derbyshire ... 6 ...	428
	Yorkshire, W. Riding... 5 ...	7
Erewash ... ..	Nottinghamshire ... 4 ...	42
	Derbyshire ... 7 ...	50
Ouse—Right Bank Tribs.		
Don ... ..	Nottinghamshire ..... 6 ...	2
	Derbyshire ... 8 ...	148
	Yorkshire, W. Riding... 7 ...	564
Aire—Calder ... ..	Yorkshire, W. Riding... 8 ...	361
Aire ... ..	Central Lancashire ... 4 ...	2
	Yorkshire, W. Riding... 9 ...	504
Wharfe ... ..	Yorkshire, W. Riding... 10 ...	408
Nidd ... ..	Yorkshire, W. Riding... 11 ...	254
Ure ... ..	Yorkshire, W. Riding... 12 ...	110
	Yorkshire, N. Riding... 1 ...	273
Swale ... ..	Yorkshire, N. Riding... 2 ...	569
Ouse—Left Bank Tribs. ...	Yorkshire, E. Riding... 1 ...	82
	Yorkshire, N. Riding... 3 ...	153
Derwent ... ..	Yorkshire, E. Riding... 2 ...	248
	Yorkshire, N. Riding... 4 ...	509
East Coast Streams ... ..	Yorkshire, E. Riding... 4 ...	171
Esk & C. ... ..	Yorkshire, N. Riding... 5 ...	278
Tees & C. ... ..	Yorkshire, N. Riding... 6 ...	373
	Durham ... 1 ...	396
	Westmorland ... 5 ...	40
Wear ... ..	Durham ... 2 ...	464
Tyne—South Tyne ... ..	Northumberland ... 2 ...	232
	Cumberland ... 5 ...	87
„ North Tyne ... ..	Northumberland ... 4 ...	433
„ Tyne, Lower ... ..	Durham ... 3 ...	151
	Northumberland ... 3 ...	227
Coquet & C.... ...	Northumberland ... 5 ...	841
Tweed ... ..	Northumberland ... 6 ...	262

The total areas of land in the largest river basins and of that draining to each of the three coasts of England and Wales are as follows :—

*Summary of the River Basins of England and Wales.*

	Sq. miles.
<b>West Coast.</b> —Solway ... ..	1280
Lune ... ..	436
Ribble ... ..	707
Mersey ... ..	1693
Dee ... ..	843
Towy ... ..	778
Usk ... ..	594
Wye ... ..	1599
Severn ... ..	4384
Lower Avon ... ..	884
Parrett ... ..	636
Taw ... ..	442
Smaller Rivers ... ..	7232
Total land draining to West Coast	21,508
<b>South Coast.</b> —Exe ... ..	572
Stour... ..	488
East Avon ... ..	680
Southampton Water, etc... ..	1202
Rother ... ..	411
Smaller Rivers ... ..	4296
Total land draining to South Coast	7,649
<b>East Coast.</b> —Medway ... ..	673
Thames ... ..	5310
Blackwater ... ..	425
Yare ... ..	1234
Ouse .. ..	2973
Nene... ..	1112
Welland ... ..	728
Witham ... ..	1037
Trent ... ..	4017
Ouse ... ..	4187
Tees ... ..	809
Wear... ..	464
Tyne... ..	1130
Smaller Rivers ... ..	5052
Total land draining to East Coast	29,151
<b>SUMMARY.</b> —Land draining to West Coast ...	21,508
„ „ South „ ...	7,649
„ „ East „ ...	29,151
Total area England and Wales...	58,308

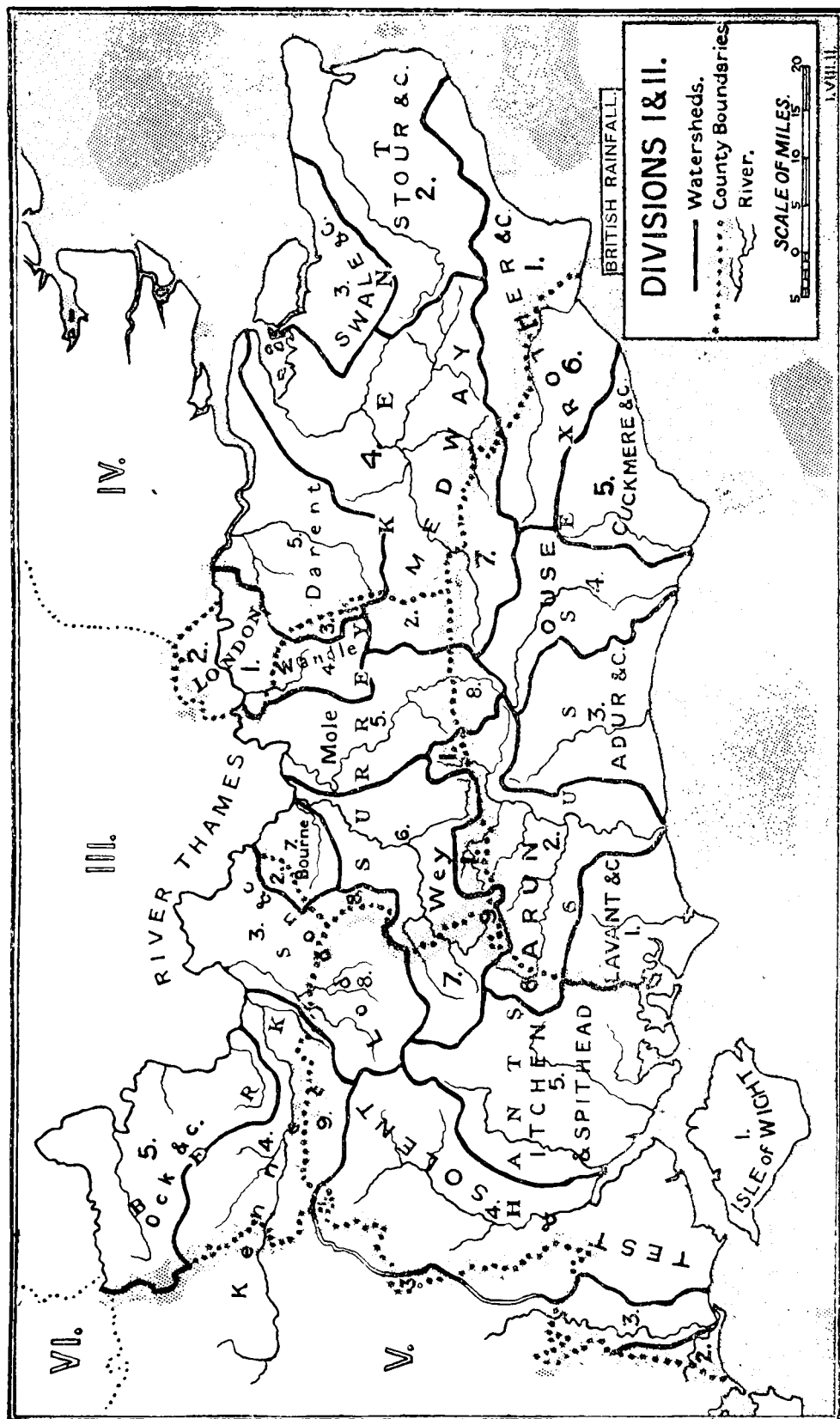
It will be noticed that one half of the area of England and Wales drains to the east coast and one half to the west and south coasts.





## LIST OF COUNTIES AND RIVER DIVISIONS.

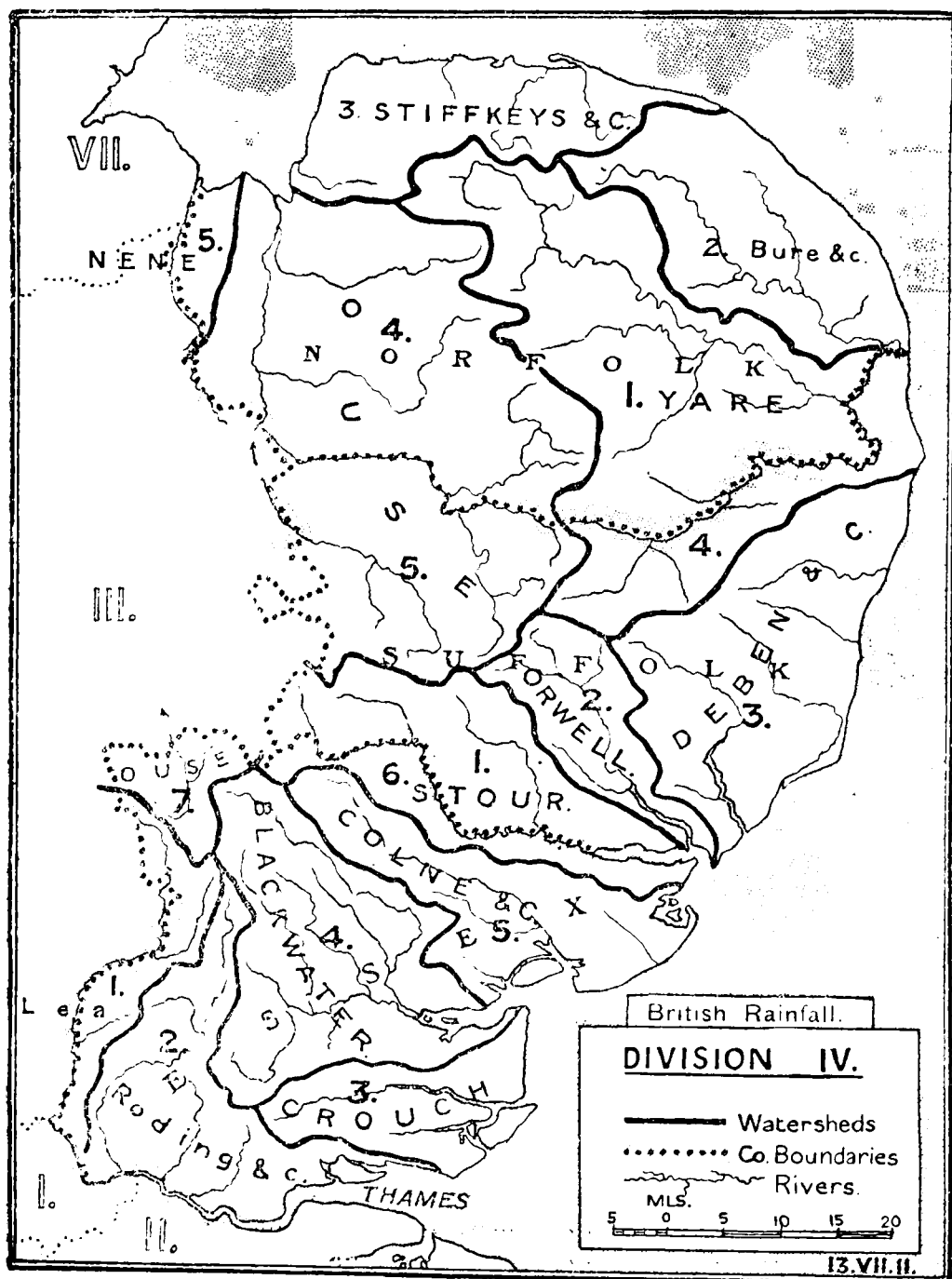
COUNTY.	RIVER DIVISION.	Area of River Division, sq. m.	Area of County, sq. m.
I. LONDON.			
1.	THAMES—Right Bank Tribs.	67	117
2.	„ Left Bank Tribs.	50	
II. SURREY.			
1.	ARUN ... ..	45	725
2.	MEDWAY ... ..	50	
3.	THAMES—Darent	22	
4.	„ Wandle	71	
5.	„ Mole	229	
6.	„ Wey...	236	
7.	„ Bourne	55	
8.	„ Loddon	17	
KENT.			
1.	ROTHER & C. ... ..	217	1532
2.	STOUR & C. ... ..	386	
3.	SWALE & C. ... ..	167	
4.	MEDWAY ... ..	506	
5.	THAMES—Darent	256	
SUSSEX.			
1.	LAVANT & C. ... ..	175	1458
2.	ARUN ... ..	285	
3.	ADUR & C. ... ..	237	
4.	OUSE ... ..	224	
5.	CUCKMERE & C. ... ..	189	
6.	ROTHER ... ..	194	
7.	MEDWAY ... ..	117	
8.	THAMES—Mole...	27	
9.	„ Wey	10	
HAMPSHIRE.			
1.	ISLE OF WIGHT ... ..	150	1622
2.	STOUR ... ..	32	
3.	EAST AVON & C. ... ..	114	
4.	TEST & SOLENT ... ..	551	
5.	ITCHEN & SPITHEAD ... ..	422	
6.	ARUN ... ..	32	
7.	THAMES—Wey ... ..	92	
8.	„ Loddon ... ..	164	
9.	„ Kennet ... ..	65	



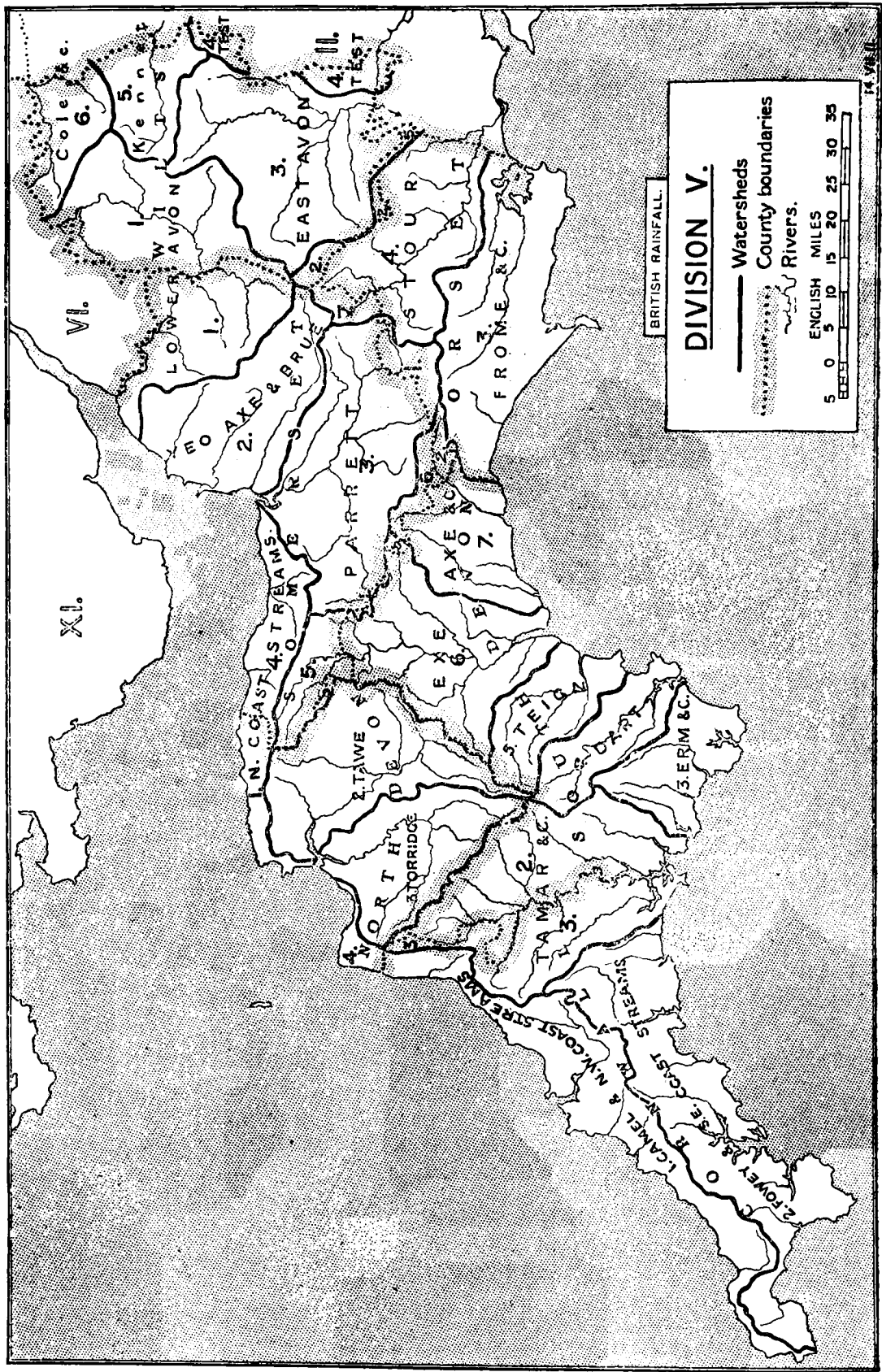


							Area of River Division, sq. m.	Area of County, sq. m.
COUNTY.		RIVER DIVISION.						
III. BUCKINGHAMSHIRE.								
1.	THAMES—Cherwell	...	...	...	...	...	30	
2.	„ Thame	...	...	...	...	...	158	
3.	„ Wye & c.	...	...	...	...	...	129	
4.	„ Colne	...	...	...	...	...	133	
5.	OUSE	...	...	...	...	...	293	
							<hr/>	743
OXFORDSHIRE.								
1.	SEVERN—Upper Avon	...	...	...	...	...	10	
2.	THAMES—Windrush & c.	...	..	...	...	...	261	
3.	„ Cherwell	...	...	...	...	...	250	
4.	„ Thame & c.	...	...	...	...	...	210	
5.	OUSE	...	...	...	...	...	25	
							<hr/>	756
NORTHAMPTONSHIRE.								
1.	SEVERN—Upper Avon	...	...	...	...	...	60	
2.	THAMES—Cherwell	...	...	...	...	...	77	
3.	OUSE	...	...	...	...	...	148	
4.	NENE	...	...	...	...	...	622	
5.	WELLAND	...	...	...	...	...	96	
							<hr/>	1003
HUNTINGDONSHIRE.								
1.	OUSE	...	...	...	...	...	217	
2.	NENE	...	...	...	...	...	149	
							<hr/>	366
BEDFORDSHIRE.								
1.	THAMES—Colne	...	...	...	...	...	20	
2.	„ Lea	...	...	...	...	...	32	
3.	OUSE	...	...	...	...	...	408	
4.	NENE	...	...	...	...	...	7	
							<hr/>	467
CAMBRIDGESHIRE.								
1.	STOUR	..	...	...	...	...	17	
2.	OUSE	...	...	...	...	...	655	
3.	NENE	...	...	...	...	...	187	
							<hr/>	859
IV. ESSEX.								
1.	THAMES—Lea	...	...	...	...	...	132	
2.	„ Roding & c.	...	...	...	...	...	316	
3.	CROUCH	...	...	...	...	...	186	
4.	BLACKWATER	...	...	...	...	...	425	
5.	COLNE & C.	...	...	...	...	...	283	
6.	STOUR	...	...	...	...	...	110	
7.	OUSE	...	...	...	...	...	80	
							<hr/>	1532
SUFFOLK.								
1.	STOUR	...	...	...	...	...	271	
2.	ORWELL	...	...	...	...	...	166	

COUNTY.	RIVER DIVISION.						Area of River Division, sq. m.	Area of County, sq. m.
IV. SUFFOLK—(con.)								
3.	DEBEN & C.	...	...	...	...	...	466	
4.	YARE & C.	...	...	...	...	...	208	
5.	OUSE	...	...	...	...	...	378	
							<hr/>	1489

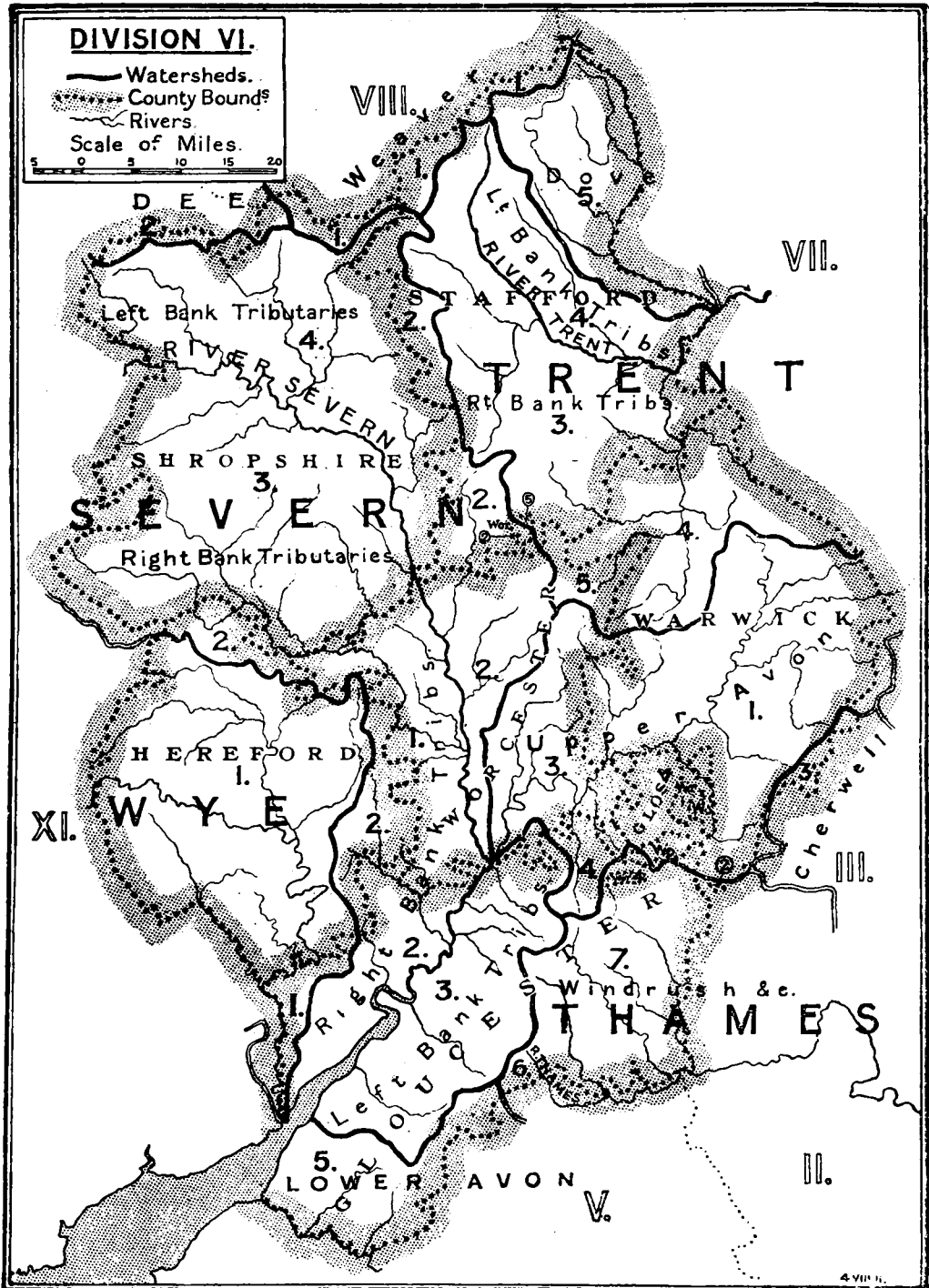


COUNTY.	RIVER DIVISION.						Area of River Division, sq. m.	Area of County, sq. m.
IV. NORFOLK.								
1.	YARE	...	...	...	...	...	658	
2.	„ —Bure & c.	...	...	...	...	...	368	
3.	STIFFKEYS & C.	...	...	...	...	...	288	
4.	OUSE & C.	...	..	...	...	...	683	
5.	NENE	...	...	...	...	...	47	
							<hr/>	2044
V. WILTSHIRE.								
1.	LOWER AVON	...	...	...	...	...	386	
2.	STOUR	...	...	...	...	...	33	
3.	EAST AVON	...	...	...	...	...	554	
4.	TEST	...	...	...	...	...	77	
5.	THAMES—Kennet	...	..	...	...	...	169	
6.	„ Cole & c.	...	...	...	...	...	156	
							<hr/>	1375
DORSETSHIRE.								
1.	PARRETT...	...	...	..	...	...	61	
2.	AXE	...	...	...	...	...	25	
3.	FROME & C.	...	...	...	...	...	502	
4.	STOUR	...	...	...	...	...	388	
5.	EAST AVON	...	...	...	...	...	12	
							<hr/>	988
SOUTH DEVONSHIRE.								
1.	PARRETT	...	...	...	...	...	7	
2.	TAMAR & C.	...	...	...	...	...	395	
3.	ERM & C.	...	...	...	...	...	217	
4.	DART	...	...	...	...	...	197	
5.	TEIGN	...	...	...	...	...	209	
6.	EXE	...	...	...	...	...	445	
7.	AXE & C.	...	...	...	...	...	237	
							<hr/>	1707
NORTH DEVONSHIRE.								
1.	NORTH COAST STREAMS	...	...	...	...	...	77	
2.	TAW	...	...	...	...	...	442	
3.	TORRIDGE	...	...	...	...	...	342	
4.	WEST COAST STREAMS	...	...	...	...	...	32	
5.	EXE	...	...	...	...	...	5	
							<hr/>	898
CORNWALL.								
1.	CAMEL & N.W. COAST STREAMS	...	...	...	...	...	458	
2.	FOWEY & S.E. COAST STREAMS	...	...	...	...	...	620	
3.	TAMAR & C.	...	...	...	...	...	279	
							<hr/>	1357
SOMERSETSHIRE.								
1.	LOWER AVON	...	...	...	...	...	300	
2.	YEO, AXE AND BRUE	...	...	...	...	...	405	
3.	PARRETT	..	...	...	...	...	568	
4.	NORTH COAST STREAMS	...	...	...	...	...	158	
5.	EXE	...	...	...	...	..	122	





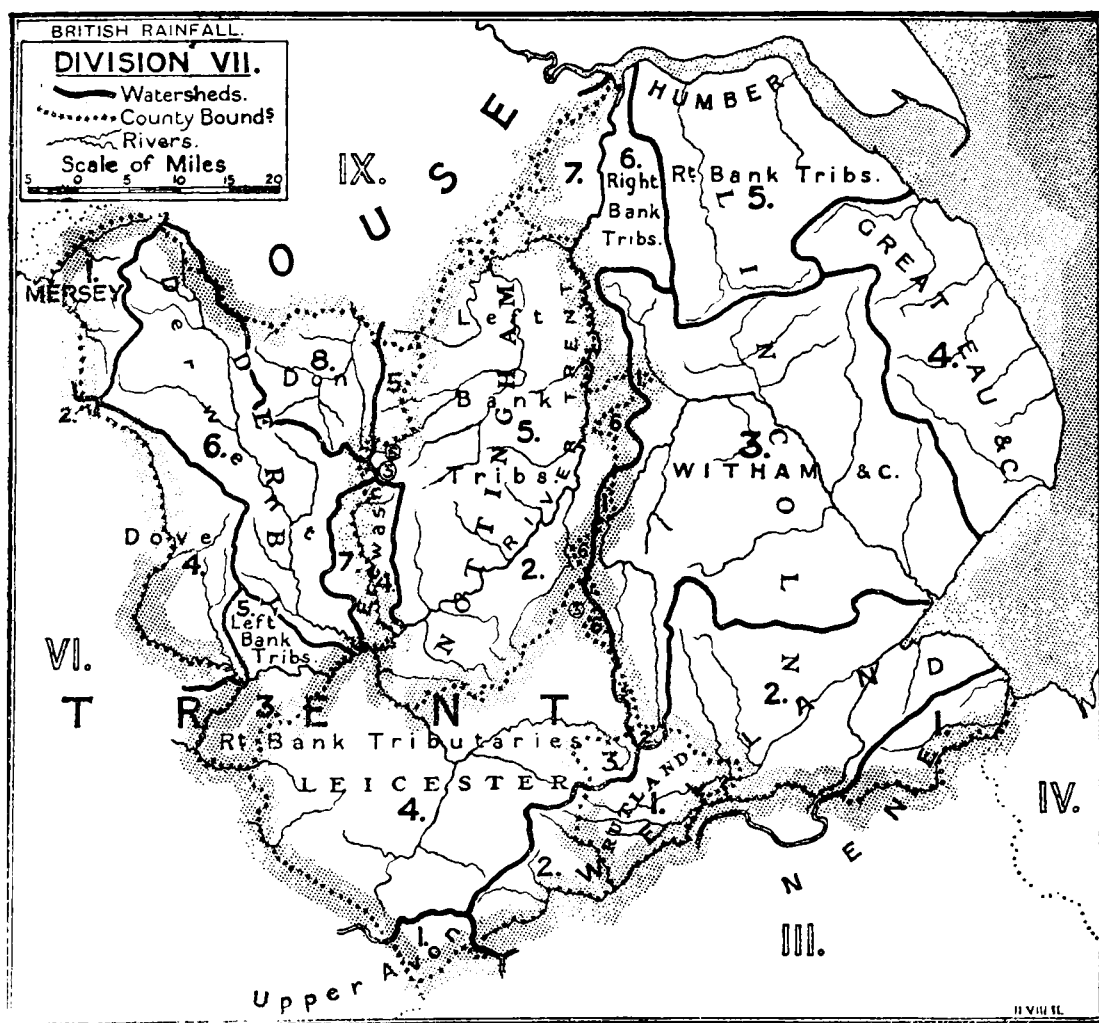
COUNTY.	RIVER DIVISION.						Area of River Division, sq. m.	Area of County, sq. m.
V. SOMERSETSHIRE—(con.).								
6. AXE	...	...	...	...	...	...	42	
7. STOUR	...	...	...	...	...	...	35	
							—	1630



## BRITISH RAINFALL.

COUNTY,	RIVER DIVISION.	Area of River Division, sq. m.	Area of County, sq. m.
VI. GLOUCESTERSHIRE.			
1.	WYE ... ..	50	
2.	SEVERN—Right Bank Tribs. ... ..	176	
3.	„ Left Bank Tribs. ... ..	372	
4.	„ Upper Avon... ..	99	
5.	LOWER AVON. ... ..	198	
6.	THAMES—Right Bank Tribs. ... ..	15	
7.	„ Windrush & c. ... ..	333	
		—	1243
HEREFORDSHIRE.			
1.	WYE ... ..	685	
2.	SEVERN—Right Bank Tribs. ... ..	155	
		—	840
SHROPSHIRE.			
1.	MERSEY—Weaver ... ..	27	
2.	DEE ... ..	30	
3.	SEVERN—Right Bank Tribs. ... ..	722	
4.	„ Left Bank Tribs. ... ..	564	
		—	1343
STAFFORDSHIRE.			
1.	MERSEY—Weaver ... ..	50	
2.	SEVERN—Left Bank Tribs. ... ..	160	
3.	TRENT—Right Bank Tibs. ... ..	518	
4.	„ Left Bank Tribs. ... ..	193	
5.	„ Dove ... ..	250	
		—	1171
WORCESTERSHIRE.			
1.	SEVERN—Right Bank Tribs. ... ..	231	
2.	„ Left Bank Tribs. ... ..	194	
3.	„ Upper Avon ... ..	260	
4.	THAMES—Windrush & c. ... ..	10	
5.	TRENT—Right Bank Tribs. ... ..	56	
		—	751
WARWICKSHIRE.			
1.	SEVERN—Upper Avon ... ..	603	
2.	THAMES—Windrush & c. ... ..	2	
3.	„ Cherwell ... ..	15	
4.	TRENT—Right Bank Tribs. ... ..	282	
		—	902
VII. LEICESTERSHIRE.			
1.	SEVERN—Upper Avon ... ..	41	
2.	WELLAND ... ..	96	
3.	WITHAM ... ..	7	
4.	TRENT—Right Bank Tribs. ... ..	680	
		—	824
RUTLAND.			
1.	WELLAND ... ..	125	
2.	WITHAM... ..	5	
3.	TRENT—Right Bank Tribs. ... ..	22	
		—	152

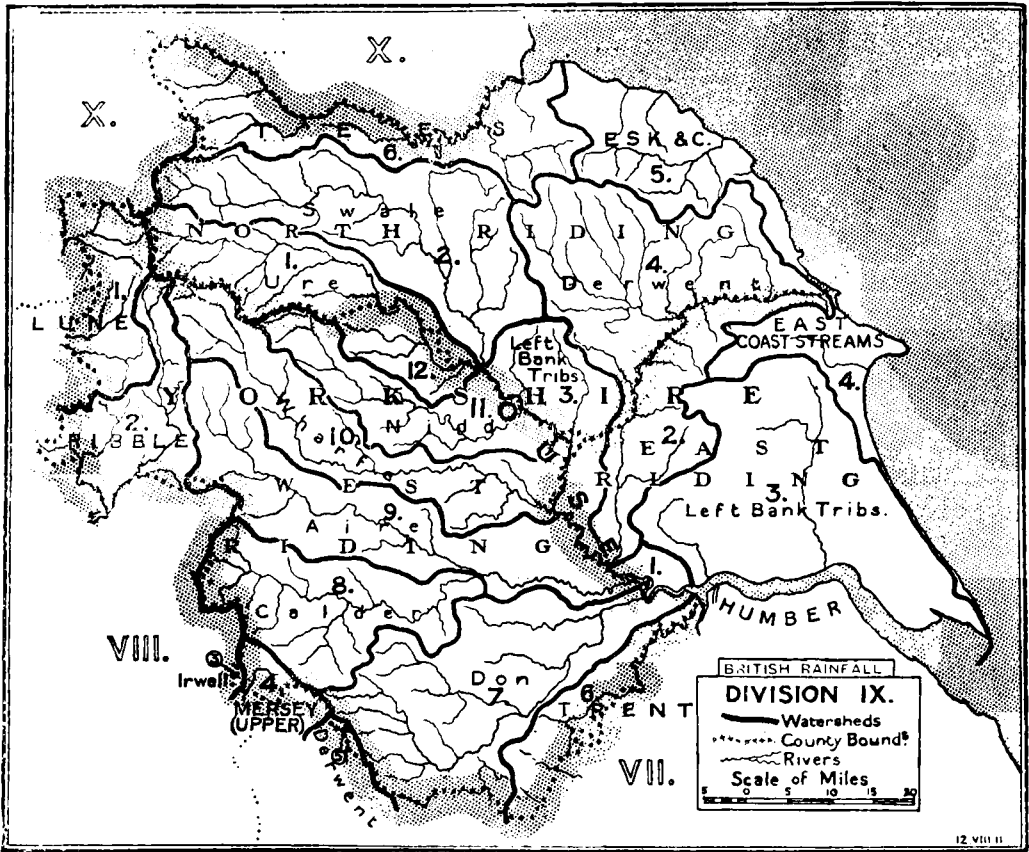
COUNTY.	RIVER DIVISIONS.	Area of River Division, sq. m.	Area of County sq. m.
<b>VII. LINCOLNSHIRE.</b>			
1.	NENE ... ..	100	
2.	WELLAND ... ..	411	
3.	WITHAM & C. ... ..	1015	
4.	GREAT EAU & C. ... ..	443	
5.	HUMBER—Right Bank Tribs. ... ..	428	
6.	TRENT—Right Bank Tribs. ... ..	172	
7.	„ Left Bank Tribs. ... ..	77	
			2646
<b>NOTTINGHAMSHIRE.</b>			
1.	WITHAM... ..	10	
2.	TRENT—Right Bank Tribs. ... ..	218	
3.	„ Derwent ... ..	2	
4.	„ Erewash ... ..	42	
5.	„ Left Bank Tribs. ... ..	569	
6.	OUSE—Don ... ..	2	
			843





COUNTY.	RIVER DIVISIONS.					Area of River Division, sq. m.	Area of County, sq. m.
VII. DERBYSHIRE.							
1.	MERSEY, UPPER	..	...	...	...	93	
2.	„ Weaver	...	...	...	...	2	
3.	TRENT—Right Bank Tribs.	...	...	...	...	68	
4.	„ Dove	...	...	...	...	156	
5.	„ Left Bank Tribs.	...	...	...	...	84	
6.	„ Derwent	...	...	...	...	428	
7.	„ Erewash	...	...	...	...	50	
8.	OUSE—Don	...	...	...	...	148	
						—	1029
VIII. CHESHIRE.							
1.	MERSEY, UPPER	...	...	...	...	269	
2.	„ Weaver	...	...	...	...	489	
3.	„ LOWER, & C.	...	...	...	...	142	
4.	DEE	...	...	...	...	127	
						—	1027
SOUTH LANCASHIRE.							
1.	ALT & C.	...	...	...	...	103	
2.	MERSEY, LOWER	...	...	...	...	240	
3.	„ Irwell	...	...	...	...	299	
4.	„ UPPER	...	...	...	...	45	
						—	687
CENTRAL LANCASHIRE.							
1.	RIBBLE & C.	...	...	...	...	326	
2.	„ Douglas	...	...	...	...	156	
3.	COAST STREAMS	...	...	...	...	52	
4.	OUSE—Aire	...	...	...	...	2	
						—	536
NORTH LANCASHIRE.							
1.	DUDDON & C.	...	...	...	...	77	
2.	LEVEN & C.	...	...	...	...	136	
3.	KENT & C.	...	...	...	...	45	
4.	LUNE	...	...	...	...	136	
5.	WYRE & C.	...	...	...	...	215	
						—	609
IX. YORKSHIRE, W. RIDING.							
1.	LUNE	...	...	...	...	178	
2.	RIBBLE	...	...	...	...	225	
3.	MERSEY—Irwell	...	...	...	...	2	
4.	„ UPPER	...	...	...	...	35	
5.	TRENT—Derwent	...	...	...	...	7	
6.	„ Left Bank Tribs.	...	...	...	...	143	
7.	OUSE—Don	...	...	...	...	564	
8.	„ Aire—Calder	...	...	...	...	361	
9.	„ Aire	...	...	...	...	504	
10.	„ Wharfe	...	...	...	...	408	
11.	„ Nidd	...	...	...	...	254	
12.	„ Ure	...	...	...	...	110	
						—	2791

COUNTY.	RIVER DIVISIONS.	Area of River Division, sq. m.	Area of County, sq. m.
IX. YORKSHIRE, E. RIDING.			
1.	OUSE—Left Bank Tribs.	...	82
2.	„ Derwent	...	248
3.	HUMBER—Left Bank Tribs.	...	675
4.	EAST COAST STREAMS	...	171
			1176

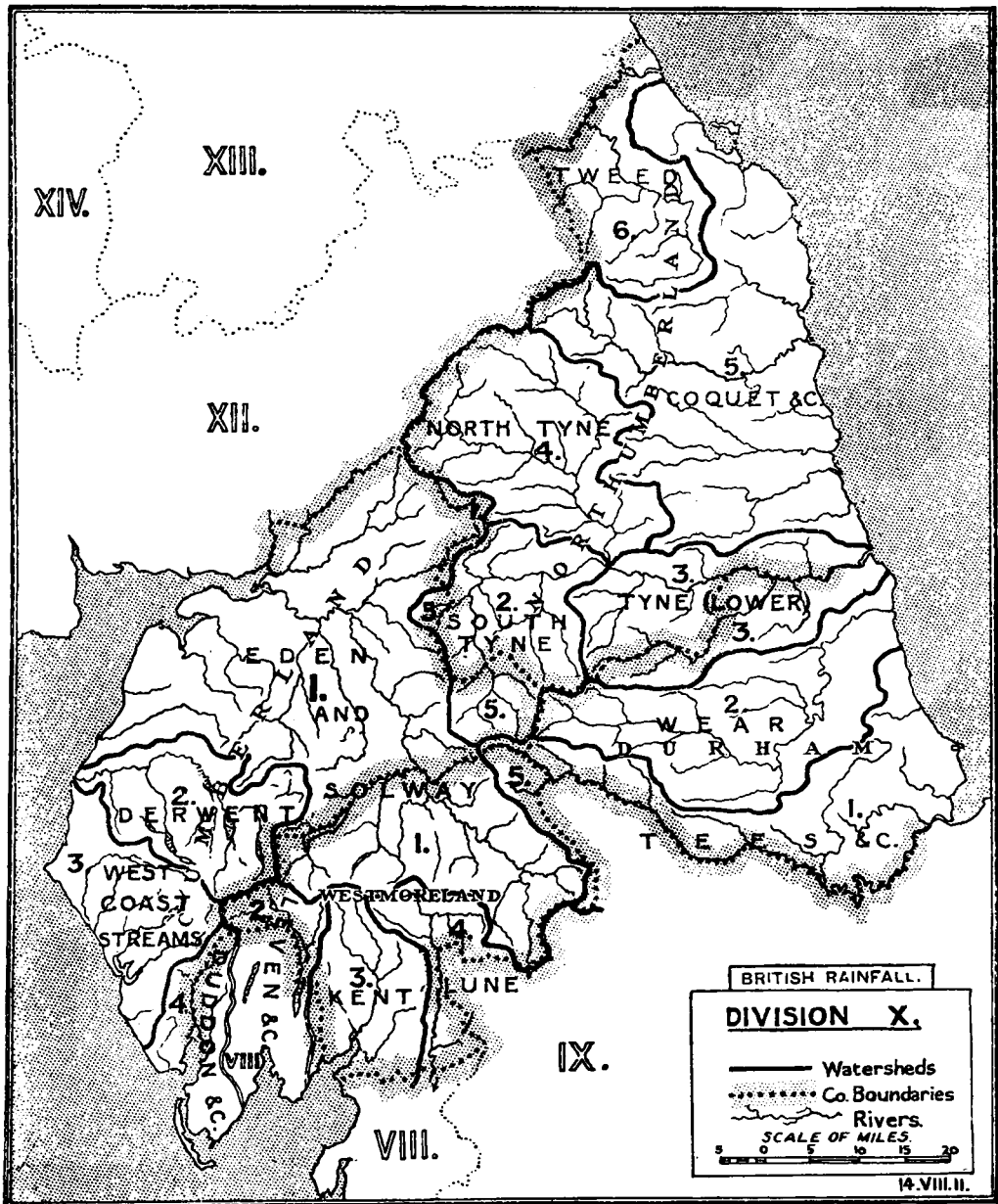


YORKSHIRE, N. RIDING.						
1.	OUSE—Ure	...	...	...	...	273
2.	„ Swale	...	...	...	...	569
3.	„ Left Bank Tribs.	...	...	...	...	153
4.	„ Derwent	...	...	...	...	509
5.	ESK & C.	...	...	...	...	278
6.	TEES	...	...	...	...	373

X. DURHAM.						
1.	TEES & C.	...	...	...	...	396
2.	WEAR	...	...	...	...	464
3.	TYNE, LOWER	...	...	...	...	151
						1011

COUNTY.	RIVER DIVISION.						Area of River Division, sq. m.	Area of County, sq. m.
X. NORTHUMBERLAND.								
1.	EDEN	...	...	...	...	...	20	
2.	SOUTH TYNE	...	...	...	...	...	232	
3.	NORTH TYNE	...	...	...	...	...	433	
4.	TYNE, LOWER	...	...	...	...	...	227	
5.	COQUET & C.	...	...	...	...	...	841	
6.	TWEED	...	...	...	...	...	262	

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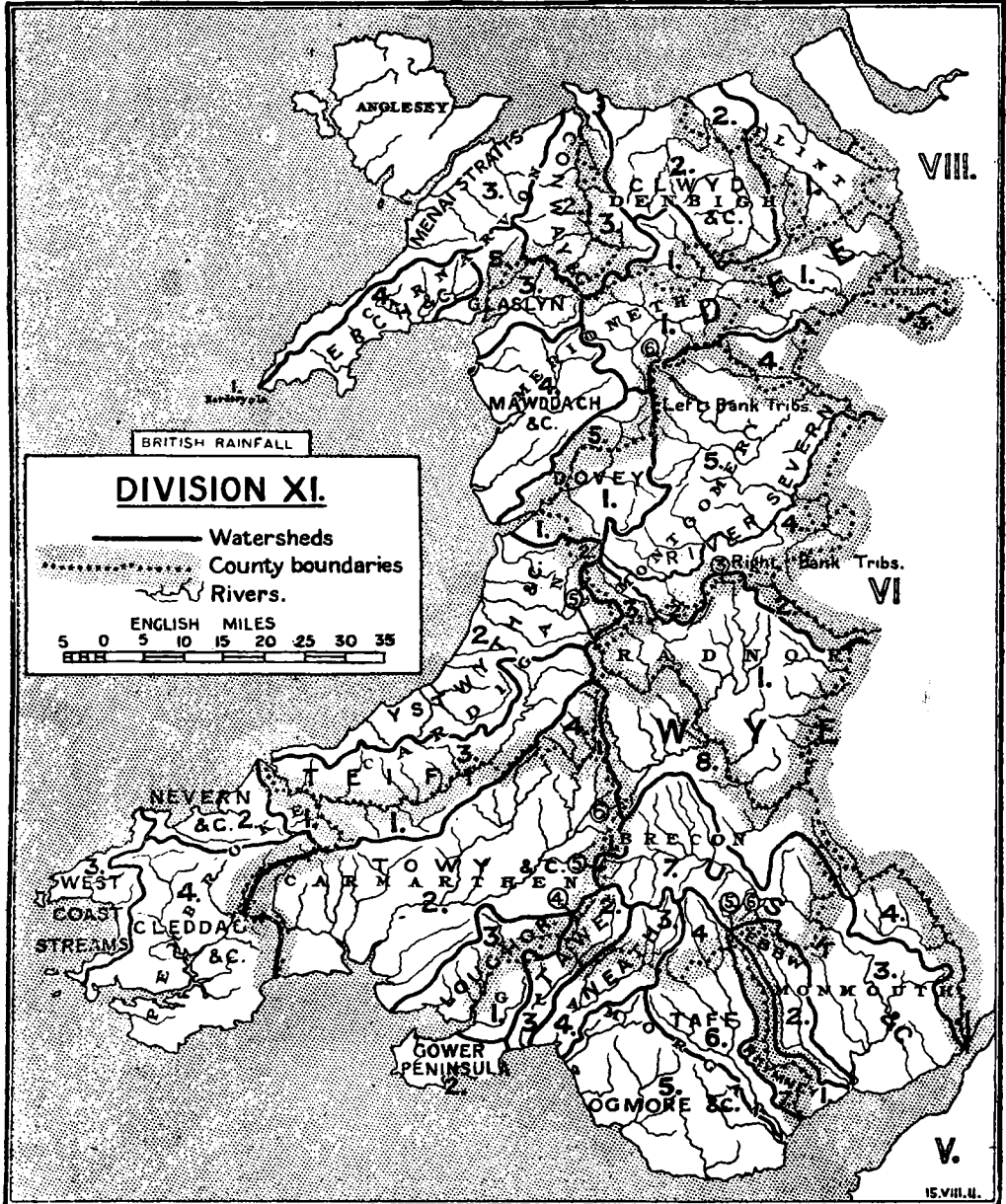


COUNTY.	RIVER DIVISION.						Area of River Division, sq. m.	Area of County, sq. m.
X. CUMBERLAND.								
1.	EDEN & SOLWAY	...	...	...	...	...	887	
2.	DERWENT	...	...	...	...	...	257	
3.	WEST COAST STREAMS	...	...	...	...	...	235	
4.	DUDDON & C.	...	...	...	...	...	50	
5.	SOUTH TYNE	...	...	...	...	...	87	
							—	1516
WESTMORLAND.								
1.	EDEN	...	...	...	...	...	373	
2.	LEVEN	...	...	...	...	...	60	
3.	KENT	...	...	...	...	...	188	
4.	LUNE	...	...	...	...	...	122	
5.	TEES	...	...	...	...	..	40	
							—	783
XI. MONMOUTH.								
1.	RHYMNEY & C.	...	...	...	...	...	39	
2.	EBBW	...	...	...	...	...	88	
3.	USK & C.	...	...	...	...	...	290	
4.	WYE	...	...	...	...	...	117	
							—	534
GLAMORGAN.								
1.	LOUGHOR	...	...	...	...	...	55	
2.	GOWER PENINSULA	...	...	...	...	...	62	
3.	TAWE	...	...	...	...	...	47	
4.	NEATH	...	...	...	...	...	82	
5.	OGMORE & C.	...	...	...	...	..	350	
6.	TAFF	...	...	...	...	...	157	
7.	RHYMNEY	...	...	...	...	...	55	
							—	808
CARMARTHEN.								
1.	TEIFI	...	...	...	...	...	87	
2.	TOWY & C.	...	...	...	...	...	715	
3.	LOUGHOR & C.	...	...	...	...	...	104	
4.	TAWE	...	...	...	...	...	7	
5.	USK	...	...	...	...	...	5	
6.	WYE	...	...	...	...	...	—	
							—	918
PEMBROKE.								
1.	TEIFI	...	...	...	...	...	37	
2.	NEVERN & C.	...	...	...	...	...	91	
3.	WEST COAST STATIONS	...	...	...	...	...	82	
4.	CLEDDAN & C.	...	...	...	...	...	407	
							—	617
CARDIGAN.								
1.	DOVEY	...	...	...	...	...	20	
2.	YSTWYTH & C.	...	...	...	...	...	347	
3.	TEIFI	...	...	...	...	...	260	



COUNTY.	RIVER DIVISIONS.							Area of River Division, sq. m.	Area of County, sq. m.
XI. CARDIGAN—(con.).									
4. TOWY	...	..	...	...	...	...	...	46	
5. WYE	...	...	...	...	...	...	...	15	

688



## BRECON.

1. TOWY	...	...	...	...	...	...	17
2. Tawe	...	...	...	...	...	...	41
3. NEATH	...	...	...	...	...	...	48
4. TAFF	...	...	...	...	...	...	48

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COUNTY.	RIVER DIVISION.						Area of River Division. sq. m.	Area of County sq. m.
XI. BRECON—(con.).								
5.	RHYMNEY	...	...	...	...	...	2	
6.	ERBW	...	...	...	...	...	7	
7.	USK	...	...	...	...	...	299	
8.	WYE	...	...	...	...	...	271	
							—	733
RADNOR.								
1.	WYE	...	...	...	...	...	424	
2.	SEVERN—Right Bank Tribs.				...	...	50	
							—	474
MONTGOMERY.								
1.	DOVEY	...	...	...	...	...	120	
2.	YSTWYTH	...	...	...	...	...	7	
3.	WYE	...	...	...	...	...	37	
4.	SEVERN—Right Bank Tribs.				...	...	154	
5.	„ Left Bank Tribs.	...	...	...	...	...	479	
							—	797
FLINT.								
1.	DEE	...	...	...	...	...	198	
2.	CLWYD	...	..	...	...	...	51	
3.	SEVERN—Left Bank Tribs.	...	...	...	...	...	7	
							—	256
DENBIGH.								
1.	DEE	...	...	..	..	...	270	
2.	CLWYD & C.	...	...	...	...	...	267	
3.	CONWAY	...	...	...	...	...	84	
4.	SEVERN—Left Bank Tribs.	...	...	...	...	...	47	
							—	668
MERIONETH.								
1.	DEE	...	...	...	...	...	218	
2.	CLWYD	...	...	...	...	...	7	
3.	GLASLYN	...	...	...	...	...	92	
4.	MAWDDACH & C.	...	...	...	...	...	262	
5.	DOVEY	...	...	...	...	...	82	
6.	SEVERN—Left Bank Tribs.	...	...	...	...	...	—	
							—	661
CARNARVON.								
1.	BARDSEY ISLAND	...	...	...	...	...	—	
2.	CONWAY & C.	...	...	...	...	...	146	
3.	MENAI STRAITS & C.	...	...	...	...	...	221	
4.	ERCH & C.	...	...	...	...	...	155	
5.	GLASLYN	...	...	...	...	...	50	
							—	572
ANGLESEY.								275

Total area of England and Wales, 58,308 sq. miles.

## THE RAIN GAUGE IN THEORY AND PRACTICE.

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IN response to a request from a friend who has done a great deal to enlist the co-operation of new Observers in different parts of the country, and has found the need of a simple account of the theory of the rain gauge as illustrated in the standard pattern, we have drawn up the following statement which will, we hope, meet, or rather prevent, the difficulties which usually present themselves to beginners.

The first and most frequent difficulty is the belief that a rain gauge must be difficult to understand, and that high accuracy is only possible by the use of elaborate and incomprehensible forms of apparatus or abstruse calculations. This is altogether a mistake and indeed it is the reverse of the truth, though we have now and again had pathetic examples of how a clever man can make the simple difficult. Our object is to show that simple methods are the best and the most accurate.

**The ideal rain gauge, and why it is unrealizable.**—The object of measuring rain is to find how much falls on the ground at any particular place. Having selected the surface on which the fall of rain is to be measured, we may decide to weigh in ounces, pounds or tons, the amount of water that falls on that surface in a particular time; or to measure in fluid ounces, or pints, or gallons, or cubic yards, the volume of water that is collected, and the early Observers used the most varied units. The best way of measuring rain is now universally allowed to be to find the depth to which all the rain-water that falls in 24 hours would stand on a perfectly level surface if none ran off, soaked in or evaporated away.

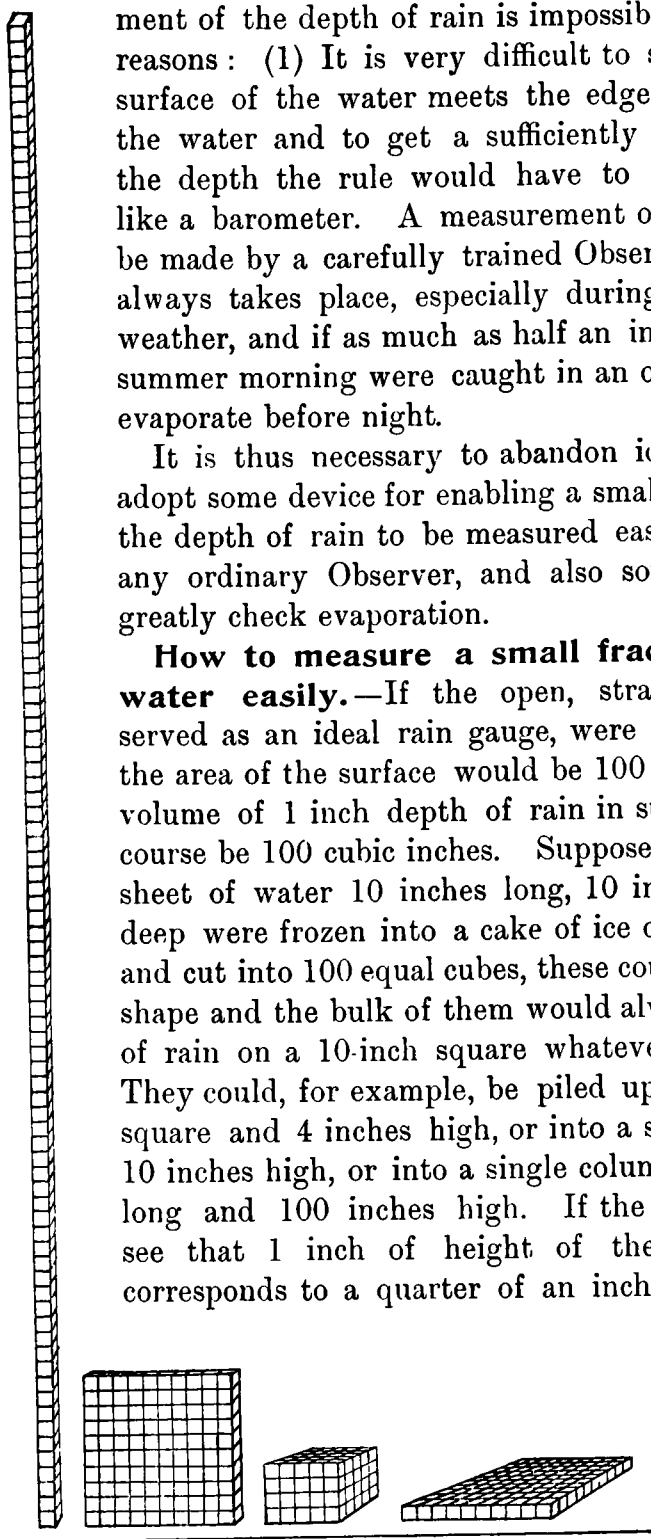
The ideal rain gauge would be a perfectly flat-floored vessel with perpendicular sides, set level, with its upper edge at the level of the ground, in which the depth of water could be measured by an accurately graduated rule which could be read to a small fraction of an inch. The size or shape of the vessel would be of no importance, but its depth would need to be sufficient to prevent out-splashing, and, provided that there was no evaporation, the readings would be

perfectly accurate. This ideally simple and direct measurement of the depth of rain is impossible in practice for two reasons: (1) It is very difficult to see exactly where the surface of the water meets the edge of a rule dipped into the water and to get a sufficiently close measurement of the depth the rule would have to be read by a vernier like a barometer. A measurement of this kind could only be made by a carefully trained Observer. (2) Evaporation always takes place, especially during sunshine and windy weather, and if as much as half an inch of rain falling on a summer morning were caught in an open vessel it might all evaporate before night.

It is thus necessary to abandon ideal simplicity and to adopt some device for enabling a small fraction of an inch of the depth of rain to be measured easily and accurately by any ordinary Observer, and also some device to stop or greatly check evaporation.

**How to measure a small fraction of an inch of water easily.**—If the open, straight-sided pan, which served as an ideal rain gauge, were made 10 inches square the area of the surface would be 100 square inches, and the volume of 1 inch depth of rain in such a gauge would of course be 100 cubic inches. Suppose for a moment that the sheet of water 10 inches long, 10 inches wide and 1 inch deep were frozen into a cake of ice of the same dimensions and cut into 100 equal cubes, these could be built up into any shape and the bulk of them would always be equal to 1 inch of rain on a 10-inch square whatever the shape might be. They could, for example, be piled up into a block 5 inches square and 4 inches high, or into a slab 10 inches long and 10 inches high, or into a single column 1 inch wide, 1 inch long and 100 inches high. If the height is measured we see that 1 inch of height of the 5-inch square block corresponds to a quarter of an inch of depth of rain, and

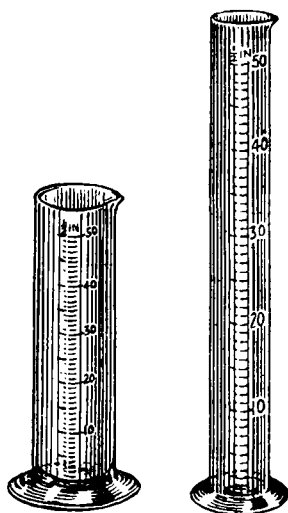
1 inch of height of the 1-inch square column corresponds to one-hundredth of an inch of depth of rain over the 10-inch square.



So quite a rough measurement of the height of the column would give the rainfall easily to the hundredth of an inch. Exactly the same thing would hold good if instead of freezing the sheet of water into ice it were poured into a glass vessel or tube the cross-section of which was exactly 1 square inch. Every inch of height on such a tube would represent one-hundredth of an inch of depth on a 10-inch square, or, since it might be on *any* 10-inch square, it corresponds to one-hundredth of an inch on the ground near the gauge.

Hence we see that a small fraction of an inch of depth of rain can be measured very easily by pouring the water caught by a wide receiver into a narrow tube. If the attempt were made to construct a glass tube, either square or round, with its opening exactly the area of a square inch it would be found difficult to carry out, and if accomplished it would be extremely costly. For a rain-measuring glass to be made for a few shillings an easier method of manufacture must be found.

Supposing the inch of rain collected in a square dish ten inches in the side, forming a volume of water of 100 cubic inches, were weighed at a temperature of 60° F. it would be found to weigh about  $3\frac{1}{2}$  pounds, or exactly 25,246 grains. Thus 25,246 grains is equal to 1 inch of rain over a 10 inch square, and 252·46 grains of water, which is one hundredth of that quantity, is equal to one hundredth of an inch of rain over a 10 inch square. Hence instead of making at great expense a tube with a cross section exactly one-hundredth of the area of the receiving surface, all we have to do is to take a glass tube or jar of any convenient diameter and pour into it 252·46 (or  $252\frac{1}{2}$ , which would be quite near enough) grains of water weighed out on an exact balance, and make a mark at the level where it stands, then to weigh out a second portion of  $252\frac{1}{2}$  grains and pour it in and make another mark, and so on as often as we please. The marks counting from below upwards could be labelled one-hundredth, two-hundredths, three-hundredths of an inch, and so on (or in figures ·01, ·02, ·03 in., &c.), and thus a glass to read hundredths of an inch can be graduated for a 10 inch square receiver. If the jar selected was wide the marks would be pretty close together, if it



was narrow they would be farther apart, but as long as the proper weight of water is used as the unit the measurement is all right, and we need only take the trouble of selecting a jar just wide enough to make the marks conveniently spaced for easy reading.

There is no magic in a ten inch square, any other size and any other shape of surface would give equally good results so long as we can measure its area and express it in square inches. Thus if we take a square 5 inches in the side, the area is 25 square inches, and the volume of an inch depth of rain would weigh  $6311\frac{1}{2}$  grains, so that 63 grains would correspond to a hundredth of an inch of rain caught in such a gauge.

Square rain gauges are sometimes used, but it is difficult to make them exactly square and exactly the right length in the side, for the four sides must each be measured very accurately, and if the square is made too small it is a difficult and expensive matter to file down each of the four sides to exactly the same extent. It can be done, but if it is done it makes the instrument very costly. The only shape for a vessel which must have an opening of an exact area and yet be made very easily and cheaply, is that of a circle. It is easy to cast a brass ring a little less than say 5 inches in diameter inside, and this ring can be put in a turning lathe and turned out to the exact diameter required, with great ease. A true circle is the only outline which can be made with the necessity for no more than one exact measurement. With a perfect boundary, like a turned circle of brass, it does not matter whether or no there is a little error in the diameter of the metal cylinder to which the ring is attached. The area of a circle can be calculated exactly from its diameter, the square of the diameter in inches multiplied by  $\cdot 7854$  giving the area of the circle in square inches. For a circle 5 inches in diameter, the square of the diameter is 25, and this multiplied by  $\cdot 7854$  is  $19\cdot 635$ . Thus if an inch of rain falls through a ring 5 inches in diameter, the volume of water collected is  $19\cdot 635$  cubic inches, and the weight of the water 4,977 grains. One hundredth of this or  $49\cdot 77$  grains is the weight of one hundredth of an inch of water on a five inch circle, and by pouring this quantity into a narrow glass jar, making a mark, and by pouring in repeated quantities, the jar may be graduated as far as may be desired. It must be remembered that no special care need be taken to make the cross-section of the measuring jar a definite fraction of the area of the surface of the receiver; if the jar is rather wide the

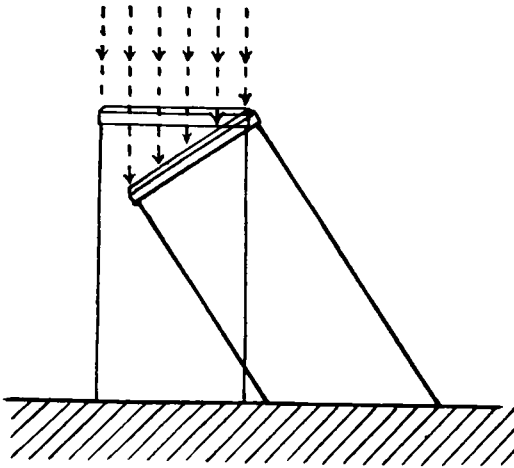
graduation marks come rather close, if the jar is narrower they are more widely separated. If a jar is narrow enough it can be subdivided to any extent, so that it could be read to the thousandth or for that matter to the ten thousandth of an inch; but then other considerations come in which deprive this excessive sensitiveness of any value.

As there is no magic in a 10-inch square, so there is none in a 5-inch circle, and circular rain gauges have been made in many sizes from 1 inch in diameter to 24 inches or more. Experiment has shown that, with a suitably graduated glass, a rain gauge of any diameter can give accurate results; but a very small quantity of water goes to a hundredth of an inch of rain over a 3-inch circle (only 17·85 grains), and the loss of a few drops makes a rather serious error. On the other hand with a rain gauge of 8 inches diameter, in which one-hundredth of an inch of rain amounts to 127·4 grains, the quantity of water collected after a heavy fall of rain is sometimes inconveniently large. The tendency during the last fifty years has been towards the use of 5-inch circular rain gauges, the only other size at all frequently used being 8 inches in diameter.

To recapitulate, the water caught in a wide-mouthed vessel can be measured with great accuracy by pouring it into a narrower vessel; and the area of the receiver is made circular, because that is the form which can be made most accurately of a given area with the least trouble and expense.

**How to stop or greatly check evaporation.**—The amount of evaporation in water depends on the temperature, the degree of dryness or humidity of the atmosphere, and on exposure to wind. It can be reduced to such an extent as to be imperceptible in a period of 24 hours by keeping the water cool, keeping it in contact with air already saturated with moisture, and keeping it shut up from the wind. The exposed surface of water in an ideally simple rain gauge must therefore be given up. The water, after passing through the ring, must be conducted into a container which is kept dark, and at as low a temperature as possible (avoiding freezing, of course), and closed in such a way as to restrict its communication with the outer air. All this can be done to the necessary extent without any great expense or complicated construction. It is done in various ways, and we describe one of the best in the next paragraph but one.

**Requirements of a real Rain Gauge.**—The essential parts of a rain gauge are a ring of accurately circular outline and exact diameter, and a measuring glass graduated to show the volume of one-hundredths of an inch over the area of the circle. But it is necessary to provide that the ring is fixed horizontally, for if fixed



obliquely to any degree, the area of the opening as exposed to rain falling perpendicularly would be smaller than that of a horizontal circle, as shown in the diagram, and it would catch less than the proper amount. It is necessary to mount the gauge in such a way as to retain all the rain (or it may be snow or hail) that enters and not to allow any to splash out or to blow

out, nor to allow any rain which falls outside the circle to flow in or blow in ; and to construct it in such a way that it will not readily fall into a state of disrepair so as to allow rain to enter otherwise than through the circular opening. It is equally necessary to fix and expose the gauge so that its position or surroundings do not set up wind-currents or eddies which might prevent the rain-drops from entering. It is necessary finally that the rain which passes through the circular opening should be retained in a container, which checks or, if possible, stops evaporation, resists freezing with the risk of damage to the substance of the gauge, and prevents any possible loss by leakage.

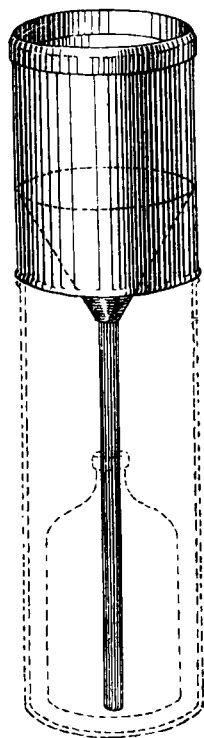
Simple as a rain gauge appears to be, it is a very artfully constructed piece of apparatus, for every one of the considerations referred to above has been given effect to in its construction, and its simplicity is the result of the correction of many complexities which ignorant or inexperienced designers had introduced with much ingenuity. We do not propose to describe the rain gauges of the construction of which we do not wholly approve ; but taking the Snowdon Rain Gauge as the best and most convenient pattern, we desire to point out the reason for each of its parts, and of the instructions for placing and using it.



**The Snowdon Rain Gauge.**—The first part is *the ring*, which is turned out of a heavy brass casting, the inner diameter exactly 5.00 inches in diameter, the outer edge bevelled steeply so that the rim is a knife-edge on which a rain-drop cannot rest, but must pass either inside or outside or be broken and part go in and part stay out. A rain gauge with a broad rim or gently sloping flange allows rain drops to rest upon it, and those on the windward side get blown in, thereby unfairly increasing the amount collected.



The second part consists of the *vertical cylinder and funnel* to which the ring is soldered or brazed. This should be of copper, though zinc or galvanized iron may be permitted, but iron or tin-plate are not permissible metals. The vertical cylinder fits over the outer can firmly, though not necessarily air-tight, and within it at a distance of 4 inches from the top of the ring the funnel is securely soldered. The function of the vertical cylinder above the funnel is to prevent the outsplashing of rain-drops or hail-stones and to retain snow. The obsolete pattern of rain gauge in which the funnel is soldered directly to the ring, or the detestable travesties of rain gauge sometimes proudly made by amateur tinnermen, in which the funnel has no ring at all, cannot possibly catch the full amount of snow or of heavy rain. The pipe attached to the funnel, which should be not less than one-third of an inch in bore, must be long enough to reach nearly to the bottom of the inner can, so as to be under the surface of the water in the container after rain has fallen, and so act as a seal against any circulation of air inside the gauge.



The third part is the *outer can*, B in figure, strongly constructed of copper, with a shoulder on which the bottom of the vertical cylinder rests, so that the upper edge of the outer can does not bear against the soldering of the funnel to the vertical cylinder. The outer can should be soldered as well as lapped down the seam, and it is intended to be buried in the ground to the depth of about 6 inches, in order to secure a rigid fixture in an upright position and to protect the container against changes of temperature. We consider that

this part of the rain gauge might advantageously be made of bamboo or waterproofed wood-pulp or other non-conductor of heat, but so far we have not been able to persuade an instrument maker to carry out our ideas.

The fourth part of the rain gauge is the *inner can*, A, a light metal water-tight cylinder placed in the outer can, resting on the bottom in the ordinary form, but very ingeniously supported by a narrow flange at the upper edge in Casella's insulated rain gauge, thereby insulating the sides and bottom from the outer can by a non-conducting layer of air.

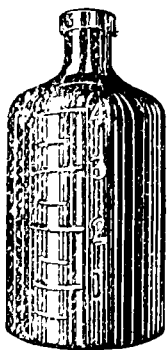
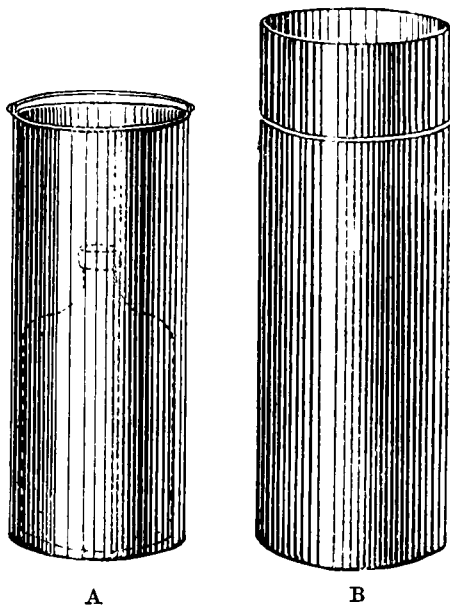
The fifth, and final part is the *container*, a narrow-necked glass

bottle placed in the inner can, and into which the pipe of the funnel passes to within a quarter of an inch of the bottom. It is roughly graduated to half-inches, so as to facilitate the exact measurement

by making it impossible to mistake the number of inches in heavy falls. It is much easier to pour water from a bottle than from the inner can direct, and, therefore, the measurement can be made with less risk of error. The glass is a non-conductor and resists frost. It also prevents the accumulated water growing hot in summer, and when evaporation takes place the vapour almost all condenses on the upper part of the bottle and trickles back, so that the loss is very much less than in an open metal can ; but the glass bottle may be broken

by frost or overflow in an unprecedented deluge, and in that case the inner can holds the water, so that none is lost.

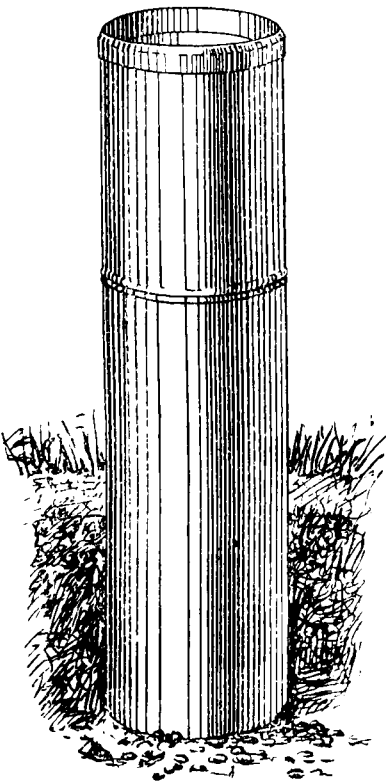
An incidental advantage of the all-metal gauge partially buried in the ground, is that the vertical cylinder cannot cool down sufficiently at night to condense on its surface an appreciably greater amount of dew than is forming at the same time on the ground. When a metal funnel supported on a glass bottle is used as a rain gauge, an



excessive amount of dew is often measured on account of the excessive cooling of the metal cut off from the warmth of the soil.

The Snowdon rain gauge, when closed and put together, is so firmly joined that rain beating against the outside cannot possibly be driven in, nor can the funnel be shaken, or the instrument overturned.

**The Placing of the Gauge,** partially buried in the ground so that the top of the ring is exactly 1 foot above the surface, is intended to make it secure against the insplashing of ordinary rain striking on the ground and rebounding upwards. Any less height

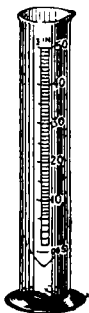


would not secure this result; any greater height would expose the rain gauge too much to the wind, the effect of which is to set up eddies which carry the smaller rain-drops away. Experiment has shown that for moderate heights and in years of average wind-force, the eddies set up by the wind striking against a rain gauge set on a post or wall cause a loss of rain caught. About 5 per cent. of the amount registered in a rain gauge set at 1 foot is lost for every foot of height above 1 foot. That is to say if a rain gauge is set on a post 6 feet high it will catch 5 per cent. less than a gauge set at 1 foot; so if the gauge at 1 foot catches 20 inches in a year, that at 6 feet will catch 19 inches, and one at 11 feet would catch only 18 inches. If an elevated rain gauge is

surrounded by a fence or enclosure, the top of which is at the same height as the mouth of the rain gauge, and 2 or 3 feet away from it, the disturbance produced by the wind is greatly reduced and fairly accurate readings are secured.

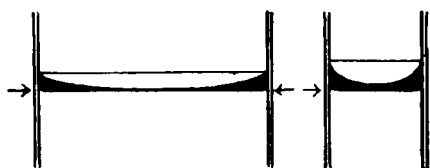
**The measuring glass** used with a Snowdon rain gauge should be not more than  $1\frac{1}{2}$  inches in diameter inside, and be graduated for half an inch of rain divided into hundredths. The space between each mark of one hundredth and the next contains a volume equal to 49.8 grains of water, and measures about one-tenth of an inch in

height. In the best form, known as the Camden pattern, the lower part of the glass is made conical inside, so that the first division of one hundredth of an inch as marked on the glass is much longer than the others, and a small mark is given showing half a hundredth of an inch or a volume of 24.88, or practically 25, grains. The reason for this is that the definition of a "rain day" universally



adopted in this country, is a period of 24 hours commencing at 9 a.m. in which .01 in. or more of rain is recorded. The rule for reading the rain glass is to take it to the hundredth of an inch nearest to the surface of the water, that is to say if the water surface was not quite half way between the marks of .01 and .02 it would be entered as .01; if it were ever so little more than half way between the two, it would be entered as .02. Similarly if the amount was ever so little greater than .005 the reading would be entered as .01; if ever so little less than .005 it would not be entered at all, and the day would not be counted as a rain day. In the old fashioned flat bottomed measuring glass it was so difficult to judge of the half hundredth, that great diversities in the number of rain days occurred, and the .005 mark on the Camden glass ensures uniformity of practice without difficulty.

In reading the level of water in a glass vessel, the only accurate method is to read by the lower side of the surface of the liquid. Seen from below this surface has the appearance of a mirror, but as the eye is raised to the exact level the bright surface changes to a definite line and it is the point where this line cuts the scale that should be taken for the reading. Raising the eye until it looks

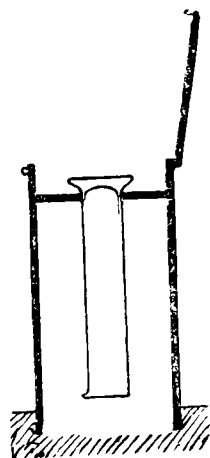


along the upper side of the surface of the liquid one sees that the level surface of the middle part does not continue up to the glass, but that the water level is raised along the

sides, so that two lines may be distinguished, one at the level of the central part of the surface, the other at the level to which the water rises on the glass. The instruction to read midway between the two surfaces is not scientifically right, though it has generally been recommended as practically useful. The height of the portion raised against the side by capillarity is greater as the tube is narrower, but it is not sufficient to give rise to serious errors in vessels of between one and two inches in diameter.

The objection is often made that by throwing away the water when the amount is less than  $\cdot 005$  in. the total rainfall for the year is understated. This is really not the case, for in a year it will usually be found that the reading of quantities less than  $\cdot 01$  in. was as often above as below  $\cdot 005$ , so that the excesses credited in entering, *e.g.*,  $\cdot 006$  as  $\cdot 01$  are balanced by the losses created by considering  $\cdot 004$  as nothing.

It is convenient to keep a measuring glass upside down so that the water of the previous measurement may not be left in it, and a useful form of depository for the glass is a box open below fixed in the ground, with a false lid 1 inch below the top in which a hole is cut admitting the cylinder and allowing it to hang from the foot. A lid with a hook can be closed over the whole to protect the glass from accidental damage.



**The precision of rainfall observations.** Many people make a practice of reading the amount of rainfall to the thousandth of an inch, and recording it to three places of decimals. When the rain gauge is of perfect accuracy, set quite level, and the ring quite true, when the glass has been specially constructed by the direct calibration of every hundredth of an inch, and when the observer is specially skilled in making the readings, we do not say that such a degree of closeness in reading is excessive. If it were to have any real meaning, however, allowance would have to be made for the different area of the rain-gauge ring at different temperatures, and for the expansion or contraction of the water collected if the temperature at the time of measuring were different from that at which the rain fell, and as we have never heard of such corrections being applied we do not think that we make any mistake in fixing the hundredth of an inch as the greatest degree of accuracy it is necessary or desirable to aim at in measuring rainfall. It is a degree of accuracy to which all can attain without difficulty, and it obviates the correction for temperature, which, if necessary, would be most difficult to apply.

**Some volume relationships.**—Simple arithmetic based on the fact that  $\cdot 01$  in. of water over a 5-inch circle weighs 49·77 grains and that a cubic inch of water weighs 252·458 grains, tells us that an

inch of rain over an acre of land weighs 101 tons, and measures 22,624 gallons, or 3,630 cubic feet. It is easily remembered that one-hundredth of an inch of rain is equal, approximately, to one ton per acre. The convenient unit of 1 inch of rain on 1 square mile, which we may term a "square-mile inch," is equal to 64,640 tons, or 14,479,360 gallons ; and it is sometimes useful to remember that 1 inch of rain on a square mile in a year is an amount of water very nearly equal to 40,000 gallons per day. Taking the average rainfall of the county of London at 25 inches we thus see that there falls upon its surface 3,000 square mile inches, or 194,000,000 tons, of water every year, equal to an average amount of 120,000,000 gallons per day.

METEOROLOGICAL OBSERVATIONS AT CAMDEN SQUARE, LONDON, IN 1910.

SHADE TEMPERATURE.

1910.	MEAN DAILY.				MAXIMUM DAILY.					MINIMUM DAILY.				
	1910.	Diff. from Average.	Mean.	Diff. from Average.	Highest Reading.	Date.	Lowest Reading.	Date.	Mean.	Diff. from Aver.	Highest Reading.	Date.	Lowest Reading.	Date.
January .....	39.8	+1.3	45.1	+1.8	55.7	2	33.8	26	34.6	+0.8	47.8	3	19.6	27
February .....	42.2	+2.5	48.3	+2.8	56.0	17	41.0	2	36.3	+1.6	49.8	7	27.5	5
March .....	43.2	+1.1	51.5	+1.5	58.2	30	41.6	18	35.4	0.0	47.5	9	27.3	20
April .....	47.6	-0.5	56.1	-1.8	65.7	21	49.1	7	39.8	+0.1	51.8	21	25.9	3
May .....	54.9	+0.9	65.0	+0.4	80.0	22	53.1	4	46.3	+1.7	57.2	21	29.8	10
June .....	61.8	+1.7	72.3	+1.5	84.3	20	63.5	26	53.2	+2.5	60.5	13	45.5	27
July .....	59.9	-3.6	68.5	-5.8	79.2	28	59.2	9	53.1	-1.1	58.1	21	47.3	19
August .....	61.8	-0.5	70.9	-1.8	77.7	12	66.0	27	54.2	+0.8	60.7	15	48.9	7
September .....	57.1	-0.6	66.2	-1.2	76.3	28	60.2	20	49.6	+0.9	54.1	16	40.0	21
October .....	53.8	+3.7	60.6	+2.9	72.8	2	52.2	23	48.3	+4.6	55.7	2	41.6	21
November .....	38.6	-4.9	45.4	-3.7	53.3	1	36.9	17	32.3	-5.9	45.9	1	24.0	17
December .....	44.5	+4.8	48.7	+4.4	54.6	16	37.8	27	40.0	+5.0	48.0	14	26.8	28
YEAR .....	50.4	+0.4	58.2	+0.1	84.3	June 20	33.8	Jan. 26	43.6	+0.9	60.7	Aug. 15	19.6	Jan. 27

These Tables of meteorological observations are compiled from the readings taken at 9 a.m. and 9 p.m. The average, when quoted, is in every case for the 50 years 1860-1909. The rainfall is from the 8-inch rain gauge of the Meteorological Office pattern; the radiation temperature from a black-bulb maximum thermometer in vacuo at a height of 4 feet above the ground, and from a link-bulb minimum thermometer laid on short

METEOROLOGICAL OBSERVATIONS AT CAMDEN SQUARE, LONDON, IN 1910.

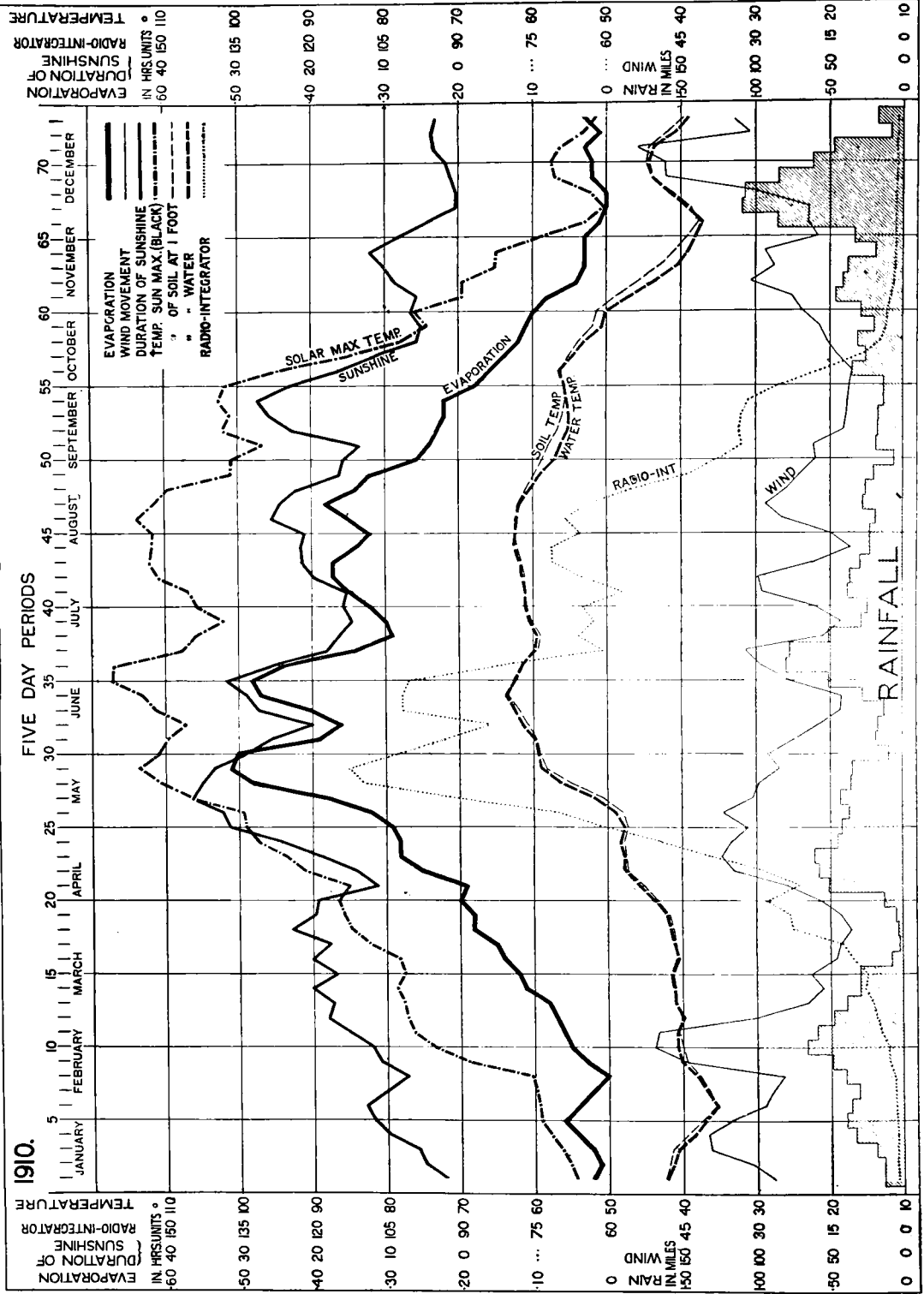
1910.	RAINFALL.						Evapor- ation.	RADIATION TEMPERATURE.			Radio- Integra- tor.	SUNSHINE.		EARTH TEMPERATURE.		
	Total duration. hrs.	Max. dura- tion in oneday.	Total amount. in.	Diff. from Average. in.	Max. amount in one day. in.	No. of Rain Days.		Mean max. in Sun. Black bulb.	Mean min. on Grass.	Total. duration. hrs.		Max. in one day.	Mean at 1 foot.	Mean at 4 feet.	Mean at 10 feet.	
January .....	33·8	7·0	1·57	—·43	·37	14	57·1	28·0	7·6	Units.	49·5	5·7	39·5	43·3	48·7	
February .....	58·6	8·2	2·96	+1·36	·39	21	68·2	28·3	16·4	16·4	59·2	6·0	39·2	41·2	47·3	
March .....	23·3	8·4	·97	—·78	·40	9	80·3	28·8	63·8	63·8	120·4	8·9	40·9	42·2	46·3	
April .....	27·9	6·8	2·24	+·62	1·19	18	90·0	33·1	203·6	203·6	114·8	10·0	45·4	44·0	46·0	
May .....	39·5	6·8	2·22	+·37	·52	19	105·9	39·8	552·9	552·9	196·1	11·3	53·3	48·5	46·6	
June .....	28·0	5·4	2·17	—·15	·63	13	112·6	47·9	561·1	561·1	159·4	12·4	61·7	55·1	48·6	
July .....	40·5	9·4	2·53	+·17	·55	17	106·6	49·4	388·7	388·7	101·5	7·4	60·2	56·9	50·8	
August .....	31·7	4·6	1·64	—·71	·34	21	111·3	49·7	394·1	394·1	139·6	10·3	61·8	58·2	52·2	
September ..	6·7	4·0	·58	—1·61	·48	5	99·9	44·7	206·2	206·2	124·8	9·7	57·0	57·3	53·2	
October .....	37·9	9·5	2·00	—·63	·36	13	82·1	43·8	46·8	46·8	56·7	7·1	53·5	55·0	53·1	
November ..	81·9	15·9	3·19	+·85	·76	16	60·3	27·3	8·8	8·8	46·5	6·2	40·6	49·4	52·6	
December ...	81·4	12·9	3·29	+1·16	·52	20	54·8	35·7	7·6	7·6	13·1	3·5	42·8	45·5	50·7	
YEAR.....	491·2	15·9	25·36	+	1·19	186	86·6	38·0	2457·6	2457·6	1181·6	12·4	49·7	49·7	49·7	

grass and freely exposed to the sky. The radio-integrator was described in *British Rainfall*, 1907, p. 44. Earth temperature is taken by spirit thermometers suspended in iron tubes of 1 inch internal diameter driven into the soil. They are read once daily at 9 a.m. The shade temperature is from thermometers on a Glaisher stand, the mean daily temperature being the mean of the maximum, minimum, 9 a.m. and 9 p.m. readings.





EVAPORATION FROM A WATER SURFACE, AND OTHER METEOROLOGICAL PHENOMENA.



## RECORDS OF EVAPORATION AND PERCOLATION.

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WE consider that the evaporation of water from the land is an essential part of at least one of the problems which the study of rainfall is intended to solve, for, especially in times of drought, the drying of the ground and the stoppage of percolation is easily seen to be as powerful a factor in determining the underground water supply as rainfall itself. It is with regret that we see the general indifference which prevails on this subject among rainfall Observers, and this year we only received the records of evaporation from eleven stations instead of thirteen.

The evaporation record at Camden Square is treated in the usual detail in the accompanying plate, the curves of which show the Bloxamised five-day means of the various elements included. The prominent feature is the absence of any proper summer maximum, the month of July, which has normally the greatest evaporation, having had less than either June or August, both of which were themselves markedly deficient. July, 1888, was the only month of this name that had a less evaporation, and that was the coldest July on record. The evaporation for the year would have been practically equal to the average but for July, just as it would have been in 1909 but for June, the variations in the other months of both those years of dull and chilly summers practically balancing one another.

The evaporation curve ran up rapidly to the 29th pentad—the last week but one of May—when in response to the extraordinarily prolonged sunshine of that month, it reached its maximum for the year. A sharp drop of evaporation and sunshine followed, but there was a rise to a somewhat lower maximum in the 35th pentad—the last week but one of June—then there was a marked falling off, with slight ups and downs, to the 49th pentad—the last week of August—after which the falling off was steady to the winter minimum.

The evaporation curve runs as usual in very fair agreement with the other curves shown on the diagram, and the exceptions to this agreement are less noticeable than in previous years.

It may be remarked that in 1905 the normal summer maximum, fairly well shown in 1906, was cloven by a sudden drop in June; in 1908 a similar abrupt dip occurred in July; and in 1909 there was a dip in May, which continued throughout June and most of July. In 1907 the whole summer showed irregular variations in evaporation,

and now, in 1910, the only typically summer-like portion of the curve occurs before midsummer.

Of the eleven stations recording evaporation from a free water surface, Downholland as usual comes first with 19·59 in., which was 2·06 in. less than its average; it was closely followed by Kennick with 18·13 in., and Isfield Place is not far behind with 17·99 in. The smallest as usual is Stanley Grange, Wakefield, with 13·27 in., but this is ·13 in. above its average, and the excellent record at Edinburgh gives 13·89 in.; it has not as yet an average to compare with. The mean of the eleven stations is 16·37 in.

We have only three sets of percolation records to compare, and in each the amount of water which passed through the soil was exceptionally large, 15·78 in. and 13·63 in. for the two gauges at Croydon, 17·56 in., 17·71 in., and 17·36 in. for the three gauges at Rothamsted, and 24·44 in. for the gauge at Grayshott; the proportion of the total rainfall passing through was, approximately, 50 per cent. for Croydon, 57 for Rothamsted, and 62 for Grayshott.

*Evaporation at Camden Square, 1885-1910.*

	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
1885.	·20	·38	·86	1·71	1·98	2·77	3·29	2·25	1·13	·77	·17	·11	15·62
1886.	·23	·13	·53	1·59	1·78	2·93	3·12	1·86	1·46	·63	·27	·12	14·65
1887.	c·07	·29	·76	1·72	1·79	3·68	3·76	2·54	1·25	·78	·21	·07	16·78
1888.	·07	·37	·48	1·16	2·71	2·24	1·44	1·90	1·17	·60	·43	·03	12·60
1889.	·03	·18	·62	1·07	1·76	2·97	2·34	1·96	1·52	·42	·29	c·13	13·03
1890.	·08	·19	·50	1·44	2·63	2·14	2·33	2·02	1·27	·79	·31	·04	13·74
1891.	·03	·16	·73	1·35	1·66	2·83	2·34	1·67	1·00	·62	·20	·22	12·81
1892.	·05	·09	·60	1·88	2·65	3·05	2·84	2·20	1·01	·36	·02	·20	14·95
1893.	c·03	·01	·92	2·33	3·06	3·62	3·12	2·85	1·48	·70	·11	·01	18·18
1894.	c·04	·28	·83	1·17	2·10	2·48	2·49	1·91	·97	·37	·20	·11	12·87
1895.	·14	·64	·36	1·26	3·06	3·31	3·07	2·12	1·27	·54	·19	·07	16·03
1896.	·16	·24	·64	1·57	3·06	3·21	3·63	1·96	·68	·47	·18	·00	15·80
1897.	·23	·21	·76	1·23	2·99	2·48	3·60	2·49	·99	·63	·26	c·14	15·73
1898.	·19	·37	·51	1·28	1·56	2·10	2·96	2·53	1·73	·45	·11	·16	13·95
1899.	·04	·28	·52	1·24	2·34	3·67	4·03	3·78	2·01	·45	·41	·11	18·88
1900.	·03	·16	·80	1·46	2·35	2·85	4·25	2·61	1·61	·89	·24	·15	17·40
1901.	·13	·24	·60	1·98	3·25	3·85	3·37	3·19	1·42	·64	·31	c·05	18·93
1902.	·16	·15	·71	1·75	1·78	2·33	3·30	1·71	1·47	·69	·28	·27	14·60
1903.	·26	·39	·97	1·57	2·24	2·79	3·35	2·53	1·51	·86	·29	·12	16·88
1904.	c·09	·26	·54	1·68	1·81	3·32	4·06	2·86	1·20	·50	·26	·02	16·42
1905.	·17	·35	·65	1·14	3·19	2·49	3·65	2·23	1·24	·78	·09	·16	16·14
1906.	·06	·21	·73	1·90	1·90	3·53	3·65	3·46	2·38	·78	·27	·16	19·03
1907.	·21	·38	1·02	1·27	1·93	2·47	2·65	2·24	1·72	·49	·27	·19	14·84
1908.	·05	·27	·56	1·32	2·23	3·77	2·75	2·47	1·25	·48	·29	·14	15·58
1909.	·14	·30	·30	1·85	2·93	1·70	2·60	2·23	·84	·76	·17	·16	13·98
Average	·10	·26	·66	1·52	2·35	2·91	3·12	2·38	1·34	·62	·23	·09	15·58
1910.	·22	·17	·80	1·43	2·52	2·57	2·00	2·12	1·42	·76	·19	·10	14·30
Diff.	+·12	-·09	+·14	-·09	+·17	-·34	-1·12	-·26	+·08	+·14	-·04	+·01	-1·28

NOTE.—c indicates condensation.

*Table of Rainfall and Percolation at Park Hill House, Stanhope Road, Croydon. Mr. Baldwin Latham, M.Inst.C.E.*

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

1910	Rainfall. Level of Gauge 265·00 ft. above O.D.	Percolation Gauge. <i>Chalk.</i> Level of Gauge 264·00 ft. above O.D.	Percolation Gauge. <i>Gravel.</i> Level of Gauge 264·00 ft. above O.D.
	in.	in.	in.
January .....	2·390	2·215	2·141
February .....	3·975	3·499	3·440
March .....	1·370	1·439	1·301
April .....	2·030	·139	·020
May .....	2·145	·475	·017
June .....	2·195	—	—
July .....	2·530	—	—
August .....	2·820	—	·030
September .....	1·090	—	·003
October .....	3·210	·392	·015
November .....	3·385	3·044	2·156
December .....	4·370	4·574	4·510
Total .....	31·510	15·777	13·633

*Observations made at Park Hill House, Stanhope Road, Croydon.  
Mr. Baldwin Latham, M.Inst.C.E.*

1910	Evaporation from 12 in. Evaporator floating in Water.	Condensation in 12 in. Evaporator floating in Water.	Average daily Temperature of Water at 9 a.m. in 12 in. Evaporator floating in Water.	Evaporation from 5 in. Evaporator fully exposed in Air.	Condensation in 5 in. Evaporator fully exposed in Air.	Average daily Temperature of Water at 9 a.m. in 5 in. Evaporator fully ex- posed in Air.	Temperature of the Dew Point at 9 a.m.
	in.	in.	°	in.	in.	°	°
Jan. ...	·360	·055	37·6	·960	—	38·2	35·9
Feb. ...	·430	·080	38·5	1·430	—	40·5	38·8
March	·900	·010	41·1	2·150	—	41·3	37·7
April .	1·610	—	47·8	2·960	—	50·9	40·9
May...	2·675	—	56·6	4·735	—	59·0	49·2
June..	2·795	—	63·7	5·325	—	67·3	54·8
July...	2·380	—	61·2	4·130	—	62·9	52·3
Aug. ..	2·310	—	63·8	4·690	—	67·4	54·7
Sept...	1·430	—	56·8	2·970	—	58·4	50·6
Oct. ...	1·045	·030	53·3	2·160	—	53·8	50·0
Nov. ...	·525	—	36·9	·880	—	35·6	33·9
Dec...	·345	·065	41·8	·850	—	42·3	41·5
Totals	16·805	·240	...	33·240	—	...	...
Means	...	...	49·9	...	...	51·5	45·0

Table of Rainfall and Percolation at Windwhistle House, Grayshott,  
Hampshire. Mrs. Lyndon.  
660 feet above Sea Level. Gauge 3 ft. x 3 ft. x 3 ft.

1910	Rainfall.	Percolation.	Calculated Evaporation.
	in.	in.	in.
January .....	3·21	2·90	·31
February .....	4·72	4·37	·35
March .....	1·57	1·88	C ·31
April .....	2·14	·71	1·43
May .....	2·15	·53	1·62
June .....	3·40	·19	3·21
July .....	2·73	·34	2·39
August .....	3·20	·16	3·04
September .....	·45	·20	·25
October .....	4·43	1·75	2·68
November .....	4·28	3·70	·58
December .....	7·18	7·71	C ·53
Total .....	39·46	24·44	15·02

NOTE.—c indicates condensation.

Table of Rainfall and Percolation at Rothamsted Experimental Station,  
Harpenden. Mr. A. D. Hall, F.R.S.  
Altitude 420 feet.

1910.	Rainfall.	Percolation through Soil.		
		20 in. deep.	40 in. deep.	60 in. deep.
	in.	in.	in.	in.
January .....	1·99	1·124	1·265	1·230
February .....	3·64	3·633	3·645	3·525
March .....	1·13	·648	·770	·734
April .....	1·49	·015	·044	·054
May .....	2·08	·158	·139	·164
June .....	2·74	·721	·713	·719
July .....	1·91	·375	·423	·397
August .....	3·25	·759	·722	·693
September .....	·80	·122	·152	·145
October .....	2·74	1·424	1·226	1·222
November .....	3·73	3·265	3·292	3·199
December .....	5·08	5·313	5·320	5·277
Total .....	30·58	17·557	17·711	17·359

# EVAPORATION IN 1910.

County Station	London, Camden Sq.	Surrey, Croydon, Park Hill Ho.	Sussex, Isfield Place	Hampshire, Otterbourne	Devon, Moretonhampstead, Kennick	Lincoln, Revesby Water Works
Latitude.....	51° 32' 20" N.	51° 22' 12" N.	50° 56' 50" N.	51° 0' 28" N.	50° 38' 30" N.	53° 9' N.
Longitude.....	0 8 10 W.	0 5 32 W.	0 33 40 E.	1 19 55 W.	3 41 20 W.	0 3 W.
Altitude.....	111 ft.	264 ft.	50 ft.	112 ft.	835 ft.	130 ft.
Observer.....	H. R. Mill, D. Sc.	Baldwin Latham, C.E.	Major H. King.	C. H. Roberts, C.E.	S. C. Chapman, C.E.	J. Shaw.
Size of tank .....	6 ft. x 6 ft.	1 ft. diameter	4 ft. x 4 ft.	6 ft. x 6 ft.	6 ft. x 6 ft.	6 ft. x 6 ft.
Capacity (galls.) .....	450	5	250	450	450	450
Height of lip above ground.....	3 inches	4 in. above water	3 inches	3 inches	3 inches	2 inches
January .....	in. .22	in. .31	in. .10	in. .11	in. .16	in. .04
February .....	.17	.35	.80	C .05	.30	.39
March .....	.80	.89	1.24	1.22	1.48	.79
April .....	1.43	1.61	1.66	1.71	1.71	1.20
May.....	2.52	2.67	2.69	3.09	3.16	2.21
June .....	2.57	2.80	3.05	3.18	3.31	2.36
July .....	2.00	2.38	2.65	2.57	2.75	2.19
August .....	2.12	2.31	2.30	2.36	2.67	2.29
September .....	1.42	1.43	1.77	1.92	1.73	1.36
October .....	.76	1.01	.88	.82	.85	1.69
November.....	.19	.53	.55	C .01	.46	.33
December.....	.10	.28	.50	C .14	C .13	.03
Year, 1910.....	14.30	16.57	17.99	16.56	18.13	14.88
Average, 1903-1910.....	15.90	16.93	...	18.06	19.37	15.52
Difference .....	-1.60	- .36	...	-1.50	-1.24	-.64
Year, 1910.....	25.36	31.51	30.82	31.03	54.44	26.63
Average, 1903-1910.....	25.60	28.03	...	28.54	41.25	25.33
Difference .....	-.24	+3.48	...	+2.49	+13.19	+1.30

Note.—C indicates condensation.

EVAPORATION.

## EVAPORATION IN 1910—(continued).

County Station	Lancashire, Downholland	Yorkshire, Wakefield, Stanley Grange	Yorkshire, Ardley Reservoir	Yorkshire, Harrogate, Harlow Moor	Middlethian, Edinburgh University.	Mean of Eleven Stations.
Latitude.....	53° 34' 38" N.	53° 45' N.	53° 43' 10" N.	54° 0' N.	240 ft.	
Longitude.....	3 1 12 W.	1 28 W.	1 33 20 W.	1 36 W.	Prof. T. Hudson Beare.	
Altitude.....	14 ft.	234 ft.	390 ft.	480 ft.	6 ft. × 6 ft.	
Observer.....	J. Baxendell.	IL Stanley Haworth.	C.C. Smith, C.E.	C. E. Rivers.	450	
Size of tank.....	6 ft. × 6 ft.	6 ft. × 6 ft.	6 ft. × 6 ft.	...	3 inches	
Capacity (galls.) .....	450	450	450	...		
Height of lip above ground }	3 inches	...	3 inches	...		
January.....	in. .43	in. .12	in. .15	in. .26	in. .25	in. .13
February.....	.75	.40	.42	.18	.24	.36
March.....	1.15	.83	1.25	1.02	.68	1.03
April.....	1.63	1.32	1.59	1.56	1.40	1.53
May.....	2.94	1.84	2.54	2.60	1.95	2.56
June.....	3.50	2.21	2.82	3.26	2.79	2.89
July.....	3.37	2.06	2.79	2.99	2.46	2.56
August.....	2.45	1.92	2.41	2.36	1.64	2.26
September.....	1.46	1.14	1.53	1.54	1.28	1.51
October.....	1.15	.93	1.07	1.22	.94	1.03
November.....	.50	.35	.30	.57	.26	.37
December.....	.26	.15	.09	.39	.00	.14
Year, 1910.....	19.59	13.27	16.96	17.95	13.89	16.37
Average, } 1903-1910 }	21.65	13.14	16.56	...	...	...
Difference .....	-2.06	+1.13	+1.40	...	...	...
Year, 1910.....	34.83	25.68	26.41	34.08	29.64	31.86
Average, } 1903-1910 }	31.71	23.28	24.90	31.48	...	...
Difference .....	+3.12	+2.40	+1.54	+2.60	...	...



## THE STAFF OF OBSERVERS.

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THE year 1910 shows as large an increase in the number of records published as has ever been reached before; the General Table contains 4,874 entries, or 193 more than appeared in the previous year. We have received 210 returns which are imperfect for 1910, and 88 returns which, although complete, were so obviously erroneous that we prefer not to publish them, thus we know that there were at least 5,172 rain gauges at work in the British Isles during 1910. Going into the changes a little more fully, we find that 490 of the returns published did not appear in 1909, but as 81 of these re-appear after a temporary absence, the real number of new records in 1910 is 409. But on the other hand, 292 of the records which appeared in 1909 have dropped out, 73 of them we hope only temporarily on account of some incompleteness or inaccuracy which may never occur again, so that the permanent loss is 219, and thus of the 193 records by which the total in 1910 exceeds the total in 1909 eighty-one are old records returning, which may be set against the 73 records temporarily kept back, and the net real gain for the year is thus 190.

These figures may be compared with those for the last few years thus:—

Year.	Total Gains.	Returned.	Real Gain.	Total Losses.	Temporary.	Real Losses.	Net Real Gain.
1906.....	400	58	<b>342</b>	237	40	<b>197</b>	<b>145</b>
1907.....	375	49	<b>326</b>	289	81	<b>208</b>	<b>118</b>
1908.....	444	62	<b>382</b>	251	64	<b>187</b>	<b>195</b>
1909.....	426	89	<b>337</b>	290	87	<b>203</b>	<b>134</b>
1910.....	490	81	<b>409</b>	292	73	<b>219</b>	<b>190</b>

It will be observed that in 1910 the losses as well as the gains were larger than in previous years, and that the net real increase in the number of stations was exceeded in 1908.

The last line of the foregoing comparison may be analysed to show how the gains and losses were distributed between the four great divisions of the United Kingdom.

1910.	Total Gain.	Returned.	Real Gain.	Total Loss.	Temporary.	Real Loss.	Net Real Gain.
England .....	360	58	302	211	46	165	137
Wales, &c. .. ...	44	8	36	29	6	23	13
Scotland .....	59	10	49	39	18	21	28
Ireland .....	27	5	22	13	3	10	12
British Isles ...	490	81	409	292	73	219	190

It is worth pointing out that the net real gain in 1910 in the great divisions bore the following ratios to the total number of records published for the same divisions in 1909, taken as 100—England, 4 ; Wales, 3 ; Scotland,  $4\frac{1}{2}$  ; Ireland, 5 ; and for the British Isles, 4. In other words, the number of records in the country is increasing at the rate of 4 per cent. per annum, and it is gratifying to note that the rate of increase is greatest in Scotland and Ireland, where new stations are most wanted.

Mere increase in numbers is a poor gauge of the improvement of the system of rainfall stations, for while every new well-kept record is of use, a new record in a district where there are few others is very much more valuable than if it is in a place already well represented. We have resolved this year to omit the detailed list of gains and losses, which formerly filled much space and was of little use outside our own office where the MS. list is equally useful. We must, however, call attention to some of the more interesting changes, reminding our readers at the same time, that if any Observer fails to find his record in the accustomed place in the County list, he must remember to look for it in the sub-division bearing the name of the river-basin in which his station is situated.

**London** has lost 5 records and gained 8, the total number quoted in 1910 being 88. This can be tersely stated in the form ( $a - 5 + 8 = 88$ ) where  $a$  means the number of stations published in 1909. We regret that the metropolitan boroughs of Bethnal Green, Southwark and Shoreditch are without any representation, a fact the more to be deplored because maps of the thunderstorm rains in the County of London command an interest far greater than those of any other part of the country. We regret the cessation of the record at Squire's Mount, Hampstead, with which the name of the Misses Field has been so long associated ; but the record from the new Observatory maintained by the Hampstead Scientific Society is a splendid substitute, and with its sea-level height of 451 feet is higher than any other rain gauge north of the Thames until the Chiltern Hills are

reached. Miss Field's rain gauge has been transferred to Kemplay Road, where it will continue we are sure to do good service.

**Surrey** ( $a - 13 + 22 = 220$ ).—Nearly half the losses were stations reported in the *Surrey Advertiser* for 1909 but not repeated for 1910, with the Observers at which we failed to get into communication; but these are more than balanced by the number of new records brought to our notice by the same newspaper, the notable services of which it is a pleasure to acknowledge. The record at Cudworth, Newdigate, in the valley of the Mole, is the most valuable insertion as tending to improve the distribution, though there is still a large blank area in the north of the Weald; Walton Manor, Walton-on-the-Hill, is particularly interesting on account of its great height, 600 feet above the sea, on the top of the North Downs, and it confirms the comparatively high rainfall of that ridge.

**Kent** ( $a - 9 + 18 = 174$ ).—The loss of the gauge at Fairtrough, Chelsfield, is to be regretted on account of its height, practically 500 feet, on the northern slope of the North Downs; and the return of the record at the Council School, Downe, about four miles distant and equally high, is very opportune. The most serious losses are in the high ground between Dover and Hythe, the wettest part of Kent, formerly well represented but now left almost un-gauged by the loss of Acrise Park and Hillcrest Farm. The record at Sturrey Road, Canterbury, disappears, for we have discovered it to be an inaccurate version of the record at the Irrigation Farm. There are several useful additions, of which those at the Junipers, Hardres, and the Willows, Wickhambreaux, may be mentioned as helping to fill out a thin place on the rainfall map.

**Sussex** ( $a - 8 + 11 = 147$ ).—The west of Sussex, especially in the north, is badly in want of new stations, adjoining as it does the very thin area in the south-west of Surrey; but instead of gains we have only losses to chronicle in this part, the most serious being those of Shottermill, near Linchmere, where a record of 45 years has come to an end with the death of the Observer, and of Oakhurst, Midhurst. The new record at Winchelsea will be very useful in filling a gap, and several other new stations help to improve the representation of the coast.

**Hampshire** ( $a - 13 + 22 = 144$ ).—The two old records at Alton, so long kept up by the late Mr. Crowley, have disappeared; the loss of Junction Road, Andover, depletes what was already the worst repre-

sented part of the county, and Col. Bibby's record at Bordean House, 525 feet above the sea, would be a serious loss but for the fact that he has commenced observations in the classic parish of Selbourne, which we hope to publish next year. The most interesting insertions are Faccombe Manor and Medstead Manor, at the great heights of 760 and 705 feet, in the north of the county, and next to these we may place two new records in the New Forest, at Friday's Cross and at Heatherdown Purlieu, for which we are indebted to Mr. Legh S. Powell. Mr. Cave has added another to his series of gauges for investigating the distribution of rainfall on the northern and southern slopes of the South Downs, near Petersfield.

**Berkshire** ( $a - 5 + 8 = 61$ ). — The chief blanks are caused by the loss of the record at Cookham Vicarage after it had appeared for 45 years, and at Long Wittenham, kept by that enthusiastic Observer the late Rev. F. C. Clutterbuck. The places of most of the stations lost are well taken by the insertions, amongst which we welcome Mill House, Woolstone, as it improves the distribution of stations in the west.

**Middlesex** ( $a - 6 + 5 = 56$ ). — The backwardness of this county is a disappointment.

**Hertfordshire** ( $a - 3 + 4 = 72$ ). — More rain gauges are much wanted in the north and especially the north-east of the county. We gladly welcome the return of Bridge House, Welwyn, a most valuable old record, which we feared had been dropped, as we have not received it since 1907.

**Buckinghamshire** ( $a - 4 + 8 = 43$ ). — The distribution of stations on the northern slope of the Chilterns is much improved by the addition of the Earl of Buckinghamshire's record at Hampden House, 690 feet above the sea, and by those at Speen and Bledlow Ridge, both above the 600-foot line.

**Oxfordshire** ( $a - 9 + 12 = 72$ ). — Most of the changes are due to the dropping out and coming in of the elementary schools which are supplied with rain gauges by the Oxford County Council. Two new records, not from schools, were found when investigating the extraordinary storm of June 9th, and had the rain gauges in use been worthy of the care with which they were used the records of heavy falls in short periods would probably have been enriched by an unprecedented intensity. Even although the records are imperfect the Oxfordshire schools have notably contributed to our knowledge of the rainfall of the county.

**Northamptonshire** ( $a - 7 + 6 = 67$ ).

**Huntingdonshire** ( $a - 2 + 1 = 12$ ).

**Bedfordshire** ( $a - 0 + 0 = 27$ ).

**Cambridgeshire** ( $a - 1 + 0 = 48$ ).

These four counties are practically unchanged.

**Essex** ( $a - 5 + 6 = 93$ ).—Last year we welcomed Canewdon Vicarage with a warmth that was not justified, for it has no record this year, and the gap remains the worse by the simultaneous loss of Foulness. The south-east is worse but the west is better, the insertion of Canes, near North Weald, and Barrington Hall, near Hatfield Broad Oak, coming in the strip of country where new records were most wanted.

**Suffolk** ( $a - 3 + 9 = 58$ ).

**Norfolk** ( $a - 4 + 5 = 73$ ).—The *East Anglian Daily Times* and the *Norfolk Chronicle* have done much to keep up an interest in rainfall observing in these counties ; and although there is still much room for new stations near the border line between the two, there has been a distinct improvement.

**Wiltshire** ( $a - 2 + 7 = 56$ ).

**Dorset** ( $a - 7 + 7 = 71$ ).—These counties have only slightly improved, but the gains have quite made up for the losses.

**Devon, South** ( $a - 5 + 19 = 142$ ).—We rejoice at the great improvement in South Devon. Three records sent by Mr. Prigg, of Plymouth, are welcomed back after three years' absence, the readings for which we are glad to have received. The representation of the south coast is improved by two new records near Sidmouth and two near Torquay ; but the most important accessions are the three gauges on Holne Moor on the eastern slopes of Dartmoor, about the level of 1,000 feet kept by the Paignton Water Works authority : of this district we formerly knew almost nothing. The records at Copleston House and Cullompton will also be very useful in throwing light on a region the distribution of rainfall in which has hitherto been puzzling.

**Devon, North** ( $a - 3 + 6 = 48$ ).—Our knowledge of the rainfall of the Taw valley is further helped by the insertion of Hartnolds, Morchard Bishop. Rhyll Manor, to which Mrs. Hancock removed the rain gauge she kept at East Anstey before her marriage, is at a height of 900 feet nearly on the watershed, and is equally useful in the study of the southern slopes of Exmoor. The new Snowdon gauge at Beechcroft, Bideford, is interesting for another reason as it is set

by the side of the old 2-inch gauge, which was originally used for experimental purposes by Col. M. F. Ward, at Calne, in 1864, when the Snowdon gauge was evolved, and has been used by Mr. Hobhouse at Bideford for many years.

**Cornwall** ( $a-5+6=65$ ).—The losses are serious, because they withdraw three out of the few records on the north-west coast; but Tintagel returns, and the Stannon Clay Works, Camelford, is a useful addition on the northern slopes of Bodmin Moor. Perran Uthnoe on the south coast falls in one of the remotest parts from other rain gauges in the county.

**Somerset** ( $a-3+19=146$ ).—The only serious losses are the two gauges at Clevedon; the important gains are numerous, showing an improvement in all parts of the county; but particularly on the Mendip Hills, where Oakhill at 710 feet, and Priddy at 800 feet, are very welcome additions.

**Gloucestershire** ( $a-3+4=102$ ).—The loss of the very old record at Further Barton, Cirencester, is much to be deplored, the more so because the readings of the rain gauge were supplemented by measurements of a well. The records were started in 1844 by the late Mr. Brown, and carried on by his daughters until the death of the last survivor in 1906. Mr. C. P. Hooker succeeded in carrying on the measurements until 1909, but the advent of a tenant who "cares for none of these things" has terminated one of the rarest achievements, a continuous scientific record of more than sixty years' duration. Prospect Hill on the Cotswolds is an interesting, but evanescent, insertion. The gauge was placed at an altitude of 854 feet, and both Mr. M. J. Salter and Major Wright took the utmost trouble to take the readings, and to protect the instrument as far as possible, but the irrepressible spirit of mischief of the English holiday maker prevailed again and again in spoiling the records, so that the figure in spite of several corrections remains rather uncertain, and the gauge has now been discontinued.

**Herefordshire** ( $a-5+6=48$ ).—We welcome Brampton Brian back once more, and we greatly value the new station of Leintwardine in the extreme north of the county; but the old record at Morney Cross is a serious loss.

**Shropshire** ( $a-2+2=44$ ).

**Staffordshire** ( $a-4+5=40$ ).—The only serious loss is that of Rodbaston, Penkridge, repeated applications for which elicited no reply, but we hope it has not come to an end. The excellent record

from the High School, Longton, is the more welcome because we are doubtful whether several of the rain gauges in the neighbourhood are so exposed as to give a fair account of the rain. Netherton vanishes, only to reappear in its proper county, Worcestershire.

**Worcestershire** ( $a-4+7=54$ ).

**Warwickshire** ( $a-0+7=36$ ).—After a period of stagnation, Warwickshire has begun to improve notably. We are glad to have Barford Rectory again. Wormleighton comes most opportunely to fill a gap, and Tamworth-in-Arden is no less welcome, for we have always deplored the inadequate representation of the Forest of Arden.

**Leicestershire** ( $a-2+6=40$ ).—When drawing an average rainfall map recently we were much embarrassed by the absence of rain records from Charnwood Forest, and it is very pleasant now to be able to print records from four new stations in that region at Markfield, Coalville and Thringstone.

**Rutland** ( $a-1+0=5$ ).

**Lincolnshire** ( $a-4+7=71$ ).—Here there is some improvement. Trusthorpe Hall, Mablethorpe is an acquisition in one of the least represented stretches of the east coast, and others help to reduce the bare patches in the Fens, where new records are still desired.

**Nottinghamshire** ( $a-1+6=67$ ).—Very satisfactory improvement. East Markham Vicarage is in a good position, and at Scrooby the new record is taken by one of Col. Mellish's retired employees, who used to take the readings at Hodsock Priory.

**Derbyshire** ( $a-2+7=111$ ).—Several of the new records are in useful positions. Perhaps the most valuable is Edlaston Rectory, near Ashbourne.

**Cheshire** ( $a-4+4=70$ ).—The losses outweigh the gains. We much regret the cessation of the old record at Hinderton, Neston, which was kept up as long as possible by Miss Bushell; and we lament even more the loss of Audlem Vicarage in the exceedingly poorly represented region in the south of the county.

**Lancashire, South** ( $a-10+14=99$ ).—A good many of the additions are second gauges; but a valuable new record is that at Beech House, Bacup, which takes the place of the Bacup gauge lost in 1909.

**Lancashire Central** ( $a-5+5=72$ ).—The most serious omission is that of the Houghton and Barnsfold reservoirs, regarding the continuance or cessation of which we could obtain no information. The insertions are usefully placed, and we specially welcome the new

record at Colne, a town which struck us when we had to wait there an hour for a train as exceptionally well kept and bright.

**Lancashire, North** ( $a-6+4=61$ ).—Two fine old records are lost in Storrs Hall, Arkholme, and Escowbeck, Caton. At St. Michael's-on-Wyre, Archdeacon Hornby has adopted a Snowdon rain gauge, and given his old instrument to the local schoolmaster, who has taken up observing enthusiastically. The Fylde Water Board's new gauge at the Calder Intake, 632 feet above sea-level, is an important addition to the gauges in the Bowland Forest region.

**Yorkshire, West Riding** ( $a-27+21=307$ ).—The number of losses is shorn of its serious aspect by the fact that the Masham Moor group of 13 gauges is transferred bodily to the North Riding by the new boundary between the Ridings shown on the Ordnance Survey maps. Amongst the worst losses are the very old record at Barnsley, and the useful recent record at Penistone Grammar School. We are not surprised to lose sight of The Royd, Todmorden, which, as explained last year, reached us in the form of an anonymous press-cutting for 1909 and we have been unable to get into communication with the Observer. The best of the insertions is a compact group of nine gauges kept by the Sheffield Water Works on Langsett Moor, ranging up to 1,500 feet. Howgill School, near Sedbergh, is a most useful accession, and we are greatly relieved to receive once more the old record from the Knowle, Keighley, which we feared had come to an end.

**Yorkshire, East Riding** ( $a-1+0=26$ ).

**Yorkshire, North Riding** ( $a-1+26=92$ ).—The stationary and even retrograde state of the East Riding is much to be regretted, no part of England is more in want of new records. Most of the accessions in the North Riding are included in the Masham Moor group, 13 of which are transferred from the West Riding and 5 new ones added. Mr. A. J. Walker has been able once more to increase the number of rain gauges in the neighbourhood of Thirsk; but no improvement is yet apparent in the north-western part of the North Riding.

**Durham** ( $a-3+2=49$ ).—A most welcome accession is Dryderdale Wolsingham, in the valley of the Wear, started by the late Mrs. J. E. Backhouse, whose death we regret to chronicle in the Obituary. We trust that the new record will not be dropped.

**Northumberland** ( $a-1+6=57$ ).—There is solid improvement here. Though we are sorry to lose Melkridge, Haltwhistle, which



was new only last year, we are greatly pleased to receive, through the Royal Meteorological Society, the record for Allenheads, 1353 feet above the sea, at the source of the South Tyne. Two new gauges near Wooler, and one in Berwick-on-Tweed, improve the distribution in the extreme north.

**Cumberland** ( $a-2+5=77$ ).

**Westmorland** ( $a-2+7=53$ ).—In the Lake District one of the most interesting of the new gauges is that at Nether Wasdale, in the Wastwater Valley, and another is the second experimental gauge set up by Mr. Wordsworth on Loughrigg Fell. The record at Brownlee, Newbigging, has stopped, but the rain gauge has been taken to Ravenstonedale, where it used to be until 1908, though it had been previously at Brownlee until 1900. We believe that the present Observer is the grandson of the first Observer who sent us records from this hard-worked rain gauge.

**Monmouth** ( $a-4+5=32$ ).—Amongst the new gauges, two at about 1200 feet in the west of the county, Shon Sheffrey's Well and Blaenavon, are in a district where records were very scanty, and they promise to prove interesting.

**Glamorgan** ( $a-3+9=60$ ).—The changes this year are of little importance. The new record at Bridgend will prove useful, as the south of Glamorgan is not very thickly planted with rain gauges.

**Carmarthen** ( $a-1+0=9$ ).

**Pembroke** ( $a-0+0=15$ ).

**Cardigan** ( $a--0+0=13$ ).—The loss of the last record at Llandovery is most unfortunate, and the absence of a single new record in the three worst counties of Wales, so far as rainfall measurements are concerned, is very disappointing.

**Brecon** ( $a-3+9=77$ ).—The losses we hope are only temporary; the gains are most useful, including a fine group of six gauges in the Taff Fawr valley, put down by the Cardiff Corporation. The new record at Elan Village fills the gap between the Birmingham Corporation gauges in the Elan valley and the more low-lying country at Rhayader. The removal of one of the old London County Council Welsh Observers to a new farm led to the loss of the remote record at Llanerch-Yrfa last year, and has now secured a record at Trallwn, a scarcely less interesting position, which connects the rainfall of the Elan valley with that of South Wales. Finally, it is good to see the name of Brecon, the county town, back in our pages; at one time

there were several rain gauges there, but one by one they disappear and for the last few years it has not been represented.

**Radnor** ( $a-0+1=20$ ).—The new station at Dwfnant in the Claerwen Valley was started by the Birmingham Corporation at our suggestion, in order to obtain some light as to the discrepancy between the readings at Esgair Garthen and Esgair Gader. We owe it to the Birmingham Water Committee that the great wild region whence they draw the water supply for their city is now more efficiently equipped with rain gauges than any piece of uninhabited land of the same area in the country, but it makes our ignorance of the surrounding districts, especially to the west and north, appear the deeper by contrast.

**Montgomery** ( $a-0+6=28$ ).—The most valuable accession is Plas Machynlleth, where splendid hospitality was shown to the King and Prince of Wales after the Investiture at Carnarvon Castle a few weeks ago. We regret that more of the wealthy owners of great estates in Wales do not take sufficient interest in the natural resources of the Principality to set up rain gauges, and that when they do, it is sometimes difficult to get them to communicate the information. We owe much this year to the enthusiasm of Mr. W. E. Whitehouse, of Welshpool, in securing the new records from Montgomeryshire.

**Flint** ( $a-0+2=14$ ).

**Denbigh** ( $a-1+3=36$ ).—Voelas Hall, Pentre Foelas, is an important accession from the point of view of position, but the south of this county is still very imperfectly supplied with Observers.

**Merioneth** ( $a-2+2=10$ ).—The narrow strip of low rainfall on the west of Wales is an elusive gleam of dryness, of the boundaries of which we can get no sure information. We hailed Barmouth Railway Station as a valuable aid last year; but this year it has stopped its rain record, and we have been able to get no reply from Dr. Lewys-Lloyd at Towyn, of whose record we had the highest opinion, so this year things are worse than ever. The return of the record from Dr. Williams's School, Dolgelly, is a relief, for the observations have been most carefully made; and the record from Morwynion Lake, near Festiniog, would have been splendid if a Bradford gauge had been employed instead of a mechanically recording one which can hardly be trusted to work well in such an exposed position.

**Carnarvon** ( $a-9+2=40$ ).—The removal of Mr. Gethin Jones from North to South Wales, has lost for us a whole series of valuable

records. We believe that they have not all been dropped, but we have been unable to reach, or at least to elicit a reply from the present Observers. The new rain gauge on Snowdon, Llyn Llydaw, No 9, is a Snowdon gauge put in substitution for the defective pattern which threw our record of maximum falls into confusion in 1908, and filled a page with errata in 1909. It still shows a rainfall of remarkable amount, and heads the extremes for the British Isles in 1910.

**Anglesey** ( $a-0+3=11$ ).—A decided improvement.

**Isle of Man** ( $a-2+0=8$ ).—The loss of the Woodville record in Douglas was of course foreseen; but we have been unable to learn whether the Bishops Court record continues or not, our letter of enquiry having probably failed to reach the Bishop of Sodor and Man.

**Isles of Scilly** ( $a-1+0=2$ ).

**Channel Islands** ( $a-3+2=13$ ).

## SCOTLAND.

**Wigtown** ( $a-1+1=10$ ).

**Kirkcudbright** ( $a-1+2=21$ ).

**Dumfries** ( $a-2+2=23$ ). — The three south-western counties present a peculiar puzzle in the apparent incongruity of the results of the rain records at stations yielding a low value and at stations yielding a high value. Usually we find that the configuration of the country supplies a sufficient explanation, but here it does not, and we fear that some rain gauges are so exposed as to catch too much and others so as to catch too little. There is little change in the number of records we are able to publish, and we hope that the number will soon begin to increase, so that we may by comparison decide which records are to be trusted and which to be suspected.

**Roxburgh** ( $a-3+0=14$ ).

**Selkirk** ( $a-0+0=8$ ).

**Peebles** ( $a-2+0=22$ ).

**Berwick** ( $a-0+0=8$ ).

**Haddington** ( $a-1+1=11$ ).

**Midlothian** ( $a-2+0=27$ ).

**Linlithgow** ( $a-4+0=8$ ).—This list can only be viewed as deplorable. In seven contiguous counties 12 rain gauges have stopped, or their records were so bad that we could not print them, and not one new record has been started. The solitary insertion shown for Haddington was a lighthouse the record of which this year seems

to be complete and satisfactory. Some of the losses are due to accident, concerning some we can get no information, neither we nor the Scottish Meteorological Society having succeeded in getting our letters replied to. At one station the record had been kept for part of the time with a wrong glass, and it will reappear correctly next year, when we hope a general change for the better will be visible in the south of Scotland.

**Lanark** ( $a-0+2=33$ ).—The two new records at East Overton House, 700 feet, and Dungavel, 800 feet, both near Strathaven are excellent and if they go on, as we hope they will, they will help to settle the rainfall lines in a part of the country where it has been very troublesome to interpret such records as existed.

**Ayr** ( $a-0+4=34$ ).—This is a distinct improvement; although we have not received particulars as to the altitude of the Ayr Sanatorium, we believe that it is situated at such a height as to give great value to the record; and without depreciating the other new records, which we are very glad to get, we must express particular satisfaction with the return from Eglinton Castle, Kilwinning, which appears to have been admirably kept.

**Renfrew** ( $a-1+0=36$ ).

**Dumbarton** ( $a-3+1=12$ ).—The two Helensburgh records which disappear are only a temporary loss, they will, we hope, come back improved, for the break is due to the substitution of standard rain gauges. We are sorry to lose the name of Arrochar House, but we cannot regret the loss of the record very much for it was always unsatisfactory. It would be a very great service to our subject if anyone would set up a good rain gauge, and keep a careful record in the beautiful surroundings of the head of Loch Long.

**Stirling** ( $a-0+1=31$ ).—The return of an old record.

**Bute** ( $a-1+1=7$ ).—It is a pity to lose one of the few records from Arran; but it still leaves one in Brodick. It is probably a myth that a local minister once prayed for “the people of the Great Cumbrae, the Little Cumbrae, and the adjacent islands of Great Britain and Ireland,” but we confess to looking upon the Great Cumbrae as a sort of central shrine of science, for it was the western head-quarters of the Scottish Marine Station, and in the old floating laboratory, “The Ark,” now superseded by a handsome building at Millport, we commenced those researches into the functions of water in ocean, lake and atmosphere which, by a natural sequence, led to

the editorship of this volume. Hence there is a warmer touch than mere scientific pleasure in welcoming the rain record at Millport.

**Argyll, Mainland** ( $a-3+7=52$ ).—Except for the cessation of the old record at Airds, in Appin, which is partly compensated by the gain of Duror, the losses are insignificant, and the gains are splendid. The gauge at Ballimore will be most useful for comparison with that at Otter Ferry Schoolhouse; the two stations on Loch Awe, and the new record at Taynult, drop into one of the great blank spaces of the Western Highlands, where new data were most wanted.

**Argyll, Insular** ( $a-1+2=21$ ). — The two insertions in the Argyllshire Isles are full of interest, for Tiree had been without a record for some time, and we had never before received any rainfall data from the holy island of Iona, where the history of Scotland began with the coming of St. Columba in the sixth century.

**Clackmannan** ( $a-1+1=5$ ).

**Kinross** ( $a-1+0=2$ ).

**Fife** ( $a-1+2=23$ ).—These give little encouragement.

**Perth** ( $a-2+12=46$ ).—This is the most notable improvement of the year in Scotland. Three old records reappear including Kippenross and Kippendavie; the historic name of Scone appropriately enters our pages in a coronation year, and the fine range of the Ochil Hills has no less than seven new gauges to define its rainfall. One of these in Glendevon is at a height of nearly 1,000 feet; and the group set up by Messrs. Leslie and Reid in connection with water-works in Glen Farg, is almost equally high. The Farg valley carries the railway from the Forth Bridge to Perth across the Ochils, and great as is the gain to our knowledge through the new gauges, it emphasizes the miserable inadequacy of the rainfall stations in Fife and Kinross to the south of the range.

**Forfar** ( $a-1+0=32$ ).

**Kincardine** ( $a-0+0=13$ ).

**Aberdeen** ( $a-4+3=30$ ).—After much hesitation we have felt obliged to exclude the old record at King's College, Aberdeen; the figure given was so low that we feared it might be misleading. We do not know whether it is a self-recording gauge, but if it is we feel that it ought to be checked by a direct-reading instrument beside it. The Duthie Park record also disappears, and the only substantial gain is Buthlaw Mains, near Peterhead, a district where a record has long been a desideratum.

**Banff** ( $a-0+0=5$ ).

**Elgin** ( $a-0+1=7$ ).

**Nairn** ( $a-1+0=5$ ).—There is no change in these three counties. Balnaferry has merely been transferred from Nairn, in which it was erroneously placed, to Elgin, where it should be.

**Inverness, West** ( $a-0+6=31$ ).—The list is encouraging ; we have Dunvegan back in Skye, and a new record at Kilmarie, Strathaird, bringing up the number in Skye to five, a great improvement, though not yet enough to do justice to that remarkably diversified island. Mr. Bibby's record at Kinlochmore, on Loch Leven, was a great find, and two new records in Arisaig fill out the coast-line, though we fear their comparatively small readings point to undue exposure to the wind.

**Inverness, East** ( $a-0+1=15$ ). — Muckerach Lodge, the one insertion, is in the immediate vicinity of Grantown, and helps to confirm the surprisingly low rainfall of the Spey valley. The small number of gauges in this part of the Highlands makes it quite possible that we are mistaken in the amount of rain which falls along the Highland line from Perth to Inverness, and we greatly wish to see a large increase in the number of records to settle so interesting a point.

**Ross and Cromarty, West** ( $a-0+2=16$ ).—The new record at Plockton supports the low rainfall of the extreme coastal strip of the west of Scotland. The second insertion is a monthly gauge at Glencarron, which shows so great a difference from the old gauge that we are in doubt as to which is correct ; the new gauge has since been discontinued, so the doubt will remain.

**Ross and Cromarty, East** ( $a-2+2=11$ ).—We are very glad to have the new record at Cromarty House, and to find it in such fair agreement with the Lighthouse.

**Sutherland** ( $a-1+3=12$ ). — Only one loss, but that one is Altnaharra, by which for years back we guided the isohyetal lines in our monthly rainfall maps across the desert blanks between Invernessshire and the northern coast. There is no record which we miss more and we have spared no effort to induce the present occupant of the Manse to follow in the steps of his predecessors, but in vain. We are pleased to have three new records from the Scottish Meteorological Society ; but their value is much diminished by our ignorance of the diameter of the gauges and their height above the ground.

**Caithness** ( $a-1+1=10$ ).

**Orkney** ( $a-0+1=11$ ).

**Shetland** ( $a-0+0=8$ ).—There is at least no falling back in the far north, though farther progress would be helpful.

## IRELAND.

**Cork** ( $a-0+7=23$ ).—This is very satisfactory, for, in addition to the return of the University College record and two new gauges in Cork City, there are four useful insertions in the south and east of the country which now only wants an equal improvement in the north and west to become a real pleasure to contemplate.

**Kerry** ( $a-1+0=8$ ).—Here there is no cause for congratulation. The Waterville record has always been far too low, and we have cut it out this year for its inclusion would be misleading.

**Waterford** ( $a-0+1=13$ ).

**Tipperary** ( $a-1+1=10$ ).—The record at Dundrum has been lost as the Rev. B. J. du Boe has crossed the Irish Sea to England where he has commenced observations on Exmoor; but we could accept the new record at Ballinamona, Cashel, as a fair equivalent if only readings were taken daily.

**Limerick** ( $a-1+1=6$ ).

**Clare**. ( $a-0+1=11$ ).—These two great counties have small reason to be proud of themselves as regards rainfall study. The loss in Limerick and the gain in Clare is simply the transfer of Sir Alick Shaw's gauge to the county to which it belongs geographically. We are glad to find in Mungret College a most satisfactory and well-kept addition to the records of the town of Limerick.

**Wexford** ( $a-1+0=8$ ).

**Kilkenny** ( $a-0+0=6$ ).

**Wicklow** ( $a-1+0=14$ ).—There is no progress in this part of Ireland, the little change in these counties being retrograde.

**Carlow** ( $a-0+1=6$ ).—Hacketstown Rectory, 600 feet above the sea, is a valuable accession for it helps to define the limits of the heavy rainfall on the western slopes of the Wicklow mountains.

**Queen's County** ( $a-0+1=5$ ).

**King's County** ( $a-0+1=5$ ).

**Kildare** ( $a-0+1=7$ ).—The increase of each of these small counties by one record is a matter for thankfulness for they were very poorly represented.

**Dublin** ( $a-0+2=27$ ).—We are particularly glad to see the People's Park, Kingstown, back again.

**Meath** ( $a-0+1=9$ ).

**Westmeath** ( $a-0+0=8$ ).

**Louth** ( $a-0+1=5$ ).

**Longford** ( $a-0+1=4$ ).—As a whole, these four central counties show a tendency towards improvement.

**Galway** ( $a-1+0=8$ ).

**Roscommon** ( $a-0+0=2$ ).

**Mayo** ( $a-2+0=7$ ).

**Sligo** ( $a-0+0=2$ ).—This group of four western counties is the most discouraging part of Ireland. So poor is it in rain gauges that we even regret the loss of the record at University College, Galway, which had become very unsatisfactory, while the two stations lost in Co. Mayo will be much missed, and the losses recorded last year were even more serious, while there is no gain at all. The two rain gauges which make up the total of Co. Sligo are both at Markree Observatory. It is much to be wished that some Irish patriot would take up the matter and try to secure new observing stations in the far west; but for one who is willing to help in this way there are two who complain that we do not discuss the rainfall of Ireland in the same detail as that of England.

**Leitrim** ( $a-0+1=4$ ).

**Cavan** ( $a-0+3=6$ ).—Here we have the rare pleasure of doubling the representation of a county, and all three of the new records are admirably kept, with first-class instruments and full daily readings.

**Fermanagh** ( $a-0+0=3$ ).

**Monaghan** ( $a-0+0=2$ ).

**Armagh** ( $a-0+0=6$ ).

**Down** ( $a-0+0=11$ ).—Here in four counties there has been neither loss nor gain, and the absence of the latter makes us grateful to the faithful Observers who have not permitted the former.

**Antrim** ( $a-2+1=16$ ).

**Londonderry** ( $a-0+1=6$ ).

**Tyrone** ( $a-1+1=4$ ).—We believe that the record at Baron's Court, Newtown Stewart, which drops out this year, is still being kept up; but it is always difficult to get it, and this year even our "continual coming" failed to secure a reply. The excellent observations at the new station, Killyman Rectory, Dungannon, go some way to compensate for the loss, which we hope is only temporary.

**Donegal** ( $a-3+0=10$ ).—Even in Ulster the far west is falling off as much as in Connaught, and it is becoming an exercise of



creative art rather than inductive science to draw the isohyetal lines of the west of Ireland on the monthly maps.

We must point out that Ireland, on the whole, has not gone back, but the distribution of rain gauges is becoming more irregular, for most of the gains are in the east and south, most of the losses in the west and north.

The usual Table showing the progress of the growth of rainfall observing in the British Isles completes this article.

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

Years.	England.	Wales.	Scotland.	Ireland.	British Isles.	Increase over previous year.
1861...	333 ...	9 ...	109 ...	20 ...	471 ...	47
1871...	1038 ...	88 ...	311 ...	67 ...	1504 ...	—5
1881...	1548 ...	131 ...	313 ...	153 ...	2145 ...	41
1891...	2091 ...	168 ...	359 ...	181 ...	2799 ...	23
1901...	2616 ...	253 ...	442 ...	195 ...	3506 ...	13
1902...	2712 ...	248 ...	472 ...	204 ...	3636 ...	130
1903...	2847 ...	265 ...	502 ...	215 ...	3829 ...	193
1904...	2932 ...	321 ...	508 ...	221 ...	3982 ...	153
1905...	3016 ...	328 ...	528 ...	224 ...	4096 ...	114
1906...	3153 ...	323 ...	556 ...	227 ...	4259 ...	163
1907...	3218 ...	324 ...	574 ...	229 ...	4345 ...	86
1908...	3326 ...	364 ...	604 ...	244 ...	4538 ...	193
1909...	3418 ...	373 ...	641 ...	249 ...	4681 ...	143
1910...	3564 ..	388 ...	660 ...	262 ...	4874 ...	193

Difference from 1909—

Increase	146 ...	15 ...	19 ...	13 ..	193
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## OBITUARY.

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So far as we have been able to ascertain the following list gives an account of the losses by death during the year from August 1st, 1910, to July 31st, 1911. Doubtless some losses have not been reported to us, and some have not been chronicled in the London papers, and in a few cases of doubt we prefer to hope that the Observer is still alive, so that although the list contains as many as 85 names, we fear that it is by no means complete. There are many amongst the number to whose memory we would like to devote a few words of appreciation; but it often happens that we know least of the lives of those of our correspondents who are most interested in the subject, and we cannot very well invite Observers to furnish in advance their own obituary notices, so that all we can say is, in many cases, very little. There is about the usual proportion of those who attained a great age, and the average age of the 59 whose ages we could ascertain is 73. Of the 59 there were 13 whose age exceeded 80, and in deference to the custom of Mr. Symons we give a special list of these, noting that four were above 90.

*Observers deceased in 1910-11, of 80 years of age or more.*

Mrs. Ellice of Invergarry	...	...	...	93 years.
Lady Caroline Duncombe	...	...	...	92 „
Rev. Canon R. S. Hutchings...	...	...	...	91 „
Mr. Thomas Gibbs	...	...	...	90 „
Miss Sedgwick	...	...	...	89 „
Lord Wrottesley	...	...	...	87 „
Rev. Prebendary Hedgeland	...	...	...	86 „
Dr. John Beddoe, F.R.S.	...	...	...	85 „
Right Hon. Sir Francis Macnaghten, Bart.	...	...	...	84 „
Rev. Alan Cheales	...	...	...	83 „
Mr. Hugh Hamilton	...	...	...	83 „
Mr. B. E. C. Chambers	...	...	...	81 „
Mr. A. McNeill	...	...	...	81 „

It is perhaps more important to draw attention to the share which our former helpers took in the work, and care has been taken to make the roll of honour complete of those who carried on observations or sent in records for 30 years or more. Those records which were taken in the same place for the whole period are designated by an asterisk, as

their value is usually the greatest, but in this list the asterisk is only wanting in one case, and in that there were 39 years at the last address, in itself a splendid record.

*Records of Thirty years and upwards.*

NAME.	LAST PLACE OF OBSERVATION.
*Rt. Hon. Earl Spencer, K.G. ...	Althorp ... 54 years.
*Mr. W. E. Pain ...	Cambridge ... 45 „
Mr. P. P. Pennant ...	St. Asaph ... 45 „
*Lord Wrottesley ...	Wolverhampton ... 44 „
*Mr. F. F. Pearson ...	Arkholme ... 44 „
*Mr. H. Hamilton ...	Pinmore ... 41 „
*Rev. Canon R. S. Hutchings ...	Alderbury ... 41 „
*Mr. J. Martineau ...	Heckfield ... 40 „
*Rev. Preb. P. Hedgeland ...	Penzance ... 38 „
*Lord Dynevor... ...	Llandilo ... 33 „
*Mr. T. W. Field ...	Marazion ... 31 „
*Rt. Hon. Sir F. E. Macnaghten ...	Dundarave... 31 „

DR. JOHN BEDDOE, F.R.S., although resting his scientific reputation on his well-known researches as an anthropologist, had in the course of his long and varied career many interests outside his special subject. He was born in Bewdley, in 1826, educated at Bridgnorth School, University College, London, and the University of Edinburgh. As a young man he served in the Civil Hospital during the Crimean war, and on his return settled down to medical practice in Clifton, where he remained from 1857 to 1891. He married a niece of Sir Robert Christison, of Edinburgh, whose researches on poisons made him famous, and left the world at large ignorant of the quite substantial work he did in the investigation of lakes and other departments of physical geography. Dr. Beddoe commenced to send observations of rainfall to *British Rainfall* in 1894, after his retirement to Bradford-on-Avon.

DR. G. A. BROWN, J.P., of The Willows, Tredegar, who died at the age of 67, had practised as a medical man in Tredegar for 42 years, devoting himself to professional and public work with an assiduity that gained him a high place in the esteem of all members of the community ; the regard in which he was held being strikingly shown by the warmth of the notices of his life in the local press. Busy as he was professionally, and in his voluntary duties as a magistrate, a churchwarden, and a freemason, Dr. Brown found time to study astronomy and meteorology, and he was also devoted to his garden, excelling in growing chrysanthemums. A keen observer of nature he acquired great proficiency in predicting the weather, and

nothing was allowed to interfere with the punctuality of his rainfall observations. He measured the rainfall on the morning of the last day of his life, November 17th, 1910, and his sudden death while visiting a patient was no unsuitable ending to a career spent in the service of others.

EARL CAWDOR, representative of the ancient Thanes of Cawdor, whose strenuous public career in Parliament, as a member of Mr. Balfour's government in which he was First Lord of the Admiralty in 1905, as a Director and Chairman of the Great Western Railway, as an Ecclesiastical Commissioner and as a member of the Council of the Royal Agricultural Society, is too well known to require more than a reference, was a supporter of the British Rainfall Organization and sent records regularly from his seats, Cawdor Castle near Nairn, Stackpole Court, Pembrokeshire and Golden Grove, Llandilo.

MR. B. E. C. CHAMBERS, of Grayswood Hill, Haslemere, was famous all over the world for the unique collection of hardy shrubs which he had collected in his splendid garden. I can never forget visiting this garden on a bleak day early in March when little colour was to be seen in most gardens, and being confronted with a profusion of blossom on hundreds of trees and shrubs so skilfully grouped that at every season of the year there were enough in bloom or in fruit to fill the garden with colour. It was a striking example of what wealth, leisure and taste could accomplish, and the rain gauge was a very humble and inconspicuous implement in such surroundings, though it may very well be that its readings, preserved in our pages, will retain their usefulness and recall the Observer's name when the garden is forgotten.

THE REV. T. W. FAIR dated his interest in natural phenomena from a voyage which he made in his youth to Australia in a sailing ship, and his interest in meteorology was encouraged by his brother-in-law, the Rev. S. Y. B. Bradshaw, who carried on observations for many years at Blackpool. Mr. Fair graduated from Jesus College, Cambridge, and after his ordination was for ten years a curate in the Isle of Wight. He was Rector of Freemantle, Southampton, from 1892 to 1902; but it was not until he returned to his native county of Cumberland in 1904 as Vicar of Eskdale that he commenced to take regular observations. He did so then because his predecessor, the Rev. W. Sykes, had been an Observer, and, as is usually the case, the interest did not slacken.

MR. J. GARRETT, gardener to the Right Hon. Arthur J. Balfour, at Whittinghame, kept the rainfall records with great assiduity up to the time of his retirement in ill-health at the end of 1909, and we much regret to hear of his death which occurred at Glasgow, in December, 1910.

REV. PHILIP HEDGELAND was born in Exeter in 1825, and graduated from Pembroke College, Oxford, in 1849; and in 1854, after having acted for some time as a curate in a Dartmoor parish, he came to Penzance where, at first as Curate at Madron, and afterwards as Vicar of St. Mary, he remained ever since. He was made a Prebendary of Exeter Cathedral in 1868, and retired from active work in 1894, continuing to reside in Penzance. He was famous as a chess player, and was president of the Cornwall County Chess Association. His interest in rainfall was of long standing, and his records never failed to appear in *British Rainfall* since 1874. He persevered with the observations though his health was failing, and, writing in January, 1910, he said, "I can hardly see, and my figures give me great difficulty. I have had some forms prepared which will give me less trouble this year, and I will try to go on." On January 4th, 1911, he wrote again, sending the record which appears in this volume, and calling attention to several instances where he was uncertain as to the figures he had put down, concluding, "I have done it as well as I can, and shall continue to do so." I well remember the friendly welcome which Prebendary Hedgeland gave me when I visited Penzance some years ago.

REV. B. C. LITTLEWOOD, in sending in his record for 1910, mentioned that failing eyesight would compel him to discontinue the observations which he had kept up for twenty-five years, greatly regretting that he had to sever his connection with the British Rainfall Organization, and wishing it all success in the future. On May 11th, 1911, he died suddenly, at the age of 57. Mr. Littlewood, who graduated from Brazenose College, Oxford, in 1877, was curate of two different parishes in Staffordshire, and afterwards a preacher in the diocese of Gloucester and Bristol, settling as Vicar of Warfield, Bracknell, Berkshire, of which parish he was patron, in 1888.

COLONEL THE RIGHT HON. SIR FRANCIS MACNAGHTEN, a member of the Privy Council of Ireland, was chief of the Clan Macnaghten, and his residence in Co. Antrim was named after Dunderave Castle, the

ancient seat of the Macnaghtens on the shore of Loch Fyne, made famous as Doom Castle in Neil Munro's story. Colonel Macnaghten, who was born in 1828, entered the Army in 1846, and served in the Crimea as Captain in the 8th Hussars. He retired as Lieutenant-Colonel in 1871, and was much occupied with public affairs in Ireland and the care of his estate in Co. Antrim.

MR. W. E. PAIN, the well-known pharmacist and scientific instrument dealer of Sidney Street, Cambridge, was very enthusiastic as a rainfall observer, and carried on the record at Sidney Street from January, 1865, until his death on Christmas Day, 1910. He interested his sons in the work, and the record will be carried on by the next generation in the same place. Mr. Pain's record is one of those which illustrates the difficulty of laying down definite rules as to what exposures are inimical to accuracy in rain gauges. As a rule a rain gauge high above the ground catches very much less than the true rainfall, but his, fixed on a chimney stack 53 feet above the street, records just as much as the other Cambridge gauges at 1 ft. There is, probably, some compensating interplay of air currents due to the surrounding buildings, which brings about so anomalous a result.

MR. P. P. PENNANT, of Nantlys, Bodfari, near St. Asaph, who died at the age of 77, was an example of a large class of rainfall observers to whom much of the success of the system of observing is due. A son of the Rev. G. Pearson he assumed the surname of Pennant on falling heir to the Bodfari estate in North Wales, and devoted himself to the multifarious employments of a country gentleman. He was a magistrate and chairman of Quarter Sessions of Flintshire, and a Deputy Lieutenant for the County, and a member of numberless Boards and Committees, to which he gave up practically the whole of his time in unpaid services to the public. A few years ago Mr. Pennant became a Fellow of the Royal Meteorological Society and he was much interested in its work as well as that of the British Rainfall Organization. It is worth mentioning that Mr. Pennant married a daughter and sister of a rainfall observer, and that his son, who continues to carry on the record at Nantlys, has done the same.

MAJOR-GENERAL W. E. WARRAND, R.E., was born in 1831, and educated at Southwell School and the Honorable East India Company's Military College at Addiscombe. From the College he obtained a

commission in the Royal Engineers in 1849, and served through the excitement of the Indian mutiny where, at the siege of Delhi, he lost an arm and acquitted himself with such distinction as to receive the thanks of the Government. Until his retirement in 1884 he filled various important appointments in connection with engineering in India, and wrote a good deal on the subject. Side by side with his professional work he carried on observations in various departments of science, especially natural history, and after he settled down at Westhorpe Hall, Nottinghamshire, he became much interested in rainfall observations. General Warrand was a man of fine physique, and in spite of the loss of his arm he continued to find his chief recreation in hunting.

MISS JULIA LUCY WOODWARD kept a most useful record of rainfall at the Knoll Clevedon, but her heart was mainly in charitable work. She will be remembered by her aid in transferring Barrington Court near Ilminster, to the National Trust for places of historic interest, and by her munificent legacies and benefactions to universities, schools, hospitals, orphanages, missions, libraries and the Society for Prevention of Cruelty to Animals. We received an intimation last December stating that she "died in June, 1910, so her subscription cannot be renewed."

*Observers deceased to July 31st, 1910.*

Small capitals designate Observers with 30 years' records.

Ashworth, Alfred	...	...	Horsley Hall, Gresford.
Anderson, William, C.E.	...	...	Rimswell, Stockton-on-Tees.
Backhouse, Mrs. J. E.	...	...	Hurworth Grange, Darlington.
Baker, C. R.	...	...	Hungerdowns, Ardsleigh.
Baker, Frederick	...	...	Manor Farm, Frindsbury.
Barnes, Mrs.	...	...	Heatherlands House, Parkstone.
Bateman, John	...	...	The Hall, Brightlingsea.
Bazley, Gardner Sebastian	...	...	Hatherop Castle, Fairfield.
*Beddoe, Dr. John, F.R.S.	...	...	The Chantry, Bradford-on-Avon.
Boyd, Colin Edward	...	...	Webbery, Bideford.
Bradshaw, Mrs. R.	...	...	The Grange, Steeple Aston.
*Brown, Dr. George Arthur	...	...	Tredegar.
Burkitt, Rev. William Esdaile	...	...	Buttermere Rectory, Hungerford.
*Cawdor, Right Hon. Earl	...	...	Stackpole Court, Pembroke.
*Chambers, Benjamin Ellis	...	...	
Coates	...	...	Grayswood Hill, Haslemere.
Cheales, Rev. Alan	...	...	Hagworthingham.

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\* See Biographical Note *ante*.

Clutterbuck, Rev. Francis			
Capper	...	...	Culham, Abingdon.
Collins, Rev. John Argyle			
Welsh	...	...	Newton St. Cyres.
Courthorpe, George John	...		Whiligh.
Drummond, Admiral Edmund			
Charles, R.N.	...	...	Eskhill, Kirriemuir.
Duncombe, Lady Caroline	...		Waresley Park, Hunts.
DYNEVOR, LORD	...	...	Dynevor Castle, Llandilo.
Elgar, James Edward	...		Crockshard, Wingham.
Ellice, Mrs. Eliza Stuart	...		Invergarry.
Fair, Rev. Thomas William	..		Eskdale Vicarage, Cumberland.
FIELD, THOMAS WILLIS	...		Marazion.
Forster, William Stewart	...		Rumwood, Maidstone.
Foster, Bernard C.	...	...	Duncote Hall, Towcester.
Freeman, Rev. Richard	...		Whitwell Vicarage, Norfolk.
Freuer, William	...	...	West Rudham.
*Garrett, Mr. J.	...	...	Whittinghame Gardens.
Gibbs, Thomas...	...	...	Bridge House, Wirksworth.
Graham-Foster-Pigott,			
Mrs. W.	...	...	Abington-Pigotts.
Grant, Edward	...	...	Lichborough Hall, Northants.
Greaves, J. A. R.	...	...	Morton Hall, Gainsborough.
Griffith, Rev. William			
Stewart	...	...	Ardnadrean, Donegal.
Hall, Rev. Humphrey Farran			The Elms, Monmouth.
Hall, William	...	...	Mardon, Hereford.
HAMILTON, HUGH	...	...	Pinmore.
Harris, W. J.	...	...	Halwill Manor, Beaworthy.
Harrison, Miss Mary Beatrice			West Hay, Wrington.
*HEDGE LAND, REV.			
PREBENDARY PHILIP	...		St. Clare, Penzance.
Holmes, Mrs. T. B.	...	...	Hornsea.
HUTCHINGS, REV. CANON			
ROBERT SPARKE...	...		Alderbury.
Jervoise, Sir Harry Clarke, Bt.			Idsworth, Hants.
Jones-Bateman, Mrs. J. B.	...		Sheldon, Birmingham.
Knapton, Rev. Henry P.	...		Spreyton, Devon.
Lakeman, Thomas	...	...	Lindthorpe, Brixham.
Lee, Rev. John Bond...	...		Barnet.
*Littlewood, Rev. Benjamin			
Campbell	...	...	Warfield Vicarage, Bracknell.
Macaulay, Rev. D.	...	...	Sandside, Reay.
Mackessack, John	...	...	Kinloss House, Kinloss.
*MACNAGHTEN, RIGHT HON.			
SIR FRANCIS EDMUND	...		Dundarave, Co. Antrim.
McNeill, Alexander	...	...	Gardenvale, Co. Antrim.

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\* See Biographical Note *ante*.



MARTINEAU, JOHN	...	...	Park Corner, Heckfield.
Nichol, W.	...	...	Hengrave, Bury St. Edmunds.
*PAIN, WALTER EDWARD	...	...	Cambridge.
Pearse, Charles Samuel	...	...	Thornham, Ivybridge.
PEARSON, F. FENWICK	...	...	Storrs Hall, Arkholme.
Peniston, Henry	...	..	De Vaux Lodge, Salisbury.
*PENNANT, PHILIP PENNANT	...	...	Nantlys, St. Asaph.
Philbrick, Judge, K.C.	...	...	Bournemouth.
Phipps, Richard	...	...	Buckenhill, Bromyard.
Pretor, Mrs. S. A.	...	...	Belfield House, Weymouth.
Price, Mrs. W. E.	...	...	Tibberton Court, Gloucester.
Priestman, Alfred	...	...	Thornton-le-Dale, Pickering.
Rymer, Thomas Harrison	...	...	Calder Abbey, Cumberland.
Sedgwick, Miss Margaret	...	...	...
Isabella	...	...	Thorns Hill, Sedbergh.
Simpson, Thomas	...	...	Fennymere, Ealing.
Smith, Edwin	...	...	Lovermead House, Torquay.
Spelman, William Waters	...	...	South Dene Lodge, Yarmouth.
SPENCER, RIGHT HON. EARL,	...	...	...
K.G.	...	...	Althorp Park.
Steel, William Strang	...	...	Philphaug, Selkirk.
Stopford, Vice-Admiral Robert	...	...	...
Wilbraham, R.N.	...	...	Shroton House, Dorset.
Thomas, J. Lewes	...	...	Cae-glas, Llandilo.
Thurgood, Mrs. H. J....	...	...	West Hill Lodge, Budleigh Salterton.
Trinder, Henry William	...	...	Northbrook House, Bishop's Waltham.
Twemlow-Cooke, Rev. Daniel	...	...	...
John	...	...	South Petherton.
Vaughan, Cedric, C.E.	...	...	Leyfield, Millom.
*Warrand, Maj.-Gen. William	...	...	...
Edmund	...	...	Westhorpe Hall, Southwell.
Washington, Rev. Adam	...	...	Boyton, Suffolk.
Watson, W.	...	...	The Gardens, Harefield Place.
*Woodward, Miss Julia Lucy..	...	...	The Knoll, Clevedon.
WROTTESELEY, LORD	...	...	Wrottesley, Wolverhampton.
Young, E. A.	...	...	Penrhyn, Bethesda.

\* See Biographical Note *ante*.

## ON THE NEED FOR NEW RAIN-OBSERVING STATIONS.

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THE long obituary list which we have to publish each year does not imply that all the records kept by late Observers have come to an end; many are fortunately kept up by surviving members of the family or as part of the routine of a well-organized garden or estate. Still, not a year goes by without the loss of some records which leave a blank that it is very difficult to fill, and although new Observers are heard of in encouraging numbers they do not always happen to live in the places where additional data are most required. Even when there are others quite near, a new record, if carefully taken, is very helpful in many ways, and if the old records drop away, as they sometimes do, the new one may continue a strictly comparable series of observations, the value of which in the future depends upon the overlapping of the new and old sets of observations.

But where rain gauges are few and widely spaced a new record has obviously a far greater value. We therefore venture to appeal to our readers for help by finding out and sending in any existing records which do not appear in our pages, or by inducing friends to set up rain gauges of an approved pattern. We have not yet had time to make a detailed study of the distribution of rain gauges in the new river-divisions, but the following list gives some guidance to the localities where new records will be most valued:—

ENGLAND.—*London*, the Boroughs of Bermondsey, Bethnal Green, Hammersmith, Paddington, Shoreditch and Southwark. *Kent*, the high ground near Dover. *Middlesex*, the south-west. *Hertfordshire*, the north and north-east. *Oxfordshire*, the eastern half. *Essex*, the west and north. *Cornwall*, the north. *Leicestershire*, the west. *Lincolnshire*, the south. *Cheshire*, the south. *Yorkshire*, any part of the East or North Riding. *Durham*, the west. *Northumberland*, the west and north.

WALES, &C.—Any part of *Carmarthen*, *Pembroke*, *Cardigan* or *Montgomery*. *The Isle of Man*.

SCOTLAND.—Any part of the country, especially in *Roxburgh*, *Selkirk*, *Berwickshire*, the *Lothians*, the east of *Ayrshire*, the *Isle of Arran*, the inland parts of *Argyll*, the *Isle of Skye*, *Perthshire* in the west or north, *Kincairdine*, *Aberdeenshire* in the north-east, *Inverness*, *Ross and Cromarty*, *Sutherland*, *Caithness*.

IRELAND.—Every part of the country, but above all in the west.

BRITISH RAINFALL, 1910.

PART II

RAINFALL AND METEOROLOGY

OF

1910.

## EXPLANATION.

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THE Observers' Remarks on the Days and on the Year as a whole are given as far as possible in the words of the Observers themselves, and the signature of the Observer is added to each Note on the Year. The designation "F.R.Met.Soc." is added to the names of those Observers whose interest in Meteorology has led to their becoming Fellows of the Royal Meteorological Society.

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

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

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

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

## OBSERVERS' REMARKS ON THE WEATHER OF 1910.

With occasional quotations from the Newspaper Press.

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### NOTES ON THE DAYS OF 1910.

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These Notes should be read in conjunction with those on Heavy Rains in 1910.

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#### JANUARY.\*

10th.—*Kilsyth, Currymire* (XV). Severe TS, with vivid L and heavy H.—*Strachur* (XV). Sleet showers, with three loud claps of T at 1.45 p.m. and vivid blue forked L at 6 p.m.—*Shannon Vale* (XX). T, L and H.—*Summerhill House* (XXI). S  $2\frac{1}{2}$  inches deep.—*Belturbet* (XXIII). S 4 inches deep.

11th.—*Ticehurst* (II). Sudden heavy R and S.W. squall at 9 p.m., lasting an hour, after which it became fine, and the wind dropped as suddenly as it rose.—*Broadstone* (V). Severe H storm at 7.30 a.m. from W., H completely covering house-tops in  $2\frac{1}{2}$  minutes. Distant sheet L in S. from 9 to 11 p.m.—*Torrance, Glenorchard* (XV). S 7 inches deep.—*Kilsyth* (XV). Heavy fall of S.

12th.—*Haslemere* (II). S storm at 4 p.m., with very large flakes.

14th.—*Edinburgh* (XIII). Severe TS about 11.30 a.m. A house in Blackford Road and another in Liberton were set on fire by L fusing the electric wires.

16th.—*Ilkley* (IX). As the result of recent heavy rain the Wharfe overflowed its banks and did some damage in the town, as well as at Otley and Tadcaster.

21st.—*Mains of Buthlaw* (XVII). Heavy S; average depth about a foot.

22nd.—*Greatham* (II). Heavy S at night.

24th.—*Marchmont House* (XIII). S 5 inches deep.

25th.—*Lambay Island* (XXI). About 2 inches of S fell.

25th—26th.—*Strachur* (XV). At 5 p.m. on 25th the temp. was 6°, and during the night of 26th it fell to —6°. Loch Fyne was

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\* See also *Met. Mag.*, February, 1910, pp. 4, 19; March, 1910, p. 29.

frozen 8 to 10 inches thick from the upper reaches to Strachur Pier, and steamers were unable to pass for several days. This had not happened for 30 years.—*Munster* (XX). Very heavy S fell in Clare, where roads were blocked and farm operations stopped. S lay thick over Cork, Limerick and Kerry counties.

26th.—*Northleigh* (V). S 3 inches deep.—*Dunmanway* (XX). About  $2\frac{1}{2}$  inches of S fell in morning.

27th.—*Fordingbridge* (II). Heavy S storm followed by heavy R during the night.—*Clunfield* (III). Heavy S storm.—*Broadstone* (V). At noon the wind changed from N.E. to S., and S commenced to fall at 12.28 p.m., continuing through the afternoon to a depth of 2 inches. A rapid thaw set in at 6 p.m., when R fell in torrents.—*Ivybridge* (V). Heavy fall of S for a few hours followed by heavy R at night.—*Wirksworth* (VII). S about 6 inches deep.—*East Layton* (IX). S 16 inches deep.—*Skipton* (IX). A man returning to his home at Dalehead, after having recorded his vote in the General Election, was overcome by the deep snow and frozen to death.—*Carlow* (XXI). S 4 inches deep.—*Ballinasloe* (XXII). S  $2\frac{1}{2}$  inches deep.—*Warrenpoint* (XXIII). A remarkably brilliant flash of L in evening, followed by an unusually loud peal of T, resembling an explosion.

27th—28th.—*Hurworth* (X). S  $7\frac{1}{4}$  inches deep.

27th—29th.—*Ambleside* (X). S 12 inches deep.

28th.—(I—XVII).

“Reports brought in by drivers of express trains north and south show that the snow had generally fallen over the entire country between London and Aberdeen. The snow plough was used on the Waverley route. Over the Lammermoor area there has been no communication since the beginning of the week, and as renewed drifting occurred yesterday morning, the promise of getting into touch with many farm places is still further removed. There has been a heavy loss of flocks.”—*The Times*.

—*Abinger* (II). Vivid L.—*Tenterden* (II). TS from 7 to 8 p.m.—*Broadstone* (V.) H storms at intervals all day. T, L and H storm at 5 p.m.—*South Lincolnshire* (VII). Heavy S put a stop to all the skating matches fixed for this day.—*Leyland* (VIII). S 8 inches deep.—*West Witton* (IX). S 16 inches deep on the level, with drifts from 6 to 10 feet deep.—*Wearhead* (X). S 21 inches deep.—*Fethard-on-Sea* (XXI). From 2 to 3 inches of S.—*Castlecomer* (XXI). S about 6 inches deep.—*Ruthmines* (XXI). Heaviest S storm since 1895.—*Dublin* (XXI).

“Dublin was an utterly disorganized city. Before sunrise snow began to fall with almost unprecedented force and thickness. This continued until

2 p.m. when a sharp fall in temperature brought a severe frost. The telegraph and telephone wires are down everywhere. The city is isolated from the rest of Ireland, and its business is at a standstill. Dublin Castle is cut off from the police throughout the country, who ought to be receiving special instructions in view of several fiercely contested elections."—*The Times*.

28th—29th.—*Hexham* (X). S 10 inches deep.—*Ilderton* (X). Very stormy, with considerable S. Roads and railways much blocked in the south of this county and in Durham.—*Great Strickland* (X). Heavy S storm. Roads had to be cut in all directions owing to the heavy drifting.

28th—30th.—*Perth* (XVI). River Tay partially frozen over.

29th.—*Greatham* (II). Heavy S in afternoon and evening. Gale in the night with R.

## FEBRUARY.\*

4th.—*Lochearnhead* (XVI). Sharp earthquake shock at 8.30 p.m.

7th.—*Shipley* (IX). The highest flood in River Aire at Saltaire landing stage since the waterspout of July, 1900.

16th—19th.—*Hoar Cross* (VI). Severe gale. Trees uprooted in all directions.

17th.—*Chelford* (VIII). Violent S.W. gale. Numerous trees blown over and great damage done.—*Meltham, Harewood Lodge* (IX). Severe gale at 3 p.m.—*Fanad, Tamney* (XXIII). Violent gale from 11.30 a.m. to 2.30 p.m.

18th.—*Sturminster Marshall* (V). At 1.40 p.m. .06 in. of R fell in 5 minutes.—*Sidmouth* (V). Heavy H storm, with T and L at 0.30 p.m.

19th.—*Leyland* (VIII). Heavy gale. Two trees blown down and greenhouse wrecked.

20th.—*London* (I).†

While the gale was at its height the overhead wires were affected by the wind, and the fire alarm bells were set ringing in various stations, with the result that 18 steamers, 10 horsed escapes, 56 horses, and 170 firemen were hurried to the points which were indicated by the alarm signals on fruitless journeys. Two of the alarms were caused by the roofs of houses collapsing in Cloudesley-road, Islington, and Woolwich-road, Charlton. At the latter place the husband and wife were seriously injured."—*The Times*.

—*Abinger* (II). Sharp TS with vivid L at 9 p.m.—*Reigate* (II). Heavy gale followed by TS.—*Tenterden* (II). Violent S.W. gale in afternoon and evening.—*Tunbridge Wells* (II). Violent gale from S. to N.W.

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\* See also *Met. Mag.*, March, 1910, pp. 23, 24, 39.

† See also *Met. Mag.*, March, 1910, p. 30.

caused some damage. H, L and T in the evening.—*Rumwood, Langley* (II). Severe gale with H, R, T and L. The wind blew with greatest force from 3 to 7 p.m.—*Hoo St. Mary* (II). A hurricane raged all the afternoon and blew down several brick walls. It was followed by a TS from the S. at 10 p.m. in which some buildings were struck and unroofed.—*Tankerton* (II). Heavy gale in night followed by six hours of L in N.W.—*Ticehurst, Myskins* (II). Heavy H storm. The H was piled up nearly a foot above the sill of windows facing W.S.W., but the stones were only small.—*Mill Hill* (III). During severe gale from S.W. a stretch of 15 yards of a garden wall 10 ft. high was blown down.—*Caversham, Hemdean Road* (III). Short but severe TS in evening. There was a most vivid flash of L which momentarily turned night into day, followed by a terrifying crash of T. St. Giles Church was struck and people leaving were dazed and many fainted. The electric light wires were fused. A tree in St. Mary's Churchyard was also struck.—*Blisworth* (III). Wind of hurricane force in afternoon. H storm and R at 5 p.m., and TS at 7.30 p.m. The L was very vivid from 9 to 9.15 p.m.—*Kettering* (III).

“As the afternoon service was ending at Stanion Church, near Kettering, a gust of wind carried away the greater part of the roof. Twenty-five heavy sheets of lead were swept in all directions, and some cottages narrowly escaped demolition. None of the congregation were injured.”—*The Times*.

—*Dunstable, Kensworth* (III). Terrific wind from S.E. Short H storm at 1.30 p.m. and another at 4.45 p.m. A third storm at 5.50 p.m. with T and L. A fearful night followed; slates were stripped from roofs and trees blown down.—*Upminster* (IV). Great storm of wind caused some damage to trees.—*Sturminster Marshall* (V). Furious gale at 11.30 a.m. and onwards. Much T and L at about 7.30 p.m. with heavy R.—*Cirencester* (VI). Fierce gale and appalling TS in which the Parish Church was struck by L.—*Droitwich* (VI). R .60 in., most of which fell in about 10 minutes.—*Barnt Green* (VI). Storm began about 10 a.m., with driving R. The first T and L occurred about 3.30 p.m. after a lull in the R. About 8 p.m. the moon shone brightly but part of the sky was lit up with flashes of L.—*Blaby* (VII). Severe storm of T, H and R in afternoon.—*Spilsby* (VII). S.S.E. gale. Trees blown down.—*Chelford* (VIII). Violent gale. Trees blown down.—*Wearhead* (X). R 2.54 in., the greatest fall for 14 years.—*St. Asaph* (XI). TS with heavy R from 2.45 to 3 p.m.

21st.—*Looe* (V). S 4 inches deep.—*Chelford* (VIII). Gale with II and S storms.



26th.—*Stockton* (X). Heavy fall of S.

27th.—*West Witton* (IX). Heavy gale uprooted many trees and dislodged slates and chimney pots.

### MARCH.\*

1st.—*Lincluden House* (XII). T and L, with 1·05 in. of R.—*Strachur* (XV). Steady deluge for 24 hours amounting to 3·25 in. The roads were broken in many places and were under water along Loch Eck. Strachurmore Farm was also under water, whole fields being submerged.

2nd.—*Warwickland* (X). Heaviest flood for many years.—*Jardington* (XII). The highest flood in the Nith Valley that has occurred for over 30 years.

8th.—*Glanmire* (XX). TS at night.

10th.—*Llanfrechfa* (XI). Furious blizzard. The wind and S broke down a large beech tree.

11th.—*Clydach Vale* (XI). The recent heavy R caused a great accumulation of water in a disused colliery level, the dam at the mouth of which gave way and for four hours a torrent like a mighty river swept down the valley. At Clydach Vale School 600 children were rescued with difficulty; many houses were completely wrecked and a woman and five children were drowned.

18th.—*Oxford* (III). S showers.—*St. Ives* (III). S fell.—*Shoeburyness* (IV). H, S and R.

27th—29th.—*Buchlyvie* (XV). Fine displays of aurora.

28th.—*Gainsborough* (VII). Wonderful display of aurora in evening.—*Fanad, Tamney* (XXIII). Magnificent display of aurora at 0.45 a.m. and again at 8.45 p.m. Streamers extended from W. to E. and nearly reached the zenith.

28th—29th.—*Warwickland* (X). Beautiful aurora each night.—*Drumnadrochit* (XVIII). Brilliant aurora each night.

31st.—*Buchlyvie* (XV). A luminous belt stretched from E. to W. overhead.

### APRIL.†

3rd.—*Shannon Vale, Clonakilty* (XX). H and T. The H stones were very large, averaging an inch in circumference; several exceeded 1½ inch in circumference.

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\* See also *Met. Mag.*, April, 1910, pp. 47, 59.

† See also *Met. Mag.*, May, 1910, pp. 72, 79.

6th.—*Cholderton* (V). Heavy R for 12 hours, amounting to 1·60 in.

12th.—*Clonmel* (XX). Heavy S in night.

13th.—*Tenterden* (II). Sharp TS from 5.15 till after 6 p.m., but not much R. Vivid forked horizontal L in S. for some time after the T ceased, between 6 and 6.45 p.m.

14th.—*Co. Carlow* (XXI). S on Carlow Mountains.

15th.—*Tremeirchion* (XI). Black, sooty R after an extraordinary sunset.

16th.\*—*St. Pancras, St. Augustine's Road* (I). Heavy TS from 4.30 to 6.30 p.m., with much chain L and 1·23 in. of R.—*St. Pancras, Camden Square* (I). Severe TS from 5 to 7 p.m., accompanied by heavy R and H lasting until 10 p.m.; ·24 in. of R fell in 8 minutes between 5.57 and 6.5 p.m., and the total fall was 1·19 in.—*Stoke Newington, New River Filter Beds* (I). Heavy TS; 2·29 in. of R fell between 5 and 10 p.m.—*Frimley Green* (II). H showers with T.—*Betchworth, The Holmes* (II). TS with much H, the fall amounting to 1·20 in. in an hour.—*Wood Green* (III). S fell first, followed by a TS. The L struck a house doing serious damage, and the district was flooded in all low lying places, traffic being completely disorganized. The R measured 1·29 in. and fell between 4.30 and 9.30 p.m.—*Potters Bar* (III). Heavy T and H storm. A house and two trees were struck by L.—*Oving House* (III). Heavy TS for 3½ hours. Heavy R and H fell for about 20 minutes. Several trees, hayricks and a house were struck by L.—*Culham Vicarage* (III). Heavy TS with ·98 in. of R and H, the greater part of which fell in an hour. A chimney was struck at Culham College.—*Oxford, Banbury Road* (III). Heavy TS, with L, H and R. Several houses were struck, and ·75 in. of R fell in an hour.—*Hampton Poyle* (III). Severe TS, with L and more than ·50 in. of R between 3 and 4 p.m.—*St. Neots, Waresley Park* (III). TS with L and 1·28 in. of R.—*Marlborough* (V). TS in which a labourer on a neighbouring farm was struck by L and killed, his boots and gaiters being ripped open.—*Sparkhill* (VI). Severe TS at 4.30 p.m., with R and H amounting to 1·08 in.—*York* (IX). TS during which a labourer tramping through Shipton village with three others in search of work was struck by L and killed.

17th.—*Watten* (XIX). Serious flooding caused damage to newly sown fields.

24th.—*Chellaston* (VII). Violent TS and heavy H causing much damage in afternoon.

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\* See also *Met. Mag.*, May, 1910, p. 69.

25th.—*Reading* (II). The most prolonged H storm for many years. doing considerable damage to fruit trees.—*Broadstone* (V). Mock moon seen after shower at 10.30 p.m.

27th.—*Fanad, Tamney* (XXIII). Severe day with H and sleet squalls.

28th.—*Cirencester* (VI). Sharp gale and severe H and R squall from 2 to 3.30 p.m.

### MAY.\*

4th.—*Finchley* (III). R and S.

5th.—*Buckhurst Hill* (IV). S, H and T.

6th.—*Buxton* (VII). T, L and H from 4.40 to 5 p.m., and heavy S from 8.30 to 9.15 p.m.—*Drumnadrochit* (XVIII). R fell upon a large amount of S on the hills and so much was melted that the streams were in high flood.

6th—7th.—*Macclesfield* (VIII). H and S storms.

7th.—*St. Pancras, Camden Square* (I). Rolling T at 0.30 p.m. followed by two bright flashes of L and a sharp fall of frozen S for 5 minutes. Brilliantly fine afterwards.—*Fordingbridge* (II). Heavy H storm at 10.45 a.m. The ground was covered to a depth of over an inch.—*Royston* (III). S and H.—*Ashton-under-Lyne* (VIII). S fell yielding .11 in. of R.

8th.†—*Caterham Valley* (II). Violent storm with large H stones which remained unmelted for 30 hours in places.—*Medstead* (II). Heavy H storm at 1 p.m.—*Sherborne St. John* (II). TS. A tree struck by L.—*Codford St. Mary* (V). Heavy H storm.—*Hoar Cross* (VI). S fell.—*Fanad, Tamney Rectory* (XXIII). Severe day, with R, H and S.

12th.—*Fulham* (I). Exceptionally fine sky before sunset. From 7.15 to 7.30 p.m. a beautiful golden light flooded the western sky from S.W to N.W., merging into pink, mauve and grey tints to an altitude of about 45° above the horizon. There were light cumulus clouds overhead and rather heavy cumulus in the E.—*Hampstead* (I). Remarkable copper coloured sunset.—*Tunbridge Wells* (II). Heavy TS from midnight to 2 a.m.—*Bournemouth* TS from 6.20 to 7 p.m. A bright yellow squall cloud preceded it and when the storm, which came from E., had passed over the yellow light was very noticeable on the N. and W. horizons. The storm brought almost complete

\* See also *Met. Mag.*, June, 1910, pp. 95, 99.

† See also *Quarterly Journal*, R.Met.Soc., Vol. 36, p. 295.

darkness and the L was of a silvery colour.—*Winterbourne Steepleton* (V). Heavy R, with T and great darkness about 7 p.m.—*Broadstone* (V). TS from 7 to 7.40 p.m. Remarkable sky effects. The clouds in the E. were of a deep violet-greenish hue, while overhead and in the W.S.W. the sky was of a yellow, fiery hue. The L was of all colours and was followed by heavy T.

13th.—*Shannon Vale, Clonakilty* (XX). During a TS .40 in. of R fell in less than an hour.

16th.—*Biggleswade Waterworks* (III). In 45 minutes .75 in. of R fell.—*Kentchurch Rectory* (VI). Terrific H storm, with T and L. H stones an inch in diameter. Twigs were stripped off trees and some H was left until the next morning. The fall amounted to .80 in. between 3.20 and 3.45 p.m.—*Kempsey, Draycott House* (VI). Terrific TS all around but no R.—*Abergavenny* (XI). Severe TS accompanied by a deluge of R at about 4.30 p.m. ; .71 in. of R fell in 14 minutes. Four people were struck and seriously though not fatally injured.

17th.—*Tiverton* (V). Heavy R in night amounted to 1.38 in. In a steep field of young wheat much of the crop and soil were carried into the land below, and the field looked as if it had been ploughed into deep gullies.—*Wrexham* (XI). During a severe TS at Brymbo one of a party of four sheltering under a tree was struck and killed.

19th.—*St. Pancras, Camden Square* (I). TS, with vivid L and steady R from 3 to 4.30 a.m.—*Tunbridge Wells* (II). Violent TS from 1.40 to 4 a.m.—*Broudford, Hurdlestown* (XX). A remarkable "waterspout" appeared in the sky to the N.E. It first appeared about 3 p.m. and remained till 5.45 p.m. when it broke in two, one half going up to the clouds, and the other down to the ground. The sky was very dark to the N.E. at the time, but there was no R here then. A TS, with L and R, came at 6 p.m. from the S.E. and lasted half-an-hour, during which .37 in. of R fell.

20th.—*Driffield* (IX). Terrific TS from 4 to 5 a.m., with H which lay in some places 2 feet deep; and torrential R which flooded the stream running through the town, destroying several bridges and driving the inhabitants from many houses some of which had six feet of water in the ground floor rooms. One little girl was drowned.—*Malton* (IX). TS, during which .96 in. of R fell between 7.15 and 7.40 a.m.—*Filey, Deepdene* (IX). Heavy TS at about 4 a.m. H stones as large as big marbles fell for about a minute. When the storm began the sea fog had a most curious yellowish light about it.—*Pickering* (IX). Just caught the edge of a severe storm in which

·75 in. of R fell in less than 30 minutes, causing a flood.—*Whitby, Mulgrave Castle* (IX). Violent storm of R and H between 5 and 7 a.m. caused considerable damage to crops. Wooden foot bridges were wrecked and also a stone bridge at East Row. Practically all the fall, 1·05 in., occurred in two hours. The H stones averaged  $\frac{3}{4}$  inch in diameter and the largest were an inch in diameter and shaped like a curling-stone or flattened bowl.—*Funad, Tamney Rectory* (XXIII). Day of intense gloom. Nearly dark at 3 p.m.

20th—21st.—*Thornton-le-Dale* (IX). Cloudburst up the valley on 20th, when only ·45 in. fell here, followed by torrential R on morning of 21st when 1·71 in. fell in less than an hour.

21st.—*Broadstairs* (II). Almost continuous TSS from early morning to evening. Remarkable darkness at 8.30 a.m. when artificial light was resorted to. Some people who were already upset by the thought of Halley's comet were terrified. The labourers went home at dinner time to be with their wives, not knowing what was going to happen.—*Minster* (II). In a TS a cart laden with ice was struck by L between Ramsgate and this place, the horse was killed instantly and the driver died a few hours later.—*St. Peter's* (II). TS with ·37 in. of R between 8.40 and 9.25 a.m. There was such a pall of darkness that it was quite impossible to read without artificial light.—*Blisworth* (III). Severe TS, with L and R at midday, and darkness. Some trees were struck and other damage done.—*Hitchin* (III). While Mr. Harkness, the well-known rose grower, was leading a horse into the stable it was struck by L and killed while he escaped uninjured.—*Farnborough* (VI). Violent TS. Trees struck.—*Cannock* (VI). Two colliers cycling during a TS were struck by L, one was killed outright, the other seriously injured.—*Chellaston* (VII). Violent TS at noon.—*Goole* (IX). At Balne a cart containing two men was struck by L, one was killed, the other rendered unconscious, but the horse escaped.—*Huddersfield* (IX). In a TS a golf caddie was struck and killed during the progress of a game on the Fixby Links.

22nd.—*Seaton* (V). During a TS 1·07 in. of R fell in about 45 minutes.—*Axmouth* (V). Local TS destroyed all chances of fruit crop in the neighbourhood. The H stones were the size of walnuts, and many trees and houses were struck by L.—*Rousdon* (V). Much T and vivid L from noon to midnight, but only one sharp, brief shower of R and H.—*Axminster* (V). Violent local TS with vivid L and heavy H, which wrought great havoc in the orchards.—*Cunnington, Brymore* (V). Severe TS, with ·85 in. of R.—*Holford, Woodlands House* (V). Heavy

TS with more than 1·65 in. of R in 2 hours.—*Meltham, Harewood Lodge* (IX). Rather severe TS from noon to 1 p.m.

27th.—*Liskeard, Trevillis* (V). In 26 minutes ·39 in. of R fell.

28th.—*Chatham, Luton W.W.* (II). In 8 minutes from 4.34 to 4.42 p.m. ·50 in. of R fell.—*Boxworth* (III) In less than 5 minutes ·25 in. of R fell.

### JUNE.\*

2nd.—*St. Anne's-on-the-Sea* (VIII). During a TS ·60 in. of R fell in half an hour.

4th.—*St. Asaph* (XI). T at 2 p.m., with heavy showers of black R.

5th.†—*Hascombe* (II). During the night 1·15 in. of R fell in about 2 hours.—*Battle, Whittington* (II). Heavy TS in the early hours. R, 2·84 in. in about 3 hours, was the heaviest fall since observations began in 1886.

5th—6th.†—*Worthing* (II). Severe storm in night. The L was continuous and T every 5 minutes from 11.55 p.m. to 0.15 a.m. From then till 0.40 a.m. there was vivid L and loud T every 2 minutes. The storm increased in violence but no R fell until 1.5 a.m. when it fell heavily for 12 minutes. There was a short lull, but at 2 a.m. the storm seemed to redouble its fury until 2.35 a.m., then there was some diminution but the storm did not cease until 8 a.m.—*Heathfield, Tottingworth Park* (II). Heavy TS, with L and 1·52 in. of R and H from 9 p.m. on 5th until 4.30 a.m. on 6th. At 3 a.m. the ground was covered with H.—*Ticehurst, Myskyns* (II). From 9 p.m. to midnight on 5th almost continuous vivid L which seemed to light up the whole sky. The L seemed in the main overhead, as if a storm was going on above the lower layer of clouds which covered the whole sky. Very occasionally a brief roll of T was indistinctly heard, apparently very distant. The L was so frequent that the few sounds of T heard could not be associated with any particular flash with a view to estimating distance. By midnight the flashes had become less vivid and less frequent, and the storm seemed to be gradually ceasing. There was no R. About 2 a.m. on 6th there was a fairly violent TS close at hand with vivid L and R until 3 a.m. There was another sharp TS between 4 and 4.30 a.m.—*Milford House* (II). Heavy TSS; the R on the 5th being ·80 in., and on the 6th 1·15 in.

\* See also *Met. Mag.*, July, 1910, pp. 104, 106, 119.

† See also *Met. Mag.*, June, 1910, p. 92; July, 1910, p. 104; and *Quarterly Journal*, R. Met. Soc., Vol. 36, p. 386.

—*Salisbury, Brown Street* (V). Terrific TS, with more than 2.00 in. of R between 11 p.m. on 5th and 0.15 a.m. on 6th.—*Shrewton* (V). Electrically the storm was one of the severest remembered, though the R was not remarkable. T began at 10.15 p.m. and R about 10.55 and fell, though not violently, for an hour, during which the T came nearer from the S.E. From midnight for nearly  $1\frac{1}{2}$  hours T and L were almost continuous, most of the flashes within half a mile, but during this period not a drop of R fell, and there was a dead calm. Then, as the storm receded to the W., R began again and continued for two hours, the last T being heard about 3.30 a.m. On many occasions the T sounded like the rush of an enormous live shell across the sky, ending in an explosion: perhaps this may have been ball lightning as this was seen by a neighbour. The R amounted to .93 in. for the day, of which about .90 in. fell in the storm.

6th.\*—*Farnham* (II). Severe TS with 1.45 in. of R in the early hours.—*Brighton, Withdean* (II). A house was struck by L and partially destroyed by fire.—*Herriard Vicarage* (II). TS, but with very little R. Four trees were struck.—*Upton Grey, Hoddington House* (II). TS in which 1.35 in. of R fell in 4 hours in early morning.—*Bradford, Bearfield House* (V). About 1.50 in. of R fell in 4 hours.—*North Cadbury* (V). Severe TS in early morning, being worst at 2 a.m. A haystack was fired, and a horse and a lamb killed.—*Clifton, Stoke Bishop* (VI). Heavy T, L and H.

6th—7th.—*Belturbet* (XXIII). Much sheet L and a few distant claps of T in night.

7th.\*—*Epsom* (II). Heavy distant rolling T to S. at 1 a.m., with frequent and very vivid sheet L. TS from 2.10 to 3 a.m. to S. and S.W., passing near zenith at 2.35 a.m. on a N. to N.W. course; sheet and fork L, the fork L flashes being red and orange. Violent TS with a thick grey fog from 8.37 to 10 a.m. It travelled from S.E. and E., slightly S. of zenith in a N.W. and W. direction. From 8.53 to 8.54 a.m. 11 flashes of deep red fork L, and from 9.31 to 9.45 a.m. 18 flashes of fork L and 14 peals of T. Frequent TSS occurred throughout the day.—*Chislehurst* (II). During the TS a nursemaid and two children took shelter under a tree on Chislehurst Common. The tree was struck by L, the girl instantaneously killed and one of the children received a severe shock.—*East Farleigh* (II). Heavy local R in a hop garden at 11 a.m., while a mile to the S.

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\* See also *Met. Mag.*, June, 1910, p. 92; July, 1910, p. 104; and *Quarterly Journal*, R.Met.Soc., Vol. 36, p. 386.

there was none.—*Ticehurst, Myskins* (II). The atmosphere became very oppressive and stiflingly hot towards 5 p.m. and a TS seemed to be brewing in distant S., but clouds did not come nearer until about 8 p.m. when the sky became overcast and from 8.30 to 9 p.m. there were L effects similar to those of the two previous nights, but the flashes were at greater intervals and generally accompanied by T in the W. The interval between flash and T was about 10 seconds for some time, and then after a series of flashes the intervals gradually increased from 15 to 23 seconds, and the L and T ceased, apparently going off towards the W. At 11 p.m. the sky was quite clear. No R fell.—*Hoddington House* (II). Heavy local storm between 11 p.m. and midnight, with 2.02 in. of R. No R fell 3 miles off. Roads and the earth of whole fields were washed away.—*Mapledewell* (II). Heavy TS in night with vivid L and 1.50 in. of R in less than an hour. Fields and roads were flooded.—*Old Windsor, Beaumont College* (II). Between 6.30 and 8 p.m. 2.27 in. of R fell, and there were H stones measuring  $\frac{3}{8}$  in. in diameter.—*Wantage, Ginge Manor* (II). L became intensely vivid at noon and struck a field, tearing up the ground for some yards. At 8 p.m. continuous L accompanied by crashing T and heavy R set in and continued for about an hour, when the storm drew off to return with renewed violence at 10 p.m. At 11 p.m. a large barn adjacent to the house was struck and was soon in flames, the phenomenally heavy R which accompanied the storm proving very useful in preventing the house from catching fire from the burning pieces of thatch carried over it. Several sheep were killed in a field a mile away.—*Hayes* (III). At least 2.00 in. of R fell from 5.45 to 7 p.m. during TS.—*Watford* (III). Three severe TSS passed over during the day.—*Wraybury* (III). Heavy TS passed over several times. Between 8 and 10.30 p.m. 2.00 in. of R fell.—*Burnham, Lincoln Hatch* (III). T and L at 2 a.m. for a considerable time; again from 9.50 a.m. till 2.5 p.m. The first R was a heavy shower at 2 p.m. T and L again from 6 to 10 p.m. with heavy R at times. There seemed to be at least 3 distinct storms in progress simultaneously. The T lasted for at least 9 hours and the L for about 11 hours.—*Heilsor* (III). Terrific TS, with heavy R from 6 to 10 p.m.—*Great Marlow* (III). Terrific TS all day. The T started at 1.15 a.m. and kept on, more or less, until 10.20 p.m. From 6 to 10.20 p.m. the T and L were incessant.—*Clanfield* (III). Violent TS. Very sharp L and heavy H and T.—*Swerford* (III). Distant T was heard just before 2 a.m., and again at 5 a.m. when there were several long rolling claps



for about half an hour with a little R. There was a thick fog afterwards which partly cleared about 8 a.m. The sky still continued black all over and about 10 a.m. T began to roll round the S.E., and from 11.10 to about 11.20 the T and L seemed to be continuous and right overhead. The storm died away about noon. Some farm buildings  $1\frac{1}{4}$  miles to the N. were struck by L, and a cottage at South Newington. From 2.30 to a little after 3 p.m. distant T was heard at frequent intervals in the S.E., again with a little R. At 7 p.m. T began again round the S. with L until 8.15 p.m. when all was still and a black cloud came over against the wind and hung over the village for about 10 minutes. Then there was a vivid flash of L and a crashing peal of T right overhead. This was followed by three or four more a little farther away when it passed away with only a few drops of R. About 8.45 p.m. another TS came on from the W. and was the worst storm experienced for many years. R came down in torrents, blocking the drains and damaging the roads considerably. From 10 to 11 p.m. the T and L were alarming. The storm appeared to be just over the village with no movement, and it was 11.30 p.m. before the T had died away.—*Foxcombe Hill* (III). House struck and badly damaged during severe TS.—*Halesworth* (IV). TS with continuous T and very vivid L from 7 to 9 p.m. A barn and a tree were struck.—*Broadstone* (V). A magnificent display of sheet L in the early morning, followed by a heavy TS from N.E., at 8 a.m.; vivid flashes of forked L every two seconds, loud crackling T and violent downpour of R. After lasting 32 minutes the storm passed away in a S.W. direction. Another TS in N.E. at 10 p.m. Continuous forked and sheet L and distant T till 11.50 p.m. when a thick mist suddenly came up and by 0.10 a.m. the storm had completely gone.—*Kingswear* (V). Thick fog nearly all day, which is unusual here.—*Clifton, Stoke Bishop* (VI). Heavy T and intense L.—*Fairford, The Close* (VI). Storm, with 2.70 in. of R, in evening. — *Cirencester, Dollarward House* (VI). Unusually severe TS from 8.30 p.m. to midnight. The T and L continued all night.—*Icomb Place* (VI). TS with 2.27 in of R between 8.30 and 10.30 p.m.—*Stow-on-the-Wold* (VI). Heavy storm in evening, the total R being 3.55 in., most of which fell in two hours. Low lying districts around were flooded to the tops of doors on the ground-floors of houses. Crops were washed out of the ground, and live-stock was drowned. The T and L were very severe, and the storm was said to have been the worst for 52 years.—*Worcester* (VI). Two heavy TSS with fine display of L. — *Rochdale* (VIII). In

15 minutes ·24 in. of R fell.—*Dolgarrog* (XI). During a TS three cows were struck by L and killed.—*Rathmines* (XXI). A succession of TSS in afternoon. A woman was killed by L.

7th—8th.\*—*Wolstaston* (VI). Heavy T and L.

8th.\*—*Peterborough, Ashfield* (III). In an hour the R amounted to 1·09 in.—*Broadstone* (V). A terrific TS came up from the S.W. at 9.15 p.m. and lasted until after 11 p.m. The T and L were unusually severe, and 1·05 in. of R fell in two hours.—*Chedington Court* (V). severe TS with remarkable display of L from 7 to 8.30 a.m.—*Kentchurch Rectory* (VI). Severe TSS after 9 p.m., worst from 9.30 to 10 p.m. when ·90 in. of R fell, and great damage done by R.—*Mansfield* (VII). Heavy TS in early morning, with an hour's continuous and brilliant L but no great amount of R.—*Hodsock Priory* (VII). At 1.30 a.m. ·30 in. of R fell in 6 minutes.—*Huddersfield Cemetery* (IX). At 3.15 a.m. ·20 in. of R fell in 3 minutes during a TS.—*Barnoldswick* (IX). TS from 10.30 to 11.50 a.m., with 1·10 in. of R.

9th.\*—*Cranleigh, Winterfold* (II). R storm with 1·30 in. in 15 minutes.—*Wyck Cross Place* (II). Severe TS from N. between 3.10 and 3.55 p.m., with 1·48 in. of R. It appeared to exhaust itself here for in the immediate neighbourhood to the W., S. and E. no R fell. Quantities of large H stones and irregular pieces of ice were accompanied by vivid L which did much damage to trees and buildings.—*Aldermaston Wharf* (II). During a T shower in afternoon 1·33 in. of R fell in 45 minutes.—*Milton Hill* (II). In 30 minutes 1·00 in. of R fell.—*Reading* (II).

Great damage was done to flowers, crops and glasshouses. The workhouse master at Reading estimates that the damage to the glass and grounds of the workhouse will exceed £500. At a residence in St. Peter's Avenue, Caversham Heights, £300 damage was done to large conservatories. Several nurserymen have suffered to a considerable extent. Mrs. Phippen, who has a big range of glass in the Oxford Road, Reading, where the full force of the storm was felt, has suffered damage estimated at £1,000.—*The Times*.

—*Potters Bar, Little Heath* (III). During a TS 1·13 in. of R fell in 40 minutes.—*Haileybury College* (III). TS with ·88 in. of R, nearly all of which fell in 40 minutes.—*Great Marlow* (III). Heavy TS with incessant T and L from 12.15 to 4.40 p.m.—*Chesham Bois Rectory* (III). Between 3 and 4 p.m. ·99 in. of R fell in 40 minutes.—*Caversham, Hemdean Road* (III). R began to fall in torrents at

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\* See also *Met. Mag.*, June, 1910, p. 92; July, 1910, p. 104; and *Quarterly Journal*, R. Met. Soc., Vol. 36, p. 386.

0.15 p.m., and at 0.25 p.m. it changed to heavy H. For 35 minutes H stones, varying in size from a marble to a large walnut, fell so that the ground was white with them. The L was very severe, and at 1.25 p.m., when the R temporarily ceased, the fall measured 2.50 in. Many low-lying places were flooded to a depth of from 9 inches to 3 feet. A further fall of .25 in. ceased at 3.30 p.m., and during the night another TS yielded .29 in., so that the total fall for the 24 hours was 3.04 in.—*Kidmore End School* (III). TS accompanied by tropical R, 4.90 in. falling in an hour between 12.30 and 1.30 p.m.\* The roads were flooded in an incredibly short time, roots were washed out of the ground, and in two fields on a slope the soil was washed into the valleys. The water made a track several yards wide through a cornfield where no water had ever been known to flow before.—*Henley-on-Thames, Peppard* (III). Between noon and 1.30 p.m. 2.93 in. of R fell.—*Assenton* (III). TS, with great destruction by H which with R amounted to 1.90 in. between 1.15 and 2.15 p.m. Some H stones were half an ounce in weight and lay in places a foot deep. They froze compact and it was two days before all disappeared.—*Stanton St. John* (III). Fearful storm, flooding houses, destroying young partridges, and doing much damage in the neighbourhood.—*Wheatley* (III). Between 0.42 and 1.40 p.m. 4.33 in.\* of R fell, and the total fall for the 24 hours amounted to 5.47 in.\*—*Waterstock* (III). Extraordinary H storm, the stones being as large as walnuts. The fall lasted an hour and did great damage. The total R was 3.95 in.\*

“At one time there were nearly 4 in. of hail on the open ground, while against walls in places there were broad mounds 4 feet deep. The hail stones were of great size. All the large stones were composed of dense clear ice wrapped round a dull centre, and were exceedingly hard. The extent of the damage can be realized by the havoc done in the rectory garden. The correspondent writes :—‘There is a beautiful rectory garden at Waterstock which in the morning was in the perfection of its summer beauty. Lawn beds bordered by a mass of violas, surrounding spaces just bedded out with young plants so far carefully cherished. The herbaceous borders gorgeous with full-blown peonies, immense poppies and bushes of lupins, with their ordinary companions, while white cushions of nemophila crept towards the lawn. Great bushes of yellow Scotch roses, bushes of white ‘broom,’ pergolas covered with pillar and climbing roses, all just coming into flower. Now not a solitary vestige of a flower, and hardly a leaf remains. The lupins are only bare sticks and the roses are little more. The ground is strewn with roses, buds and leaves. Crysanthemums in their outdoor pots

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\* The trustworthiness of this measurement is discussed under “Heavy Falls on Rainfall Days.”

are simply sticks. The violas and their companions have vanished, leaves and all. In fact, the whole year's garden work is absolutely destroyed; the beds are bare or simply full of green sticks. It is complete and incredible desolation. The kitchen gardens and the field crops also suffered severely. Every conservatory roof was smashed as well as every melon and cucumber frame. The storm area was very local. The clouds seemed to hang simply over one small area, scarcely a mile across, and neighbouring parishes entirely escaped.'—*The Times*.

—*Hassobury* (IV). In two hours 1.52 in. of R fell, the heaviest fall for years.—*Broadstone* (V). Severe TS lasting an hour occurred in the early morning. R fell in torrents, .79 in. in 56 minutes. Brilliant display of sheet L in all directions of the sky at night, the prevailing colours being orange, blue and red.—*Jersey, St. Aubins* (XI). Heavy R and H during a severe and long TS. H stones fell the size of small marbles and did much damage to greenhouses.—*Fanad* (XXIII). Terrific TS followed by dense fog.

9th—10th.\*—*Pyrtton Hill* (III). During the succession of TSS .87 in. of R fell between 1.52 and 2.30 p.m., of which more than .80 in. certainly fell between 2 and 2.30 p.m. on 9th, and the R continued until 4.20 p.m.; .97 in. between 1.52 and 2.40, and 1.36 in. between 1.52 and 4.20 p.m. A little H fell in the first part of the storm. T was first heard soon after noon, and was practically continuous from 0.30 to 4 p.m., being very severe from 2 to 3 p.m. Three trees were struck by L, and it was reported that H stones weighing 2½ ounces fell a little to the S. The storm appeared to move slowly from S. to N., and the R did not commence 6 miles to the N. till 3.15 p.m. A second storm with a few slight peals of T commenced about 6 a.m. on the 10th and continued till 1.30 p.m., giving .97 in. more R, and making a total of 1.93 in. in the rainfall day, and 2.33 in. within 24 hours.

10th.\*—*Oakley Rectory* (II). Almost the whole of the R, 1.02 in., fell between 1 and 2.30 a.m. in two tropical TSS.—*Basildon* (IV). During a TS a market gardener who had gone out to fetch in his goats, was struck by L and killed.—*Broadstone* (V). TS from 3.40 to 4.35 a.m. Very vivid L followed by heavy peals of crackling T.—*Warwickland School* (X). Violent TS with R and H from 2.30 to 4 p.m., in which time 2.05 in. fell. The area of the storm was very limited.—*Ambleside, Market Place* (X). In little more than an hour 1.55 in. of R fell.—*Rydal, The Stepping Stones* (X). TS with .80 in.

\* See also *Met. Mag.*, June, 1910, p. 92; July, 1910, p. 104; and *Quarterly Journal*, R. Met. Soc., Vol. 36, p. 386.

of R in 45 minutes.—*Wansfell* (X). TS with 1·52 in. of R in 1 hour 15 minutes.—*Glenlyon, Meggernie Castle* (XVI). TS accompanied by a cloud-burst which took place among the hills 3 miles to the N.W. The road was torn up in places for about 300 yards, sometimes 5 feet deep.—*Aberfeldy, Dunros* (XVI). Heavy local TS did a great deal of damage, and 1·91 in. of R fell between 2 and 3.10 p.m.

12th.—*Farnham, Crooksbury Hurst* (II). TS with ·96 in. of R from 3.25 to 4.15 p.m.—*Botley Hill* (II). During a TS ·90 in. of R fell in 25 minutes.—*Upton Grey, Hoddington House* (II). TS with 1·25 in. of R between 7 and 8 p.m.—*Kingsclere* (II). In half an hour 1·77 in. of R fell and flooded everything right through Tower Hill House.—*Abingdon* (II). In 20 minutes ·75 in. of R fell.—*Caversham* (III). House struck by L during TS.—*Abingdon, Culham Vicarage* (III). In 20 minutes ·53 in. of R fell.—*Sparkhill [Birmingham]* (VI). In 30 minutes ·96 in. of R fell.—*Lothersdale* (IX). A cloud-burst caused the Earby Beck to overflow, and houses were flooded to a depth of nearly 4 feet.

15th.—*Ballyconnell* (XXIII). Between 8 and 8.30 p.m. ·46 in. of R fell.

20th.—*Girvan, Pinmore* (XIV). Violent TS which continued into the night, with 1·60 in. of R.—*Markree* (XXII). TS with heavy R.—*Omagh* (XXIII). Heavy TS at 6 p.m., with 1·25 in. of R.

21st.—*Buchlyvie* (XV). TS from 2.45 to 3.10 p.m. Two heavy H showers with stones the size and shape of acid drops and some as large as marbles.—*Westport House* (XXII). Between midnight and 4 a.m. 1·77 in. of R fell, the heaviest fall ever recorded here.

22nd.\*—*Barnt Green, Upwood* (VI). Heavy shower at 10.15 a.m., when ·11 in. fell in 10 minutes.—*Shipley, West Point* (IX). Between 6 and 6.30 p.m. ·75 in. of R fell.—*Fanad* (XXIII). A peal of T at 12.40 a.m. lasted for 1 minute 47 seconds.

23rd.—*St. Pancras, Camden Square* (I). Between 2.26 and 2.33 p.m. ·16 in. of R fell in 7 minutes.—*Blisworth* (III). Heavy R and T from 0.45 to 1.30 p.m., in which time ·47 in. of R fell.—*Stafford* (VI). During a TS ·43 in. of R fell in 26 minutes.

25th.—*Hampstead Observatory* (I). At 2 p.m. about ·60 in. of R fell in half an hour.—*Stockbridge, Ashley* (II). Heavy shower in afternoon, ·45 in. falling in about 10 minutes.—*Wood Green* (III). Between 10 a.m. and 0.30 p.m. 1·12 in. of R fell.—*Horton, Horton Cottage* (III).

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\* See also *Met. Mag.*, July, 1910, p. 108.

In 20 minutes  $\cdot 49$  in. of R fell.—*Caversham, Hemdean Road* (III). Between 0.53 and 1 p.m.  $\cdot 30$  in. of R fell in 7 minutes.—*Huddersfield Cemetery* (IX). At 5.30 a.m.  $\cdot 11$  in. of R fell in 3 minutes. One inch fell in 3 hours and  $\cdot 50$  in. in half an hour.—*Shannon Vale, Clonakilty* (XX). During a TS  $\cdot 55$  in. of R fell in about half an hour.

### JULY.\*

2nd.—*Norwich* (IV). Violent TS. The Cathedral spire was struck at 3 p.m. and the electric organ upset so that it could not be played at the service. At one church the service was stopped on account of the shrieks of the terrified congregation.—*Broadstone* (V). Heavy R during sharp TS from N.W. at 3.28 p.m. R and H fell so heavily that drains and gardens became flooded in 5 minutes. After lasting nearly 20 minutes the storm passed to S.E.—*York* (IX). Two members of York Angling Club were caught in a TS at Newton, 8 miles from York, and took shelter under a bush which was struck by L and both men killed.

3rd.—*Borden Wood* (II). The fall of H and R between 1 and 3 p.m. measured  $\cdot 91$  in.—*Hoar Cross* (VI). L caused considerable damage to trees.—*Goldsborough Hall* (IX). Severe TS with heavy showers of R and H.

4th.—*Musselburgh, Levenhall* (XIII). T shower, with  $\cdot 16$  in. of R in 10 minutes.

5th.—*Hindhead* (II).

"The temperature in the shade at 7 a.m. on this 4th of July is identical with that at the same hour, on the same spot, on the 2nd of January last, namely,  $48^{\circ}$  Fahrenheit. In normal seasons these days respectively are about the hottest and coldest in the year. Thus extremes meet. At Hindhead growth seems to have ceased in all vegetation, except ferns, which are more luxuriant than usual. Fruit has ceased to ripen and strawberries are rotting."—*The Times*.

9th.—*St. Pancras, Camden Square* (I). The shade max.,  $59^{\circ} \cdot 2$ , was the lowest, with 7 exceptions, recorded in July in 53 years.

16th.—*Shrewton* (V). During a TS  $\cdot 18$  in. of R fell in 4 minutes.

18th.†—*Yarmouth* (IV). Strong N.W. gale at 5 a.m., with TS, but only  $\cdot 15$  in. of R.

21st.—*Aberdeen* (XVII). Heavy TS causing much damage.

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\* See also *Met. Mag.*, July, 1910, pp. 123, 124, 135.

† See also *Met. Mag.*, August, 1910, p. 126.

22nd.—*Wimbledon, Worple Road* (II). In 12 minutes ·30 in. of R fell.  
—*Drummore [Musselburgh]* (XIII). In 10 minutes ·37 in. of R fell.

24th.—*Edenbridge, Cluny* (II). Between 8.10 and 8.30 a.m. ·25 in. of R fell.

25th.—*Oakley Rectory* (II). T, with R and H amounting to ·11 in. in 10 minutes.—*Balerno, Cockburn Hill* (XIII). In half an hour ·50 in. of R fell.

25th—26th.—*Funad* (XXIII). Violent S.W. gale and almost incessant R for 30 hours.

28th.—*Miltown Malbay* (XX). In 5 or 6 hours 2·00 in. of R fell, causing great floods and damage to crops.—*Killybegs* (XXIII). The R measured 1·75 in., nearly the whole of which fell between 6 p.m. and midnight.

### AUGUST.\*

3rd.—*Northrepps Hall* (IV). Heavy H and R, 1·12 in. falling in about two hours.—*Dunfunaghy, Horn Head* (XXIII). TS with ·33 in. of R in 20 minutes.

4th.†—*Edenbridge, Markbeech* (II). Between 2.25 and 2.35 p.m. ·24 in. of R fell.—*Cheshunt, Goff's Oak House* (III). TS in which ·52 in. of R fell in 70 minutes.—*Tring, Grove Lodge* (III). During a TS more than 1·00 in. of R fell in less than an hour.—*Beaconsfield, Ledborough Lane* (III). In an hour ·59 in. of R fell.

5th.—*Eastbourne, Glenthorne* (II). In 20 minutes ·60 in. of R fell.—*Northwood, The Grange* (III). TS with 1·50 in. of R in 1 hour 20 minutes.—*Rickmansworth, Croxley Green* (III). In little more than 2 hours the R amounted to 1·98 in., and caused great damage to the roads.—*Speen* (III). Heavy H storm. About 1·00 in. fell in half an hour and caused enormous damage to gardens. Green stuff was torn up by the H stones which were still lying in places 30 hours after the storm.—*Diss* (IV). From 2.30 to 3 p.m. ·50 in. of R fell.

6th.‡—*Thurso, Buckies* (XIX). Dense fog all day.

8th.—*Molland* (V). In less than an hour 1·07 in. of R fell.

14th.§—*Queenborough* (II). Dense fog in the forenoon causing great delay to shipping.—*Coryton Rectory* (V). TS between 9.30 and 11 p.m., with 1·00 in. of R.—*Polapit Tamar* (V). Heavy TSS at night with

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\* See also *Met. Mag.*, September, 1910, pp. 144, 145, 155.

† See also *Met. Mag.*, August, 1910, p. 126.

‡ See also *Met. Mag.*, September, 1910, p. 146.

§ See also *Quarterly Journal*, R. Met. Soc., Vol. 36, p. 388.

·79 in. of R.—*Liskeard, Trevillis* (V). In 35 minutes ·70 in. of R fell.—*Quantockshead, St. Audries* (V). Heavy T and L, and more than an inch of R in less than 2 hours.—*Moute* (XXI). Heavy TS in afternoon, with 1·62 in. of R.—*Longford* (XXI). From noon to 10 p.m. 1·47 in. of R fell and caused floods.

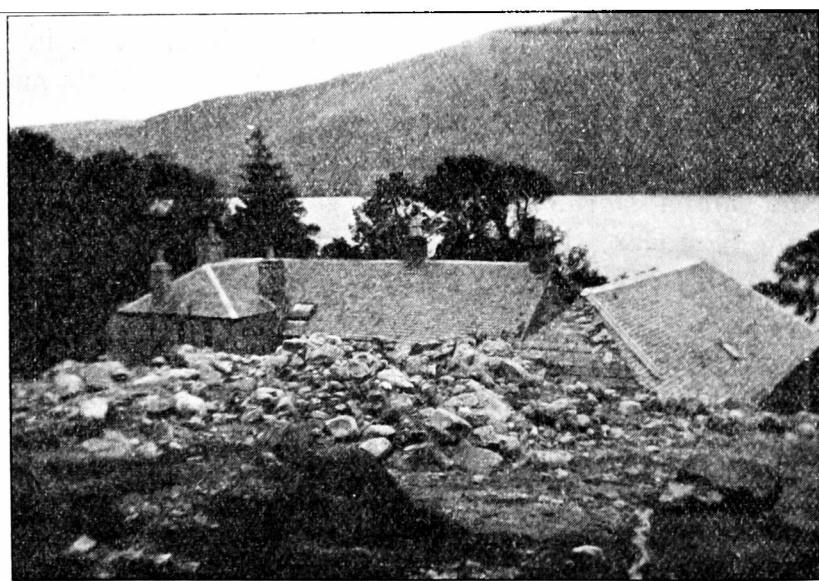
14th—15th.\*—*Stroud, Upfield* (VI). TS from 10 p.m. on 14th to 3 a.m. on 15th, with vivid and continuous L and ·83 in. of R.

15th.—*Wirksworth* (VII). Severe TS from 2.30 to 3.30 a.m.—*Buxton* (VII). Severe TS, apparently right overhead, from 2.30 to 4.15 a.m., with ·40 in. of R.

18th—19th.—*Abbotsham, Riccards Down* (V). Light R began at about 8.30 p.m. on 18th and continued, being heavy at times, until 6 a.m. on 19th. The total fall, 1·77 in., was the heaviest since October 27th, 1903.

20th.—*Lochwinnoch, Garthland* (XIV). R began to fall lightly at 6.30 p.m. but fell in torrents at 7.45 and ceased at 10.45 p.m. The fall amounted to 2·75 in.

24th.—*Mansfield, West Bank* (VII). During a TS ·45 in. of R fell in 30 minutes.—*Hodsock Priory* (VII). TS accompanied by unusual darkness. The R collected was black and left black stains on doorsteps, &c.; the colour may have been due to Sheffield smoke.—*Glenorchard* (XV). More than 1·50 in. of R fell in an hour and a half.—*Buchlyvie* (XV). Severe TS. L very vivid and severe. One house struck.



HOUSE AT FINDOGLLEN ALMOST BURIED BY FLOOD-BORNE STONES ON AUG. 25th.

\* See also *Quarterly Journal*, R. Met. Soc., Vol. 36, p. 388.



25th.—*Colchester, Lexden* (IV). Sharp TS, with  $\cdot 80$  in. of R, at 6.30 a.m.—*St. Fillans* (XVI). Heavy R caused floods which did great damage at Findoglen on the south side of Loch Earn. See photo p. [22].

25th—26th.—*Tuam, Gardenfield* (XXII). Heavy R from 4 a.m. on 25th to 10 a.m. on 26th, in which time  $3\cdot 00$  in. of R fell. T and strong winds in the night of 25th, and the highest summer flood for many years. Great damage was done to hay and corn.

25th—29th.—*Windermere, Fellside* (X). Heavy R each day amounting to exactly  $5\cdot 00$  in. for the period.

26th.—*Tunbridge Wells* (II). TS between 4.15 and 5 a.m., when  $\cdot 33$  in. of R fell in short heavy splashes.

26th—27th.—*Leyland* (VIII). Heavy gale. A large beech tree was totally destroyed.

28th.\*—*Salcombe Regis* (V). Between 11 a.m. and noon  $\cdot 50$  in. of R fell.—*Rimpton* (V). Heavy R commenced at 9 a.m. and fell unceasingly until 7 p.m., amounting to  $3\cdot 94$  in.—*North Cadbury* (V). R,  $2\cdot 28$  in., the greatest daily fall ever recorded here.—*Weston-under-Penyard* (VI). In 3 hours  $1\cdot 50$  in. of R fell.—*Swunscoe Park* (VIII). R  $1\cdot 55$  in., the heaviest fall since August 3rd, 1898.—*Jardington [Dumfries]* (XII). At 5 p.m.  $\cdot 50$  in. of R fell within half an hour.—*Moore, Co. Roscommon* (XXII). Swollen by the recent heavy R a bog on the Sandford estate began to move and threatened the village; but the prompt action of the local authorities in setting a large number of men to work cutting a drain to the nearest river averted a disaster.

28th—29th.\*—*Chelwood Rectory* (V). The R during the two days amounted to  $3\cdot 14$  in.—*Blairgowrie, Ballintuim House* (XVI). Between 5.30 p.m. on 28th and 2.30 a.m. on 29th  $2\cdot 10$  in. of R fell. The flood on the Ericht into which the Ardlie flows was higher than in 1848, the previous record.

29th.—*Salcombe Regis* (V). Nearly  $\cdot 75$  in. of R fell between 7 and 8 a.m.—*Northleigh Rectory* (V). Between 7 and 9 a.m. nearly the whole of the measured fall,  $2\cdot 18$  in., fell.—*Pawston* (X). River in flood after heavy R.

30th.—*Temple Cloud* (V). During the morning the meadow land from a tributary of the River Cam was flooded three times in less than two hours by the sudden and heavy falls of R.

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\* See also *Met. Mag.*, October, 1910, p. 167.

## SEPTEMBER.

10th.†—*Eastbourne* (II). Remarkable solar halo.

11th.—*Winterbourne Steepleton* (V). Extraordinary darkness at 2.30 p.m. followed by heavy R, which did not last long.

14th.—*Warlingham, Redvers Road* (II). Between 2 and 2.17 p.m. .42 in. of R fell.—*Purley* (II). House struck by L at 2.5 p.m. The roof was badly damaged, 16 square feet of tiling being torn up and felting set on fire.—*New Malden, Edenfield* (II). T at 1.45 p.m. T and L at 2.40 p.m. H and R amounting to .46 in. fell in 45 minutes.

19th.—*Mansfield* (VII). Unusual darkness.

25th.—*Huyton* (VIII). Very dark about 4.30 p.m.

## OCTOBER. ‡

1st.—*Epsom, Ashley Road* (II). Between 10.23 and 10.27 p.m. .25 in. of R fell.—*Broadstone* (V). T and L, with heavy R and thick mist at 1.57 p.m. ; .38 in. of R fell in 40 minutes.—*Chipping Campden* (VI). TS in evening.

7th.—*Ulcombe Place* (II). Heavy local R amounting to .74 in. The fall began about 3.30 p.m. and was very heavy, but there was no T and probably no L.

11th.§—*Culham Vicarage* (III). About 1.00 in. of R fell between 6.30 and 7.30 p.m.

11th—12th.§—*Winsford* (V). The R amounted to 3.63 in., and was accompanied by T and L on the evening of 11th and a great gale on the night of 12th. The River Exe was in flood.

13th.—*Macclesfield* (VIII). Fierce N.E. gale commenced at 1.30 a.m. and lasted six hours.

13th—14th.—*Dolaucothy* (XI). Several trees were blown over during heavy storm.

13th—16th.—*Gogerddan* (XI). S.E. gale raged and it was bitterly cold. Considerable damage was done to garden crops.

18th.—*Dalry, The Old Garroch* (XII). In 5 hours .96 in. of R fell.

\* See also *Met. Mag.*, October, 1910, pp. 159, 160, 166, 175 ; December 1910, p. 211.

† See also *Met. Mag.*, October, 1910, p. 167 ; and *Quarterly Journal*, R.Met.Soc., Vol. 36, p. 396.

‡ See also *Met. Mag.*, November, 1910, pp. 184, 185, 193 ; December, 1910, pp. 209, 211.

§ See also *Met. Mag.*, November, 1910, p. 191.

26th.—27th.—*Dunmanway* (XX). Continuous R for 36 hours from 7 p.m. on 26th.

31st.—*Liscard* (VIII). Gale commenced at 11 p.m. Heavy R and H at intervals.—*Ilderton* (X). Severe gale with R in afternoon.—*Beckfoot* (X). Strong gale and heavy R.—*Jedburgh* (XII). S.W. gale with R about 9 p.m. T and L.—*Glen Aray, Ladyfield* (XV). The R amounted to 2·32 in., and caused a flood.

### NOVEMBER.\*

1st.†.—*St. Asaph* (XI). TS about 4.30 p.m.

6th.—*Fanad* (XXIII). Westerly gale, with H squalls, T and L.

7th.—*Ilfracombe* (V). A sharp TS.—*Clifton* (VI). Heavy T with L, H and a violent gale.—*Chelford* (VIII). Violent TS from W. and N.W., with R and H.

10th.—*Rousdon* (V). Remarkably clear atmosphere in morning, Portland Lighthouse, 26 miles distant, being visible to the naked eye, but a roaring gale and R before night.—*Arncliffe* (IX). About 3 inches of S fell.

11th.—*West Witton* (IX). S 3 inches deep.

15th.‡.—*Stoke Bishop* (VI). Great darkness. H and T.—*Portskeewett, Sudbrook* (XI). Darkness from 2.30 to 3.30 p.m., but very little R fell.—*Llanybyther* (XI). S  $4\frac{1}{2}$  inches deep.

16th.‡.—*St. Pancras, Camden Square* (I). Very fine view of lunar eclipse, the sky being cloudless throughout.—*Liscard* (VIII). Several short but sharp showers of H and S during day.

17th.—*Tenterden* (II). S from 9 a.m. to 4 p.m.—*Eastbourne* (II). In 5 hours, 3 inches of S fell.—*Ticehurst* (II). S fell from 8 to 11 a.m. and at intervals till 3 p.m. Total depth about 2 inches.

20th.—*Caterham Valley* (III). S fell heavily for over an hour.

22nd.—*St. Pancras, Camden Square* (I). Fog in evening, becoming thick and damp at 9 p.m. and continuing through night. Traffic hindered.—*Oxford* (III). Dense fog from 7 to 10 p.m.—*Liscard* (VIII). Thick fog at 9 a.m. and heavy ground frost. The fog delayed traffic seriously. The ferry-boat usually takes 7 minutes to cross the Mersey but owing to the dense fog the 9.30 a.m. boat occupied 55 minutes.

23rd.—*Poplar* (I). The coroner held inquests on the bodies of four

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\* See also *Met. Mag.* December, 1910, pp. 208, 209, 212, 219.

† See also *Met. Mag.*, November, 1910, p. 193.

‡ See also *Met. Mag.*, December, 1910, p. 210.

persons whose deaths were stated to have been accelerated by the fog.—*Mailstone* (II). S 2 inches deep.—*Mitchelstown* (XX). Heavy floods from melting S followed by R.

26th.—*Shifnal* (VI). S 3 inches deep in night.

27th.—*Woolston* (II). Heavy R all day caused a flood.—*Mansfield* (VII). After several hours R there was a heavy fall of S in the night, the depth on the following morning being about 7 inches. Many branches were broken off trees and shrubs.

29th.—*Buchlyrie* (XV). Fine display of aurora from 6 to 11.30 p.m.—*Fanad* (XXIII). Aurora borealis at 9 p.m.

30th.—*St. Pancras, Camden Square* (I). R began at 3 p.m. and continued steadily through evening and night, the total duration (to 9 a.m., December 1st) being 15.9 hours.

#### DECEMBER.\*

1st.—*Little Ponton Rectory* (VII). R measured 2.20 in. and was the greatest fall for over 30 years.—*Llangynhafal, Plas Draw* (XI). The R measured 2.53 in. and was the heaviest fall in 24 hours during 11 years' observations.

1st—2nd.—*Glen-na-Smoel, Rathmines W.W.* (XXI). R fell from 11 a.m. on 1st to 9 a.m. on 2nd, amounting to 4.36 in. in 22 hours.

1st—3rd.—*Needham Market* (IV). The greatest floods experienced here for many years owing to heavy falls of R.

5th—7th.—*Lincoln* (VII). Serious floods in the Witham Valley, breaking a record of 35 years.

12th.—*Newtown, Montgomery* (XI). T and L between 10 and 11 p.m., with a squall from S.E. but no R.

12th—18th.—*Goring* (III). Floods 5 inches above those of the summer of 1903. They reached their maximum height on 18th.

13th.—*Newtown, Montgomery* (XI). T and L between 8 and 9 p.m. accompanied by S.W. gale and heavy R.

13th—19th.—*Langport* (V). Continuous R caused the flooding of Langport West Station. On 13th the water reached to the top of the rails, and on the next day was 15 inches deep between the platforms and running like a river. On the afternoon of 15th it reached its maximum depth of 22 inches. The water flowed over the rails for about 800 yards towards Martock and about 200 yards towards Athelney. On the 18th the flood rapidly subsided some 18 inches.

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\* See also *Met. Mag.*, January, 1911, pp. 224, 243.

The 1.47 p.m. train to Yeovil on 19th was the first allowed to resume traffic, the metals having just become clear again. The area of land covered with water S. of the station was about 2 square miles. All fields, rails, gates, etc., were submerged and the river was indistinguishable from the general expanse of water which, at its height, reached the lower branches of many of the willow trees (about 7 ft.). The nearest approach to this great flood was that of 1894. Since that event the banks of the River Parrett have been raised some 3 feet for a considerable distance N. of the town, and the permanent way of the railway has also been raised. Notwithstanding these works of protection it was only by constant pumping at three places that the water of the Catchwater was prevented from reaching the main street.

15th.—*Broadford, Hurdlestown* (XX). Very wet night, 1.06 in. of R being measured at 9 a.m. on 16th.

15th—17th.—*Oystermouth* (XI). Violent gale of almost hurricane force caused much damage. The sea wall was washed away.

16th.—*St. Pancras, Camden Square* (I). Steady R in early hours ceased at 10 a.m., when a strong S.W. wind sprang up increasing to gale force at night.—*Maidstone* (II). Severe gale lasting 22 hours.—*Bromley, Ravensfell* (II). In a squall of R and H .14 in. of R fell in 2 minutes.—*Selsey* (II). The inundation of Pagham Harbour, Selsey, restored in a few hours the condition of things which existed before the reclamation of the harbour in 1876. For a week previous to that date the south coast had been ravaged by storm and rain. At Selsey Climatological Station 2.32 in. of R had been registered since December 8th. The wind had blown with unusual force from the S. from 8th to 13th, and on 14th and 15th had blown from S.W. reaching the force of a heavy gale on 16th. The bar. had never reached 30 in., and between the 10th and 15th had established a low "record," 29.001 in. on 10th and 29.138 in. on 15th. At 10.30 a.m. on 16th a shingle and sand bank known as "the Narrows" gave way suddenly, 500 yards S.W. of the old entrance to the harbour. In less than an hour 1,700 acres were under water, though the breach was not more than 150 yards wide. Meanwhile the sea swept in from the west over the shingle banks at Medmerry and Ham, and poured in a torrent half a mile broad over the fields for three miles from the western coast. There it joined, through a disused sluiceway, with the flood from the east, and was only prevented from making a perfect union by the narrow bank at

what used to be the Ferry of Selsey. Between four and five thousand acres were submerged. The light railway was destroyed for two miles, and was not securely restored by June, 1911.—*Watford* (III). Gale. Trees blown down.—*Burnham* (III). Gale all day, increasing in afternoon and continuing nearly all night.—*Great Marlow* (III). Heavy S.W. gale during the night. Many trees were blown down.—*Steeple Aston* (III). The heaviest gale for many years; especially severe between 6 and 9.30 p.m. with heavy R storms lasting a few minutes.—*Whittlesea Mere* (III).

“The flooding of Yaxley Fen has its dramatic side. The flooded area was once part of Whittlesea Mere, one of the largest inland lakes in England. It was reclaimed by late Mr. W. Wells, but for the present the Mere has come into its own again. Seagulls are wheeling over it in thousands, and the shallows are full of wildfowl. Recent high tides at King’s Lynn, which made it impossible to open the sluice gates, and the flooding of the pumping machinery are responsible for the bursting of the bank, which is causing heavy material loss.”—*The Times*.

—*Colchester* (IV). Violent gale and floods.—*Norwich* (IV). Terrific gale at night.—*Portland* (V). Heavy gale. The sea washed over Chesil Beach and did considerable damage.—*Instow* (V). Disastrous gale accompanied by such a high tide that much damage was done to the banks of the Rivers Taw and Torridge.—*Taunton* (V). A heavy gale blew down an unprecedentedly large number of trees owing to the extremely loose state of the ground.—*Longney* (VI). An exceptionally high tide backed by a strong S.W. gale did great damage lower down the River Severn.—*Temple Guiting* (VI). Heavy gale blew down numbers of trees.—*Pembridge* (VI). The highest flood known here for over 50 years.—*Wirksworth* (VII). Floods down the Ecclesbourne Valley.—*Llanfrechfa Grange* (XI). Gale caused much damage.—*Abergavenny* (XI). Heavy W. gale which attained almost hurricane force between 3.30 and 5.30 p.m., and caused an immense amount of damage.—*Crickhowell* (XI). The greater part of the historic castle erected by the Norman baron Pouncefote and taken by Cromwell, was blown down by the gale.—*Neath* (XI). Heavy gale in conjunction with a high tide. The lower part of the town was flooded.—*Llanybyther* (XI). Great W. gale from noon to 9 p.m., the worst experienced for years.—*St. Davids* (XI). Severe gale which between 3 and 4 p.m. attained hurricane force, and caused considerable damage.

20th.—*Eton* (III). The Thames rose 4 ft. 10 in. above the ordinary high-water mark, and all lands round Eton College were flooded.

21st—23rd.—*Salisbury* (V). Great floods.

## NOTES ON THE YEAR, 1910.

(Notes on the months are included in those on the year.)

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[When an average is referred to in these Notes without a statement of the number of years on which it is based the figure should not be accepted as necessarily comparable with the average at any other station.]

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### ENGLAND AND WALES.

#### DIVISION I.—LONDON.

FULHAM, EDITH ROAD, WEST KENSINGTON.—The R was almost precisely the average, no month being at all remarkable. No heavy TSS and no very heavy falls, so that the heaviest fall of the year, 1.71 in. on November 30th, is the least since observations began in 1884. Mean temp. of year  $0^{\circ}4$  above average. July and November were exceptionally cold but were almost precisely balanced by October and December which were just as exceptionally warm.—*G. Searle*.

HAMPSTEAD OBSERVATORY.—The wettest month, December, had R on 25 days, and the driest, September, on only 4. During the period, November 23rd to December 15th, 5.00 in. fell with only 4 rainless days. Sunshine totalled 1372.2 hours on 294 days. May was the only month with more than 200 hours, the duration amounting to 219.3 hours. December was the most sunless month with 21.3 hours. August was the warmest month with mean temp.  $59^{\circ}7$ , and November the coldest with  $38^{\circ}3$ . The highest temp. of the year was  $78^{\circ}3$  on June 19th, and the lowest,  $19^{\circ}2$  on January 27th.—*E. L. Hawke, F.R.Met.Soc.*

ST. PANCRAS, CAMDEN SQUARE.\*.—The R was unusually evenly distributed throughout the year; that of six months, February, April, May, July, November and December being in excess of the average amount, and that of the remaining six months in defect. The months of greatest excess were February, with 2.96 in., or 1.34 in. above the average, and December, with 3.29 in., or 1.18 in. above the average; those with the greatest deficiency were March

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\* See also *Met. Mag.*, January, 1911, p. 223.

with  $\cdot 97$  in., or  $\cdot 72$  in. below the average, and September with  $\cdot 58$  in., or  $1\cdot 63$  in. below the average. The two latter were the only months in which the total R was less than an inch. In only three months did the R differ from the average by so much as an inch. From the end of February to the end of August the aggregate total for the year was a little above the average, but the dry September caused a deficiency which was not wiped out until December when a spell of persistent R in the first half brought the aggregate once more in excess, and the total for the year was  $\cdot 29$  in., or 1 per cent., above the average of 50 years. The number of rain days differed little from the average in any month except February, August and September, but the tendency in most months was in the direction of excess and the total number for the year was 25 above the average. There was one absolute drought of 16 days' duration from March 19th to April 3rd, and other rainless spells extended from June 11th to 21st, September 2nd to 11th, and September 15th to 18th, all inclusive. There was a partial drought from March 13th to April 11th,  $\cdot 29$  in. of R falling on 30 days. There were no rain spells, but measurable R fell on every day from April 30th to May 9th, and from December 8th to 17th inclusive. The duration of rainfall for the year was 491·2 hours, or 73·6 hours above the average of 28 years. The greatest duration occurred in February, November and December, that in the last two months of the year being the largest ever recorded in either of those months, and the aggregate for the two months 43·4 hours in excess of the greatest hitherto recorded. The duration in September was only 6·7 hours; this was the only month in the year with less than 20 hours of rainfall. The days on which the greatest duration occurred lay in the 12 days from November 23rd to December 4th, the most conspicuous being 13·6 hours on November 23rd, 14·4 hours on November 27th, 15·9 hours on November 30th, and 12·9 hours on December 1st. The duration of sunshine for the year was 1181·6 hours. The most unusual features were the small amount of sunshine in July and December, the former amounting to 101·5 hours, the latter to 13·1 hours. No sunshine was recorded on the first 9 days of January, and the total from November 22nd to December 12th inclusive, a period of 21 days, was less than 1 hour. No month was entirely without sunless days, and the longest spell of consecutive days with recorded sunshine was 38, from May 3rd to June 9th inclusive. There were 75 sunless days. In the first six months of the year April alone had a mean temp.



below the average, the most remarkable reading in that month being the min. of  $25^{\circ}9$  on 3rd, with two exceptions the lowest daily reading in April during 53 years. The mean temp. from January to June inclusive was  $2^{\circ}2$  above the average. In the latter six months July and November were extraordinarily cold, having deficiencies of  $3^{\circ}7$  and  $4^{\circ}7$  respectively in mean temp. On the other hand the mean temp. in October was  $3^{\circ}8$  above, and that in December was  $4^{\circ}9$  above, the average. The mean temp. for the year,  $50^{\circ}4$ , was  $0^{\circ}4$  above the average. The highest shade temp. was  $84^{\circ}3$  on June 20th; the temp. reached  $80^{\circ}$  on 4 days, none of which were in July or August. Frost occurred in the screen on only 48 days, of which 15 were in November, none in October, and only 3 in December; and on the grass on 120 days. The latest spring frost was on May 10th in the screen and on May 11th on the grass; the earliest autumn frost was on November 5th in the screen and on November 3rd on the grass.—*Hugh Robert Mill, F.R.Met.Soc.*

## DIVISION II.—SOUTH EASTERN COUNTIES.

### SURREY.

HASLEMERE, HAZELHURST.—The aggregate R was in excess of the average at the end of every month. The year was greatly deficient in warmth and sunshine, and the fruit crops failed.—*T. P. Newman, F.R.Met.Soc.*

WITLEY, THE MOUNT.—Heavy R occurred in January and February, and also in December when the fall amounted to 6.49 in., and was the greatest recorded in any month since October, 1907. The middle of May was warm and was the only summer-like weather till September. The year was characterised by much wind.—*Juliana Foster, F.R.Met.Soc.*

FARNHAM, CROOKSBURY.—Several severe TSS occurred in June. On one occasion the lawn was totally flooded although half a mile to the south not a drop of R fell.—*B. W. Bentinck.*

FARNHAM, SHORT HEATH LODGE.—A fine bright spring followed by a gloomy, chilly and wet summer, September only being fine. Frosts occurred in the screen on 73 days, and of these 47 were in the first half of the year and 26 in the second.—*Geo. Chrystie.*

LYDEN CROFT [EDENBRIDGE].—The many periods of persistent R and the comparatively few and short dry periods account for the excess of 1.54 in. over the average R of 19 years.—*C. Planck.*

EPSOM, ASHLEY ROAD.—A disappointing year with an entire absence of summer warmth, June 19th and 20th being the only days on which shade temperatures reaching or exceeding 80° were attained. September was dry and November exceedingly cold. A steady rise in the water level of the wells set in during the last week in November. There were 27 TSS, 14 of which occurred in June, one in February being cyclonic. Fog (on only 12 days) and S (on 19 days) were remarkable by their infrequency; and the greatest depth of S was only 1½ inches on January 23rd. The wind reached or exceeded the force of a gale on 13 days. Frosts were recorded in the screen on 65 occasions, and on the grass on 116. Mean temp. 49°·5. —*Spencer C. Russell, F.R.Met.Soc.*

### KENT.

TENTERDEN, SUMMERHILL.—A wet, cold and gloomy year. R was very frequent and at times there was great gloom. There were no bad TSS but heavy gales occurred more frequently than usual. —*Mary Wilkin, F.R.Met.Soc.*

TENTERDEN.—November was the wettest month of that name since 1877. January, February and December were also specially wet. September was the only really dry month. The coldest month was November. —*J. Ellis Mace.*

GRAVESEND, THONG.—February had 17 successive rain days. The land and roads were sodden and water courses overflowed. —*C. H. Scriven.*

RECVLVER.—The absence of sunshine and scarcity of drying winds caused the soil to be water-logged, which had a disastrous effect on many corn crops. Grass was abundant but of poor quality. —*Allington Collard.*

MARGATE, CLIFTONVILLE.—The R was, with one exception, the greatest in 30 years. The duration of sunshine was the lowest amount yet recorded. —*John Stokes, F.R.Met.Soc.*

### SUSSEX.

CHICHESTER, WESTGATE.—R 2·75 in. above the average of 65 years. —*G. Ashley Tyacke.*

WEST BOURNE [EMSWORTH].—During 25 years there has never been so large an amount of R in two consecutive years as in 1909 and 1910, and in no year have there been so many rain days as in 1910. —*L. B. Birkett.*

FUNTINGTON.—More gloomy and wet than 1909, with a dry but sunless September. The artesian well ceased to overflow about November 6th, but the heavy R in that month caused it to overflow again on the 20th.—*J. A. Greenwood, F.R.Met.Soc.*

BRIGHTON, DITCHLING ROAD, PRESTON.—A dull year with a great prevalence of T in May, June and July. Two droughts occurred, the first from March 18th to April 4th, and the second from August 29th to September 14th.—*G. Berry Hamlin.*

CLAYTON RECTORY.—R 9.50 in. above the average of 20 years.—*T. H. R. Shand.*

TICEHURST, MYSKYNS.—January and February were wet, while March to September had, on the whole, a low R, but it was “spread thin” and so it seemed to make a wet summer. At the end of an unusually dry September the ponds were very low, but they filled up in the last 3 months.—*E. H. Cartwright.*

WADHURST, LOWER COUSLEY WOOD.—R 2.93 in. above the average of 29 years.—*Frederick Wilkin, F.R.Met.Soc.*

## HAMPSHIRE.

TOTLAND BAY, ASTON HOUSE.—R 3.95 in. above the average of 24 years.—*John Dover, F.R.Met.Soc.*

PETERSFIELD, FAIRLEY.—With two exceptions the wettest year in the 20 years' record, and with more rain days than in any other year.—*A. W. Leachman.*

STOCKBRIDGE, ASHLEY. — The intermittent Kings Somborne stream, which recommenced to flow in November, 1909, rose steadily until about the middle of March. The source was then some two miles farther up the valley than Tanners Pond, the usual source in normal years, and the volume of water in the lower reaches was then very considerable. The stream ceased to flow in August and recommenced on December 14th.—*Legh S. Powell.*

LIPHOOK, FOWLEY.—A thermograph in screen showed that temp. was below 32° for 623 hours, above 60° for 1187 hours, and above 70° for only 129 hours.—*E. A. Lee.*

## BERKSHIRE.

NEWBURY, WESTON.—The most remarkable features of the year were the heavy TSS in the week commencing June 5th, the drought in September and the heavy R in the last three months.—*R. Osmond.*

## DIVISION III.—SOUTH MIDLAND COUNTIES.

## MIDDLESEX.

MILL HILL.—Bright sunshine was recorded on 298 days, the duration amounting to 1385·1 hours. May was the month of greatest duration, 210·7 hours on 30 days, while July had only 115·6 hours a less amount than in March, April, May, June, August or September. No month had less than 65 hours, except December, which had 24·7 hours on 17 days. In July the max. temp. exceeded 70° on only two days, whereas in May the max. exceeded 70° on five days.—*Fraunce Mill, F.R.Met.Soc.*

PONDERS END, BYLOCK HALL.—A year of many rain days but few heavy falls. The summer months were especially showery and cloudy. February, June, November and December were very wet, but March and September were dry. There was considerable electrical disturbance in May and June. Shade temp. exceeded 80° on only 5 days, all of them in June.—*Harold E. Freir.*

## HERTFORDSHIRE.

WATFORD, WEETWOOD.—For the first three-quarters of the year the R was about the average, an excess in February and June being compensated for by a defect in March and September. In the last quarter it was much above the average, especially in December.—*J. Hopkinson, F.R.Met.Soc.*

ST. ALBANS, COUNTY MUSEUM.—R 5·21 in., and rain days 23, above the average of 20 years. December had nearly two and a half times the average fall.—*J. Hopkinson, F.R.Met.Soc.*

BUNTINGFORD, THROCKING RECTORY.—The number of rain days was 42 above the average, and the greatest recorded in any year in 31 years' record.—*C. Wigan Harvey.*

## BUCKINGHAMSHIRE.

SLOUGH, UPTON.—February was a very boisterous month with gales, T and L. Land very sodden by the continuousness rather than the quantity of R. In June frequent and destructive TSS occurred, many objects being struck in the vicinity. In September the R. ·39 in., was the lowest recorded in that month since the record began in 1873.—*R. Bentley, F.R.Met.Soc.*

WINSLOW.—The year commenced with mild winter months, followed by cold weather in May. June was genial and showery,

but July and August had frequent TSS, showers and low temp. Sunshine prevailed throughout September and October, and November followed with sharp frosts and frequent R. December was mild and showery throughout, with some heavy R flooding the meadows considerably.—*R. A. Easton.*

### OXFORDSHIRE.

CAVERSHAM, HEMDEAN ROAD.—From February to May the rainfall was 108 per cent. of the average, then the terrific TS of June 9th sent the percentage up to 147. September was dry, but the concluding quarter of the year gave 11·14 in., resulting in excessive flooding of the Thames Valley, the river nearly reaching the flood level of 1903.—*Wm. Simpson.*

GORING, ELMCROFT.—A bad year from every point of view and it was only fitting, therefore, that the skies should have shed so many tears.—*E. Gambier Parry.*

SWERFORD.—T occurred on 11 days in June, and 6 storms passed over the village. Trees and buildings were struck.—*Wm. Hall.*

### NORTHAMPTONSHIRE.

SCALDWELL.—Abundant R in May produced a great quantity of grass. The summer was showery, and the autumn dry until the latter end of November. December, with 5·87 in. of R, was the wettest month in the 19 years' record with the single exception of October, 1903.—*R. Soames.*

RAUNDS.—Tremendous floods occurred in the Nene Valley during the first half of December. The Midland Railway suffered serious damage owing to embankment slips.—*Leon G. H. Lee.*

### DIVISION IV.—EASTERN COUNTIES.

#### ESSEX.

BRENTWOOD, SHENFIELD.—A wet winter was followed by a cold spring and a very cold summer. The autumn was cool with slight R in September and about the normal in October. November and December were the wettest months, while the all-prevailing wind was northerly throughout, as in 1909. July was remarkable for the cold weather which necessitated winter clothing.—*Harcourt P. Landon.*

SAFFRON WALDEN.—R ·99 in. above the average of 37 years.—*J. S. Wycliffe Leverett.*

**SUFFOLK.**

IPSWICH, ROOKWOOD, COPDOCK.—The year eclipsed in dreariness even its three predecessors, being dull and wet throughout, except for a fine September and October. November was cold, but October and December were abnormally mild and there was an entire absence of extreme cold, owing to which the mean temp.,  $49^{\circ}\cdot 2$ , was above the average.—*F. L. Bland*.

CLARE, HAWKEDON RECTORY.—R  $4\cdot 07$  in. above the average of 20 years. The harvest was got in well, but the threshing told of a very poor yield. Other crops were also very poor.—*B. P. Oakes*.

BURY ST. EDMUNDS, WESTLEY.—A cold and wet year, with the wettest December since observations began in 1856. Frosts occurred in the screen on 66 days.—*R. Burrell*.

**NORFOLK.**

NORTH WALSHAM, EMPSON HOUSE.—January and February were wet but were followed by a fine March, the driest month of that name since 1893. May was fine as was also June until 21st, after which day many TSS occurred. July was wet, but August was a dry month, and September and October were both fine and dry. Both November and December were cold and wet.—*W. S. Horn*.

**DIVISION V.—SOUTH WESTERN COUNTIES.****WILTSHIRE.**

SALISBURY PLAIN, SHREWTON.—The feature of the year was the remarkable spell of TSS in early June. The dry September was also notable, being certainly the driest since 1865.—*F. J. Wardale*.

**DORSETSHIRE.**

UPWEY, PORTLAND WATER WORKS.—The year was remarkable for the number of rain days, there being no less than 220 ; but only one of these had a fall exceeding 1 inch. S fell on 3 days, all in January, and TSS were experienced on 10 occasions. March ( $\cdot 86$  in.) and September ( $\cdot 32$  in.) were very dry months in a wet year. December, with  $5\cdot 21$  in., was the wettest month, and put the finishing touch on a wet autumn.—*R. S. Henshaw*.

WINTERBOURNE STEEPLETON.—R  $4\cdot 69$  in. above the average of 17 years, and rain days 19 more than ever previously recorded.—*Henry Stilwell*.

BEAMINSTER VICARAGE.—R  $7\cdot 50$  in. above the average of 38 years. *A. A. Leonard*.

## DEVONSHIRE.

TAVISTOCK, STAFFORD, WHITCHURCH.—Windy, cloudy and wet, with about average temp. A rain spell of 30 days with 10·84 in. of R ended on December 29th. In the 81 days from October 10th to December 29th 23·93 in. fell, and there were only 9 days without R. Mean temp. of year 48°·8.—*Edwin E. Glyde, F.R.Met.Soc.*

CHUDLEIGH, IDEFORD RECTORY.—R 8·81 in. above, and rain days 36 above, the average of 23 years.—*Gerald J. Ford.*

POLAPIT TAMAR [LAUNCESTON].—A partial drought prevailed from August 30th to October 1st, 33 days with 31 in. of R.—*R. C. Coode.*

MORETONHAMSTEAD, KENNICK.—R 14·12 in. above the average of 26 years, and 2·26 in. in excess of the previous maximum.—*S. C. Chapman.*

ROUSDON [LYME REGIS].—A dull, wet, unpleasant year, with the least sunshine since 1889. The finest month was September, which was also the driest September since the record began in 1833.—*C. Grover.*

BROAD CLYST, BROCKHILL.—The wettest year in 31 years' record. September was the driest month of that name, and December the wettest in the same period.—*W. T. Bayne.*

AXMINSTER, LEA COMBE HOUSE.—An abnormally wet, gloomy and sunless year. The R was about 12 or 13 inches above the average. The miserable summer and extraordinarily wet autumn were the chief features.—*A. C. F. Luttrell.*

UFFCULME, BULLMOOR.—The wettest year since 1872.—*M. E. Gouwing.*

## CORNWALL.

HELSTON, TENDERAH.—An unusually balanced R. The first two and the last three months yielded 33·59 in., while the remaining months only had 13·84 in.—*J. Walker Tyacke.*

REDRUTH, TREWIRGIE.—R 6·72 in. above the average of 31 years. Mean temp. 49°·9.—*Arthur Pearse Jenkin, F.R.Met.Soc.*

EMPACOMBE [DEVONPORT].—R 11·92 in. above the average of 21 years. The wettest year on record here, and one of the best for agriculture for many years.—*J. Sandercock.*

CALLINGTON, MOUNT LODGE.—R 9·50 in. above the average, and rain days 42 above. The wettest week of the year was that ending December 14th, in which 4·71 in. of R fell. There was an absolute drought of 15 days from March 18th to April 1st.—*Geo. Brown.*

**SOMERSET.**

CREWKERNE, BINCOMBE HOUSE.—R 9·58 in. above, and rain days 84 above, the average. The number of rain days was the greatest in the 43 years' record.—*Frances Sparks.*

NORTH CADBURY RECTORY.—By far the wettest year, and with the greatest number of rain days in the 14 years' record.—*H. A. Boys, F.R.Met.Soc.*

COTHELSTONE HOUSE.—The wettest year in 40 years' observations.—*C. E. J. Esdaile.*

EDINGTON.—The wettest year in 21 years' record, and with the greatest number of rain days. Temp. was generally low, though the winter and the autumn as a whole were mild. The summer was greatly deficient both in sunshine and warmth, and March and September were the only dry months.—*A. C. F. Luttrell.*

MELLS, SELWOOD.—March and September were the driest since 1898 and 1865 respectively, while December was the wettest since 1876.—*E. G. Horner.*

STON EASTON.—R 14·13 in. above the average of 42 years.—*H. E. Hippeley.*

EAST HARPTREE, HARPTREE COURT.—The wettest year in 28 years' record, with R 17·27 in. above the average of that period.—*W. W. Kettlewell.*

CLEVEDON WATER WORKS.—R 8·14 in. above the average of 40 years.—*J. Harger Pye.*

**DIVISION VI.—WEST MIDLAND COUNTIES.****GLOUCESTERSHIRE.**

CLIFTON, PEMBROKE ROAD.—R 9·76 in., or 28 per cent., above the average of 37 years, and the greatest since 1882.—*R. F. Sturge.*

STROUD, STANLEY PARK.—R 9·02 in. above, and rain days 27 above, the average of 21 years.—*W. H. Marling.*

LONGNEY VICARAGE.—A memorable year for its heavy R. The R of October, November and the first 16 days of December was surprising, and low lying land over a great area was flooded. The conditions were adverse to agriculture and fruit growing, and crops were very small.—*W. E. Stewart, F.R.Met.Soc.*

GLOUCESTER, BELGRAVE ROAD.—R 5·68 in. above, and rain days 14 above, the average of 27 years. The heavy R of December was followed by the highest flood in the Severn Valley since May, 1886.—*W. Piffe Brown.*



LECKHAMPTON.—Record floods occurred in the middle of December. Round Gloucester, Tewkesbury and Worcester the rivers Severn and Avon overflowed their banks, and postmen used boats to deliver letters.—*John Player.*

### HEREFORDSHIRE.

LEDBURY, ORCHARDLEIGH.—The wettest year since 1875.—*Miles A. Wood.*

CREDENHILL.—The R was remarkable for the heavy fall of the last three months, causing great floods in December. Temp. was very low with a lack of sunshine. In June there was a succession of severe TSS for nearly a week.—*R. M. Whiting.*

BURGHILL COURT.—A sunless summer, but a magnificent September, which enabled the harvest to be got in well. A rain spell of 17 days occurred from November 30th to December 16th with 5·25 in. of R causing floods all round.—*E. D. Woodhouse.*

WHITNEY-ON-WYE.—Much hay was spoiled owing to the frequent R, which was also detrimental to many of the farm operations. Heavy R in December caused the River Wye to overflow. Hedges were washed away and mangolds were carried on to the green fields.—*W. Burgess.*

PEMBRIDGE, MARSTON.—The wettest year in 31 years' record, and but little sunshine. High floods occurred in December.—*H. Langston.*

LEOMINSTER.—There were floods in several parts of the town during December—the worst since 1852. The river Lugg was at least 4 inches higher at Priory Bridge than in the May flood of 1886.—*Elizabeth Southall.*

### SHROPSHIRE.

CHURCH STRETTON, WOLSTASTON.—April was a seasonable month on the whole and good for tillage. Very cold in the last week, with S and severe H storms. May was cold in the first fortnight, but hot from 16th to 23rd, and good for vegetation. June was a genial month, with a good hay crop. September was by far the best month. The corn harvest was finished on 20th, and the crops all round were good. There was an almost entire absence of frost in October, and flowers were still plentiful. November was severely cold, with repeated S and heavy H showers. Frost occurred on 28 days in that month, which was without precedent for November.—*W. Bowden.*

**WORCESTERSHIRE.**

MALVERN, HORNYOLD ROAD.—In December there were 17 consecutive rain days and the greatest floods since 1886. The Severn rose 11 feet 9 inches above summer level, and at Upton many people had to live upstairs.—*T. Wolseley Lewis.*

WORCESTER, BOUGHTON PARK.—A very wet year, but with an exceptionally dry September. There were no severe frosts but the whole summer was dull, chilly and damp. There were sunny periods towards the end of January, about a week in May, 10 or 12 beautiful days in June, and the latter part of September. October was fairly pleasant, and though November was cold and wet there was a good deal of sunshine.—*Amy A. Isaac.*

**WARWICKSHIRE.**

STRATFORD-ON-AVON, HARDWICKE.—A wet year although there were not many heavy falls. September was the only dry month. August, November and December were all very wet.—*E. H. Smith.*

LEAMINGTON, CUBBINGTON.—R 4·16 in. above the average of 20 years, and rain days 19 more than the highest previously recorded in that time.—*Mary Isabel Robins.*

**DIVISION VII.—NORTH MIDLAND COUNTIES.****LEICESTERSHIRE.**

MARKET BOSWORTH, OSBASTON HALL.—A cold and gloomy spring and summer, the corn crops ripening slowly and not threshing out well. The last week of September was fine and summerlike, and October, which was an excellent month on the whole, enabled the farmers to cart their harvest cheaply and in good condition. The land worked well and formed a good seed bed, the open weather continuing to November 16th.—*Thomas Cope.*

**LINCOLNSHIRE.**

BOSTON.—R 4·09 in. above the average of 70 years.—*G. E. Clarke.*

LOUTH, WESTGATE.—R 2·57 in. above the average of 38 years.—*F. Fawcsett.*

**NOTTINGHAMSHIRE.**

NOTTINGHAM, BEESTON FIELDS.—R 3·03 in. above the average of 30 years.—*Geo. Fellows.*

NOTTINGHAM, STRELLEY.—The wettest year since 1900, and with the greatest number of rain days since the record began in 1880.—*T. L. K. Edge, F.R.Met.Soc.*

WORKSOP, HODSOCK PRIORY.—The year was, on the whole, a normal one. Temp. was slightly above the average with an absence of winter weather, but on the other hand few hot days. R very slightly above, and sunshine a little below, the average. Pressure unusually low, and the mean for the year was the lowest for at least 32 years. Crops were above the average on the light land, but did not do so well on stronger soils.—*Henry Mellish, F.R.Met.Soc.*

### DERBYSHIRE.

CHELLASTON.—An unsettled and stormy February. Severe and destructive gales in the third week. November was extremely rough, cold and stormy. Very great and destructive floods occurred during the last few days both on the Trent and the Derwent, and continued through the first week of December which was very wet and stormy.—*H. Chambers.*

ECKINGTON.—The valley of the Rother was flooded in November and December, and several lives were lost in the immediate neighbourhood.—*W. H. Holmes.*

ASHBOURNE WATER WORKS.—The R in November was the heaviest recorded in 13 years. Floods occurred on two occasions, the lower part of the town near Brook being flooded to a depth of two feet. The water subsided in a few hours on both occasions.—*Jas. W. Twigg.*

BUXTON, DEVONSHIRE HOSPITAL.—The driest March since 1875, the R amounting to only 1·36 in. The duration of sunshine, 158·4 hours, was the greatest in March since the record began.—*F. T. Kiellisen.*

### DIVISION VIII.—NORTH-WESTERN COUNTIES.

#### CESHIRE.

CHESTER, CHRISTLETON HALL.—The winter was changeable, with sharp frosts in the last week of January and destructive gales from February 17th to 20th. Spring was cold and showery until May 20th, then warmer. Frost and H did much damage to fruit trees in the last week of April. The summer was generally dull and cold, but from July 6th to 19th it was fine and bright. August was dull and

showery, but September was fine and the driest September in 30 years. Autumn commenced fine but was dull generally. November and December were both wet and changeable.—*John Weaver*.

MACCLESFIELD, THE PARK.—The driest March since 1875, and the wettest August since 1879. The R in September, '36 in., was the same as in February, 1891, and less than in any other month since June, 1868.—*J. Dale*.

### LANCASHIRE.

BLUNDELLSANDS, PARK CORNER.—R 3·24 in. above the average of 34 years. The close of the year was remarkable for continuous R. Of the 61 days of November and December there were but eight on which R was not measured.—*A. L. Reade*.

ACCRINGTON, ST. JAMES'S VICARAGE.—Heavy R in April, May, the latter part of July and nearly the whole of August, but the fine weather of September and October made amends.—*A. Spencer*.

BROUGHTON-IN-FURNESS.—The wettest months were February, August and December, with about the same amount of R in each month, and the driest month was September. The spring and early summer were, on the whole, very fine, and the autumn particularly so. There were two violent storms in February and one in August.—*Chas. P. Chambers, F.R.Met.Soc.*

### DIVISION IX.—YORKSHIRE.

#### WEST RIDING.

DONCASTER, WADWORTH HALL.—R 2·27 in. above, and rain days 24 above, the average of 20 years.—*Jas. C. Ross, F.R.Met.Soc.*

WATH-UPON-DEARNE, CHAPEL STREET.—Duration of sunshine 1403 hours. Mean temp. 42°·6, or 4°·0 below the average. The latest and earliest frosts occurred on May 11th and September 13th respectively. September was the driest month since February, 1895.—*F. J. Burman*.

MELTHAM, HAREWOOD LODGE.—R 9 per cent. above the average of 20 years. January was very wet, but March was dry and September exceptionally so, being the driest months in 30 years except February, 1891. The summer was cool and unsettled, with few TSS. The mean temp. of December was nearly 6° above that of November.—*C. L. Brook, F.R.Met.Soc.*

HUDDERSFIELD, DALTON.—R ·17 in. above the average of 44 years.—*J. W. Robson*.

HALIFAX, HALL INGS, S. OWRAM.—A dismal year. February, August and December were the wettest months, but the total R was 3·43 in. below the average of 20 years. No fall exceeded an inch, but the great number of rain days was remarkable.—*G. E. Aspinall.*

#### NORTH RIDING.

WEST WITTON.—The spring and early summer were both showery and deficient in sunshine, and the bees consequently had a bad time. Hay crops were good, and those housed during the second and third weeks in July were in excellent condition. With the exception of the first week August was showery and unsettled, but September was a splendid harvest month and the finest and driest for many years. October was generally dull, damp and unsettled, and November was very wintry. December was fairly mild and open alternating with frost to the end of the year.—*Jas. B. Espiner, F.R.Met.Soc.*

LEYBURN, BOLTON HALL.—R 2·57 in. above the average of 34 years. From April to August sunshine was lacking, and grey skies and low temp. were very unfavourable to gardening and farming operations. September was a glorious month, and October very pleasant, but November was wintry with light S falls. December was mild and humid.—*F. Scrivener.*

#### DIVISION X.—NORTHERN COUNTIES.

##### DURHAM.

SUNDERLAND, WEST HENDON HOUSE.—R 1·02 in. below the arithmetical, and ·68 in. below the geometrical, mean for the 46 years 1860-1905. November was the wettest month with 2·98 in., and September the driest with ·63 in., although March had only ·65 in. On no day in the year did the fall reach 1·00 in., the maximum amount registered in 24 hours being ·82 in. on July 25th. S fell on 21 days in the year, reaching its maximum depth of 4 inches on January 25th. The duration of time that rain fell was below the average. There were striking excesses of the N. and N.W. winds, and striking deficiencies of the S. and S.E. The most striking monthly deviations from the average were the excesses of E. winds in October and N. winds in September and July, while W. were in excess in the first part of the year, and deficient for the remainder. To May inclusive E. winds were deficient. The S.E. wind was much the wettest in proportion to the time it blew, and the W. as usual

much the driest. The proportion of rain with the S.E. wind was unusually great, and with the E. and W. winds unusually small.—*T. W. Backhouse, F.R.Met.Soc.*

### NORTHUMBERLAND.

TYNEMOUTH, PERCY PARK.—Duration of sunshine 1268·9 hours, on 290 days.—*J. E. Burnett.*

### CUMBERLAND.

MILLOM, LEYFIELD.—R ·91 in. above, and rain days 17 above, the average of 20 years.—*Cedric Vaughan.*

SEASCALE, WHINTHWAITE.—R 4·63 in. above the average of 21 years.—*Robert Hellon.*

PENRITH, NEWTON RIGG.—R 2·97 in. above the average of 28 years.—*W. T. Lawrence.*

## DIVISION XI.—MONMOUTH, WALES AND THE ISLANDS.

### GLAMORGANSHIRE.

PENARTH.—A cold, wet year, with gales on 99 days and much high wind on other days. The death rate was low being 9·2 per 1000. The highest death rate, 16 per 1000, was in March, a dry month.—*Edgar I. Evans.*

OYSTERMOUTH, NEWTON.—January was mild at first, but stormy in the second week and with frosts in the latter part alternating with dull, damp days. Similar changeable weather continued into February which was somewhat milder. From March 17th to the middle of April the weather was fine and sunny. A little S fell on May 8th, but it was afterwards warm and bright. June was fine on the whole as was the first half of July, but the latter half was dull and stormy. Fine days alternated with unsettled weather in August, but September was fine and dry. October was unsettled, and November and December were both wet and stormy.—*Secretan Jones.*

### CARMARTHENSHIRE.

LLANWRDA, DOLAUCOTHY.—A very wet year, but thanks to some fine days in June, July and September, the hay and corn harvests were fair.—*J. Hills-Johnes.*

**PEMBROKESHIRE.**

HAVERFORDWEST, HIGH STREET.—The year was, on the whole, mild and stormy. March, April, May and the greater part of June were cold and dry, with the result that vegetation was very backward, and the hay harvest late, but as July was for the most part fine and warm a great deal of hay was saved in excellent condition. August was very wet, but September was fine and warm throughout. October, November and December were wet and stormy. The highest shade temp. recorded was 77°·5 on 14th July, but the night temp. throughout the summer months was generally low. May was the sunniest month with 232·2 hours, and the total for the year was 1547·9 hours. R 1·14 in. below the average of 60 years.—*J. W. Phillips.*

ST. DAVIDS.—On the whole the year was wet with the exception of September which was very dry and proved of great benefit to farmers in carrying corn crops in good condition.—*D. P. Williams.*

**CARDIGANSHIRE.**

ABERYSTWYTH, GOGERDDAN.—Dull and wet on the whole, but with several short periods of hot and brilliant sunshine. In the autumn several cold and severe storms from E. did considerable damage to garden crops. A bad year for horticulture.—*W. Penwill.*

**RADNORSHIRE.**

RHAYADER VICARAGE.—February and December were very wet, but September was dry though dull. An unusually cold November was followed by a mild December.—*L. H. Evans.*

**FLINTSHIRE.**

ST. ASAPH, ST. BEUNO'S COLLEGE.—An unusually wet year, the excess being especially notable in the summer months, June to August, and in November and December. March and September were remarkably dry. The spring was very late, trees not coming into full leaf until about the middle of May. November was exceptionally cold, but December was unusually mild.—*J. Rowland.*

**GUERNSEY.**

ST. MARTINS, LES BLANCHES.—By far the wettest year in the 17 years' record. October and November were both very wet, and

September was the only really dry month. An absolute drought of 15 days ended on April 2nd, and a partial drought of 29 days, with 24 in. of R, extended from August 30th to September 27th. A rain spell lasted from October 24th to December 21st, 59 days with 16·57 in. of R.—*Basil T. Rowsell.*

## SCOTLAND.

### DIVISION XII.—SOUTHERN COUNTIES.

#### WIGTOWN.

WHITHORN, CUTROACH.—Most of the months had R below the average but this was more than made up for in February, August, November and December which had 22·55 in. of R on 91 days, and the total fall was 3·50 in. above the average.—*J. G. Martin.*

#### KIRKCUDBRIGHT.

CARGEN [DUMFRIES].—R more than 8 inches above the average of 50 years. In nine months the fall was above the monthly average. August was the wettest in the record.—*R. F. Dudgeon.*

#### DUMFRIES.

MONIAIVE, MAXWELTON HOUSE.—R 8·55 in. above the average.—*David Brougham.*

#### ROXBURGH.

MELROSE ASYLUM.—R 5·02 in. above, and rain days 6 above, the average of 28 years.—*A. C. Pattman.*

### DIVISION XIII.—SOUTH EASTERN COUNTIES.

#### MIDLOTHIAN.

MUSSELBURGH, LEVENHALL.—March and September were the driest months, while April and October were the wettest. The most noteworthy feature was the wet summer.—*John W. Wood.*

### DIVISION XIV.—SOUTH WESTERN COUNTIES.

#### LANARK.

HAMILTON, LAIGHSTONE HALL.—The features of the year were the long and late winter, the wet summer and the favourable autumn. S fell on 25 days, 3 being in May.—*T. M. B. Paterson.*



## DIVISION XV.—WEST MIDLAND COUNTIES.

## STIRLING.

KILSYTH, CURRYMIRE.—The year began severely, but the second and third months were favourable for outside work. The summer was good although August was abnormally wet. Two fine months followed and enabled all crops to be secured in first class order. The severe frost towards the end of November saw the curlers enjoying the “roaring game.”—*James Smith*.

FALKIRK, INGLEWOOD, LAURIESTON. — January and February were unsettled and generally stormy, with R, sleet, S and T. March though stormy at first was fine afterwards. April and May were cold and backward, but June was an ideal summer month. July was fine at first but broken later, and was followed by the wettest August since 1892. September and October were splendid autumn months and fine for harvesting. A dry November, the coldest since 1862, was succeeded by an open, unsettled and mild December.—*W. Ballantine*.

BUCHLYVIE.—R 4·85 in. above the average of 21 years. With the exception of keen frosts at the end of January, the wet April and August, the cold November and the mild December, the weather was normal.—*J. A. Macdonald*.

## ARGYLL.

INVERARAY.—After a period of continuous TSS with H showers in January, the most remarkable frost known for 31 years occurred. Loch Fyne was frozen over on 20th, and ferry communication stopped. The thaw did not begin until 30th, and the ice took a long time to disappear. There was heavy R at the beginning of May followed by a spell of warm summerlike weather. The month ended, however, with cold showers. June was fine with warm, sunny days. There was a fortnight of absolutely dry weather commencing on July 6th, some days of which were very warm. The R which followed was not altogether unwelcome as water was scarce in country places.—*D. Little*.

MULL, QUINISH. —The first four months were cold, wet and rather stormy, but from May 10th the season was the finest ever known in the district. Even August, with a total R of 7·11 in., had many fine days. The first half of November was cold, with some sleet from the N., and throughout the month there were a good many sharp frosts. December was mild, quiet and rather wet throughout.—*J. N. Forsyth*.

## DIVISION XVI.—EAST MIDLAND COUNTIES.

## FIFE.

KILMANY, MOUNTQUHANIE HOUSE.—Frost and S occurred in the early part, with some mild spells and a dry spring. The summer was warm and dry until the middle of July, and then very wet to the end of August. A beautiful dry autumn followed, and the winter, up to the end of the year, was very mild.—*David Dinwoodie.*

## PERTH.

COUPAR ANGUS.—R 7.25 in. above the average, of which excess the floods of July and August contributed 6.61 in. The months of deficient R were March, May, September and October. The light R and good weather in September and the severe early frosts in November were noteworthy features.—*John Robertson.*

## FORFAR.

FORFAR, LILYFIELD.—The most prominent features were the severe frosts from January 16th to 28th, the heavy R in the last fortnight of July and in August, the warm and dry September and first fortnight of October, and the mild, humid December.—*D. M. Muckie.*

## DIVISION XVII.—NORTH EASTERN COUNTIES.

## KINCARDINE.

FETTERCAIRN, THE BURN.—R rather above the average. September was a fine month for harvest operations, but December was very wet and mild. High winds prevailed towards the end.—*C. McInroy.*

## ABERDEEN.

ALFORD, LYNTURK MANSE.—The R was above the average, and the excess occurred chiefly in July, August, November and December. An exceptionally fine and short harvest season at the end of September and up to October 18th. From then until December 20th there were only 6 dry days, no two consecutive.—*James B. Duncan.*

## ELGIN.

GRANTOWN-ON-SPEY.—With the exception of 1906 the R was the greatest in the past 43 years.—*W. Duncan.*

**NAIRN.**

CAWDOR CASTLE.—The year was marked by a great lack of sunshine. The summer was wet, and but for a somewhat drier autumn the crops would have been a total failure.—*David Chapman.*

**DIVISION XVIII.—NORTH WESTERN COUNTIES.****INVERNESS.**

ARISAIG.—The spring, especially the latter part, was very severe and wintry. There were a few fine, hot days towards the end of May, and an unusually fine summer season without storms or gales up to November except that August was wet and unsettled.—*C. C. Astley.*

LOCH NESS, DRUMNADROCHIT.—R 2·80 in., and rain days 7, above the average of 24 years. A remarkable feature was the interchange of conditions in March and April, each month being in most respects typical of the other. There was a long spell of good harvesting weather through September and October.—*Angus Grant.*

**DIVISION XIX.—NORTHERN COUNTIES.****CAITHNESS.**

CASTLETOWN, THE CLETT.—January and April were rather wet, and the summer, though fine, was not very warm. A splendid harvest with good average crops was followed by a very wet November and December.—*John Calder.*

**ORKNEY.**

SHAPINSAY, BALFOUR CASTLE.—The year came in wet, and though March was fine and dry, from the middle of April to the end of spring was very wet. The summer was dry and rather cold but with a marked absence of gales. Crops suffered from wet during the spring and later from the continued drought. The winter was mild and damp.—*W. Liddell.*

**IRELAND.****DIVISION XX.—MUNSTER.****CORK.**

MIDLETON, BALLINACURRA.—Excess of R, especially in February, June and August, the last named month being very unseasonable

and deficient in sunshine. November and December had many gloomy days, with R and gales.—*J. H. Bennett.*

CORK, FERNHURST AVENUE.—R  $\cdot 56$  in. above, and rain days 28 above, the average. Mean temp.  $47^{\circ}3$ , or  $2^{\circ}7$  below the average.—*Wm. Miller.*

MALLOW, SUMMER HILL.—R  $4\cdot75$  in. above the average of 21 years.—*J. F. Williamson.*

### KERRY.

DARRYNANE ABBEY.—R 16 per cent. above the average, and with 3 exceptions, the wettest year in 31 years' record.—*D. O'Connell.*

### WATERFORD.

WATERFORD, BROOK LODGE.—R  $\cdot 03$  in. above the average of 36 years.—*C. P. Bolton.*

### TIPPERARY.

NENAGH, KILBOY.—A good deal of S through January and February. There were 10 hot days in May and the same in July. August was a very wet month, but September and October were much finer. November was foggy, with heavy showers except towards the close, and December was about the same but with less fog.—*M. F. Dunalley.*

NENAGH, CASTLE LOUGH.—R  $1\cdot11$  in. above, and rain days 22 above, the average of 33 years.—*S. G. J. Parker-Hutchinson.*

NENAGH, HIGHLANDS.—Rather heavy R in the first two months, but not so heavy in March and April which suited spring work on the farm. The summer was rather sunless, and crops were not heavy. August was mostly wet, but September cleared up and hay and corn were secured in fair order.—*John Mounsey.*

## DIVISION XXI.—LEINSTER.

### WEXFORD.

FETHARD-ON-SEA.—The R was somewhat above the average, but this was entirely due to the abnormal fall in August. There was a remarkable absence of fog from September to December.—*W. F. A. Ellison.*

**WICKLOW.**

RATHNEW, CLONMANNON.—The year was remarkable for long spells of R and of drought. From March 15th to April 11th only .06 in. fell. From July 6th to 19th, and again from September 11th to 24th no R fell. February, June, August and December, however, were excessively wet.—*W. H. A. Truell.*

**CARLOW.**

HACKETSTOWN.—The features of the year were the distinct periods of unbroken dry weather in the middle of June, July and September, along with periods of almost equally continuous R in February, the end of June, the end of July, almost throughout August and in the first half of December. There was heavy S in January and February.—*C. S. S. Ellison.*

**KILDARE.**

STRAFFAN HOUSE.—R 4.70 in. above the average of 20 years. The spring and summer were wet, cold and sunless. September and October were dry, warm and bright. November and December were very wet, with a good deal of frost.—*Frederick Bedford.*

**DUBLIN.**

RATHMINES, LEINSTER ROAD.—The wettest year since observations commenced, the nearest approach being 1900. March and September were the only dry months. For the first time since 1897 January was seasonable, the S storm of 27th and 28th being the heaviest since at least 1895. November was the coldest since 1878. Almost continuous R, cloudiness and general discomfort prevailed in the other months, with a remarkable number of TSS in June.—*E. H. Cannon.*

**MEATH.**

MOYNALTY, WESTLAND.—The wettest June in 35 years' record.—*W. A. Barnes.*

**WESTMEATH.**

MULLINGAR, BALLYNEGALL.—A memorable feature was the heavy R in August. It sometimes fell in torrents, blocking sewerage and tearing up the high roads, while at a distance of 400 or 500 yards there was scarcely a drop. In places it was almost possible to step from the wet on to the dry part of the road.—*John Campbell.*

**LONGFORD.**

BALLYMAHON, NEW CASTLE. — An exceedingly disagreeable February, with high winds doing much damage, and constant R, H and sleet.—*W. H. King-Harman.*

**DIVISION XXII.—CONNAUGHT.****MAYO.**

NEWPORT, BURRISHOOLE HOUSE.—A wet year and a cold summer. R fell on 44 consecutive days from January 27th to March 11th.—*H. M. Anketell Jones.*

**DIVISION XXIII.—ULSTER.****CAVAN.**

KILLESHANDRA, DROM MULLAC.—The R in February, August and December was above the average. Flowers were in bloom at the close of the year, and some young plants and vegetables that are not usually seen until May were growing in the open and fit for table use.—*Prudence M. Lough.*

BALLYCONNELL HOUSE.—The heaviest R in the past 18 years.—*S. B. Roe.*

**MONAGHAN.**

MONAGHAN, ROWANTREE HOUSE.—January was a severe month except during the first week, and February was stormy and wild. March was a good month and April was changeable. May was generally good except for night frosts, and June was favourable except during the last 10 days. Both the beginning and end of July were wet, as was also August. September and October both had good weather. There were many wild days in November with frosts in the last week, and December was mild and unseasonable.—*J. Campbell Hall.*

**LONDONDERRY.**

LONDONDERRY, DUNRUADH.—R fell on every day in February, and the early part of the year was very wet. August was a bad month for thunder plumps, but the summer generally was one of the best for years.—*J. H. Welch.*

**TYRONE.**

OMAGH, EDENFEL.—The frequent heavy R in July and August caused much damage to the hay crops owing to floods. September was a month of perfect weather, except the last few days, and farmers were able to save their late hay and secured a bountiful harvest.—*J. B. Buchanan.*

SION MILLS, SION HOUSE.—The opening of the year was very wet and cold, no less than 11 inches of R and S falling in January and February. The weather in the spring months was normal, and June, though warm, was wet. July was fine and dry until the 19th and August was remarkable for heavy R. September was the finest month, but October was also fairly fine. November was cold with rather heavy R, and December was damp and mild.—*G. I. Herdman.*

**DONEGAL.**

FANAD, TAMNEY RECTORY.—A severe February with an unbroken record of R and storm. The country was flooded and farming operations were at a standstill. March and April were good spring months, and May was harsh but fairly dry. A spell of fine weather ended on July 19th, after which the summer was wretched. A fine September and a magnificent October saved the crops which realized a fair harvest generally. Perhaps the most remarkable feature of the year was the exceptionally fine and springlike December.—*A. C. Digby French.*

LOUGH SWILLY, CARRABLAGH.—R 7·48 in. above the average of 22 years.—*A. C. Digby French.*

## THE DISTRIBUTION OF RAINFALL IN TIME.

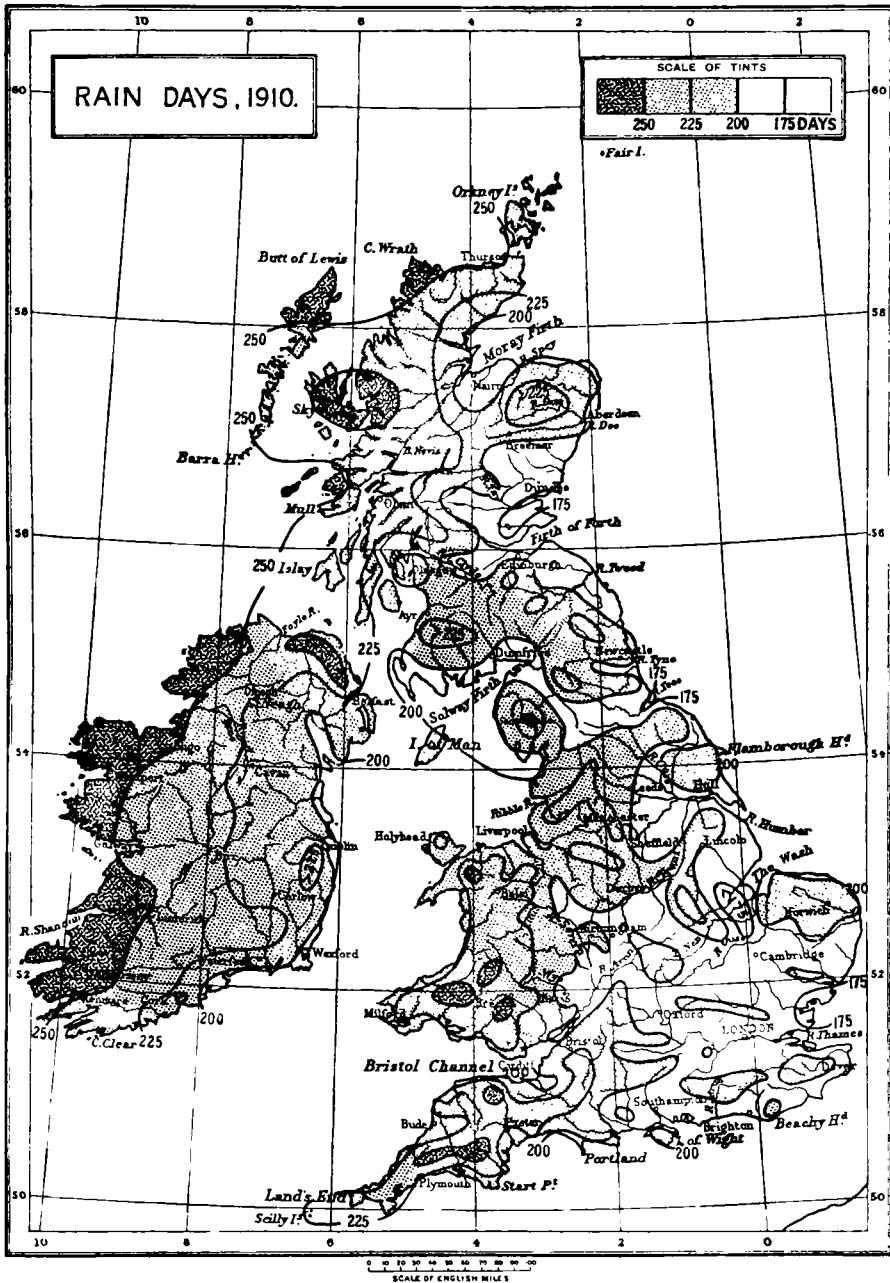
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THE method of studying the daily distribution of rainfall in the British Isles, dating from the introduction of the systematic investigation of droughts into *British Rainfall* by Mr. Symons in 1887, has been developed according to the principles then laid down, but the steady growth of accurate rainfall observing has made it possible from time to time to increase the number of daily records analysed and to enlarge the scope of the analysis. Thus in 1903, instead of the fifty records used since 1887, seventy-three were utilized, and the section was enlarged to include the discussion of "rain spells" as well as of droughts. It was also found practicable to introduce for the first time a chapter dealing with the frequency of rain days and to study the intensity of daily rainfall by tabulating the numbers of days on which various amounts fell at the seventy-three stations. In the present volume the number of records dealt with in this section has been increased from seventy-three to one hundred. In the process of redistribution, which involved the selection of stations as nearly equidistant as possible throughout the whole breadth and length of the British Isles, some records which had been utilized in previous years have necessarily dropped out; but we are sure our readers will understand that the omission of a station in this way casts not the slightest doubt on the accuracy of the observations, but merely means that its geographical position did not fit into the new scheme of distribution.

After careful consideration, we have decided to discontinue the table of intensity of daily rainfall. A very great deal of time and labour has been expended in the compilation of this table since 1903, and the indifference of our readers has helped to mature our own opinion that the value of the information gained is not sufficient to warrant the resulting delay in publication. In discussing the results of the seven years' analyses in *British Rainfall, 1909*, we pointed out that the averages for England and Wales, Scotland and Ireland were



so similar year by year that they were in all probability giving expression to more or less normal conditions rather than emphasizing the variations of any particular year, and if this be so, it is not improbable that the mean of the seven years' results there set forth does not differ greatly from the mean of a much longer period.



MAP SHOWING THE NUMBER OF RAIN DAYS IN 1910, COMPILED FROM THE OBSERVATIONS AT MORE THAN 1,000 STATIONS.

## RAIN DAYS IN 1910.

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It has often been shown that two records of daily rainfall kept side by side with scrupulous care by different observers may give a distinct difference in the number of days on which .01 inch or more of rain is recorded. The charting of the number of rain days in a year at various points in the country is consequently somewhat difficult. The marked improvement in the accuracy of instruments and the care of observers in recent years has reduced the difficulty to some extent. In view of this and of the fact that the number of rain days recorded in 1910 was unusually large in many parts of the country, we have attempted what we believe to be the most detailed map of the total number of rain days in a year ever constructed. This map was plotted on a large scale and the lines were drawn in accordance with the indications of from 1,000 to 1,500 points: a reduced and much generalized reproduction of it is given on page [55]. There is unfortunately, no more detailed map of the average number of rain days in existence, than the rough and inadequate sketch published in *British Rainfall, 1902* (facing p. 39) and it is to be feared that owing to the difficulties hinted at above, it may be found impracticable to construct one which could be fully trusted.

From a study of the map for 1910, it seems probable that the most unusual feature of the frequency of rain during the year was the small area in which less than 200 rain days was recorded, this being confined to an exceedingly narrow strip of the east and south-east coasts of Ireland, part of the less exposed land round the Moray Firth and a larger margin round the Firths of Tay and Forth, together with irregularly defined areas in the east and south of England, and a considerable portion of the Midlands. Some small and somewhat doubtful appearances of the 175-day line occur at intervals on the east coast of Great Britain, the only one to which we attach any importance being that on the coast of Essex. Except in Caithness the line of 225 nowhere reaches the east coast, and in

England it practically everywhere forms enclosed areas restricted to the more elevated land, the west *coast* stations having as a rule somewhat fewer rain days. More than 250 were recorded at a few exceptionally rainy spots in England, such as Dartmoor, Exmoor, the Lake District, and also in the Welsh mountains. Apart from these normally wet places, the most notable excesses in England appear to have been in the south-west, where numerous observers remark on the number of rain days as the greatest ever recorded. In Scotland the 225-day line cuts off the whole of the west coast north of Kintyre and also reappears as enclosed rings in Aberdeenshire and in the Southern Uplands. The main line of 225 is continued in an unusually easterly course throughout Ireland, about two-thirds of that country having had more than 225 rain days. Considerable areas with more than 250 days appear in the north of Scotland, in Skye and the neighbouring mainland, in Mull and in an unbroken strip along the west of Ireland where a few credible records show numbers approaching 300. The tinting of the map, which indicates respectively the portions of the British Isles where more than 200 and more than 250 days occurred, throws these rainy regions into relief.

In place of the Table of Intensity we give this year a table of the number of rain days recorded at each of the one hundred selected stations for each month, and although the number of stations used is still probably too small to take account of minor irregularities, it gives a reasonable representation of the frequency of rain days and provides a means of arriving at a basis for comparison with the only average we at present have.

*Number of Rain Days and Total Fall compared with the Average.*

	Average 1891—1902.*			Year 1910.†			Difference from Average.		
	No. of Rain Days.	Total Fall.	Rate per Rain Day.	No. of Rain Days.	Total Fall.	Rate per Rain Day.	No. of Rain Days.	Total Fall.	Rate per Rain Day.
		in.	in.		in.	in.		in.	in.
England & Wales	181	35·57	·197	209	40·89	·196	+28	+5·32	—·001
Scotland .....	206	43·93	·213	221	48·36	·219	+15	+4·43	+·006
Ireland .....	216	42·38	·196	233	44·08	·189	+17	+1·70	—·007
British Isles .....	197	39·63	·201	218	43·64	·200	+21	+4·01	—·001

\* Mean of 62 Stations.

† Mean of 100 Stations.

The summary of the mean results from this table shows that the number of rain days was excessive in all the countries, but that the excess was more pronounced in England and Wales than elsewhere, a conclusion in accordance with the general impression created by the map. The excess of 28 days in England and Wales was only 2 less than that of the very anomalous year 1903, and considerably greater than that of any subsequent year. Scotland had a larger excess in one year since 1903, and fell 23 below the number in that year. Ireland also had 19 days less than in 1903, and the British Isles had 11 less, and no year except 1907 has shown so many. The difference from the average value both for number of rain days and for total rainfall, as deduced from the limited number of records used, is given in the form of a percentage value for each year from 1903 onwards. It will be seen that the excess in the amount of rainfall in 1910 was as great proportionately as the excess in number of rain days; this is also shown by the accordance of the mean rate per day with the average value in the previous table. In other words, although the frequency of rainfall may be regarded as abnormal, the intensity was normal.

*Difference from Averages of 1891–1902 expressed as percentages.*

*Rain Days.*

	1903	1904	1905	1906	1907	1908	1909	1910
England & Wales.....	+17	+ 4	+ 3	+ 6	+12	+ 4	+ 8	+15
Scotland .....	+18	+ 6	+ 8	+10	+13	+ 7	+ 5	+ 7
Ireland .....	+17	+ 7	+ 2	+ 7	+11	+ 6	— 3	+ 8
British Isles .....	+16	+ 5	+ 3	+ 7	+11	+ 5	+ 4	+11

*Total Rainfall.*

	+26	—11	—16	+ 2	+ 2	— 9	+ 5	+15
England & Wales.....	+26	—11	—16	+ 2	+ 2	— 9	+ 5	+15
Scotland .....	+35	— 3	— 2	+10	+ 6	+ 0	+ 4	+10
Ireland .....	+21	— 2	—15	— 7	— 3	— 7	—11	+ 4
British Isles .....	+26	— 8	—12	+ 2	+ 1	— 7	+ 0	+10

A very remarkable feature is the large number of rain days in February, in many cases rain fell on every day, and the general number in England and Wales was 24, in Scotland 23, in Ireland 26, and in the British Isles as a whole 24. In September, on the other hand, the respective numbers were 7, 12, 8 and 9, this being the month with fewest rain days in 1910.

*Number of Rain Days in 1910.*

RAIN DAYS.

[ 59 ]

STATION.	COUNTY.	Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.	Total Rain-fall.	Amount per Rain Day
ENGLAND & WALES.																
St. Pancras, Camden Square ...	London	14	21	9	18	19	13	17	21	5	13	16	20	186	25.36	.14
Hythe, Hillcrest Road.....	Kent	19	21	10	18	20	13	16	16	6	13	16	20	188	33.55	.18
Tonbridge, Beech Hurst .....	"	16	23	10	14	17	12	15	15	7	14	16	21	180	29.94	.17
Brighton, Ditchling Road .....	Sussex	20	24	10	18	16	15	16	17	4	17	16	20	193	34.85	.18
Totland Bay, Aston House .....	Hampshire	17	22	7	17	18	12	13	15	4	17	17	20	179	31.79	.18
Petersfield, Dicham Park .....	"	21	26	10	17	20	17	15	22	5	16	17	23	209	41.04	.20
Basingstoke, Sherborne St. John ..	"	17	25	10	18	22	16	18	22	3	17	19	23	210	33.81	.16
Newport Pagnell, The Croft ..	Buckinghamshire	5	24	8	17	18	10	11	18	9	12	14	22	179	25.73	.14
Oxford, Magdalen College .....	Oxfordshire	3	16	8	19	19	14	14	16	6	15	16	20	185	25.82	.14
Cambridge, Botanic Gardens .....	Cambridgeshire	2	19	20	7	19	13	12	17	9	13	14	22	185	22.81	.12
Shoeburyness .....	Essex	3	16	9	14	19	15	13	16	6	17	16	23	181	21.10	.12
Colchester, Hill House, Lexden ..	"	5	17	8	18	16	11	12	15	6	9	16	19	166	21.93	.13
Becches, Sotterley Hall.....	Suffolk	3	17	7	14	16	14	14	16	14	10	15	20	178	32.93	.18
Swaffham .....	Norfolk	23	21	11	19	16	10	19	19	12	12	17	23	202	30.86	.15
Salisbury Plain, Shrewton .....	Wiltshire	3	24	8	23	21	14	15	22	5	17	19	22	211	36.05	.17
Winterbourne Steepleton.....	Dorsetshire	3	25	13	18	16	15	18	21	7	20	21	26	223	42.78	.19
Ashburton, Druid House.....	S. Devon	24	26	10	17	18	17	19	23	4	22	25	26	231	63.26	.27
Morwenstow Vicarage .....	Cornwall	1	25	27	22	18	16	19	23	6	21	29	26	242	40.00	.17
St. Austell, Trevarna .....	"	2	28	9	18	17	17	18	24	5	20	28	29	240	55.35	.23
Angersleigh, Leigh Court .....	Somerset	3	25	12	21	20	16	16	23	8	22	23	25	236	46.01	.19
Simonsbath.....	"	5	30	10	23	20	16	17	25	4	18	28	28	246	81.14	.33
Clifton, Pembroke Road .....	Gloucestershire	5	25	11	20	19	15	14	26	5	17	19	24	220	44.69	.20
Stow-on-the-Wold.....	"	7	23	25	17	19	15	12	19	6	15	19	26	208	36.04	.17
Hereford, Holmer Hall .....	Herefordshire	1	17	14	17	17	15	13	22	4	17	19	25	205	32.32	.16
Shifnal, Neachley .....	Shropshire	4	16	12	18	22	13	14	15	8	10	17	25	197	30.04	.15
Mayfield House [Ashbourne] ...	Staffordshire	5	20	10	18	18	14	10	20	7	15	21	26	206	37.31	.18
Hampton-in-Arden, Hampton Manor.	Warwickshire	21	21	8	18	21	15	13	18	4	14	17	24	194	37.14	.19
Market Harborough, Rose Hill ..	Leicestershire	2	15	22	10	16	23	10	20	6	15	17	26	193	27.81	.14
Boston.....	Lincolnshire	3	14	21	8	19	17	10	23	8	12	15	25	187	27.08	.14
Workshop, Hodsock Priory .....	Nottinghamshire	5	16	23	7	15	13	14	18	7	15	16	22	184	24.87	.14
Northwich, Highfield .....	Cheshire	2	19	27	11	21	18	13	24	10	17	23	27	229	35.01	.15
St. Michael's-on-Wyre Vicarage ..	N. Lancashire	5	20	13	21	19	16	11	22	7	14	22	27	219	37.94	.17
Settle, The Terrace .....	Yorkshire, W.R.	2	22	14	21	19	13	14	24	8	13	19	26	220	45.90	.21
Meltham, Harewood Lodge .....	"	8	20	8	19	21	15	11	23	8	18	20	28	218	48.55	.22

STATION.	COUNTY.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.	Total Rain-fall.	Amount per Rain Day
<b>ENGLAND—(con.)</b>																
Hull, Pearson Park .....	Yorkshire, E.R. ... 3	19	23	14	20	17	13	15	24	7	16	18	21	207	25.63	.12
Thirsk, Mount St. John .....	" N.R. ... 2	20	23	11	18	20	11	12	22	9	17	21	21	205	26.73	.13
Scarborough, Scalby .....	" " ... 5	22	25	5	13	17	13	18	17	11	13	20	18	192	85.05	.18
Barnard Castle, County School..	Durham .....	1	20	22	10	18	17	11	20	4	17	15	22	189	31.60	.17
Morpeth, Bothalhaugh .....	Northumberland ... 5	23	24	11	19	20	12	13	23	9	16	22	23	220	27.37	.12
Pawston [Coldstream] .....	" " ... 6	18	21	10	18	22	12	15	19	8	18	20	19	200	33.20	.17
Brampton, Denton House .....	Cumberland .....	1	21	13	16	18	16	15	22	7	12	19	24	207	33.11	.16
Dungeon Ghyll .....	Westmorland ... 2	27	28	17	27	23	19	20	24	11	14	23	26	239	119.38	.46
Treherbert, Tyn-y-waun .....	Glamorgan .....	6	26	8	22	21	17	19	27	7	15	23	28	240	96.97	.40
Llanwrda, Dolaucothy .....	Carmarthen .....	2	26	16	22	23	18	17	23	6	13	24	26	247	64.05	.26
Haverfordwest, Portfield .....	Pembroke .....	4	26	12	17	18	18	17	23	5	17	22	24	227	45.61	.20
Birmingham W.W., Tymynydd	Radnor .....	1	23	11	23	21	20	20	25	8	18	27	29	252	74.06	.29
Lake Vyrnwy .....	Montgomery .....	5	19	12	23	17	15	13	24	5	16	23	27	219	60.80	.28
St. Asaph, St. Beuno's College..	Flint .....	2	17	14	22	19	18	10	27	8	14	25	27	223	33.00	.15
Abersoch .....	Carnarvon .....	4	22	11	20	16	15	12	22	6	9	26	28	211	51.10	.24
Llangefni .....	Anglesey .....	24	26	14	21	18	14	8	20	6	8	21	25	205	45.80	.22
<b>England &amp; Wales</b> .....	(Mean of 50 stations)..	21	24	10	19	19	14	15	21	7	15	20	24	209	40.89	.20
<b>SCOTLAND.</b>																
Gariestown, Galloway House...	Wigtown .....	15	21	11	20	20	10	13	20	8	10	14	23	185	43.44	.23
Jardington [Dumfries] .....	Kirkcudbright .....	16	27	12	16	17	11	14	23	9	10	13	24	192	43.94	.23
Meggat Water, Cramlitt Lodge..	Selkirk ... ..	22	25	15	23	15	18	15	24	11	18	20	26	232	51.19	.22
Edinburgh, University .....	Midlothian .....	17	27	12	19	18	16	17	21	7	15	14	20	203	29.64	.15
Strathaven, Dungaivel .....	Lanark .....	19	26	14	21	18	15	18	25	11	13	14	28	222	52.02	.23
Girvan, Pinmore .....	Ayr .....	24	28	15	22	18	15	17	23	14	13	18	29	236	54.78	.23
Buchlyvie, The Manse .....	Stirling .....	21	25	15	21	21	14	18	26	16	15	14	28	234	56.28	.24
Rothsay, Glenburn .....	Bute .....	21	27	19	25	21	12	17	22	13	14	19	29	239	53.94	.23
Campbeltown, Witchburn .....	Argyll, Mainland .....	20	28	16	22	22	12	16	23	12	8	22	29	230	49.91	.22
Dalmally, School House .....	" " ...	23	26	17	20	17	13	16	23	12	14	16	27	224	76.39	.34
Islay, Eallabus .....	" Insular .....	24	28	19	23	19	16	15	22	13	15	23	27	244	48.29	.20
Mull, Ulva .....	" " ...	23	27	21	26	20	15	16	26	15	17	24	28	258	61.73	.24
St. Andrews, Queen's Gardens..	Fife .....	18	24	11	17	15	12	16	22	11	17	13	22	198	29.69	.15
Aberfeldy, Dall Avon .....	Perth .....	18	23	13	17	14	17	15	23	7	17	15	23	202	47.98	.24
Fettercairn, The Burn .....	Kincardine .....	15	20	12	11	17	8	14	18	8	16	17	24	180	35.67	.20

Aberdeen .....	21	20	14	19	18	11	14	21	9	16	24	25	212	31.58	15
" .....	24	18	16	22	18	16	17	20	11	20	27	27	236	40.57	17
" .....	19	20	13	18	19	10	17	20	13	18	28	23	218	32.18	15
Elgin or Moray .....	19	17	11	19	18	13	20	19	11	17	27	20	211	30.53	14
W. Inverness .....	26	28	23	23	17	15	15	21	15	17	20	25	245	77.91	32
" .....	25	28	21	20	18	14	16	22	15	18	24	25	246	66.42	27
E. Inverness .....	23	24	15	19	15	12	16	20	10	15	22	25	216	42.22	20
" .....	18	15	12	17	13	17	15	20	6	11	19	16	179	31.52	18
W. Ross & Cromarty ..	18	23	19	24	14	12	14	20	11	12	18	23	208	66.85	32
Sutherland .....	22	14	13	24	19	13	15	21	11	12	21	22	207	37.73	21
" .....	27	25	19	27	21	13	16	22	19	18	25	24	256	74.65	29
Caithness .....	24	21	16	25	21	14	19	24	15	18	27	26	250	38.65	15
(Mean of 27 stations)..	21	23	15	21	18	13	16	22	12	15	20	25	221	48.36	22
IRELAND.															
Skibbereen Rectory .....	28	27	15	22	14	19	19	25	7	15	23	28	236	46.86	20
Mallow (Summer Hill) ..	26	28	12	18	19	19	16	30	5	18	21	23	235	43.83	19
Darrynane Abbey .....	30	28	21	26	23	24	19	31	9	20	27	30	288	60.43	21
Lismore Castle .....	25	24	9	16	12	16	12	26	3	13	19	18	193	45.23	23
Waterford .....	22	22	10	18	15	17	13	22	5	18	17	21	200	39.60	16
Nenagh, Highlands .....	22	25	10	16	18	18	18	26	8	14	13	24	212	34.72	20
Carraigaholt Castle .....	26	27	18	20	22	19	19	25	10	15	25	25	251	42.01	17
Newmarket-on-Fergus, Fenloe.	29	28	14	22	18	22	17	29	10	19	25	30	263	38.94	15
Gorey, Courtown House ..	19	23	10	20	15	15	11	21	9	17	19	22	201	39.63	20
Abbey Leix, Blandsfort ..	22	26	13	21	18	21	18	28	8	16	21	26	238	43.02	18
Dublin, Fitz William Square	17	24	11	19	21	19	16	22	10	18	17	25	219	35.44	16
Moynalty, Westland .....	21	27	11	22	18	20	18	25	5	11	18	24	220	41.92	19
Ballinasloe .....	21	26	16	22	19	21	16	27	8	14	23	28	241	36.05	15
Cong, The Glebe .....	27	27	16	21	17	18	17	27	8	17	23	26	244	50.36	21
Crossmolina, Ennisceoe ..	25	27	17	18	21	20	17	24	13	18	27	25	252	52.01	21
Collooney, Markree Observatory	25	28	18	21	20	20	18	25	10	15	24	27	251	53.38	21
Mohill Rectory .....	21	25	12	18	18	19	16	25	7	15	21	26	223	43.74	20
Armagh Observatory .....	17	28	14	21	20	17	16	22	5	8	17	25	210	32.52	15
Seaforde .....	21	25	9	19	18	16	16	24	9	11	19	27	214	38.62	18
Bushmills, Dundarave .....	26	27	16	19	19	14	18	20	9	10	25	28	231	41.13	18
Omagh, Edenfel .....	21	26	15	18	18	18	18	23	10	11	19	25	222	43.73	20
Killybegs .....	28	28	16	20	21	18	18	26	13	14	28	21	251	64.94	26
Fanad, Tanniney Rectory ..	26	28	19	25	21	17	20	26	13	16	28	27	266	45.80	17
" .....	24	26	14	20	18	19	17	25	8	15	22	25	233	44.08	19
(Mean of 23 stations)..	21	24	13	20	19	15	16	22	9	15	20	24	218	43.64	20
( " 100 " )..	21	24	13	20	19	15	16	22	9	15	20	24	218	43.64	20
BRITISH ISLES															

## DROUGHTS IN 1910.

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WE adhere to the definitions of Absolute and Partial Droughts used in the past, and for convenience these are repeated :—

- I. The ABSOLUTE DROUGHT or period of *more than* 14 consecutive days no one of which is a rain day.
- II. The PARTIAL DROUGHT or period of *more than* 28 consecutive days the mean rainfall of which does not exceed .01 in. per day.

All periods falling under either of the above definitions have been extracted from the one hundred stations set out in the list on pages [59]–[61], but in order to economise space, in the list of droughts the names of stations where no droughts were reported are omitted.

In order to facilitate comparison with similar phenomena in previous years, the numbers of droughts and of stations without a drought recorded in those years where 50 stations were utilized for the discussion, have been simply doubled in the following comparative table, and in the years since 1902, when 73 stations were used, the numbers have been increased proportionally.

The comparison shows that both in frequency and duration the droughts of 1910 were far below the mean values. Only 32 instances of absolute drought were recorded, affecting 30 stations, the mean number being 59 at 45 stations. There were but 23 partial droughts, or one half the mean number ; and these affected 22 stations, or 16 less than the mean. The average duration in the case of absolute droughts was only one day above the minimum, and the average duration of partial droughts was 4 below the mean of a long period. By the map of distribution of droughts which appears on page [67], the parts of the country where droughts occurred are seen to lie as usual for the most part in the eastern half of Great Britain, though a narrow strip on the east coast itself failed to get any.

No one drought during the year calls for any very special mention. The absolute drought of March-April was the most widespread, affecting most of the southern half of England and the east coast of Scotland and of England as far south as Scarborough. It also



appeared at two stations in the south of Ireland. The absolute drought of September affected a surprisingly small portion of the kingdom, and the partial drought which in some places occupied the whole of that month was technically confined to the north of England, the south of England from Bristol to Sussex, and a few other isolated spots. Taking into consideration the unusually protracted dryness of September, 1910, in almost all parts of the British Isles, and more particularly in the south and south-west of England, we can only regard the indication of the table of droughts as a suggestion that at times, even with the increased representation introduced this year, the system is liable to fall short of perfection as a means of calling attention to the extent of country affected by a spell of dry weather.

*Comparative Summary of Droughts.*

	ABSOLUTE DROUGHTS.				PARTIAL DROUGHTS.			
	No. of Droughts at 100 Stations	Duration.		Stations without one.	No. of Droughts at 100 Stations	Duration.		Stations without one.
		Mean.	Greatest.			Mean.	Greatest.	
		days.	days.			days.	days.	
1888	34	17	20	70	8	42	50	92
1889	84	21	30	26	76	34	45	30
1890	26	18	20	78	6	30	31	94
1891	52	18	34	56	76	36	49	28
1892	72	16	20	50	34	35	64	66
1893	78	20	44	46	106	51	114	20
1894	104	18	31	20	88	37	62	26
1895	104	19	29	32	94	39	64	38
1896	54	18	26	50	98	40	75	32
1897	40	18	20	62	14	40	61	88
1898	62	17	28	54	62	38	77	52
1899	120	21	31	20	82	35	48	40
1900	28	17	21	76	18	32	35	82
1901	112	17	20	20	18	37	56	84
1902	10	17	18	90	4	37	41	96
1903	22	19	25	79	33	34	41	71
1904	12	16	18	88	18	34	41	82
1905	26	17	20	74	59	36	48	60
1906	73	17	25	47	40	36	55	62
1907	56	19	25	51	30	32	41	71
1908	74	18	32	48	52	35	54	68
1909	47	17	23	66	18	37	51	84
Mean	59	18	25	55	47	37	55	62
1910	32	16	24	70	23	33	42	78
Diff.	-27	-2	-1	+15	-24	-4	-13	+16

NOTE.—The values previous to 1910 have been increased to the equivalent of 100 stations for comparison.

*Droughts in 1910.*

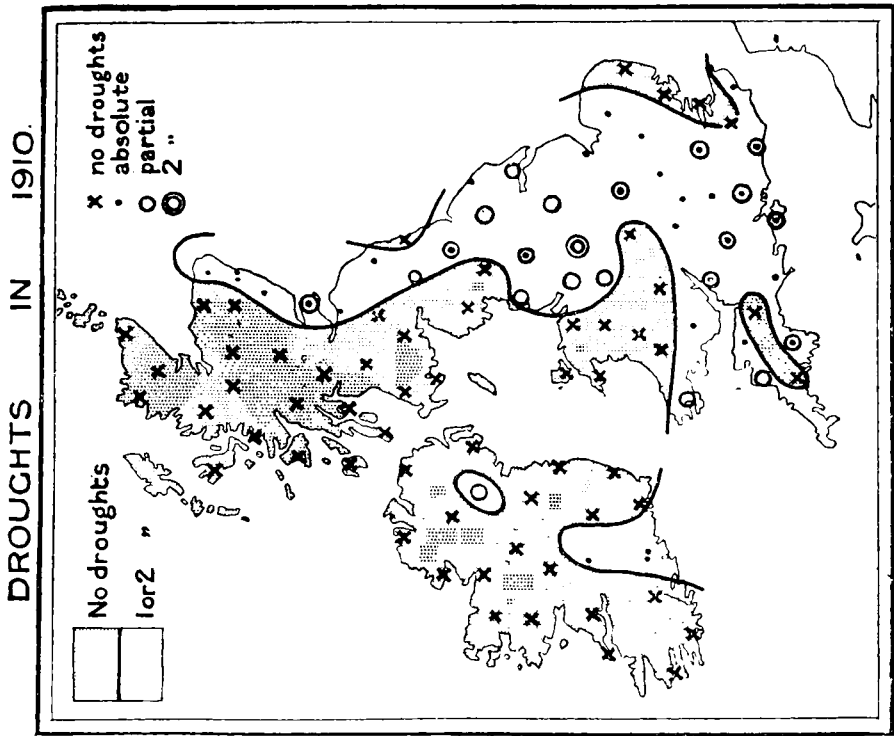
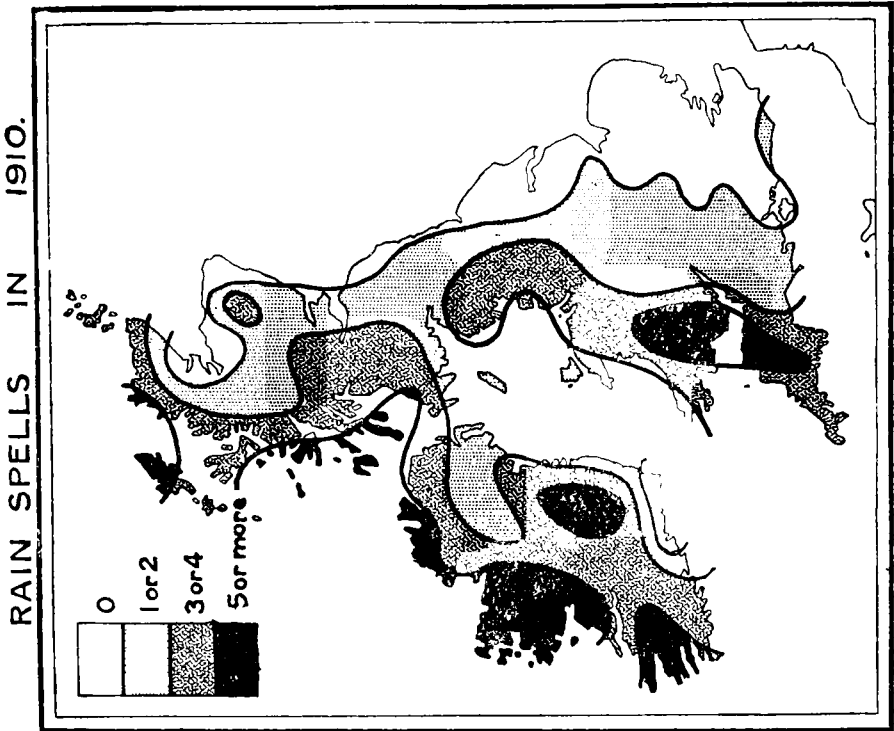
STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
<b>ENGLAND &amp; WALES.</b>			Days			Days	in.
St. Pancras (Camden Square) ... <i>London—2.</i>	Mar. 19	Apr. 3	16	Mar. 13	Apr. 11	30	·29
Hythe (Hillcrest Road) ..... <i>Kent—1.</i>	Mar. 20	Apr. 3	15	None			
Brighton (Ditchling Rd., Preston) <i>Sussex—3.</i>	Mar. 19	Apr. 3	16	Aug. 30	Oct. 10	42	·19
Totland Bay (Aston House) ..... <i>Hampshire—1.</i>	Mar. 19	Apr. 3	16	Aug. 31	Oct. 10	41	·29
Petersfield (Ditcham Park)..... <i>Hampshire—5.</i>	Mar. 19	Apr. 3	16	Aug. 30	Oct. 10	42	·41
Basingstoke (Sherborne St. John) <i>Hampshire—8.</i>	Mar. 19	Apr. 3	16	None			
Newport Pagnell (The Croft) ... <i>Buckinghamshire—5.</i>	Mar. 19	Apr. 3	16	None			
Oxford (Magdalen College) ..... <i>Oxfordshire—3.</i>	Mar. 19	Apr. 3	16	None			
Cambridge (Botanic Gardens)..... <i>Cambridgeshire—2.</i>	Mar. 19	Apr. 3	16	None			
Swaffham (The Paddocks) ..... <i>Norfolk—4.</i>	Mar. 20	Apr. 3	15	None			
Salisbury Plain (Shrewton)..... <i>Wiltshire—3.</i>	Mar. 19	Apr. 3	16	Aug. 31	Sept. 30	31	·27
Winterbourne Steepleton ..... <i>Dorsetshire—3.</i>	Mar. 19	Apr. 3	16	None			
Ashburton (Druid House) ..... <i>South Devon—4.</i>	Mar. 19	Apr. 2	15	Mar. 10	Apr. 11	33	·29
Morwenstow Vicarage..... <i>Cornwall—1.</i>	None			Aug. 31	Sept. 30	31	·31
Simonsbath ..... <i>Somerset—5.</i>	Mar. 18	Apr. 1	15	None			
Clifton (Pembroke Road) ..... <i>Gloucestershire—5.</i>	Mar. 19	Apr. 3	16	Aug. 30	Sept. 30	32	·32

*Droughts in 1910—(continued).*

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
ENGLAND & WALES—(con.)			Days			Days	in.
Stow-on-the-Wold ..... <i>Gloucestershire—7.</i>	Mar. 19	Apr. 3	16	None			
Shifnal (Neachley) ..... <i>Shropshire—4.</i>	None			Mar. 10	Apr. 9	31	·30
Mayfield House [Ashbourne]..... <i>Staffordshire—5.</i>	None			Mar. 10 Aug. 30	Apr. 11 Sept. 30	33 32	·30 ·25
Market Harborough (Rose Hill).. <i>Leicestershire—2.</i>	Sept. 16	Sept. 30	15	Mar. 12	Apr. 11	31	·29
Boston ..... <i>Lincolnshire—3.</i>	Sept. 16	Sept. 30	15	None			
Worksop (Hodsock Priory) ..... <i>Nottinghamshire—5.</i>	None			Aug. 29	Oct. 1	34	·34
Northwich (Highfield)..... <i>Cheshire—2.</i>	None			Sept. 2	Oct. 1	30	·20
St. Michaels-on-Wyre Vicarage... <i>North Lancashire—5.</i>	None			Sept. 2	Oct. 1	30	·30
Meltham (Harewood Lodge) ..... <i>Yorkshire, W.R.—8.</i>	Mar. 18	Apr. 3	17	Aug. 31	Sept. 30	31	·30
Hull (Pearson Park) ..... <i>Yorkshire, E.R.—3.</i>	None			Aug. 31	Sept. 30	31	·28
Thirsk (Mount St. John) ..... <i>Yorkshire, N.R.—2.</i>	None			Sept. 1	Sept. 30	30	·24
Scarborough (Scalby) ..... <i>Yorkshire, N.R.—5.</i>	Mar. 19	Apr. 3	16	None			
Barnard Castle (County School)... <i>Durham—I.</i>	Mar. 19	Apr. 3	16	Aug. 30	Sept. 30	32	·29
Pawston [Coldstream] ..... <i>Northumberland—6.</i>	Mar. 18	Apr. 3	17	None			
Brampton (Denton House) ..... <i>Cumberland—I.</i>	None			Mar. 10	Apr. 11	33	·32
Treherbert (Tyn-y-waun) .... <i>Glamorganshire—6.</i>	Mar. 18	Apr. 2	16	None			

*Droughts in 1910—(continued).*

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Last- ed. Days	Began.	Ended.	Last- ed. Days	Amount. in.
<b>ENGLAND &amp; WALES—(con.)</b>							
Haverfordwest ..... <i>Pembrokeshire—4.</i>	None			Aug. 30	Sept. 30	32	·29
<b>SCOTLAND.</b>							
Edinburgh (University) ..... <i>Midlothian.</i>	Sept. 13	Sept. 27	15	None			
St. Andrews (Queen's Gardens) ... <i>Fife.</i>	Mar. 19	Apr. 4	17	May 19	June 19	32	·32
Fettercairn (The Burn) ..... <i>Kincardine.</i>	Mar. 21	Apr. 4	15	None			
Aberdeen (Cranford House) ..... <i>Aberdeen.</i>	Mar. 20 July 4	Apr. 4 July 18	16 15	None			
New Deer Schoolhouse ..... <i>Aberdeen.</i>	Mar. 21	Apr. 4	15	None			
<b>IRELAND.</b>							
Lismore Castle ..... <i>Waterford.</i>	Mar. 18 Sept. 1	Apr. 1 Sept. 24	15 24	None			
Nenagh (Highlands)..... <i>Tipperary.</i>	Mar. 18	Apr. 9	23	None			
Armagh Observatory ..... <i>Armagh.</i>	None			Aug. 27	Sept. 25	30	·23



THE DISTRIBUTION OF DROUGHTS AND RAIN SPELLS IN 1910.

## RAIN SPELLS IN 1910.

A RAIN SPELL is a period of *more than* 14 consecutive days, every one of which is a rain day.

The rain spells of 1910 were more frequent in their occurrence than in any year since the memorable 1903. The comparative table given below has been corrected to allow for the increase in the number of stations used, and may be regarded as providing a good basis for comparing the results which would have been arrived at had 100 records been examined in each of the last eight years. It shows that

*Comparative Table of Rain Spells at 100 Stations.*

Year.	No. of Rain Spells.	DURATION OF SPELLS.				STATIONS WITH			
		Mean.		Greatest.		None.	1 or 2.	3 or 4.	5 or more.
		days.	Mean R per day. in.	days.	Mean R per day. in.				
1903...	282	22	·28	52	·51	11	41	26	22
1904...	152	19	·22	34	·27	31	51	11	7
1905...	121	19	·24	44	·38	45	39	12	4
1906...	125	21	·25	50	·40	38	47	11	4
1907...	177	21	·25	45	·17	38	30	18	14
1908...	159	19	·24	49	·43	21	59	12	8
1909...	110	19	·26	45	·12	36	52	12	0
1910...	235	21	·25	64	·30	24	34	25	17

NOTE.—The values previous to 1910 have been increased to the equivalent of 100 stations for comparison.

altogether 235 instances of rain spells were noted in 1910, or more than two per station, and that at 24 stations none occurred. Neither the mean duration nor the mean amount of rain per day was exceptional, but the list included the two longest spells ever extracted in this section, namely, 64 days from January 7th to March 11th at Darrynane Abbey, in Co. Kerry, during which period 18·98 in. of rain fell, and 55 days, beginning on the same day and ending on March 2nd, at Killybegs, on Donegal Bay, where 16·29 in. fell. The number of rain spells was most remarkable at the stations in the west of Ireland. At Tamney Rectory, Donegal, there were no fewer than

nine spells recorded during the year, and at Darrynane and Cong there were eight. In the case of Darrynane there would have been ten spells but that on two occasions two which appeared separately elsewhere here coalesced. At this station no fewer than 245 days between December 20th, 1909, and December 31st, 1910, formed part of rain spells. The area over which five or more rain spells were observed occupied almost the whole of the western coasts of Scotland and Ireland, and reappeared inland at two stations in Ireland, in South Wales and on Dartmoor. In the Lake District only four were recorded. Two or three spells occurred over practically the whole of Scotland and Ireland, the only exceptions being the borders of the Irish Sea and the North Sea. In England a broad, continuous strip down the east coast escaped rain spells altogether. A map on which lines of equal frequency have been drawn appears on page [67].

There were eight principal rain spells during the year, but only two, those of February and December, were of any very great extent. Six of the spells naturally group themselves in pairs, and these we shall mention together.

**1.—The rain spells of December, 1909, and January, 1910**

—In order to avoid omitting from discussion rain spells which happen to extend from one year to another, whilst possibly giving a complete rain spell in neither, it is desirable to include with the latter of the two years all such as extend into it. Should they have been included in the discussion for the previous year they are not counted in the numbers referring to the later year in the comparative table. In December, 1909, a rain spell, beginning generally between the 19th and 21st and lasting till about January 4th, 1910, affected a few stations, principally in the south-west of Scotland. A few days later, on January 7th or 8th, another run of rain days commenced, producing a rain spell at a group of stations in the south-west corner of England and Wales, in the whole of the western half of Ireland, and in parts of the west and north of Scotland. In the Devon-Cornwall peninsula it extended at some places to February 8th. Neither this nor the December-January spell was remarkable for any great intensity of rainfall.

**2.—The rain spell of February** was one of the most widespread of the year, though the whole of the east coast of Great Britain, a patch in north-west Wales and one in southern Ireland, escaped. It

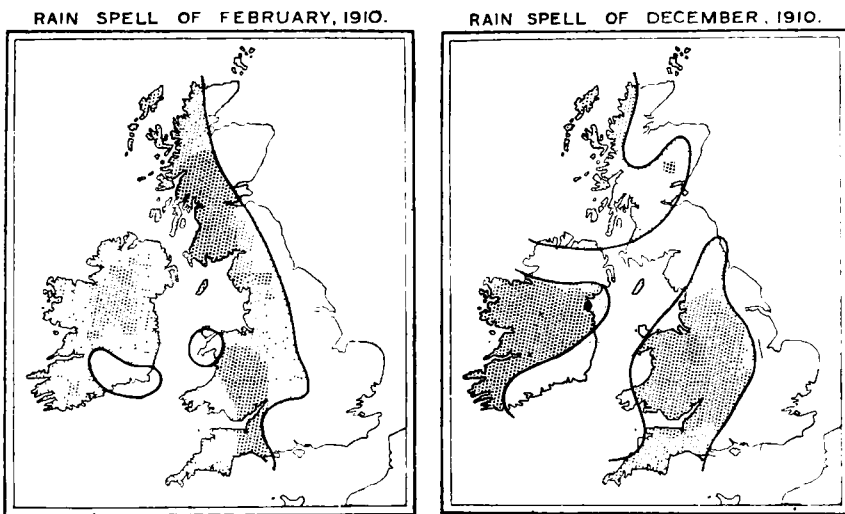
commenced in England between February 9th and 13th and broke off at a few spots on February 28th, but in most places continued till March 1st or 2nd. In Scotland it commenced a day or two earlier and ended in many places on February 25th, and in Ireland the date of commencement was more irregular. In almost all normally wet parts of the country the spell began in the last few days of January, thus making in several instances a spell of over 30 days' duration. The rainfall during the 36 days affected at Dungeon Ghyll amounted to 27·38 in., yielding a mean of ·76 in. per day. This was the only station at which the mean daily fall exceeded half an inch. The intensity was greatest in the south-west of England and Wales and in Scotland, and fell to a minimum in Cheshire, where it ended on February 20th and yielded only ·07 in. per day.

**3.—The rain spell of April—May** just exceeded the minimum length in a stretch of country extending from North Wales across the Bristol Channel into Devonshire, where it lasted from April 11th to 25th. On the south-west coasts of Ireland the period was approximately the same, but in a long narrow strip from Horn Head to Cape Wrath the spell commenced about April 20th and extended in most cases to May 9th.

**4.—The rain spells of July and August.**—These two summer rain spells, neither of them remarkable for duration or for intensity in comparison with the spells which occurred in the winter months, affected principally those parts of the country where the summer months are normally the driest of the year, and gave an unenviable character to the summer of 1910. The most important area stretched from Sligo across the north of Ireland and south-west of Scotland to the Firth of Forth. A second area occurred in south Wales and in the south of Ireland. The period generally was from July 19th till about August 4th, but at Darrynane it extended till September 2nd, thus combining with the August spell, which did not commence in most places till the 14th. The latter spell occurred in central Wales, in a wide stretch of country from Cheshire to Perthshire and in the west of Ireland. The rate of fall per day was rather high in the main area, reaching ·69 in. at Dungeon Ghyll, where 14·53 in. fell on 21 days, ·44 at Cramilt in Selkirkshire, and ·40 in. at Buchlyvie.



**5.—The rain spells of November and December.**—A spell, the dates of beginning and ending of which varied somewhat, occurred in November at a few stations in the south-west of England, at two in the north of Scotland and in a very narrow but unbroken strip of the west coast from Skye to Kerry. It was somewhat earlier in Ireland than in England, commencing as a rule in the last days of October. On November 30th, or a few days later, a rain spell set in which affected more than half the land surface of the British Isles. Roughly speaking this spell took place over the western portion of each of the three kingdoms, but in each, as will be seen by the sketch map, the area stretched to the east coast at points. In



England and the centre of Scotland and Ireland the spell terminated as a rule about December 20th, but in Wales it extended to the 24th, and on the west coasts of Scotland and Ireland to the last day of the year. The intensity of rainfall was greater in South Wales and in the Devon-Cornwall peninsula than elsewhere, the most notable instances being a rainfall of 13·67 in. on 21 days, or ·65 in. per day, at Ashburton; 14·67 in. on 27 days at Treherbert, 7·91 in. on 15 days at Llanwrda and 12·35 in. on 27 days at Tyrmynydd in Radnorshire. In the north of England, on the other hand the rate of fall was comparatively small, and no doubt owing to the prolongation of the spell through the latter part of the month in the west of Ireland, the rate there fell below that in the more easterly stations, being only ·10 in. at Cong and Crossmolina, and as much as ·33 in. at Dublin.

As in previous years we give a list of those rain spells during which the mean rate of rainfall was as high as  $\cdot 40$  in. per day.

*Rain Spells of a Mean Rate of  $\cdot 40$  in. or more per day in 1910.*

Div.	Station.	Began.	Ended.	Lasted.	Total Fall.	Rain per Day.		
						Max.	Min.	Mean.
				days.	in.	in.	in.	in.
V.	Ashburton .....	Nov. 30	Dec. 20	21	13·67	1·70	·01	·65
„	Taunton .....	Dec. 3	„ 20	18	7·41	1·15	·02	·41
„	Simonsbath .....	Jan. 15	Feb. 8	25	11·20	2·06	·01	·45
„	„ .....	Oct. 31	Nov. 16	17	8·78	2·08	·01	·52
„	„ .....	Nov. 30	Dec. 21	22	9·36	1·27	·01	·43
X.	Dungeon Ghyll ...	Jan. 27	Mar. 3	36	27·38	3·52	·01	·76
	„ .....	Aug. 14	Sept. 3	21	14·53	2·45	·01	·69
XI.	Treherbert .....	Jan. 7	Jan. 24	18	8·55	1·34	·01	·48
„	„ .....	Feb. 10	Mar. 1	20	10·08	1·79	·03	·50
„	„ .....	July 19	Aug. 4	17	7·93	1·50	·01	·47
„	„ .....	Nov. 30	Dec. 26	27	14·67	1·55	·02	·54
„	Llanwrda .....	Dec. 3	„ 17	15	7·91	1·04	·05	·53
„	Tyrmynydd .....	Nov. 30	„ 26	27	12·35	1·85	·01	·46
XIII.	Cramilt .....	Aug. 14	Aug. 30	17	7·43	1·76	·05	·44
XV.	Buchlyvie .....	„ 14	Sept. 3	21	8·50	1·59	·01	·40
„	Dalmally .....	Dec. 21	Jan. 5	16	6·87	1·43	·03	·43
		(1909)						
	„ .....	Feb. 8	Feb. 25	18	7·92	1·01	·03	·44
XVIII.	Inverie .....	Jan. 7	Jan. 23	17	6·94	1·24	·02	·41
XIX.	Ardehullin .....	Dec. 13	Dec. 31	19	8·37	1·96	·02	·44

It is noteworthy that 13 out of the 19 instances occurred in England or Wales, and not one in Ireland, where the rain spells were considerably more numerous than elsewhere, but where their intensity was not extreme.

*Table of Rain Spells, 1910.*

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES.			Days	in.	in.	in.	in.
Brighton(DitchlingRd.Preston) <i>Sussex—3.</i>	Feb. 10	Feb. 28	19	3·08	·62	·01	·16
Basingstoke (Sherborne S. John) <i>Hampshire—8.</i>	Nov. 30	Dec. 17	18	5·11	·66	·01	·28
Newport Pagnell (The Croft) ... <i>Buckinghamshire—5.</i>	Feb. 13	Feb. 28	16	2·01	·44	·01	·13

Table of Rain Spells, 1910—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES—(con.)			Days	in.	in.	in.	in.
Salisbury Plain (Shrewton) ...	Apr. 11	Apr. 26	16	1·61	·42	·01	·10
Wiltshire—3.	Apr. 28	May 13	16	1·12	·18	·01	·07
Winterbourne Steepleton .....	Feb. 13	Mar. 1	17	4·29	·69	·01	·25
Dorsetshire—3.	Nov. 29	Dec. 17	19	7·15	·99	·01	·38
Ashburton (Druid House) .....	Jan. 8	Jan. 25	18	4·58	1·09	·01	·25
South Devonshire—4.	Feb. 13	Mar. 1	17	6·62	1·25	·04	·39
	Nov. 30	Dec. 20	21	13·67	1·70	·01	·65
Morwenstow Vicarage .....	Jan. 8	Jan. 25	18	2·83	·66	·01	·16
Cornwall—1.	Feb. 11	Mar. 1	19	2·85	·56	·03	·15
	Apr. 10	Apr. 25	16	1·71	·44	·01	·11
	Oct. 31	Nov. 28	29	6·43	·81	·01	·22
St. Austell (Trevarna).....	Jan. 8	Feb. 8	32	7·40	1·00	·01	·23
Cornwall—2.	Feb. 10	Feb. 28	19	5·22	·76	·01	·27
	Nov. 10	Nov. 28	19	6·18	1·34	·02	·33
	Nov. 30	Dec. 21	22	8·29	1·07	·01	·38
Angersleigh (Leigh Court).....	Feb. 13	Mar. 2	18	4·19	·65	·02	·23
Somerset—3.	Dec. 3	Dec. 20	18	7·41	1·15	·02	·41
Simonsbath .....	Jan. 15	Feb. 8	25	11·20	2·06	·01	·45
Somerset—5.	Feb. 10	Mar. 1	20	6·77	1·16	·02	·34
	Apr. 11	Apr. 25	15	3·50	1·07	·01	·23
	Oct. 31	Nov. 16	17	8·78	2·08	·01	·52
	Nov. 30	Dec. 21	22	9·36	1·27	·01	·43
Clifton (Pembroke Road) .....	Aug. 16	Aug. 31	16	3·80	1·80	·01	·24
Gloucestershire—5.	Nov. 30	Dec. 17	18	5·54	·64	·02	·31
Stow-on-the-Wold .....	Feb. 13	Feb. 28	16	3·31	·66	·01	·21
Gloucestershire—7.	Nov. 30	Dec. 17	18	4·86	·80	·03	·27
Hereford (Holmer Hall) .....	Feb. 13	Mar. 1	17	2·67	·53	·01	·16
Herefordshire—1.	Nov. 29	Dec. 16	18	5·27	·67	·01	·29
Shifnal (Neachley) .....	Feb. 13	Mar. 1	17	2·23	·54	·01	·13
Shropshire—4.							
Mayfield House [Ashbourne] ...	Feb. 13	Mar. 1	17	2·20	·42	·01	·13
Staffordshire—5.	Nov. 30	Dec. 17	18	4·47	·96	·02	·25
Hampton-in-Arden (Hampton Manor)	Nov. 30	Dec. 17	18	5·70	·90	·02	·32
Warwickshire—4.							
Boston .....	Dec. 8	Dec. 24	17	1·96	·71	·01	·12
Lincolnshire—3.							
Northwich (Highfield).....	Jan. 31	Feb. 20	21	1·56	·24	·01	·07
Cheshire—2.	Aug. 16	Sep. 2	18	4·32	·89	·02	·24
	Nov. 30	Dec. 18	19	2·43	·43	·01	·13
St. Michaels-on-Wyre Vicarage	Feb. 12	Mar. 2	19	2·38	·57	·01	·13
North Lancashire—5.	Dec. 3	Dec. 20	18	2·30	·52	·01	·13

Table of Rain Spells, 1910—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES—(con.)			Days	in.	in.	in.	in.
Settle (The Terrace).....	Feb. 9	Mar. 2	22	4·29	1·09	·01	·20
Yorkshire, W.R.—2.	Aug. 14	Sep. 2	20	6·04	1·43	·01	·30
	Dec. 3	Dec. 20	18	3·20	·68	·01	·18
Meltham (Harewood Lodge) ...	Feb. 10	Mar. 1	20	3·57	·95	·01	·18
Yorkshire, W.R.—8.	Aug. 16	Aug. 31	16	4·99	1·68	·01	·31
	Nov. 30	Dec. 17	18	3·93	·68	·02	·22
Barnard Castle (County School)	Dec. 3	Dec. 18	16	2·39	·50	·01	·15
Durham—I.							
Morpeth (Bothalhaugh Garden)	Dec. 3	Dec. 20	18	1·87	·40	·01	·10
Northumberland—5.							
Brampton (Denton House).....	Feb. 10	Feb. 25	16	2·43	·49	·01	·15
Cumberland—I.							
Dungeon Ghyll .....	Jan. 27	Mar. 3	36	27·38	3·52	·01	·76
Westmorland—2.	Apr. 11	May 1	21	6·74	1·13	·01	·32
	July 19	Aug. 4	17	6·15	1·32	·01	·36
	Aug. 14	Sep. 3	21	14·53	2·45	·01	·69
Treherbert (Tyn-y-waun) .....	Jan. 7	Jan. 24	18	8·55	1·34	·01	·48
Glamorganshire—6.	Feb. 10	Mar. 1	20	10·08	1·79	·03	·50
	Apr. 12	Apr. 29	18	4·94	1·16	·02	·27
	July 19	Aug. 4	17	7·93	1·50	·01	·47
	Nov. 30	Dec. 26	27	14·67	1·55	·02	·54
Llanwrda (Dolaucothy) .....	Jan. 26	Mar. 2	35	9·40	·80	·01	·27
Carmarthenshire—2.	Apr. 12	Apr. 30	19	4·29	·60	·01	·23
	July 19	Aug. 3	16	4·38	·75	·02	·27
	Aug. 11	Sep. 2	23	7·02	1·30	·01	·31
	Dec. 3	Dec. 17	15	7·91	1·04	·05	·53
Haverfordwest .....	Jan. 8	Jan. 25	18	3·08	·51	·01	·17
Pembrokeshire—4.	Jan. 31	Mar. 1	30	5·52	·51	·03	·18
Birmingham W. W. (Tyrmynydd)	Feb. 10	Mar. 2	21	6·02	·85	·02	·29
Radnorshire—I.	Apr. 12	Apr. 29	18	4·40	·65	·01	·24
	June 20	July 5	16	5·03	·73	·01	·31
	July 19	Aug. 3	16	4·71	·87	·01	·29
	Aug. 11	Sep. 2	23	5·87	1·05	·01	·26
	Nov. 5	Nov. 20	16	4·22	·75	·01	·26
	Nov. 30	Dec. 26	27	12·35	1·85	·01	·46
Lake Vyrnwy .....	Feb. 12	Mar. 2	19	4·83	·73	·04	·25
Montgomeryshire—5.	Apr. 12	Apr. 29	18	4·00	·64	·01	·22
	Nov. 30	Dec. 18	19	7·27	1·37	·01	·38
St. Asaph (St. Beuno's College)	Feb. 16	Mar. 2	15	1·57	·42	·01	·10
Flintshire—2.	Aug. 18	Sep. 2	16	2·60	·52	·01	·16
	Nov. 30	Dec. 18	19	3·64	1·29	·01	·19

Table of Rain Spells, 1910—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES—(con.)			Days	in.	in.	in.	in.
Abersoch ..... <i>Carnarvonshire—4.</i>	Dec. 4	Dec. 26	23	6·42	1·22	·01	·28
Llangefni ..... <i>Anglesey.</i>	Jan. 31	Feb. 14	15	1·70	·29	·01	·11
SCOTLAND.							
Jardington [Dumfries]..... <i>Kirkcudbrightshire.</i>	Feb. 9 Aug. 14	Mar. 2 Aug. 30	22 17	5·72 5·97	1·02 1·62	·03 ·04	·26 ·35
Meggat Water (Cramilt Lodge) <i>Selkirkshire.</i>	Feb. 13 Aug. 14 Nov. 30	Mar. 2 Aug. 30 Dec. 18	18 17 19	6·63 7·43 4·18	1·64 1·76 ·79	·01 ·05 ·01	·37 ·44 ·22
Edinburgh (University) ..... <i>Midlothian.</i>	Feb. 10	Mar. 2	21	2·44	·46	·01	·12
Strathaven (Dungavel) ..... <i>Lanarkshire.</i>	Feb. 10 July 19 Aug. 14	Feb. 25 Aug. 4 Aug. 30	16 17 17	5·68 5·02 5·37	·93 ·86 ·88	·09 ·01 ·05	·36 ·30 ·32
Girvan (Pinmore)..... <i>Ayrshire.</i>	Dec. 21 (1909) Jan. 29 July 19 Aug. 18 Dec. 3	Jan. 5  Mar. 2 Aug. 4 Sep. 2 Dec. 31	16  33 17 16 29	2·62  11·15 5·08 3·48 6·79	·60  ·85 ·80 ·98 ·88	·01  ·01 ·02 ·02 ·01	·16  ·34 ·30 ·22 ·23
Buchlyvie (The Manse) ..... <i>Stirlingshire.</i>	Feb. 9 July 19 Aug. 14 Dec. 2	Feb. 25 Aug. 6 Sep. 3 Dec. 16	17 19 21 15	5·04 4·19 8·50 2·99	1·15 ·66 1·59 ·66	·01 ·01 ·01 ·02	·30 ·22 ·40 ·20
Rothsay (Glenburn) ..... <i>Buteshire.</i>	Jan. 30 Apr. 15 July 19 Dec. 3	Feb. 25 May 9 Aug. 4 Dec. 29	27 25 17 27	6·87 3·35 4·75 5·08	·65 ·42 ·92 ·59	·01 ·01 ·02 ·01	·25 ·13 ·28 ·19
Campbeltown (Witchburn)..... <i>Argyll, Mainland.</i>	Dec. 19 (1909) Feb. 1 July 19 Aug. 13 Dec. 3	Jan. 3  Mar. 2 Aug. 4 Aug. 30 Dec. 31	16  30 17 18 29	2·23  9·01 4·66 4·71 6·08	·48  ·83 ·80 ·81 1·00	·01  ·01 ·03 ·01 ·02	·14  ·30 ·27 ·26 ·21
Dalmally (School House)..... <i>Argyll, Mainland.</i>	Dec. 21 (1909) Feb. 8	Jan. 5  Feb. 25	16  18	6·87  7·92	1·43  1·01	·03  ·03	·43  ·44

Table of Rain Spells, 1910—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
SCOTLAND—(con.)			Days	in.	in.	in.	in.
Islay (Eallabus)..... <i>Argyll, Insular.</i>	Dec. 19 (1909)	Jan. 2	15	2·54	·55	·02	·17
	Jan. 8	Jan. 23	16	4·27	·57	·02	·27
	Jan. 28	Mar. 3	35	9·54	·75	·02	·27
	Apr. 22	May 9	18	2·84	·47	·01	·16
	Dec. 9	Dec. 31	23	4·58	·49	·02	·20
Mull (Ulva) ..... <i>Argyll, Insular.</i>	Dec. 19 (1909)	Jan. 4	17	3·74	·76	·02	·22
	Jan. 29	Feb. 25	28	9·02	1·21	·02	·32
	Apr. 20	May 9	20	4·57	·55	·01	·23
	Nov. 5	Nov. 19	15	3·53	1·11	·02	·24
	Dec. 4	Dec. 31	28	6·32	·80	·03	·23
St. Andrews (Queen's Gardens) <i>Fifeshire.</i>	Aug. 14	Aug. 30	17	4·74	1·00	·01	·28
Aberfeldy (Dall Avon) ..... <i>Perthshire.</i>	Feb. 9	Feb. 24	16	4·77	1·15	·02	·30
	Aug. 14	Aug. 30	17	6·62	2·18	·02	·39
	Dec. 2	Dec. 21	20	6·13	1·31	·01	·31
Fettercairn (The Burn) ..... <i>Kincardineshire.</i>	Nov. 30	Dec. 20	21	4·84	·67	·01	·23
Strathdon (School House) ..... <i>Aberdeenshire.</i>	Oct. 18	Nov. 4	18	4·07	·90	·01	·23
	Nov. 6	Nov. 20	15	4·67	·90	·01	·31
	Dec. 2	Dec. 20	19	5·06	·82	·01	·27
Gordon Castle ..... <i>Elgin.</i>	July 19	Aug. 3	16	2·37	1·02	·01	·15
Loch Nevis (Inverie) ..... <i>Inverness-shire.</i>	Jan. 7	Jan. 23	17	6·94	1·24	·02	·41
	Jan. 29	Mar. 3	34	10·72	1·09	·02	·32
	Apr. 22	May 9	18	5·96	·92	·03	·33
	Dec. 11	Dec. 31	21	7·41	1·48	·01	·35
Dunvegan ..... <i>Inverness-shire.</i>	Jan. 28	Mar. 3	35	11·54	·91	·01	·33
	Apr. 25	May 10	16	4·89	·97	·02	·31
	Oct. 30	Nov. 17	19	6·77	1·28	·01	·36
	Dec. 10	Dec. 31	22	6·13	·77	·01	·28
Fort Augustus (St. Benedict's) <i>Inverness-shire.</i>	Feb. 9	Feb. 24	16	3·84	·54	·03	·24
	Dec. 16	Dec. 31	16	3·23	·72	·01	·20
Kinlochewe ..... <i>Ross-shire.</i>	Feb. 9	Feb. 23	15	5·53	1·00	·02	·37
	Apr. 16	May 8	23	8·01	1·05	·02	·35
Loch Stack (Ardchullin)..... <i>Sutherlandshire.</i>	Dec. 20 (1909)	Jan. 3	15	3·90	·97	·01	·26
	Jan. 7	Jan. 25	19	5·64	·72	·02	·30
	Feb. 8	Feb. 24	17	4·11	·65	·02	·24
	Mar. 8	Mar. 22	15	3·73	·66	·03	·25
	Apr. 16	May 9	24	6·87	1·45	·02	·29
	Dec. 13	Dec. 31	19	8·37	1·96	·02	·44

Table of Rain Spells, 1910—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
SCOTLAND—(con.)							
			Days	in.	in.	in.	in.
Thurso (Buckies) .....	Jan. 7	Jan. 24	18	3·60	·55	·05	·20
Caithness.	Apr. 16	Apr. 30	15	1·93	·41	·02	·13
	Nov. 11	Nov. 26	16	3·42	·75	·01	·21
IRELAND.							
Skibbereen Rectory.....	Jan. 20	Feb. 7	19	3·66	·52	·02	·19
Cork.	Feb. 9	Mar. 9	29	6·77	·90	·02	·23
	Dec. 1	Dec. 23	23	4·79	·92	·02	·21
Mallow (Summer Hill).....	Jan. 7	Jan. 27	21	3·60	·46	·02	·17
Cork.	Jan. 29	Mar. 3	34	8·18	1·30	·01	·24
	Aug. 1	Aug. 30	30	5·56	·75	·01	·19
Darrynane Abbey.....	Dec. 20	Jan. 5	17	2·23	·40	·02	·13
Kerry.	(1909)						
	Jan. 7	Mar. 11	64	18·98	·81	·01	·30
	Apr. 11	Apr. 29	19	3·25	·81	·01	·17
	May 1	May 15	15	2·59	·41	·01	·17
	June 17	July 6	20	2·93	·70	·01	·15
	July 19	Sep. 2	46	8·75	·74	·01	·19
	Oct. 24	Nov. 26	34	9·03	1·40	·01	·27
	Dec. 2	Dec. 31	30	6·05	·73	·02	·20
Nenagh (Highlands).....	Jan. 7	Jan. 23	17	3·67	·80	·01	·22
Tipperary.	June 20	July 5	16	2·99	·76	·04	·19
	Aug. 11	Aug. 25	15	2·73	·58	·03	·18
	Dec. 1	Dec. 16	16	2·78	·70	·01	·17
Carrigaholt Castle .....	Jan. 7	Feb. 11	36	6·31	·72	·03	·18
Clare.	Feb. 13	Mar. 10	26	5·91	·65	·01	·23
	Oct. 31	Nov. 17	18	3·61	·48	·04	·20
	Dec. 7	Dec. 29	23	4·08	1·20	·02	·18
Newmarket-on-Fergus (Fenloe)	Jan. 7	Jan. 28	22	3·49	·46	·01	·16
Clare.	Jan. 30	Mar. 2	32	5·71	·56	·01	·18
	Apr. 11	Apr. 25	15	2·46	·52	·01	·16
	Aug. 6	Aug. 31	26	4·31	·42	·01	·17
	Dec. 4	Dec. 31	28	3·13	·63	·01	·11
Gorey (Courtown House) .....	Feb. 12	Feb. 27	16	2·90	·58	·01	·18
Wexford.							
Abbey Leix (Blandsfort).....	Feb. 4	Mar. 3	28	5·30	·60	·01	·19
Queen's County.	Apr. 11	Apr. 25	15	2·90	·57	·02	·19
	July 19	Aug. 5	18	3·65	1·00	·01	·20
	Aug. 11	Aug. 31	21	4·49	1·29	·01	·21
	Dec. 1	Dec. 20	20	4·41	·93	·01	·22

Table of Rain Spells, 1910—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
IRELAND—(con.)			Days	in.	in.	in.	in.
Dublin (Fitz William Square)...	Feb. 10	Mar. 1	20	3·96	·81	·02	·20
<i>Dublin.</i>	Dec. 1	Dec. 16	16	5·21	·77	·03	·33
Moyalty (Westland) .....	Feb. 3	Mar. 2	28	4·69	·59	·02	·17
<i>Meath.</i>	Apr. 11	Apr. 29	19	2·04	·45	·02	·11
	June 20	July 6	17	5·64	1·90	·01	·33
	Aug. 11	Aug. 31	21	5·13	1·04	·01	·24
	Dec. 1	Dec. 16	16	3·60	·55	·01	·23
Ballinasloe.....	Feb. 9	Mar. 3	23	4·75	·74	·01	·21
<i>Galway.</i>	Apr. 11	Apr. 28	18	2·83	·42	·01	·16
	Dec. 2	Dec. 16	15	2·87	1·03	·01	·19
Cong (The Glebe) .....	Dec. 21	Jan. 4	15	2·67	·54	·01	·18
<i>Mayo.</i>	(1909)						
	Jan. 6	Jan. 20	15	4·63	·73	·09	·31
	Jan. 27	Feb. 11	16	2·73	·43	·03	·17
	Feb. 13	Mar. 3	19	6·44	1·16	·01	·34
	Apr. 14	Apr. 28	15	1·72	·29	·01	·11
	Aug. 9	Aug. 30	22	5·43	2·53	·01	·25
	Oct. 26	Nov. 19	25	4·93	·69	·02	·20
	Dec. 6	Dec. 28	23	3·81	·77	·02	·17
Crossmolina (Enniscoe) .....	Jan. 6	Jan. 25	20	7·30	·95	·02	·37
<i>Mayo.</i>	Jan. 28	Feb. 23	27	6·97	·83	·03	·26
	June 19	July 6	18	3·96	1·18	·02	·22
	Aug. 13	Aug. 31	19	5·91	1·80	·01	·31
	Oct. 30	Nov. 25	27	6·63	·72	·02	·25
	Dec. 4	Dec. 27	24	2·36	·40	·01	·10
Collooney (Markree Observat'ry)	Jan. 7	Jan. 25	19	4·88	·60	·05	·26
<i>Sligo.</i>	Jan. 28	Mar. 3	35	8·22	·95	·02	·23
	July 19	Aug. 4	17	4·64	1·13	·02	·27
	Aug. 13	Aug. 30	18	6·25	2·30	·01	·35
	Dec. 7	Dec. 31	25	2·61	·46	·02	·10
Mohill Rectory .....	Feb. 9	Feb. 23	15	3·26	·58	·02	·22
<i>Leitrim.</i>	Dec. 5	Dec. 20	16	2·40	·57	·02	·15
Armagh Observatory .....	Feb. 1	Mar. 2	30	5·07	·63	·01	·17
<i>Armagh.</i>							
Seaforde .....	Feb. 11	Mar. 2	20	5·11	·81	·02	·26
<i>Down.</i>	Dec. 1	Dec. 23	23	5·38	·90	·01	·23
Bushmills (Dundarave) .....	Jan. 7	Jan. 30	24	4·52	·86	·01	·19
<i>Antrim.</i>	Feb. 3	Mar. 2	28	4·69	·39	·01	·17
	July 19	Aug. 2	15	4·21	1·56	·02	·28
	Dec. 4	Dec. 31	28	3·43	·46	·01	·12



Table of Rain Spells, 1910—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
IRELAND—(con.)			Days	in.	in.	in.	in.
Omagh (Edenfel) .....	Feb. 4	Feb. 21	18	4·46	·63	·02	·25
<i>Tyrone.</i>	July 19	Aug. 5	18	4·48	·60	·02	·25
Killybegs .....	Jan. 7	Mar. 2	55	16·29	1·03	·01	·30
<i>Donegal.</i>	July 19	Aug. 4	17	5·36	1·75	·04	·32
	Oct. 30	Nov. 19	21	6·43	1·27	·03	·31
Fanad (Tamney Rectory) .....	Jan. 7	Jan. 26	20	5·17	·60	·03	·26
<i>Donegal.</i>	Jan. 28	Mar. 2	34	6·82	·52	·01	·20
	Mar. 6	Mar. 21	16	2·52	1·11	·01	·16
	Apr. 10	May 9	30	4·20	·60	·01	·14
	June 19	July 6	18	3·23	·48	·01	·18
	July 18	Aug. 5	19	3·88	·74	·01	·20
	Aug. 16	Sep. 2	18	4·48	·72	·01	·25
	Oct. 30	Nov. 19	21	3·59	·48	·01	·17
	Dec. 9	Dec. 31	23	2·79	·34	·01	·12

## REPRESENTATIVE RECORDS OF DAILY RAINFALL IN 1910.

THE daily records at ten representative stations, formerly printed in Part I., come more appropriately in Part II., and as they illustrate the nature of the material on which the discussion of rain days, droughts and rain spells, is based, as well as that yielding the data for describing heavy falls on rainfall days, it is useful to have them in the same part of the volume for convenient reference. They appear accordingly on the ten following pages.

## REGISTER OF RAINFALL IN 1910

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

Lat. 51° 32' 20" N. Long. 0° 8' 10" W.

By DR. H. R. MILL, F.R.Met.Soc.

RAIN GAUGE... { Diameter, 8 in.  
 Height of top above Ground, 9 in.  
 „ „ „ Sea Level, 111 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·07	·04	...	...	·08	·01	·12	·15	·01	·30	·02	·52	1
2	...	·11	...	...	·18	·05	·19	·02	...	·04	·04	·25	2
3	...	...	...	...	·10	...	·40	...	...	...	·47	·34	3
4	...	...	...	·09	·20	·01	...	·22	...	...	...	·18	4
5	...	·04	·03	·01	·16	...	·55	·09	...	...	...	·01	5
6	...	·30	·03	·02	·03	...	·01	...	...	...	·12	...	6
7	...	...	·01	...	·05	·08	·08	...	...	...	·02	...	7
8	·04	·05	...	...	·03	...	...	·01	...	...	...	·11	8
9	·09	...	·40	·01	·08	·20	...	·06	...	...	...	·25	9
10	...	·06	...	...	...	·12	...	...	...	...	·13	·12	10
11	·13	·11	·25	...	·08	...	...	·02	...	·36	·04	·08	11
12	...	·02	·09	·06	·09	...	...	·04	·02	·31	·02	·13	12
13	·02	·08	...	·06	·02	...	...	·06	·48	...	·29	·13	13
14	...	·39	...	·02	...	...	...	·01	·02	...	·01	·42	14
15	·05	...	...	·12	...	...	·01	...	...	...	...	·50	15
16	·12	·09	·08	1·19	...	...	...	·01	...	·04	...	·02	16
17	·09	·13	·04	...	·35	...	·11	·01	...	·08	...	·02	17
18	·01	·19	·04	...	·52	...	·11	·18	...	·10	...	...	18
19	...	...	...	·03	·03	...	...	...	...	·03	·05	...	19
20	...	·22	...	...	...	...	·31	·01	...	·01	·01	...	20
21	...	·01	...	·18	...	...	·08	...	...	...	...	·05	21
22	·06	·37	...	·01	...	·09	·05	·01	...	...	...	...	22
23	·37	·03	...	·02	...	·58	...	·16	...	...	·54	·01	23
24	·12	·28	...	·02	...	·05	·09	...	...	...	·07	·03	24
25	...	·26	...	·05	...	·63	·34	·34	...	...	...	...	25
26	...	·02	...	·03	...	...	...	·05	...	...	...	·10	26
27	·32	...	...	...	...	·12	·02	...	...	·35	·60	...	27
28	·08	·16	...	·29	·07	...	·04	·05	...	·01	...	·02	28
29	...	...	...	...	·03	·06	...	·12	·05	...	...	...	29
30	...	...	...	·03	·06	·17	·02	·02	...	·01	·76	...	30
31	...	...	...	...	·06	...	...	...	...	·36	...	...	31
Totals	1·57	2·96	·97	2·24	2·22	2·17	2·53	1·64	·58	2·00	3·19	3·29	Totals
Totals from Jan. 1	1·57	4·53	5·50	7·74	9·96	12·13	14·66	16·30	16·88	18·88	22·07	25·36	Totals from Jan. 1
Rain Days	14	21	9	18	19	13	17	21	5	13	16	20	Total 186

Average of 53 years ..... 25·08 in.

## REGISTER OF RAINFALL IN 1910

*Kept at Penzance, Morrab Gardens, in the County of Cornwall,*

Lat. 50° 7' 0" N. Long. 5° 32' 12" W.

By CHARLES H. BENN, Esq.

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

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·03	·25	·01	...	...	·04	·10	·65	·01	·02	·26	·15	1
2	·01	·25	...	·02	...	...	·11	·09	...	·20	·35	·07	2
3	·01	·09	...	·83	·09	·01	·05	...	...	...	·22	·13	3
4	·02	·12	...	...	·17	·35	·16	·02	...	...	·20	·34	4
5	...	·20	·01	·12	·07	·26	·10	...	...	...	·12	·67	5
6	...	·21	·18	·02	·03	·05	...	...	...	...	·37	·01	6
7	...	·17	·14	...	·25	...	...	...	...	...	·32	·35	7
8	·04	·02	·08	...	·18	...	...	·02	...	...	·03	·63	8
9	·10	...	·10	...	·06	·01	...	...	...	...	·04	·50	9
10	·36	·06	...	...	...	·52	...	...	·01	·07	·33	·21	10
11	·40	·28	...	·02	·02	...	...	·09	·03	·98	·06	·16	11
12	·06	·01	...	·57	·24	·01	...	·04	...	1·06	·28	·52	12
13	·09	·26	...	·14	·05	...	...	...	...	·41	·63	·14	13
14	·05	·81	...	·14	·20	...	...	·07	·14	·02	·88	·48	14
15	·18	·16	...	·25	·01	...	·47	...	·01	·19	·07	·70	15
16	·12	·17	·10	·01	...	...	·15	·24	...	·57	·39	·01	16
17	·19	·14	·19	·40	·71	...	·06	...	...	·08	·03	·07	17
18	·37	·19	·01	·04	...	...	...	·43	...	·43	·04	·03	18
19	·09	·21	...	...	...	...	·15	·04	...	·33	·07	·03	19
20	·10	·27	...	...	...	...	·05	·01	...	·36	·11	·11	20
21	·16	·08	...	·04	...	·02	·16	...	...	...	·49	·01	21
22	·14	·01	...	...	...	·08	·01	·15	...	...	·78	...	22
23	·66	·24	...	·07	...	·11	·13	·61	...	...	·21	·14	23
24	·07	·23	...	·04	...	·13	·30	·06	...	·10	·19	·06	24
25	·17	·73	...	·12	...	·02	...	·29	·07	...	·17	·04	25
26	·27	·05	...	...	...	...	·16	·01	·01	·16	·35	·07	26
27	·67	·35	...	...	...	·09	·06	·25	·05	·76	·11	·07	27
28	·10	·09	...	·15	...	·06	·31	·24	...	·02	...	·05	28
29	·04	...	...	...	·01	·11	...	·20	...	...	...	·05	29
30	·02	...	...	...	·25	·23	·03	·02	...	...	·15	·01	30
31	·20	...	...	...	·05	...	·01	·07	...	·37	...	·04	31
Totals	4·72	5·65	·82	2·98	2·39	2·10	2·57	3·60	·33	6·13	7·25	5·85	Totals
Total from Jan. 1	4·72	10·37	11·19	14·17	16·56	18·66	21·23	24·83	25·16	31·29	38·54	44·39	Total from Jan. 1
Rain Days	28	27	9	17	16	17	19	21	8	18	28	30	Total 238

Average of 17 years ..... 39·92 in.

## REGISTER OF RAINFALL IN 1910

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

Lat. 51° 2' 31" N. Long. 2° 31' 15" W.

By REV. H. A. BOYS, F.R.Met.Soc.

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

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·02	·33	...	...	...	·03	·17	·46	...	·11	·16	·16	1
2	...	·18	...	...	...	·01	·25	·01	...	·21	...	...	2
3	·01	·07	...	...	·10	...	·20	·07	...	...	·49	·36	3
4	·01	·01	...	·10	·15	...	...	...	...	...	·02	·33	4
5	·01	·05	...	·04	·16	1·06	·25	...	...	...	·07	·34	5
6	·01	·22	·07	·38	·07	·02	...	·01	...	...	·14	·08	6
7	...	·16	·02	·01	·56	...	...	...	...	...	·05	·03	7
8	·03	...	·03	...	·04	·71	...	·02	...	...	...	·81	8
9	·08	...	·30	...	...	1·09	...	...	...	...	·01	·65	9
10	·11	·02	...	...	...	·97	...	...	...	·28	·04	·42	10
11	·25	·09	·06	·02	·04	...	...	·06	...	·10	...	·02	11
12	·19	...	·02	·32	·10	...	...	·01	...	1·08	·20	·82	12
13	...	·25	...	·04	·09	...	...	...	·02	·30	·56	·14	13
14	·01	·49	...	·16	·01	...	...	·12	·15	·18	·04	·70	14
15	·02	·09	...	·13	...	...	...	·01	·01	·16	·06	·38	15
16	·05	·06	·12	...	...	...	·90	·01	...	·66	...	·04	16
17	·50	·16	·10	...	·28	...	·30	...	...	·01	·04	·04	17
18	·26	·17	·02	·15	...	...	...	·06	...	·16	...	·01	18
19	·03	·04	...	·13	·26	...	·03	...	...	·24	...	·02	19
20	·01	·31	...	·02	...	...	·06	·01	...	...	·05	·78	20
21	·03	·19	...	·20	...	·13	·04	·05	...	...	...	·16	21
22	·25	·16	...	·21	·16	·65	·06	·01	...	...	·11	·01	22
23	·98	·20	...	·05	...	·19	·03	·26	...	...	·54	·16	23
24	·07	·24	...	·13	...	·21	·31	·02	...	·01	...	·08	24
25	...	·14	...	·22	...	·49	·19	·24	...	·02	·05	·02	25
26	...	·03	...	...	...	...	...	...	...	·01	·16	·02	26
27	·74	·03	...	...	...	·12	·03	·01	...	·59	·39	...	27
28	·07	·15	...	·30	·04	·03	·31	2·28	·01	·05	·04	·01	28
29	·01	...	...	·01	...	·64	...	·50	...	...	...	...	29
30	...	...	...	...	·03	·03	·01	·16	...	...	·62	...	30
31	·01	...	...	...	·07	...	·11	·01	...	·48	...	...	31
Totals	3·76	3·84	·74	2·62	2·16	6·38	3·25	4·39	·19	4·65	3·84	6·59	Totals
Totals from Jan. 1	3·76	7·60	8·34	10·96	13·12	19·50	22·75	27·14	27·33	31·98	35·82	42·41	Totals from Jan. 1
Rain Days	25	25	9	19	16	16	17	22	4	18	21	26	Total 218

Average of 14 years..... 30·41 in.

## REGISTER OF RAINFALL IN 1910

*Kept at Worksop, Hodsock Priory, in the County of Nottingham.*

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

BY LT.-COL. HENRY MELLISH, F.R.Met.Soc.

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

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
1	in. ·03	in. ·19	in. ...	in. ...	in. ·01	in. ·03	in. ·10	in. ·04	in. ...	in. ·17	in. ·08	in. ·92	1
2	...	·10	...	...	·07	...	·19	...	·01	·11	...	·11	2
3	...	·03	...	...	·05	·02	·39	·15	...	...	...	·61	3
4	...	·05	...	·20	·07	·03	...	...	...	...	...	·14	4
5	...	·02	...	·02	·09	...	·42	·01	...	...	...	...	5
6	...	·02	·04	...	·05	...	·30	...	...	·01	·15	·02	6
7	...	·08	·17	...	·02	·46	·01	...	·03	...	·02	·02	7
8	·10	·04	·16	...	·09	...	...	...	...	...	...	·04	8
9	·12	...	·07	·04	...	...	...	...	...	...	...	·10	9
10	·08	·01	...	...	...	...	·01	...	·01	·04	·60	·08	10
11	·05	...	...	...	·34	...	...	·25	·02	·95	·02	·01	11
12	...	...	...	·03	·02	·02	...	·03	...	·03	·24	·11	12
13	·02	·04	...	·03	...	...	...	...	...	...	·21	·03	13
14	·01	·28	...	·18	·40	...	·01	·74	·03	...	·16	·34	14
15	·10	...	...	·13	·46	...	...	...	...	...	·04	·43	15
16	·02	·03	...	·31	...	...	...	·02	...	·03	...	·21	16
17	·15	·10	·05	...	·01	...	...	...	...	·15	...	·07	17
18	...	·04	·04	·02	·22	...	...	·22	...	·08	·01	·05	18
19	...	·06	...	...	·11	...	...	·05	·05	·03	·02	...	19
20	...	·23	...	·02	...	...	·29	·38	...	·03	...	·01	20
21	...	·02	...	...	...	...	...	·09	...	...	...	...	21
22	·03	·10	...	·02	...	·01	·09	·03	...	...	...	...	22
23	·34	·09	...	...	...	·29	·01	·16	...	...	·34	·03	23
24	·38	·10	...	·12	...	·36	·25	·32	...	...	·02	...	24
25	...	·11	...	...	...	·17	·31	·47	...	...	...	...	25
26	...	·03	...	·01	...	...	...	·30	...	...	...	·17	26
27	·37	...	...	...	...	·12	...	...	...	...	·97	...	27
28	·04	·03	...	·21	·05	·33	·11	·32	·01	·19	·02	·02	28
29	·07	...	...	·15	...	·12	...	·01	...	·02	...	...	29
30	...	...	·01	...	·05	·04	...	...	...	·02	·10	...	30
31	...	...	...	...	·08	...	...	...	...	·31	...	·01	31
Totals	1·91	1·80	·54	1·49	2·19	2·00	2·49	3·59	·16	2·17	3·00	3·53	Totals
Total from Jan. 1	1·91	3·71	4·25	5·74	7·93	9·93	12·42	16·01	16·17	18·34	21·34	24·87	Total from Jan. 1
Rain Days	16	23	7	15	18	13	14	18	7	15	16	22	Total 184

Average of 35 years..... 24·38 in.

## REGISTER OF RAINFALL IN 1910

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

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

FOR THE ROYAL METEOROLOGICAL SOCIETY.

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

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	1·03	·64	3·74	...	·06	...	·97	·03	·13	·15	·64	·02	1
2	·87	·17	·46	·15	...	·21	·12	·52	·43	·77	·50	...	2
3	·12	·15	...	·03	·81	...	·38	·31	...	·10	·01	·62	3
4	·18	·65	...	·15	·96	...	...	·12	...	...	...	·28	4
5	·03	1·81	...	·25	·72	...	·98	...	...	...	·40	·63	5
6	...	1·66	·20	...	·48	·05	·26	·06	...	...	3·00	·42	6
7	·10	1·33	·42	...	·31	...	...	...	...	...	·05	·23	7
8	1·10	...	1·15	·04	·01	·09	...	...	...	...	...	·11	8
9	·65	·45	1·72	·36	·14	...	...	...	...	...	...	3·05	9
10	·68	1·47	·19	...	·13	...	...	...	·10	·31	·56	·83	10
11	·05	·34	...	·51	·10	...	...	·40	...	·01	·14	·75	11
12	...	·15	...	2·18	·04	...	...	·16	...	...	1·90	1·65	12
13	2·25	·78	...	·82	...	...	...	...	...	...	1·27	1·22	13
14	·51	·71	·58	·12	·03	...	...	·66	...	...	·32	1·05	14
15	3·15	·03	·36	·26	·20	...	...	·04	...	...	...	·60	15
16	·06	2·00	·51	·15	...	...	...	·12	...	...	·05	1·70	16
17	·71	·72	·19	·03	...	...	...	·37	...	·03	·10	·07	17
18	·31	·52	...	·04	·12	...	...	2·41	·03	·92	...	·30	18
19	...	·75	...	·02	·15	...	·02	1·06	...	·12	·33	·16	19
20	...	3·60	...	·52	...	·22	·98	1·87	...	·36	...	1·23	20
21	...	1·10	·05	·10	...	...	·12	·10	...	...	...	·35	21
22	·05	·56	...	·28	...	...	·21	·05	...	·03	...	·69	22
23	·10	·37	...	1·41	...	...	·01	·04	...	...	·26	2·42	23
24	·03	·71	...	·40	...	·32	1·39	·06	·01	...	·05	·20	24
25	...	·10	...	·16	...	...	·81	1·70	·06	...	...	·01	25
26	...	·35	...	·12	...	...	·01	4·51	·32	...	·28	·44	26
27	·37	·48	·19	·82	·12	·98	·82	·46	...	...	·12	...	27
28	·26	·58	...	·22	·31	·56	1·66	2·21	·17	...	...	·83	28
29	...	...	...	·18	·62	·42	·24	·43	·13	...	...	·28	29
30	·68	...	...	...	1·81	·20	·12	·32	...	...	...	...	30
31	2·02	...	...	...	·84	...	·06	·01	...	3·91	...	1·27	31
Totals	15·31	22·18	9·76	9·32	7·96	3·05	9·16	18·02	1·38	6·71	9·98	21·41	Totals
Total from Jan. 1	15·31	37·49	47·25	56·57	64·53	67·58	76·74	94·76	96·14	102·85	112·83	134·24	Total from Jan. 1
Rain Days	23	27	13	25	20	9	18	25	9	11	18	28	Total 226

Average of 30 years..... 129·47 in.

REGISTER OF RAINFALL IN 1910.

*Kept at Strata Florida, Hafod, in the County of Cardigan,*

Lat. 52° 20' 50" N. Long. 3° 49' 25" W.

BY T. J. WADDINGHAM, Esq.

RAIN GAUGE... { Diameter, 5 in.  
Height of top above Ground, 1 ft.  
" " " Sea Level, 580 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·15	·25	·10	...	·02	·23	·28	·04	·05	·03	1·21	·25	1
2	·02	·10	·02	·05	...	·05	·65	·25	·33	·83	·31	·36	2
3	·01	·32	...	·01	·37	·11	·07	·26	...	·04	·46	·11	3
4	...	·11	...	...	·31	·15	...	...	...	...	·49	...	4
5	...	·88	...	·15	·20	1·23	1·25	·01	...	...	...	·27	5
6	...	·86	·13	·32	·11	·06	...	...	...	...	·33	·34	6
7	·36	·40	...	...	·29	·40	...	...	...	...	·57	·40	7
8	·45	·24	...	...	·18	·06	...	...	...	...	·27	·04	8
9	·35	...	·22	...	·11	·80	...	...	...	...	·33	·49	9
10	·28	·08	·33	·02	·08	1·00	...	·01	·05	·05	...	·60	10
11	·32	·05	·03	·18	·05	·02	...	·33	...	·75	·57	·29	11
12	·50	·10	...	·30	·07	...	...	·27	...	·08	...	·29	12
13	...	·37	...	·20	·05	...	...	·25	...	...	·55	·60	13
14	·58	·48	·01	·42	...	...	...	·41	·13	...	·55	·48	14
15	·24	·05	...	·13	...	...	...	...	...	·01	·30	·53	15
16	·08	·37	·12	·13	·13	...	...	·17	...	·04	·49	·45	16
17	·26	·14	·29	·18	·01	...	...	·03	...	·10	...	1·87	17
18	·10	·53	...	·98	·10	...	...	·51	...	1·13	...	·54	18
19	·02	·40	·03	·09	·18	...	...	·18	...	·82	...	·05	19
20	·02	·77	...	·80	...	...	1·54	·21	...	·15	·50	·20	20
21	·40	·02	·02	·02	·01	·10	·05	·22	...	·02	...	·30	21
22	1·06	·30	...	·22	·02	·25	·40	·13	...	...	...	...	22
23	·23	·28	...	·32	...	·29	·42	·93	...	...	·29	·06	23
24	...	·60	...	·19	...	·47	·63	·09	...	...	·77	·55	24
25	...	·12	...	·02	...	·34	·28	·56	...	...	·01	...	25
26	·27	·33	·06	·20	...	...	...	·11	·09	·04	·15	·15	26
27	·26	·05	...	·29	...	·31	·28	·12	...	...	·04	·25	27
28	·11	·30	...	...	·18	·02	·53	·49	·03	·10	·67	...	28
29	...	...	...	·01	·23	1·03	·03	·43	·04	·20	·25	·72	29
30	·21	...	...	...	·29	1·47	·04	·17	...	·01	...	...	30
31	...	...	...	...	·36	...	·23	·04	...	...	...	·15	31
Totals	6·28	8·50	1·36	5·23	3·35	8·39	6·68	6·22	·72	4·40	9·11	10·34	Totals
Total from Jan. 1	6·28	14·78	16·14	21·37	24·72	33·11	39·79	46·01	46·73	51·13	60·24	70·58	Total from Jan. 1
Rain Days	23	27	12	23	22	20	15	25	7	17	21	26	Total 238

Average of 19 years..... 54·87 in.

## REGISTER OF RAINFALL IN 1910

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

Lat. 57° 8' 45" N. Long. 2° 8' 0" W.

By DAVID MCHARDY, Esq.

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

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	·02	·05	·19	...	·10	·13	·21	...	·43	·12	...	·02	1
2	...	·14	...	...	...	...	·01	·14	·12	·40	...	...	2
3	...	·24	...	...	·17	...	·01	·02	·10	·03	·10	·05	3
4	...	·02	...	...	·13	...	...	...	...	...	·06	·60	4
5	·02	·02	...	·20	·05	...	...	·45	...	...	...	·02	5
6	...	...	·02	...	·02	...	...	·08	...	...	·75	·03	6
7	...	·04	·11	...	·10	...	...	...	...	...	·53	...	7
8	·12	·02	·10	·02	·21	...	...	...	...	...	...	·28	8
9	·07	·14	·27	...	...	...	...	...	...	...	·24	·43	9
10	·02	...	·18	·01	...	...	...	...	·08	·18	...	·27	10
11	...	...	·06	...	·34	...	...	·25	·02	...	·03	·30	11
12	·06	·02	·02	·96	·26	·08	...	·01	...	...	·63	·08	12
13	·02	·03	·05	·34	·03	·05	...	...	...	...	·52	·23	13
14	...	·25	·12	...	...	...	...	·05	...	...	·40	·15	14
15	·23	...	·08	·06	...	...	...	·21	...	...	·05	·12	15
16	·04	·15	...	·80	...	...	...	·24	...	...	·06	·23	16
17	...	·21	·24	·32	·06	...	...	·02	...	...	·59	·03	17
18	...	·07	·09	·03	·46	...	...	·27	...	·28	·39	·14	18
19	·03	·24	·02	...	·17	...	·03	·06	·10	·12	·05	·03	19
20	·09	·33	...	·03	...	...	·05	·37	...	·42	·20	·02	20
21	·20	...	...	·01	...	·08	·76	·02	...	·03	·02	·01	21
22	·05	·38	...	·02	...	·17	·18	...	...	·10	...	...	22
23	·21	...	...	·03	...	...	·01	...	·02	·05	·17	·07	23
24	·24	·22	...	·08	...	...	·61	·02	...	·09	·23	...	24
25	·06	...	...	·02	...	·05	·28	·81	...	·01	·05	·10	25
26	·04	·02	...	·02	·03	·01	·01	·26	·12	...	·10	·09	26
27	...	...	...	·05	·18	·01	...	·12	...	·07	·27	·03	27
28	·11	·24	...	·05	·09	·02	·09	·54	·04	·04	·44	·02	28
29	·04	...	...	·02	·09	·04	·02	·08	...	·02	·03	...	29
30	·09	...	...	...	...	·06	·11	·05	...	...	·07	...	30
31	·01	...	...	...	·06	...	...	...	...	·25	...	·09	31
Totals	1·77	2·83	1·55	3·07	2·55	·70	2·38	4·07	1·03	2·21	5·98	3·44	Totals
Total from 1 Jan.	1·77	4·60	6·15	9·22	11·77	12·47	14·85	18·92	19·95	22·16	28·14	31·58	Total from Jan. 1
Rain Days	21	20	14	19	18	11	14	21	9	16	24	25	Total 212

Average of 24 years..... 31·78 in.



## REGISTER OF RAINFALL IN 1910

*Kept at Loch Quoich, Glenquoich, in the County of Inverness,*

Lat. 57° 5' N. Long. 4° 17' W.

By MR. DUNCAN GRANT.

RAIN GAUGE... { Diameter, 5 in.  
Height of top above Ground, 1 ft. 0 in.  
" " " Sea Level, 569 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	1·28	·27	·90	...	·22	...	·10	·03	1·30	...	·55	...	1
2	1·04	...	1·41	·15	·07	·05	·09	·03	·20	·55	·60	...	2
3	·60	...	·03	·02	·80	...	...	·03	·03	·69	·04	·02	3
4	·11	1·34	...	·09	·59	...	...	·20	...	1·10	...	...	4
5	·04	·31	...	·06	·51	...	·25	·02	...	·39	·04	·51	5
6	...	·12	·18	...	1·15	...	...	...	·06	...	·66	·21	6
7	·90	...	·65	...	·27	·03	...	·35	...	·32	·32	·03	7
8	1·95	·21	·38	·15	·12	·01	...	·01	...	...	·21	·08	8
9	1·05	·37	·86	·10	·02	...	...	...	...	·09	·12	·31	9
10	·60	·52	1·18	·59	...	...	...	...	·47	·24	...	·02	10
11	·76	·30	·02	1·42	...	...	...	·24	...	·08	·10	·09	11
12	·13	·90	·39	1·30	·20	·17	...	...	...	·01	·64	·02	12
13	2·25	·93	...	1·00	...	...	...	...	...	...	·32	·75	13
14	·15	·61	·24	·13	...	...	...	·11	...	...	·43	·18	14
15	1·21	·54	·65	...	...	...	...	·61	...	...	·15	·03	15
16	1·89	1·31	1·17	·50	...	·11	...	·68	...	...	1·05	·09	16
17	1·01	·60	·19	·11	...	...	...	1·35	...	...	·56	·40	17
18	·55	·41	·09	1·09	...	...	...	·69	·37	·35	...	·95	18
19	·32	·95	...	·10	...	·11	·04	·02	·04	·33	·07	·05	19
20	...	·42	·29	·50	...	·37	·44	·15	...	·05	...	·75	20
21	...	·55	·06	...	·03	·42	·50	·22	·06	·02	...	1·92	21
22	...	·11	...	·29	·04	·13	·43	...	·58	·10	...	·92	22
23	·28	·21	·07	·96	...	·02	·10	·37	·20	...	·16	2·52	23
24	...	·24	·05	·34	...	...	·39	·27	·05	...	·14	·33	24
25	...	...	...	·35	...	...	·12	·50	...	...	·10	·46	25
26	·27	...	·08	·19	·10	·45	·06	·67	·04	...	·28	·15	26
27	...	·10	·21	·84	·62	·12	·71	·47	·07	...	...	·31	27
28	·15	·55	...	·30	·06	·05	·84	·87	·20	...	...	·64	28
29	·13	...	...	·21	1·19	·27	·10	·24	·20	...	...	·22	29
30	1·10	...	...	·06	2·00	·42	·57	1·31	...	·28	...	·41	30
31	·13	...	...	...	·25	...	·09	·35	...	2·18	...	1·26	31
Totals	17·90	11·87	9·10	10·85	8·24	2·73	4·83	9·79	3·87	6·78	6·54	13·63	Totals
Total from Jan. 1	17·90	29·77	38·87	49·72	57·96	60·69	65·52	75·31	79·18	85·96	92·50	106·13	Total from Jan. 1
Rain Days	24	23	21	25	18	15	16	25	15	16	20	28	Total 246

Average of 40 years..... 110·51 in.

## REGISTER OF RAINFALL IN 1910

*Kept at Dunmanway Rectory, in the County of Cork,*

Lat. 51° 43' 38" N. Long. 9° 6' 0" W.

BY REV. A. WILSON.

RAIN GAUGE ... { Diameter, 5 in.  
 Height of top above Ground, 1 ft. 6 in.  
 " " " Sea Level, 205 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	...	·20	1·24	·01	...	·37	·03	·07	...	·66	·23	·02	1
2	·02	·12	·04	·09	...	...	·03	·21	...	·27	·33	·32	2
3	·02	·20	·15	·03	·06	·21	·04	·63	...	...	·09	·16	3
4	·06	·08	·02	...	·18	·07	·21	...	...	...	...	·14	4
5	·04	·33	·07	...	·04	·58	...	...	...	...	·24	·07	5
6	...	·18	·17	·17	·13	·07	...	...	...	·03	·27	·09	6
7	·05	·17	·40	·01	·36	·08	...	·16	...	·01	·10	·70	7
8	·14	·04	·30	...	·20	·03	...	·04	...	...	·02	·25	8
9	·25	·36	·20	...	·02	...	...	·01	...	...	·11	·47	9
10	·45	·12	·01	...	·11	...	...	·10	·09	·04	·24	·04	10
11	·30	·09	...	·08	·06	...	...	·20	...	·01	·12	·62	11
12	·29	...	...	·44	·02	·01	...	·29	...	·04	·53	·54	12
13	·54	·28	...	·03	·15	...	...	·02	...	...	·06	·40	13
14	·37	·58	·95	·43	·31	...	...	·11	...	...	·09	·26	14
15	·81	·15	...	·01	...	·04	·03	·03	...	·50	·01	1·33	15
16	·32	·54	·05	...	...	...	...	·53	...	·06	...	·27	16
17	·32	·41	·04	·30	·02	·01	...	·07	...	·10	·22	...	17
18	·35	·73	...	·04	·33	·01	...	·80	...	·10	...	·03	18
19	...	·69	...	·06	·01	·03	·05	·51	...	·14	·10	·42	19
20	·06	·93	...	...	...	·17	·42	·02	...	...	·42	·11	20
21	·06	·41	...	·07	...	·37	·18	...	...	·01	·83	...	21
22	·03	·08	...	...	...	...	·06	·22	...	·02	1·83	·02	22
23	·44	·58	...	·07	...	·16	·52	·43	...	...	·05	...	23
24	·48	·56	...	·23	...	·27	·07	·22	...	·12	·27	...	24
25	·06	·28	...	·07	...	·18	...	·50	1·06	·01	...	·06	25
26	·32	·11	...	·02	...	...	·08	·06	...	·64	·08	·01	26
27	·35	·44	·12	·20	...	·07	·69	·33	·47	1·00	·02	...	27
28	·04	·32	...	·04	...	·03	·11	·41	·09	·63	...	·02	28
29	·05	...	...	...	...	·03	·02	·19	...	·12	·01	·01	29
30	·11	...	...	...	·12	...	·04	·06	·09	...	...	·09	30
31	·10	...	...	...	...	...	·03	...	...	·10	...	·03	31
Totals	6·43	8·98	3·76	2·40	2·12	2·79	2·61	6·22	1·80	4·61	6·27	6·48	Totals
Total from Jan. 1	6·43	15·41	19·17	21·57	23·69	26·48	29·09	35·31	37·11	41·72	47·99	54·47	Total from Jan. 1
Rain Days	28	27	14	20	16	20	17	26	5	21	24	26	Total 244

Average of 6 years..... 54·00 in.

## REGISTER OF RAINFALL IN 1910

*Kept at Ballymena, Harryville, in the County of Antrim,*

Lat. 54° 52' N. Long. 6° 18' W.

By JOHN R. WILLIAMS, Esq.

RAIN GAUGE... { Diameter, 5 in.  
 Height of top above Ground, 1 ft. 4 in.  
 " " " Sea Level, 150 ft.

Date.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Date.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	.02	.10	.45	...	.05	.12	.29	.35	.27	...	.54	.03	1
2	.10	.05	.03	.06	.18	...	.09	1.28	.03	.43	.08	...	2
3	.06	.06	...	.16	.54	.34	...	.03	...	.03	.05	.07	3
4	...	.22	...	.03	.18	.02	.05	.20	...	...	.09	.12	4
5	...	.09	...	.02	.28	...	.51	...	...	...	.25	.20	5
6	...	.45	.16	...	.15	...	.05	...	.04	...	.36	.09	6
7	...	.29	.13	...	.25	...	...	...	...	...	.07	.22	7
8	.26	.15	.47	...	.10	.03	...	...	...	...	.17	.38	8
9	.22	.08	.60	.02	.06	.06	...	...	...	...	.06	.52	9
10	.25	.12	.12	.11	...	...	...	...	.28	.25	.45	.55	10
11	.30	.03	...	.12	...	...	...	.36	...	.06	.03	.15	11
12	.15	.15	.08	.31	.27	...	...	.04	...	.02	.48	.32	12
13	.08	.10	.06	.10	...	...	...	...	...	...	.02	.35	13
14	.09	.18	.35	...	...	.02	...	.26	...	...	.15	.14	14
15	.57	.12	.05	.22	.35	.19	...	...	...	...	.14	.62	15
16	.18	.25	.03	.04	.12	...	...	.12	...	.05	.45	.07	16
17	.21	.29	.16	.18	.02	...	...	.03	...	.28	.24	.06	17
18	.26	.63	.03	...	.05	...	...	.36	.05	.34	.04	.08	18
19	.18	.36	.06	.04	.15	...	.27	.05	.04	.51	.06	.05	19
20	.05	.43	.03	.15	...	.35	.29	.12	...	.08	...	.06	20
21	.09	.07	.03	.03	...	.77	.12	...	...	.26	...	.03	21
22	.23	.10	...	.05	...	...	.20	.25	...	.05	.32	.02	22
23	.42	.37	...	.27	...	.24	.05	.04	...	...	.25	.11	23
24	...	...	...	.33	...	.32	.60	.03	...	...	.27	.05	24
25	...	.24	...	.13	...	...	.34	.45	.03	...	.08	.09	25
26	.05	.08	.05	.03	...	.08	.10	.51	.12	...	.03	.04	26
27	...	.62	...	.29	.13	.28	.04	.27	.42	...	.04	.05	27
28	.06	.03	...	.20	.12	.12	.24	.83	.43	...	.06	.48	28
29	.07	...	...	.06	.05	.25	.51	.12	.02	...	...	.04	29
30	.12	...	...	.02	.07	.26	.29	.06	...	...	.06	.02	30
31	.02	...	...	...	.16	...	...	.02	...	.50	...	.08	31
Totals	4.04	5.66	2.89	2.97	3.28	3.45	4.04	5.78	1.73	2.86	4.84	5.09	Totals
Total from Jan. 1	4.04	9.70	12.59	15.56	18.84	22.29	26.33	32.11	33.84	36.70	41.54	46.63	Total from Jan. 1
Rain Days	24	27	18	24	20	16	17	22	11	13	27	30	Total 249

Average of 34 years..... 41.06 in.

## THE DURATION OF RAINFALL IN 1910.

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THE number of records from self-recording rain gauges has increased from twelve for 1909 to sixteen for 1910, and only one of the records published last year fails to reappear. Mr. Ronald, of Falkirk, informs us that he hopes his recording gauge will resume working, although no returns are available for 1910. Of the five new records, three are from the Negretti and Zambra hyetograph, one from a Lander, somewhat modified by the Observer we understand, and one from a home-made tipping-bucket gauge with an electric recording arrangement. As regards distribution, the hyetograph at Mill Hill, within six miles as the crow flies from Camden Square, affords an interesting comparison with the long record at the latter station; the new records from Credenhill, Herefordshire, and Percy Park, Tynemouth, are in parts of the country from which no records of duration of rain have hitherto been obtained. In order to prevent Scotland from being totally unrepresented we have inserted Mr. Bissett's returns from Inch, in Aberdeenshire, although it only extends over three months.

Mr. Walker's new gauge at Mount St. John, Thirsk, is useful as furnishing comparative figures for three different patterns of instrument at the same place. With regard to these, it is necessary to explain that the amount of rainfall given in these Tables, wherever a second gauge is kept, is that registered by a Snowdon or Meteorological Office pattern rain gauge, from which a direct measurement is made once daily at 9 a.m.; the duration only being taken from the recording gauge. At Thirsk it will be observed that the total duration of rainfall for the year was given by the three instruments as 646·7, 610·2 and 597·2 hours, respectively. For convenience of comparison, we may take the smallest as 100, and the three then read 109, 102 and 100. Since three gauges of different pattern, most carefully attended to and read by an exceedingly skilful and experienced Observer, may differ by 9 per cent. in their readings, it is obvious that with gauges of different patterns read by different people in different places, differences of 10 per cent. or so do not necessarily mean any real difference in the duration of rainfall. The more sensitive the gauge, and the finer the line it draws, the greater is the duration which would be deduced from it.

The differences of duration do, however, show a distinct geo-

graphical relationship. The two waterworks' gauges at Parkham, Devon, and at Cray, Brecon, gave, roughly speaking, two and a half times as many hours' duration as the gauge at Camden Square. Southport and Huddersfield gave one and a half times as many hours, and Thirsk and Credenhill one and a quarter times as many.

*Comparison of Amount, Duration and Intensity of Rainfall, and Number of Rain Days at Camden Square in 1910 with the Average for 29 years, 1881-1909.*

YEAR.	AMOUNT.		DURATION.		INTENSITY.		RAIN DAYS.	
	Total.	Per cent. of average	Total.	Per cent. of average	Rate per Hour.	Per cent. of average	Total.	Per cent. of average
	in.		hours		in.			
1881	27·92	116	486·3	115	·057	98	152	94
1882	27·14	113	480·7	114	·056	97	165	102
1883	24·40	101	393·5	93	·062	107	164	102
1884	20·35	85	336·8	80	·060	103	150	93
1885	26·64	111	470·0	111	·057	98	165	102
1886	27·01	112	427·2	101	·063	109	176	109
1887	19·21	80	300·3	71	·064	110	140	87
1888	27·74	115	435·7	103	·064	110	173	107
1889	23·85	99	428·5	101	·056	97	169	105
1890	21·23	88	409·5	97	·052	90	161	100
1891	28·15	117	490·3	116	·057	98	178	111
1892	22·61	94	372·5	88	·061	105	158	98
1893	19·80	82	388·0	92	·051	88	148	92
1894	27·94	116	477·7	113	·058	100	185	115
1895	21·47	89	380·0	90	·057	98	137	85
1896	23·52	98	404·3	95	·058	100	157	97
1897	22·86	95	371·2	88	·062	107	164	102
1898	<i>m</i> 17·69	74	<i>m</i> 298·5	71	·059	102	140	87
1899	22·54	94	337·5	80	·067	115	144	89
1900	23·28	97	366·3	86	·064	110	173	107
1901	22·17	92	310·2	73	<i>M</i> ·071	122	<i>m</i> 128	79
1902	20·84	87	352·5	83	·059	102	162	101
1903	<i>M</i> 38·10	158	<i>M</i> 688·5	163	·055	95	179	111
1904	20·65	86	491·8	116	<i>m</i> ·042	72	160	99
1905	22·97	95	456·4	108	·050	86	162	101
1906	24·26	101	420·4	99	·058	100	163	101
1907	23·01	96	418·8	99	·055	95	175	109
1908	23·67	98	500·7	118	·047	81	157	97
1909	26·75	111	576·5	136	·046	79	<i>M</i> 190	118
Average.	24·06	100	423·1	100	·058	100	161	100
1910	25·36	105	491·2	116	·052	89	186	116
Difference from average	+ 1·30	+ 5	+ 68·1	+ 16	- ·006	- 11	+ 25	+ 16

*Duration of Rainfall at Camden Square in 1910.*

Casella's Standard Recording Rain Gauge. 111 feet above Sea Level.

DR. H. R. MILL, F.R.Met.Soc.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	1·57	33·8	·046	14	·11	2·4
February .....	2·96	58·6	·051	21	·14	2·8
March .....	·97	23·3	·042	9	·11	2·6
April .....	2·24	27·9	·080	18	·12	1·6
May .....	2·22	39·5	·056	19	·12	2·1
June .....	2·17	28·0	·078	13	·17	2·2
July .....	2·53	40·5	·062	17	·15	2·4
August .....	1·64	31·7	·052	21	·08	1·5
September .....	·58	6·7	·087	5	·12	1·3
October .....	2·00	37·9	·053	13	·15	2·9
November .....	3·19	81·9	·039	16	·20	5·1
December .....	3·29	81·4	·040	20	·16	4·1
Year .....	25·36	491·2	·052	186	·14	2·6

*Duration of Rainfall at Mill Hill in 1910.*

Negretti and Zambra's Hyetograph. 380 feet above Sea Level.

MRS. H. R. MILL, F.R.Met.Soc.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	1·80	47·7	·038	19	·09	2·5
February .....	2·59	69·2	·037	26	·10	2·7
March .....	1·01	23·9	·042	9	·11	2·7
April .....	1·42	41·4	·034	18	·08	2·3
May .....	2·21	46·3	·048	19	·12	2·4
June .....	2·12	23·7	·090	12	·18	2·0
July .....	1·96	43·3	·045	15	·13	2·9
August .....	3·10	33·9	·091	18	·17	1·9
September .....	·48	5·0	·096	4	·12	1·2
October .....	2·15	38·8	·055	15	·14	2·6
November .....	3·75	94·0	·040	17	·22	5·5
December .....	3·96	88·9	·045	23	·17	3·9
Year .....	26·55	556·1	·048	195	·14	2·9

*Duration of Rainfall at Park Hill House, Stanhope Road, Croydon,  
in 1910.*

265 feet above Sea Level.

MR. BALDWIN LATHAM, M.Inst.C.E., F.R.Met.Soc.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	2·39	33·1	·072	17	·14	2·0
February .....	3·98	55·0	·072	24	·17	2·3
March .....	1·37	23·2	·059	8	·17	2·9
April .....	2·03	24·8	·082	18	·11	1·4
May .....	2·14	32·6	·066	16	·13	2·0
June .....	2·20	20·7	·106	14	·16	1·5
July .....	2·53	41·3	·061	17	·15	2·4
August .....	2·82	31·0	·091	19	·15	1·6
September .....	1·09	7·8	·140	8	·14	1·0
October .....	3·21	49·9	·064	18	·18	2·8
November .....	3·38	79·2	·043	18	·19	4·4
December .....	4·37	78·8	·055	24	·18	3·3
Year .....	31·51	477·4	·066	201	·16	2·4

*Duration of Rainfall at Timsbury, Hants, in 1910.*

Negretti & Zambra's Tipping Bucket Recording Rain Gauge.  
90 feet above Sea Level.

MR. WILLIAM MATTHEWS, M.Inst.C.E.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	3·06	72·3	·042	19	·16	3·8
February .....	3·85	77·2	·050	24	·16	3·2
March .....	·81	20·4	·040	8	·10	2·5
April .....	2·88	47·4	·061	15	·19	3·2
May .....	1·71	29·0	·059	16	·11	1·8
June .....	3·41	31·7	·108	13	·26	2·4
July .....	1·77	29·9	·059	16	·11	1·9
August .....	1·72	31·8	·054	18	·10	1·8
September .....	·14	3·0	·047	2	·07	1·5
October .....	3·96	49·5	·080	15	·26	3·3
November .....	3·39	53·0	·064	16	·21	3·3
December .....	5·24	78·9	·066	19	·28	4·2
Year .....	31·94	524·1	·061	181	·18	2·9

*Duration of Rainfall at Twyford, Hants, in 1910.*

Negretti &amp; Zambra's Tipping Bucket Recording Rain Gauge.

139 feet above Sea Level.

MR. WILLIAM MATTHEWS, M.Inst.C.E.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	2·61	64·1	·041	16	·16	4·0
February .....	3·76	74·6	·050	21	·18	3·6
March .....	·85	17·5	·049	7	·12	2·5
April .....	2·74	35·4	·077	13	·21	2·7
May .....	1·77	38·6	·046	14	·13	2·8
June .....	2·41	27·8	·087	13	·19	2·1
July .....	1·91	37·9	·050	10	·19	3·8
August .....	2·18	39·4	·055	15	·15	2·6
September .....	·12	3·2	·038	3	·04	1·1
October .....	4·04	47·7	·085	16	·25	3·0
November .....	3·37	57·5	·059	14	·24	4·1
December .....	6·02	83·4	·072	19	·32	4·4
Year .....	31·78	527·1	·060	161	·20	3·3

*Duration of Rainfall at Melbury Reservoir, Parkham, Devon, in 1910.*

Negretti and Zambra's Tipping Bucket Recording Rain Gauge.

516 feet above Sea Level.

MR. BALDWIN LATHAM, M.Inst.C.E., F.R.Met.Soc.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January ..	7·06	152·0	·046	28	·25	5·4
February .....	8·38	151·2	·055	27	·31	5·6
March .....	1·30	35·7	·036	16	·08	2·2
April .....	3·18	103·8	·031	27	·12	3·8
May .....	3·25	59·7	·054	17	·19	3·5
June .....	3·91	74·2	·053	19	·21	3·9
July .....	4·33	94·3	·046	22	·20	4·3
August .....	5·57	106·2	·052	29	·19	3·7
September .....	·33	11·2	·029	8	·04	1·4
October .....	8·21	117·8	·070	21	·39	5·6
November .....	8·05	180·1	·045	28	·29	6·4
December .....	7·98	189·1	·042	28	·28	6·8
Year .....	61·55	1275·3	·048	270	·23	4·7



*Duration of Rainfall at Swainshill, Credenhill, Herefordshire, in 1910.*

Electrically recording Tipping Bucket Rain Gauge.  
266 feet above Sea Level.

MR. B. G. RONALDS.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	2·22	52·3	·042	15	·15	3·5
February .....	3·57	87·9	·041	24	·15	3·7
March .....	·48	27·8	·017	9	·05	3·1
April.....	2·05	44·0	·047	14	·15	3·1
May .....	1·71	30·0	·057	16	·11	1·9
June .....	3·82	39·4	·097	13	·29	3·0
July .....	1·58	28·3	·056	11	·14	2·6
August.....	4·45	42·6	·104	20	·22	2·1
September .....	·43	14·6	·029	3	·14	4·9
October ...	3·14	58·7	·053	17	·18	3·5
November .....	3·71	73·7	·050	17	·22	4·3
December ..	5·61	119·6	·047	19	·30	6·3
Year .....	32·77	618·9	·053	178	·18	3·5

*Duration of Rainfall at Hodsock Priory, Notts, in 1910.*

Halliwell Recording Gauge. 56 feet above Sea Level.

LT.-COL. H. MELLISH, F.R.Met.Soc.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	1·91	32·6	·059	16	·12	2·0
February .....	1·80	46·4	·039	23	·08	2·0
March .....	·54	9·5	·057	7	·08	1·4
April .....	1·49	36·1	·041	15	·10	2·4
May .....	2·19	29·4	·074	18	·12	1·6
June.....	2·00	21·7	·092	13	·15	1·7
July ..	2·49	37·0	·067	14	·18	2·6
August.....	3·59	39·2	·092	18	·20	2·2
September .....	·16	9·6	·017	7	·02	1·4
October .....	2·17	36·6	·059	15	·14	2·4
November .....	3·00	67·7	·044	16	·19	4·2
December .....	3·53	78·4	·045	22	·16	3·6
Year .....	24·87	444·2	·056	184	·14	2·4

*Duration of Rainfall at Hesketh Park, Southport, Lancashire, in 1910.*

Halliwell Recording Gauge. 39 feet above Sea Level.

MR. J. BAXENDELL, F.R.Met.Soc.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	3·48	83·9	·041	18	·19	4·7
February.....	3·22	76·1	·042	26	·12	2·9
March .....	1·03	25·1	·041	9	·11	2·8
April .....	2·20	64·3	·034	21	·10	3·1
May .....	2·32	46·9	·049	17	·14	2·8
June.....	2·95	43·9	·067	15	·20	2·9
July .....	3·74	69·4	·054	12	·31	5·8
August .....	4·70	86·3	·054	24	·20	3·6
September .....	·54	15·5	·035	9	·06	1·7
October .....	3·23	49·9	·065	13	·25	3·8
November .....	4·82	97·1	·050	22	·22	4·4
December .....	2·81	70·0	·040	27	·10	2·6
Year.....	35·04	728·4	·048	213	·16	3·4

*Duration of Rainfall at Huddersfield Cemetery, Yorkshire, in 1910.*

Halliwell Recording Gauge. 410 feet above Sea Level.

MR. J. FIRTH.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	4·96	103·2	·048	22	·23	4·7
February.....	3·60	97·1	·037	26	·14	3·7
March .....	·53	15·0	·035	10	·05	1·5
April .....	2·89	83·1	·035	18	·16	4·6
May .....	2·67	55·6	·048	21	·13	2·6
June .....	4·67	47·8	·097	15	·31	3·2
July .....	2·77	51·3	·054	14	·20	3·7
August .....	4·33	66·5	·065	23	·19	2·9
September .....	·22	8·8	·025	7	·03	1·3
October .....	2·82	56·0	·050	16	·28	3·5
November .....	3·80	83·0	·046	18	·21	4·6
December .....	4·11	132·0	·031	29	·14	4·6
Year.....	37·37	799·4	·047	219	·17	3·7

*Duration of Rainfall at Mount St. John, Thirsk, Yorkshire, in 1910.*

Halliwell Recording Gauge. 542 feet above Sea Level.

MR. A. J. WALKER, F.R.Met.Soc.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	2·89	54·8	·053	20	·14	2·7
February .....	2·57	71·1	·036	23	·11	3·1
March .....	·71	25·0	·028	11	·06	2·3
April .....	1·70	53·3	·032	18	·09	3·0
May .....	2·08	49·0	·042	20	·10	2·5
June .....	1·59	37·4	·043	11	·14	3·4
July .....	2·62	51·5	·051	12	·22	4·3
August .....	3·77	64·5	·058	22	·17	2·9
September .....	·24	15·8	·015	9	·03	1·8
October .....	2·66	59·6	·045	17	·16	3·5
November .....	3·04	91·4	·033	21	·14	4·4
December .....	2·86	73·3	·039	21	·14	3·5
Year.....	26·73	646·7	·041	205	·13	3·2

*Duration of Rainfall at Mount St. John, Thirsk, Yorkshire, in 1910.*

Newey Recording Gauge. 542 feet above Sea Level.

MR. A. J. WALKER, F.R.Met.Soc.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	2·89	54·0	·054	20	·14	2·7
February .....	2·57	64·1	·040	23	·11	2·8
March .....	·71	21·2	·034	11	·06	1·9
April .....	1·70	53·0	·032	18	·09	2·9
May .....	2·08	44·3	·047	20	·10	2·2
June .....	1·59	34·9	·046	11	·14	3·2
July .....	2·62	44·6	·059	12	·22	3·7
August .....	3·77	63·0	·060	22	·17	2·9
September .....	·24	11·1	·022	9	·03	1·2
October .....	2·66	57·4	·046	17	·16	3·4
November .....	3·04	91·1	·033	21	·14	4·3
December .....	2·86	71·5	·040	21	·14	3·4
Year.....	26·73	610·2	·044	205	·13	3·0

*Duration of Rainfall at Mount St. John, Thirsk, Yorkshire, in 1910.*

Lander Recording Gauge. 542 feet above Sea Level.

MR. A. J. WALKER, F.R.Met.Soc.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	2·89	52·9	·055	20	·14	2·6
February.....	2·57	59·9	·043	23	·11	2·6
March .....	·71	17·4	·041	11	·06	1·6
April .....	1·70	43·0	·040	18	·09	2·4
May .....	2·08	40·7	·051	20	·10	2·0
June.....	1·59	34·0	·047	11	·14	3·1
July .....	2·62	47·0	·056	12	·22	3·9
August .....	3·77	65·6	·058	22	·17	3·0
September .....	·24	10·8	·022	9	·03	1·2
October .....	2·66	56·1	·047	17	·16	3·3
November .....	3·04	96·2	·032	21	·14	4·6
December .....	2·86	73·6	·039	21	·14	3·5
Year.....	26·73	597·2	·045	205	·13	2·9

*Duration of Rainfall at Percy Park, Tynemouth, Northumberland, in 1910.*

Negretti &amp; Zambra's Hyetograph. 92 feet above Sea Level.

MR. J. E. BURNETT, F.R.Met.Soc.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rain per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	2·81	53·5*	·048	18	·16	3·3
February .....	2·36	55·8	·042	20	·12	2·8
March .....	·69	11·6	·059	9	·08	1·3
April.....	1·99	43·6	·046	17	·12	2·6
May .....	3·21	43·9	·073	20	·16	2·2
June .....	1·24	26·2	·047	13	·10	2·0
July ...	1·92	42·7	·045	18	·11	2·4
August.....	2·47	42·8	·058	16	·15	2·7
September .....	·81	19·1	·042	11	·07	1·7
October .....	3·46	44·1	·078	17	·20	2·6
November .....	2·93	68·6	·043	23	·13	3·0
December .....	1·89	43·3	·044	18	·11	2·4
Year .....	25·78	500·2	·052	200	·13	2·5

\* Duration in January partly estimated

## DURATION OF RAINFALL.

[ 99 ]

*Duration of Rainfall at Cray Reservoir, Breconshire, in 1910.*

Halliwell Recording Gauge. 1,030 feet above Sea Level.

MR. R. H. WYRILL, M.Inst.C.E.

1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	7·94	170·2	·046	24	·33	7·1
February .....	9·71	178·5	·054	27	·36	6·6
March .....	2·80	47·3	·059	11	·25	4·3
April .....	5·11	88·8	·057	20	·26	4·4
May .....	3·14	48·5	·065	22	·14	2·2
June .....	7·18	71·0	·101	19	·38	3·7
July .....	6·41	85·7	·075	17	·38	5·0
August .....	9·58	113·0	·085	26	·37	4·3
September .....	·76	12·0	·063	7	·11	1·7
October .....	5·12	84·3	·061	18	·28	4·7
November .....	8·48	130·0	·065	23	·37	5·7
December .....	12·42	199·5	·062	27	·46	7·4
Year... ..	78·65	1228·8	·064	241	·33	5·1

*Duration of Rainfall at Thornhill, Inch, Aberdeenshire, in 1910:*

Negretti &amp; Zambra's Hyetograph. 430 feet above Sea Level.

MR. JOHN BISSET.

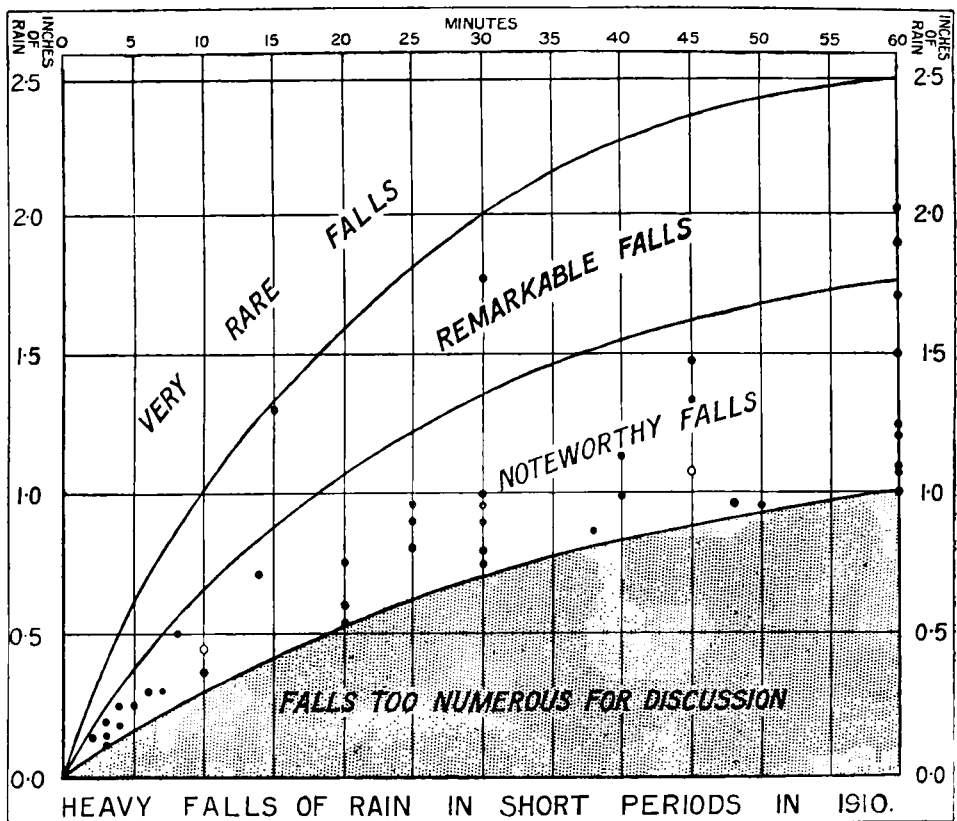
1910.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January .....	1·72	...	...	20	·09	...
February .....	2·18	...	...	18	·12	...
March .....	1·37	...	...	16	·09	...
April .....	3·26	...	...	19	·17	...
May .....	1·98	...	...	19	·10	...
June .....	1·29	...	...	14	·09	...
July .....	2·74	...	...	19	·14	...
August .....	4·00	...	...	20	·20	...
September .....	1·23	...	...	11	·11	...
October .....	2·88	65·1	·044	23	·13	2·8
November .....	6·47	140·8	·046	26	·25	5·4
December .....	4·44	123·9	·036	23	·19	5·4
Year .....	33·56	...	...	228	·15	...

## HEAVY RAINS IN SHORT PERIODS.

---

THE list of recorded heavy rains in short periods is longer than it has been in recent years. This is due to the remarkable series of thunderstorms in June, more than half of the instances quoted having been observed in the five days, June 7th, 8th, 9th, 10th, 12th. We have still to regret the infrequency of direct measurements from recording rain gauges, the great majority of the instances we are able to quote having been sent by enthusiastic observers who noted the moment of the commencement of heavy rain, and read the amount in the rain gauge when the rain ceased or slackened. We have exercised, perhaps, more than usual care in admitting only definite statements; thus, those which are phrased like "the rainfall for the day was 3·50 inches, of which the greater part fell in about an hour," are excluded. In the few instances printed with a query there is some uncertainty as to the exact time or the precise amount; but we are satisfied that the figures as given are substantially correct. The two most remarkable falls reported in the June thunderstorms we feel compelled to omit from Table III., because the rain gauges with which they were measured were of an unsatisfactory pattern which did not exclude the possibility of rain finding entrance otherwise than through the funnel. The figures are mentioned here because they have been referred to in the press, and may be cited in the future when the unsatisfactoriness of the particular rain gauges has been forgotten. At Kidmore End School, near Caversham, the measurement after one hour's rain on June 9th was 4·90 in., and on the same day at Wheatley School, Oxfordshire, after 58 minutes' rain, 4·33 in. It would be rash to say that these amounts could not possibly have fallen in the time stated, for the fall of rain and hail on June 9th was so exceptional as quite possibly to be unprecedented, but the figures are so very remarkable that they could only be accepted if recorded by a rain gauge of approved pattern and in unexceptionable conditions of exposure.

Being obliged to exclude these observations, we find that the long list this year adds no record to the *very rare* intensities of the third heading of Table I., and the upper compartment of the diagram. The number of "very rare" falls in an hour or less which has been recorded since 1868 therefore remains at 35. It is extremely regrettable that the Oxfordshire Education Committee, which has established observations in so many of their schools, should have allowed an obsolete type of rain gauge, incapable of giving results of scientific value in such circumstances as these. Although we are not prepared to speak positively on the subject, we are inclined to believe that on this occasion rain really did fall to the amount of four inches in one hour. The 2.93 in. recorded in 90 minutes at Peppard, Henley-on-Thames, on June 9th, alone comes within the definition of very rare falls, though it lies outside the limits of the diagram, but it is



rather surprising to find that out of the other 66 noteworthy entries in Table III. only seven can be classed as even *remarkable*. The diagram on which all the entries in the Table for an hour or less are plotted is thus of no exceptional interest.

TABLE I.—*Limits of Remarkable Falls.*

Minutes.	WORTHY OF NOTICE.		REMARKABLE.		VERY RARE.	
	Amount.	Rate per hour.	Amount.	Rate per hour.	Amount.	Rate per hour.
	in.	in.	in.	in.	in.	in.
10.....	·30	1·80	·65	3·90	1·00	6·00
20.....	·53	1·59	1·06	3·18	1·58	4·74
30.....	·70	1·40	1·35	2·70	2·00	4·00
40... ..	·82	1·23	1·54	2·31	2·26	3·39
50.....	·92	1·10	1·67	2·00	2·42	2·90
60.....	1·00	1·00	1·75	1·75	2·50	2·50

TABLE II.—*Rainfalls of very rare Intensity lasting for one hour or less.*

Year.	Date.	Div.	Station	Amount.	Duration.	Rate per hour.
				in.	hr. min.	in.
1888	Mar. 24	XI.	Chepstow, Shirenewton Hall..	·33	0 2	9·90
1906*	June 17	IX.	Ilkley, Eaton Road.....	·50	0 4	7·50
1893	Aug. 10	VIII.	Preston, Corporation Offices...	1·25?	0 5?	15·00?
"	June 14	XI.	Chepstow, Shirenewton Hall..	·62	0 5	7·44
1906	Aug. 2	II.	Guildford, Piccard's Rough ...	·89	0 8	6·68
1892	July 3	VIII.	Bolton, The Park.....	1·00?	0 9?	6·67?
1902	May 30	III.	Cambridge, Sydney Street.....	1·10	0 10	6·60
1878	June 23	I.	St. Pancras, Camden Square..	1·00	0 10	6·00
1906	Aug. 2	II.	Haslemere, Lower Street... ..	1·46	0 15?	5·84?
1878	June 23	I.	St. Pancras, Camden Square..	1·43	0 15	5·72
1875	Aug. 7	II.	Canterbury, Harbledown.....	2·12	0 20	6·36
1878	June 23	I.	St. Pancras, Camden Square..	1·80	0 20	5·40
1897	" 24	III.	Luton Pumping Station .....	1·65	0 20	4·95
1878	" 23	I.	St. Pancras, Camden Square..	2·30	0 28	4·93
1880	July 22	XI.	Cowbridge, Ash Hall.....	2·90	0 30	5·80
1895	June 27	IX.	Middleton-in-the-Wolds .....	2·00	0 30	4·00
1902	Sep. 10	II.	Surbiton, Vronvelin.....	2·00	0 30	4·00
1904	July 27	"	Cooling, Broomy Farm .....	2·66	0 45	3·55
1909	Sep. 29	V.	Ilfracombe Reservoir.....	2·50?	0 45	3·33?
1895	June 26	"	Marlborough ... ..	2·71	0 50	3·25
1903	July 18	VI.	Betley Hall [Crewe].....	2·53	0 50	3·04
1905	" 9	III.	Enfield, Carisbrooke.....	2·44	0 50	2·93
1901	" 29	II.	Wadhurst, Lower Cousley Wood..	3·25?	0 55	3·55?
"	" 12	"	Maidenhead, Lowood.....	3·63	1 0?	3·63?
1903	May 30	"	Beddington Corner.....	3·50	1 0	3·50
1897	July 21	IV.	Ipswich, Bishops Hill .....	2·95	1 0	2·95
1895	June 26	VI.	Worcester, Diglis Lock.....	2·75	1 0	2·75
1909	" 1	XII.	Carsphairn, Shiel.....	2·71	1 0?	2·71?
1873	July 28	XVII.	Fettercairn .....	2·60	1 0	2·60
1889	June 7	II.	Tonbridge, Ferndale.....	2·60?	1 0?	2·60?
1886	July 25	VIII.	Sale, Brooklands.....	2·58	1 0	2·58
1899	" 22	V.	Dorchester Water Works.....	2·56	1 0?	2·56?
1875	" 22	"	Trowbridge, Sunnyside.....	2·53	1 0	2·53
"	June 29	III.	Cardington .....	2·50	1 0	2·50
1886	July 25	IX.	Wakefield, Stanley Vicarage..	2·50	1 0	2·50

\* Did not appear in *British Rainfall*.



The regional distribution of the falls in Table III. shows only 1 instance in Wales, 2 in Ireland, and 4 in Scotland ; while of the 61 instances in England no less than 40 were in the counties south and east of London in Divisions I., II. and III. No doubt the preponderance of records from the south-east of England is to be explained in part by the rain gauges being planted in much closer order in that region than anywhere else, so that the thunder-plumps which fall are much less likely to escape notice than those in the remoter parts of the country where observers are few and far between.

As regards seasonal distribution, 61 were summer falls in the months of May, June, July or August ; only 2 were winter falls in the months between November and February ; 2 were recorded in October, and 3 in April.

TABLE III.—*Heavy Rains in Short Periods in 1910.*

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
Dec. 16 ...	II.	Bromley, Ravensfell .....	·14	... 2	4·20
June 8 ...	IX.	Huddersfield, Cemetery .....	·20	... 3	4·00
Feb. 20 ...	II.	Epsom, Ashley Road.....	·15	... 3	3·00
June 23 ...	IX.	Huddersfield, Cemetery .....	·11	... 3	2·20
Oct. 1 ...	II.	Epsom, Ashley Road.....	·25	... 4	3·75
July 16 ...	V.	Shrewton .....	·18	... 4	2·70
May 28 ...	III.	Boxworth .....	·25	... 5	3·00
June 8 ...	VII.	Worksop, Hodsock Priory ...	·30	... 6	3·00
„ 25 ...	III.	Caversham, Hemdean Road...	·30	... 7	2·57
May 28 ...	II.	Chatham, Luton W.W.....	·50	... 8	3·75
June 25 ...	II.	Stockbridge, Ashley .....	·45	... 10?	2·70?
July 22 ...	XIII.	Drummore [Musselburgh] .....	·37	... 10	2·22
May 16 ...	XI.	Abergavenny .....	·71	... 14	3·04
June 9 ...	II.	Cranleigh, Winterfold .....	1·30	... 15	5·20 x
„ 12 ...	„	Abingdon .....	·75	... 20	2·25
Aug. 5 ...	„	Eastbourne, Glenthorne .....	·60	... 20	1·80
June 12 ...	„	Abingdon, Culham Vicarage...	·53	... 20	1·59
May 20 ...	IX.	Malton .....	·96	... 25	2·30
June 12 ...	II.	Botley Hill .....	·90	... 25	2·16
May 16 ...	VI.	Kentchurch Rectory .....	·80	... 25	1·92
June 12 ...	II.	Kingsclere, Tower Hill House	1·77	... 30	3·54 x
„ 9 ...	„	Steventon, Milton Hill .....	1·00	... 30	2·00
Aug. 5 ...	III.	Saunderton, Speen .....	1·00?	... 30	2·00?
June 12 ...	VI.	Sparkhill [Birmingham] .....	·96	... 30	1·92
„ 8 ...	„	Kentchurch Rectory .....	·90	... 30	1·80
„ 9 ...	III.	Watlington, Pyrton Hill .....	·80	... 30	1·60
„ 22 ...	IX.	Shipley, West Point .....	·75	... 30	1·50
May 20 ...	„	Pickering .....	·75	... 30	1·50

TABLE III.—*Heavy Rains in Short Periods in 1910—(continued).*

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
June 9 ...	III.	Watlington, Pyrton Hill .....	·87	... 38	1·37
„ „ ...	„	Potters Bar, Little Heath.....	1·13	... 40	1·70
„ „ ...	„	Chesham Bois Rectory .....	·99	... 40	1·49
„ „ ...	II.	Wych Cross Place .....	1·48	... 45	1·97
„ „ ...	„	Aldermaston Wharf .....	1·33	... 45	1·77
May 22 ...	V.	Seaton .....	1·07	... 45?	1·43?
June 9 ...	III.	Watlington, Pyrton Hill .....	·97	... 48	1·21
„ 12 ...	II.	Farnham, Crooksbury Hurst..	·96	... 50	1·15
„ 7 ...	II.	Upton Grey, Hoddington House	2·02	1 0	2·02 x
„ 9 ...	III.	Assenton .....	1·90	1 0	1·90 x
May 21 ...	IX.	Thornton-le-Dale .....	1·71	1 0	1·71
June 7 ...	II.	Mapledewell .....	1·50	1 0	1·50
„ 12 ...	„	Upton Grey, Hoddington House	1·25	1 0	1·25
April 16 ...	„	Betchworth, The Holmes .....	1·20	1 0	1·20
June 8 ...	III.	Peterborough, Ashfield .....	1·09	1 0	1·09
Aug. 8 ...	V.	Molland .....	1·07	1 0	1·07
„ 4 ...	III.	Tring, Grove Lodge .....	1·00	1 0	1·00
Oct. 11 ...	„	Abingdon, Culham Vicarage...	1·00?	1 0	1·00?
June 9 ...	„	Caversham, Hemdean Road...	2·50	1 10	2·14 x
„ 10 ...	XVI.	Aberfeldy, Dunros .....	1·91	1 10	1·64
„ 7 ...	III.	Hayes .....	2·00?	1 15	1·60?
„ 5-6 ...	V.	Salisbury, Brown Street .....	2·00	1 15	1·60
„ 10 ...	X.	Ambleside, Wansfell .....	1·52	1 15	1·22
April 16 ...	III.	Potters Bar, Little Heath.....	1·14	1 15	·91
Aug. 5 ...	„	Northwood, The Grange .....	1·50	1 20	1·13
June 9 ...	„	Henley-on-Thames, Peppard..	2·93	1 30	1·95 xx
„ 7 ...	II.	Old Windsor, Beaumont College.	2·27	1 30	1·51 x
„ 10 ...	X.	Penton, Warwicksland School	2·05	1 30	1·37
Aug. 24 ...	XV.	Glenorchard. ....	1·50	1 30	1·00
June 7 ...	VI.	Stow-on-the-Wold, Icomb Place	2·27	2 0	1·14
May 22 ...	V.	Holford, Woodlands House ...	1·65	2 0	·83
June 9 ...	IV.	Hassobury [Bishop Stortford]	1·52	2 0	·76
„ 7 ...	III.	Wraysbury ..	2·00	2 30	·80
„ 5 ...	II.	Battle, Watlington .....	2·84	3 0?	·95? x
Aug. 28 ...	VI.	Weston-under-Penyard.....	1·50	3 0	·50
June 21 ...	XXII.	Westport House .....	1·77	4 0	·44
Aug. 20 ...	XIV.	Lochwinnoch, Garthland .....	2·75	4 15	·65
April 16 ...	I.	Stoke Newington, N. River Filter Beds	2·29	5 0	·46
July 28 ...	XX.	Miltown Malbay.....	2·00	6 0	·33

## HEAVY FALLS ON RAINFALL DAYS IN 1910.

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THE number of records available for this section in 1910 was 3,894, an increase of 228 over the previous year. Year by year the quality of the observations is improving, more of the Observers take their records daily, more of the detailed daily records are sent to us, and we have to rely less than before on the Observers' selection of the wettest day of each month on Form B. It is only when we receive Form A with the reading of the rain gauge set out for every rain day that we can be quite sure that the maximum fall for the year has really been extracted correctly. It is curious to see how often a large figure for the two decimal places is picked out by a hurried Observer, and how frequently a heavy fall on the last day of a month is overlooked. Thus if an entry of .98 in. occurs in the middle of a column and 1.02 in. on the last line it will occasionally happen that .98 in. is copied out as the largest fall. When Form A is sent in any mistake of the kind is immediately detected. In recent years we have been giving increased attention to mapping the rainfall on days when the distribution of rain is of particular interest, even although such days may not be the wettest of the year, and it is in this respect that we appreciate most the increase in the number of complete records sent in. Every record sent in to Camden Square is preserved, and a copy may be obtained by the Observer at any time ; not a year passes in which we are not called upon to complete some Observer's record lost or destroyed by accident.

The study of days of maximum rainfall in the year supplies the most satisfactory basis for comparison of the rainfall of different years, as the method of dealing with the statistics has remained unchanged as regards the summaries of results although the data are now utilized in discussion to a much greater extent than formerly. The whole number of maximum falls could not be printed, and it is the custom to quote only such of them as either amount to 2.50 in. or over, or constitute at least 7.5 per cent. of the annual fall at the particular station. Under this rule the number of falls quoted for 1910 is 110, of which 90 are included as greater than 2.50 in. and 20 as more than 7.5 per cent. of the total annual precipitation. This is

the smallest number of instances we have had to record for many years, smaller even than in 1907 ; but we have, nevertheless, found an unusually large number of days the distribution of the rainfall on which was worth mapping. In many years hundreds of instances are quoted on a single day ; but when, as on this occasion, the year as a whole was wet, and severe rains were not very numerous, many falls which in a dry year would have come in under the 7·5 per cent. rule are left out.

## Part I.—The Chronicle.

### January 1st.

New Year's Day was the wettest of the year at one station only, but this was one of the wettest stations in the British Isles and the fall is one of the heaviest we have to chronicle. The isolation of this great rainfall is remarkable.

XVIII. Loch Quoich (Kinlochquoich)..... 3·45 in. or 3·2 per cent.

### January 15th.

This was the day of maximum rainfall at about 90 stations mainly in the north of England and North Wales, the rain being of the usual winter type, although the depression producing it was less deep or extensive than several others during the month. The following seven records have to be quoted.

IX.	Sedbergh (Dent Vicarage) .....	2·71 in.	or 3·2 per cent.
„	„ (Akay) .....	2·75 „	4·6 „
„	„ Cemetery .....	2·77 „	4·8 „
„	„ (Croasdale Beck) .....	2·88 „	4·8 „
„	Malham Tarn .....	2·50 „	4·1 „
„	Arncliffe Vicarage.....	2·88 „	4·2 „
XI.	Snowdon (Old Road).....	3·20 „	2·6 „

### February 6th.

A few stations on the borders of Yorkshire and Lancashire experienced heavy falls, two of which are :—

IX.	Slaidburn (Brennand) .....	2·90 in.	or 3·9 per cent.
„	„ (Whitendale) .....	3·28 „	4·2 „

### February 20th.

During the passage of a very deep cyclone northward along the west coast the whole of the British Isles was visited by a gale of unusual force ; but, as is frequently the case, the rainfall accompanying

it was less remarkable either for amount or for the area affected than is often the case with smaller and shallower depressions. Smart thunderstorms occurred in the south-east of England and in the north, the rainfall being the heaviest of the year at about 50 stations though only one reached the limit for quoting.

X. Wearhead Station ..... 2·54 in. or 4·7 per cent.

### February 23rd.

An isolated fall equal to that of March 1st.

XI. Patterdale (Greenside Mine) ..... 3·75 in. or 3·7 per cent.

### March 1st.

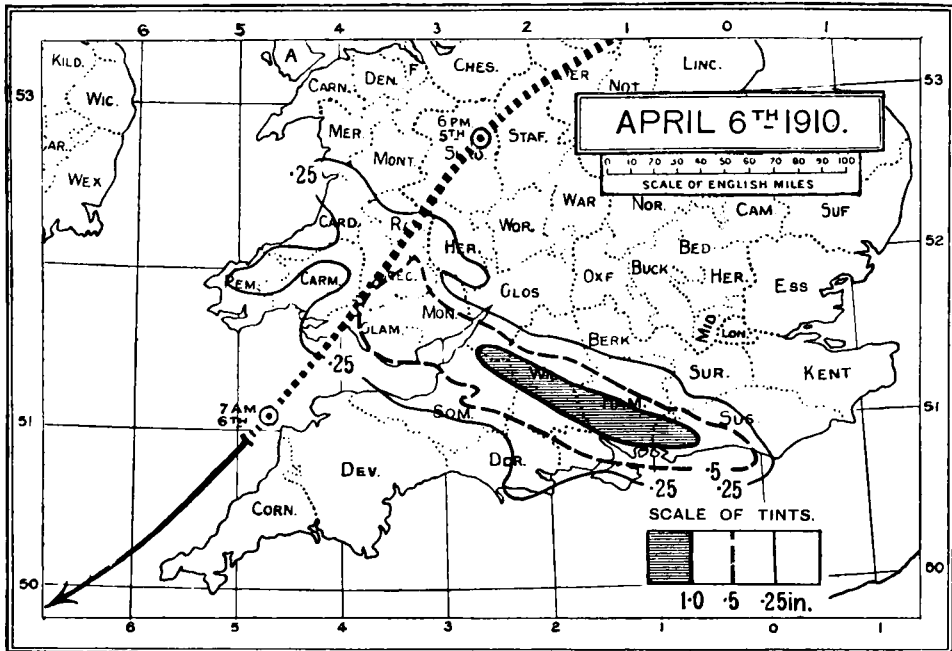
The north-west of England, south-west of Scotland and the south of Ireland had heavy downpours in places, and though only 30 stations recorded their maximum falls seven of these appear in the list below. One very remarkable fall is omitted from the list because the record for the year was incomplete and no percentage could be given. This was 3·25 in. at Strachur in Argyllshire, where rain fell steadily for 24 hours.

VIII.	Duddon Valley (Seathwaite Vicarage)...	2·54 in.	or	3·1 per cent.
X.	Borrowdale (Grange).....	2·54	,,	2·9
,,	Patterdale (Greenside Mine) .....	3·75	,,	3·7
,,	Dungeon Ghyll .....	3·52	,,	3·0
XII.	Carsphairn (Shiel) .....	2·54	,,	3·2
XX.	Killarney (District Asylum) .....	2·50	,,	4·3
XXI.	Laragh (Glendalough) .....	2·61	,,	3·8

### April 6th.

About 40 stations in the south of England had their modest maximum for the year, but none of them received rain enough to bring the record into this list, the greatest fall being 1·60 in. and the highest percentage 4·7. The day's rain was none the less interesting on this account, and as the rain accompanied a depression which followed a very unusual path, we have made a map of the rainfall of the day. The depression came from the south-east and turning round to the south-west when it struck the coast of England at the mouth of the Humber at 7 a.m. on the 5th, it passed south-westward across the country to South Wales the centre being off Lundy Island at 6 a.m. on the 6th, and 100 miles south-west of Scilly by 7 a.m. on the 7th. As a rule the area of maximum rainfall is found on the left of the track and often in advance of the centre. As the normal direction of a cyclone track across the British Isles is more or less from west

to east, the left of the track is usually the northern side of the wind system, and it has often been pointed out that the heaviest rain lies on the northern side of the track. But here the map shows the heavy rainfall to be on the south side of the wind system though still it lies to the left of the track. It also lies rather to the rear of the centre, if, as we assume, the rainfall mapped was really produced



by the atmospheric disturbance the track of which is given. The area with rainfall exceeding half an inch runs south-eastward at right angles to the track and measures 170 miles in length by about 26 miles in breadth. Within it and rather towards the north-west side lies an area with more than one inch of rain, similar in outline to the other and measuring 90 miles in length and about 12 miles in breadth. It extends from Bristol across Salisbury Plain to Portsmouth and Chichester. Outside the half inch area it has been found possible to trace the line of one quarter of an inch of precipitation, which lies about 10 miles from the half-inch line on the north-east and about 12 miles on the south-west.

The exact area within the isohyetal line of 1 inch is as follows :—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
Over 1 inch .....	1101	1.16	1277

The area between half an inch and an inch was 3,184 square miles, and that between a quarter and half an inch was 5,668 square miles.

**April 11th.**

A depression skirting the west coast of Scotland brought maximum falls to half a dozen stations in the north-west, the only two to be quoted being

XV.	Morvern (Kingairloch) .....	2·64 in.	or 2·7 per cent.
„	Ballachulish (Glencoe) .....	2·50 „	3·3 „

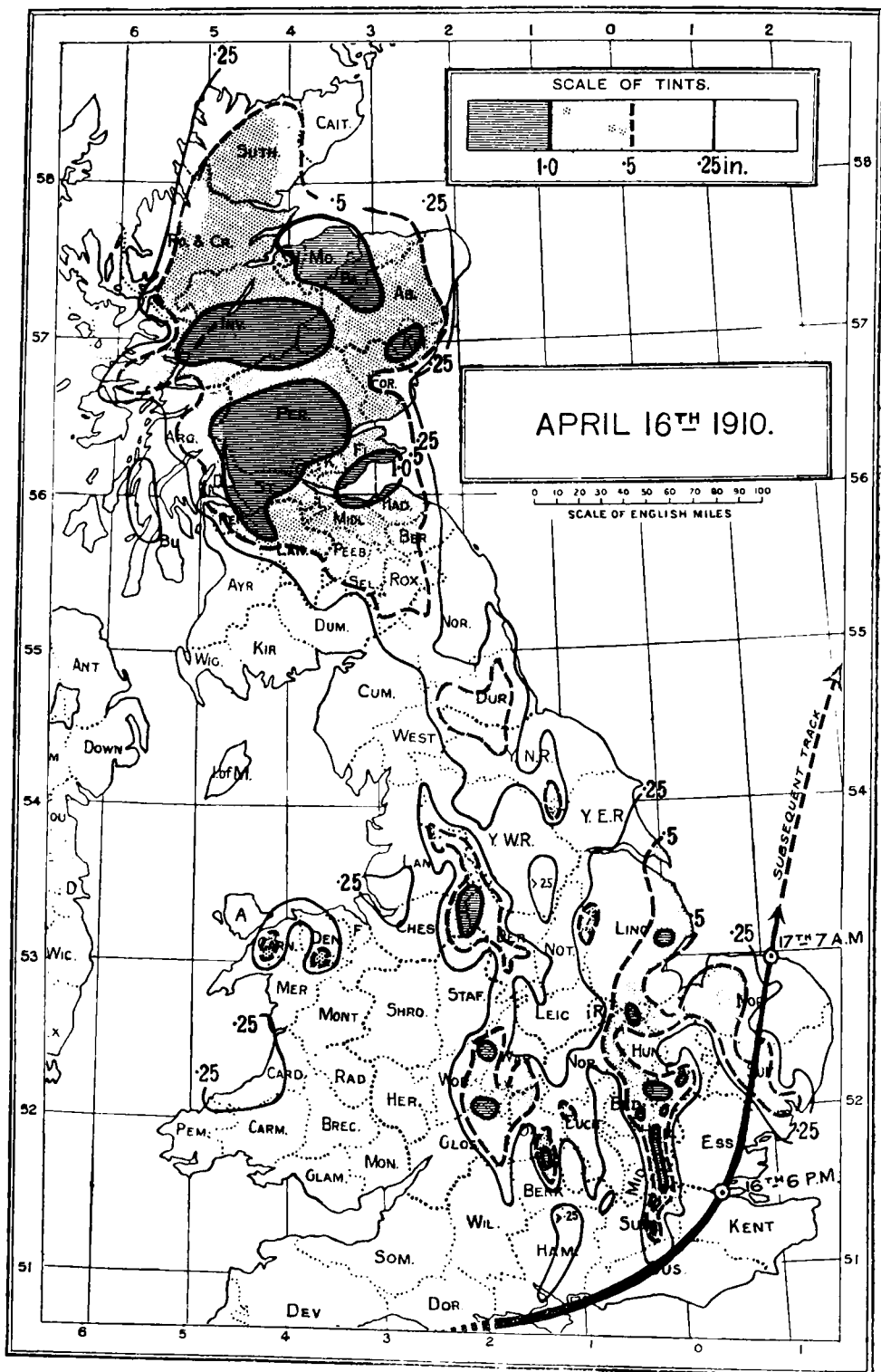
**April 13th.**

Another depression passing northward through the centre of Scotland led to some heavy falls being measured in Sutherland, Caithness, Orkney and Shetland ; two of the 20 maxima which occurred come up to the limits for quotation.

XIX.	Strathmore (Altnacaillich) .....	2·97 in.	or 4·0 per cent.
„	Fetlar (The Manse) .....	2·51 „	6·4 „

**April 16th.**

A severe thunderstorm caused a heavy but very local fall in the north of London where this was the wettest day of the year at a good many stations, including Camden Square, though only three came up to the limits for insertion. The area over which the heavy rain extended was very small, and the day might be passed without farther discussion were it not for the circumstance that the rain occurred in association with a depression passing along one of the typical tracks up the English Channel, crossing the south-east of England and curving northward through East Anglia. This track is the exact inversion of that of April 6th, and a map was drawn in order to see if the resulting rain-splash was in any way similar to that described under the earlier date. It soon became evident that the London fall was only one of a series of thunderstorm-splashes which took place in various parts of the country, and it is doubtful whether these were all associated with the particular barometric minimum the track of which is shown. There were no falls of more than 2 inches except in the London area, but a series of splashes of more than one inch appeared near Hitchin, Royston, Cambridge, Peterborough and Boston, all within a half inch area the nearly straight western boundary of which runs north from Dorking to Grimsby a distance of 185 miles. Up to Hitchin the area with more than half an inch of rain was not more than 10 miles wide, but northward it widened and threw off a great irregular branch to the east, the whole area, which was bordered by a very narrow strip of more than a quarter of an inch fall, measuring 3,931 square miles. A one-inch





splash near Oxford lay between the eastern strip of heavy rain we have just described and a western strip, the area of which with over half an inch stretched, with one interruption, from Lechlade to Slaidburn, a distance of 165 miles. For the greater part of their extent the eastern and western half inch tracts were separated by a wide stretch of country with less than a quarter of an inch of rain. The two were parallel to one another, and a chain of one-inch splashes ran along the axis of the western area parallel to that along the eastern and about 80 miles distant. The one-inch splashes were at Oxford, Evesham, Solihull, and between Buxton and Manchester. A very broad belt of country with only an occasional patch of more than half an inch of rainfall, separated the English splashes from a very much more extensive series of heavy falls exceeding an inch in Scotland, but this was probably under the influence of a depression passing simultaneously to the west, south of Iceland; Inverness was exactly midway between the two opposite tracks and to the left of each. The total area in England with more than one inch of rain was 651 square miles; that with between half an inch and an inch 6,827 square miles. Practically the whole of the precipitation lay on the left of the track of the centre, and the northern part in advance of the track. In this pair of instances the precipitation lay on the left of the track both when the centre was moving in the exceptional direction towards the south and west, and in the usual direction towards the north and east. The area in Scotland with more than 1 inch was 5,260 square miles.

The exact measurements are as follows :—

<i>Scotland.</i>	Area, sq. miles	General Rainfall, inches.	Volume of Rain, sq. miles x inches
More than 1 inch .....	5260	1·20	6324
<i>England.</i>			
More than 2 inches .....	5	2·20	11
1—2 inches.....	646	1·17	758
Total over 1 inch	5911		7093

The general rainfall for all the areas with more than 1 inch of rain was 1·20 in.

I.	Stoke Newington (New Riv. Filter Beds)	2·29 in.	or 9·7 per cent.
	( " Reservoir) ..	2·51 "	9·6 "
III.	Muswell Hill (Colney Hatch Lane) .....	2·23 "	7·5 "

#### May 30th.

A solitary case.

XVIII.	Loch Arkaig (Glen Dessary) .....	2·50 in.	or 2·4 per cent.
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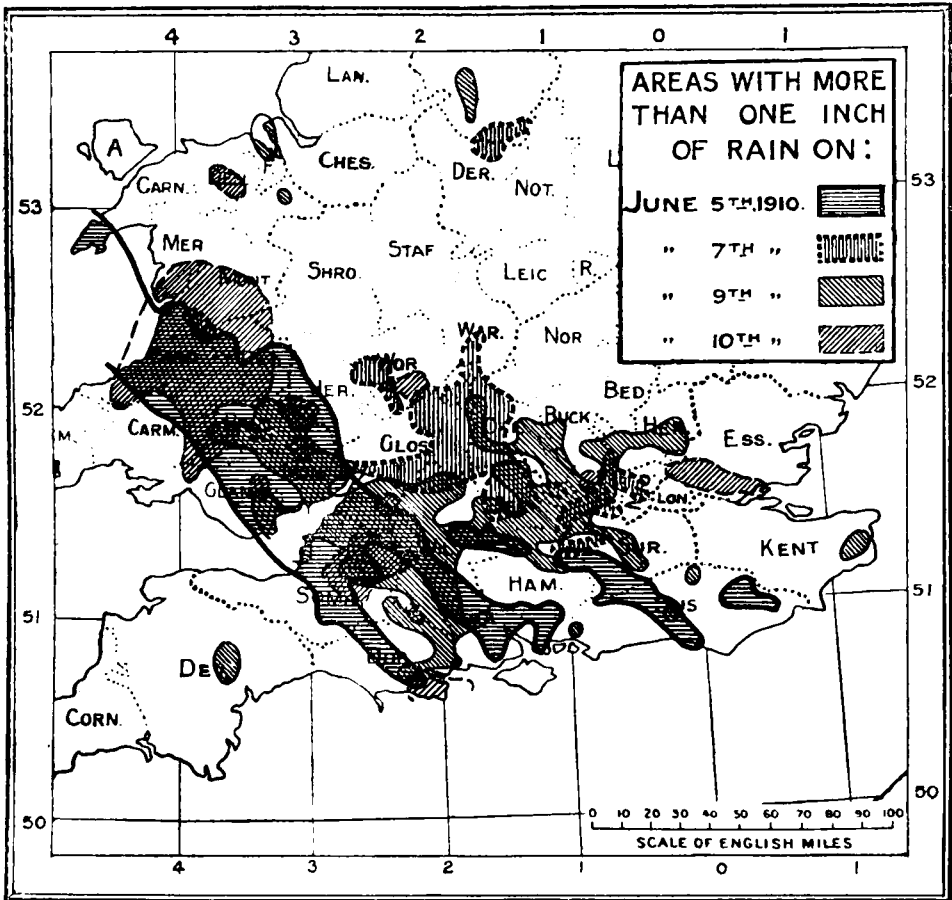
**June 5th—10th.**

During this period a series of remarkable thunderstorms occurred chiefly in the south of England. As it is difficult to define a thunderstorm it is only by chance that we can draw a map of the distribution of rainfall in a thunderstorm, for it is impossible to be sure that all the rain is included in any group of days we may select, or that the rain due to several distinct thunderstorms is not blurred together on the map of a single day. The comparison of many daily maps of rainfall suggests a difference in distribution between the rain which accompanies the passage of a cyclone and that which accompanies a thunderstorm, the general type of a day's cyclonic rain being a wide extent of surface with a comparatively simple outline over which a considerable amount of rain has fallen, while the type of thunderstorm rain is a series of parallel strips of heavy rainfall, each of which is made up of alternate sections of higher and lower rainfall. An intermediate type is that which is probably associated with squalls in which the narrow outline of a thunderstorm splash appears with the comparatively uniform depth of rain characteristic of a cyclonic fall. All three types are alike, so far as we can tell, in the indifference of the distribution of the rain to the configuration of the ground. As squalls appear always to be associated with thunderstorms, while thunderstorms very often occur during the passage of a large barometric depression, it is not surprising that transitional types of distribution of rain are often seen. In the six days under review the thunderstorm region was, for the most part, the south-western half of England, and the map on the opposite page on which the area with more than one inch on the four remarkable days is shown in a distinctive tinting brings out two points, first, the persistence with which electrical storms recur over the same ground, and second, the remarkable way in which the storms on successive days frequently avoid the spots on which the earlier storms were most intense.

**June 5th.**

The succession of thunderstorms which was responsible for this day's rain occurred mainly between 9 p.m. on the 5th and 4.30 a.m. on the 6th, falling thus into the rainfall day of the 5th, upon which the maximum fall was recorded at about 120 stations, three of which are given below as having had more than 2.50 in. The map of the rain for the day is so simple that it is difficult to believe that it is not a true representation of the atmospheric disturbances due to a

definite and definable cause. The line of one quarter of an inch is defined all round the wet area, except in the Channel on the south, and the area thus enclosed widens from probably about 40 miles in the south-east to more than 300 miles in the north-west, the total length being about 450 miles. In the centre of this tract lies a similarly outlined area, stretching from a breadth of 90 miles in the north-east of Ireland for 230 miles to the south-east, where in Somerset and Gloucestershire it is 40 miles wide, and continued in



a series of parallel strips or detached areas for 100 miles more to the south-east of Sussex. Within this belt there is a double row of splashes of over 1.50 in. each, enclosing narrower patches where more than 2 inches of rain fell, and although this structure cannot be traced across the Irish Sea, there is little doubt that similar foci of intensity were developed, with a similar rough symmetry, over the sea surface, as over the land. It may be noted that it is where the continuous tract with more than an inch of rain splits into two tails

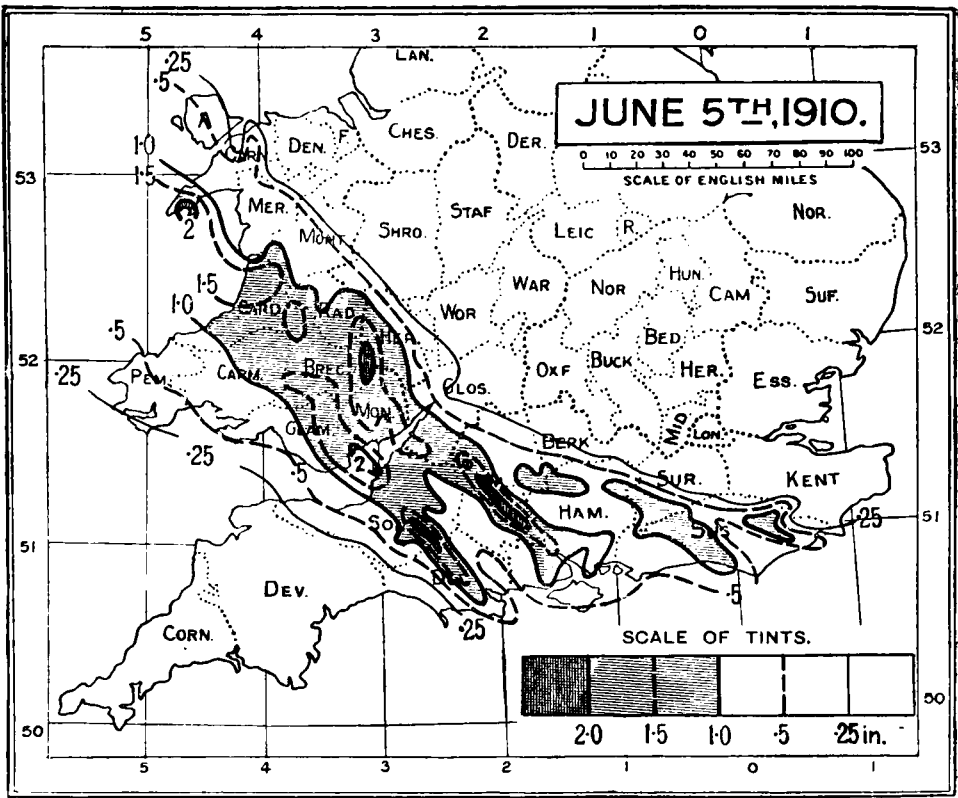
at its narrowest part, that the heaviest precipitation occurred, in the eastern tail near Salisbury, in the western tail near Sherborne.

The measurements (of the land surface in England and Wales only) are :—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
More than 2 inches .....	293	2·18	639
1—2 inches.....	5837	1·37	7987
Total over 1 inch	6130		8626

The general rainfall of the area with more than 1 inch was 1·41 in.

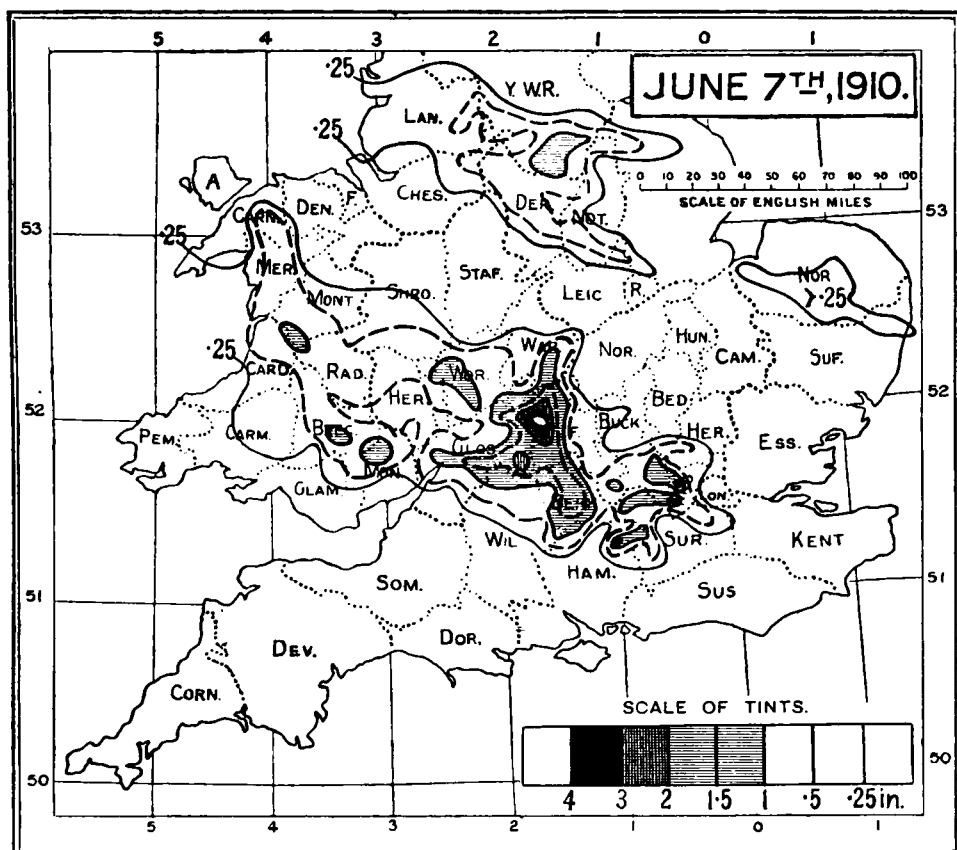
II. Battle (Whatlington) .....	2·84 in. or 7·0 per cent.
V. Salisbury (Brown Street) .....	2·58 „ 6·8 „
„ Stratford-sub-Castle (The Manor House) .....	2·58 „ 7·6 „



June 7th.

Thunder and lightning were noted at several places on the 6th, but apparently only in the early morning, when any rain that fell would be credited to the 5th. Hence the 6th may be viewed as a day of rest from thunderstorms. On the 7th, however, thunderstorms of great severity were reported from a belt of country running

from Surrey to central Wales. There seems to have been an extremely unsettled state of weather all day, with heavy showers accompanied by lightning and thunder at frequent intervals from before daylight to after dark. The worst of the rain undoubtedly occurred between 6.30 and 11.30 p.m., and it seems to have taken place simultaneously in all parts of the area affected, though no great amount of rain appears to have fallen during these hours in Surrey. From Hayes, near Staines, to Stow-on-the-Wold and Cirencester the



heaviest rain was experienced. The part of the country affected on the 7th lay parallel to that affected on the 5th, but to the north-east, and the only places which received more than an inch of rain on both days were two small patches near Abergavenny and Tal-y-llyn. The map shows two large areas with more than half an inch stretching from south-east towards north-west, and closely surrounded by the quarter inch line. The southern area was about 180 miles long, from Guildford to Barmouth, and though very irregular in outline averaged about 40 miles wide. The axis of this area was continued into

Ireland where a considerable stretch of country had more than half an inch of rain. The northern tract was separated from the southern by a stretch of about 40 miles in which less than a quarter of an inch of rain fell. It extended within the isohyetal of .50 in. for about 70 miles, from near Grantham to Manchester, and was very irregular in outline. In the axis of this tract there was a similarly shaped area with more than a quarter of an inch, in Norfolk and Suffolk the parallelism of the two loci of storm centres being very marked.

In the northern area there was only one patch with more than an inch of rain, near Sheffield ; but in the larger southern area there were many small patches arranged on the whole parallel with the general axis, though the largest was three-armed and included an equilateral triangle, about 16 miles in the side, near Chipping Norton and Stow-on-the-Wold, within which more than 2 inches fell. The greater part of this triangle received more than 3 inches, and near the centre a rain gauge at Churchill School recorded 4.25 in. This is so clearly led up to by the surrounding stations that we have no reason for questioning the substantial accuracy of the reading, though we do not know the pattern of the rain gauge employed.

The measurements of the rain areas in England are :—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
More than 4 inches .....	7	4.13	29
3—4 inches .....	51	3.50	177
2—3 „ .....	119	2.37	282
1—2 „ .....	1953	1.34	2624
Total over 1 inch	2130		3112

The general rainfall of the area with more than 1 inch was 1.46 in

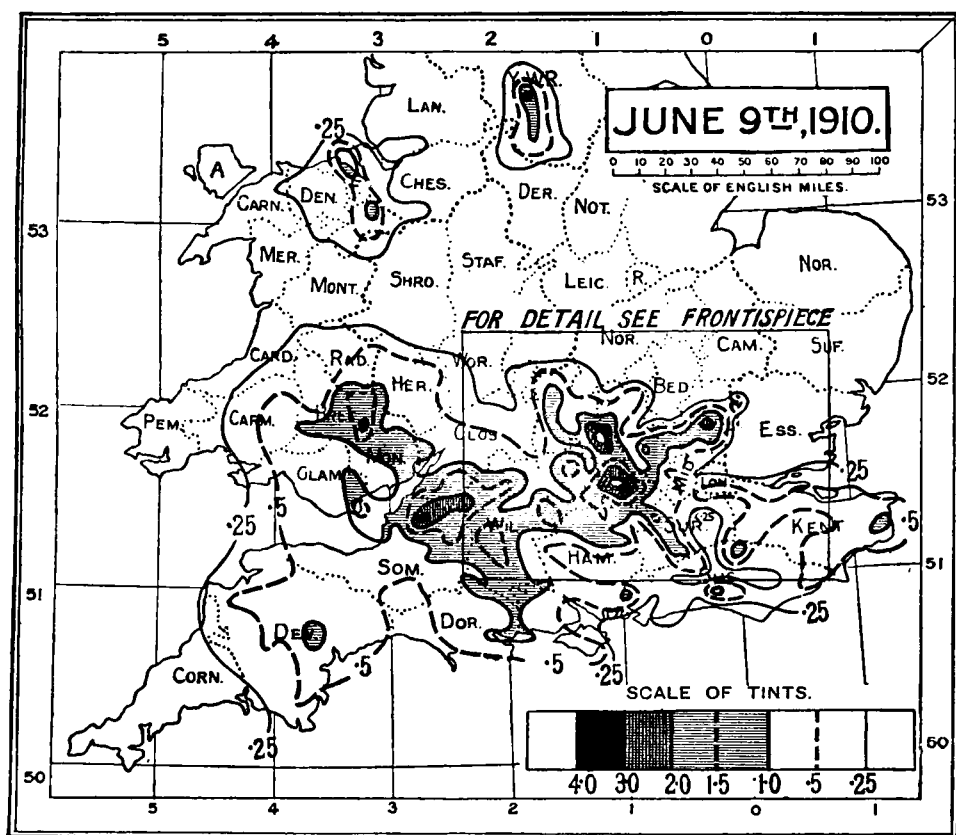
II.	Egham Park .....	2.14 in.	or 7.5 per cent.
III.	Hayes (Council Offices) .....	2.50 „	8.5 „
„	Wraysbury (Elmslea) .....	2.67 „	9.0 „
„	Lynelham .....	3.11 „	8.6 „
„	Churchill School .....	4.25 „	11.7 „
„	Sarsden (Estate Office).....	3.19 „	9.8 „
„	„ Gardens .....	3.15 „	9.4 „
VI.	Fairford (Draycott) .....	2.32 „	7.6 „
„	„ (The Croft House).....	2.06 „	7.6 „
„	Stow-on-the-Wold (Quar Wood) .....	3.61 „	9.8 „
„	„ „ „ „ .....	3.55 „	9.9 „
„	„ „ „ „ (Netherswell Manor) .....	3.56 „	10.1 „

#### June 9th.

During the 8th, occasional thunderstorms declared themselves in several parts of the south west of England ; but compared with the 7th and the 9th, the day was comparatively tranquil and the few

splashes of more than an inch do not require to be mapped. On the 9th, so far as we can gather from the reports, the strength of the storm was confined to the four hours from noon to 4 p.m., and the worst of the rain occurred at several points between Reading and Oxford between noon and 2 p.m.

Leaving out of account two isolated patches in North Wales and Yorkshire, more than half an inch of rain fell over a great triangle in the south of England extending with one slight break from the east of Kent for 240 miles to Dartmoor in the south-west, and 240 miles



to Radnorshire in the north-west, the base of the triangle being 150 miles long. Within this there was a very large irregular area with more than an inch of rain, the quaint starfish-like outline of part of which almost masks the parallel symmetry of the small splashes where more than two inches had been recorded. These ran in a direction from S.S.E. to N.N.W., and the axis of maximum intensity lay on the line from Brighton to Stratford-on-Avon, the isolated patch in North Wales being a continuation.

Our attention may be concentrated on two areas with more than

2 inches of rain, one measuring 15 miles by 12, and extending northward from Reading, the other a triangle 10 miles in the base on the west, and 7 miles in the sides lying just east of Oxford. These appear distinctly on the enlarged map of the rainfall of the Thames Valley for this day, which forms the frontispiece to this volume. No doubt, storms occurred along the parallel line on the east from Uckfield to Bradford, and severe storms certainly occurred along the parallel line on the west from Salisbury to Abergavenny; but they were as nothing compared with the terrific torrents of rain and hail discharged on the Reading and Oxford areas in the middle of the main axis of the storm. The scene of the heavy rain of the 9th coincided in part with that of the 5th, especially along the strip of country from Salisbury to Abergavenny, and in part with that of the 7th, especially near Windsor and Didcot; but it is curious to notice on the map on p. [113] how often the heavy rain of the 9th fell on those parts which were dry on the 5th, as for instance the strip of country from Bournemouth to Warminster, or which were dry on the 7th, as for example large areas in Hampshire, Berkshire and Oxfordshire.

The measurements for the 9th are:—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
More than 4 inches .....	11	4·45	49
3—4 inches.....	43	3·44	148
2—3 „ .....	267	2·31	617
1—2 „ .....	4549	1·31	5954
Total over 1 inch...	4870		6768

The general rainfall of the area with more than 1 inch was 1·39 in.

The storm which fell upon the Reading area about noon on the 9th yielded just over 3 inches in Caversham, the amount falling off rapidly on the south side of the river, so that while several of the streets were converted into rivers in the northern and western parts of the town, there was comparatively little rain in the east and south. At Kidmore End School the rain gauge in use measured 5·51 in.; but the pattern of the gauge was so defective, consisting, as we are informed, simply of “a funnel in a bottle,” that it is impossible to accept it as accurate, and though we mention the figure here, we cannot let it stand in the list of authentic maximum falls. Details of the storm at various points in this area are given at some length in the Observers’ remarks on the days in June on pp. [16]–[17].

The rain fell off to less than 1·50 in. a few miles north of the Reading torrential area, and a narrow strip of country escaped with



this comparatively light fall; but then it became intensified to a greater degree, and in the Oxford area the thunderstorm that broke at noon was more terrifying, and the hail worked worse havoc, than in the Reading area. The great focus of destruction seems to have been between Wheatley and Waterstock, about six miles east of Oxford. The destruction which befell the Vicarage garden at Waterstock is graphically described on pp. [17]–[18]. The careful measurements of Mr. Leyshon at Wheatley School, though made with a gauge of faulty construction, and therefore, through no fault of his, inaccurate, give a clear account of the progress of the storm. The rain gauge consisted of a glass funnel placed in the neck of a bottle, and, apart from the extreme difficulty of measuring the mean diameter of such a funnel, the absence of any collar to protect the neck of the bottle from water pouring down the outside of the funnel, made it practically certain that too much rain would be recorded in any storm. The fact that the readings of the gauge are given to three places of decimals of course merely shows that the calculation was carried to that extent, but is no guarantee of the degree of accuracy possible in the instrument itself. We quote from a newspaper report :—

“The gauge was emptied, as is the custom, at 9 a.m. on Thursday, and the reading entered in a book kept for the purpose. At 12.42 the storm broke, and at 1.20 Mr. Leyshon emptied the gauge on account of its limited capacity. It then recorded 2.675 inches. Twenty minutes later a further 1.665 inches was on record, while at 6 p.m. .857 inch had to be added to the record from 9 a.m. onwards. At 9 a.m. next morning there was a further .292 inch, bringing the total for the 24 hours up to 5.491 inches. Between 12.42 and 1.40, roughly an hour, over 4½ inches of rain fell in the village.”

A rainfall record at Holton Cottage, Wheatley, about a mile from the School-house, gave 4.98 in., and this figure also we regret that we cannot place in the list, because the rain gauge proved on inspection to be exposed in such a way as to make it certain that more than the true rainfall would enter during heavy precipitation.

The amount recorded at both the School-house and Holton Cottage is probably not very greatly in excess of the truth; it is not impossible that compensating errors may make it very near the truth; for we know that the record of 3.93 in. at Waterstock was deficient. This is the figure given by Mr. Ashhurst's rain gauge, which, like all the others, was specially visited and inspected by Mr. Salter when the storm was being studied for the purpose of this article. The gauge

is of the Glaisher pattern, in perfect condition, and would have given an accurate record, had it not been choked by hail, causing a certain quantity of rain to overflow. Thus it is quite certain that in this storm **more than 4 inches of rain** fell, much of it in the form of very large hailstones. In a letter, Mr. Ashhurst says, "The storm began about 1 p.m. with a hurricane for about 10 minutes, then, about 1.15, down came the hail, or rather large lumps of dense clear ice, wrapped round a dull centre. The precipitation lasted until about 3.30 p.m., but the worst was over by 3 o'clock. The rainfall from 1.15 to 3.30 p.m. was 3.20 in., and to 9 a.m. next day an additional amount of .73 in. was recorded. The hail lay to a depth of about 3 inches on level ground, and in places it was piled up into heaps 2 feet to 3 feet high. The storm area was about a mile long and half a mile wide."

Mr. Ashhurst has most kindly supplied a series of photographs, which are reproduced on the accompanying plates, in illustration of the damage done.

It will be noticed that Fig. 3 shows a mass of hailstones congealed together in a ditch, and Fig. 4 the same mass lifted out of the ditch and set upright on a little footbridge which crosses the ditch. This bridge is 7 ft. 11 in. long and 1 ft. 7 in. wide, the steps being  $3\frac{3}{4}$  in. wide and 1 ft. 1 in. apart. These dimensions serve as a scale for judging of the size of the mass remaining unmelted for several days after it fell; the outlines of the individual hailstones can be easily seen in Fig. 4.

II.	Frimley (Hale Cottage) .....	2.78 in.	or 8.2 per cent.
III.	Caversham (Hemdean Road) .....	3.04 "	9.4 "
"	" (St. Benet's House).....	2.55 "	8.2 "
"	Henley-on-Thames (Peppard) .....	2.93 "	9.6 "
"	Assenton .....	2.61 "	7.8 "
"	*Wheatley (Waterstock) .....	3.93 "	13.0 "
"	Stanton St. John (Woodperry) .....	3.08 "	9.5 "
V.	Chew Magna .....	3.05 "	6.0 "
IX.	Gomersall (Castle Hill) .....	2.42 "	8.3 "

### June 10th.

The series of violent thunderstorms came to an end after outbursts of a character similar to those of the previous four days, and, generally speaking, in the same districts; but none of the falls happened to be large enough to quote in the list. More than half an inch fell in a long narrow strip running along the Thames estuary

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\* This record is too low, undoubtedly more than 4 inches of rain fell.

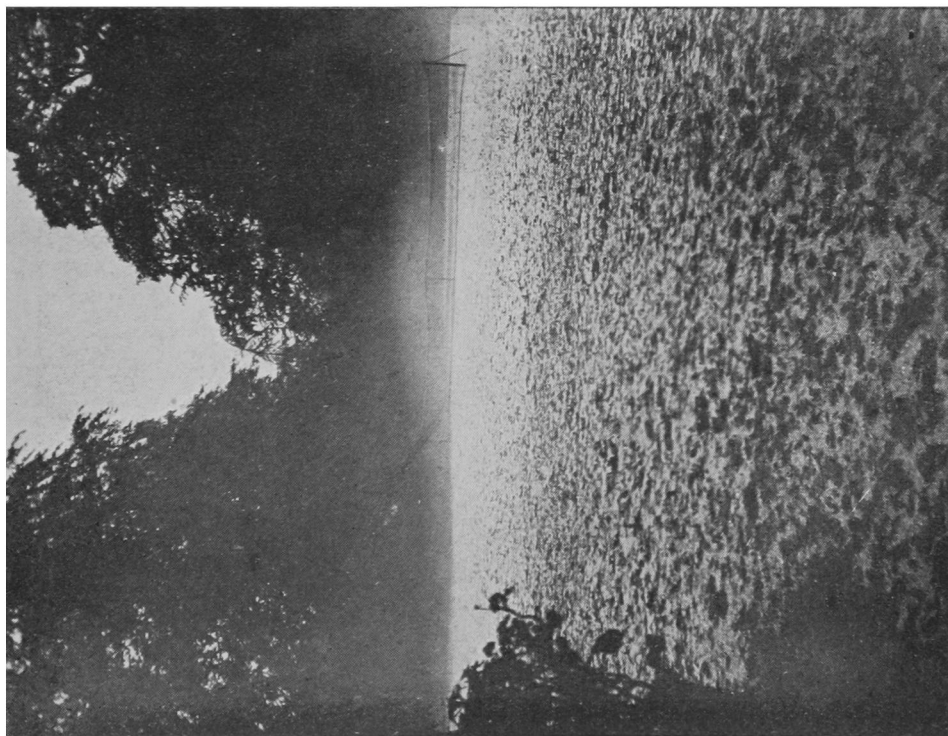


FIG. 1.—Hail on the Lawn at Waterstock, 4.15 p.m., an hour after the fall ceased.

BRITISH RAINFALL, 1910.]

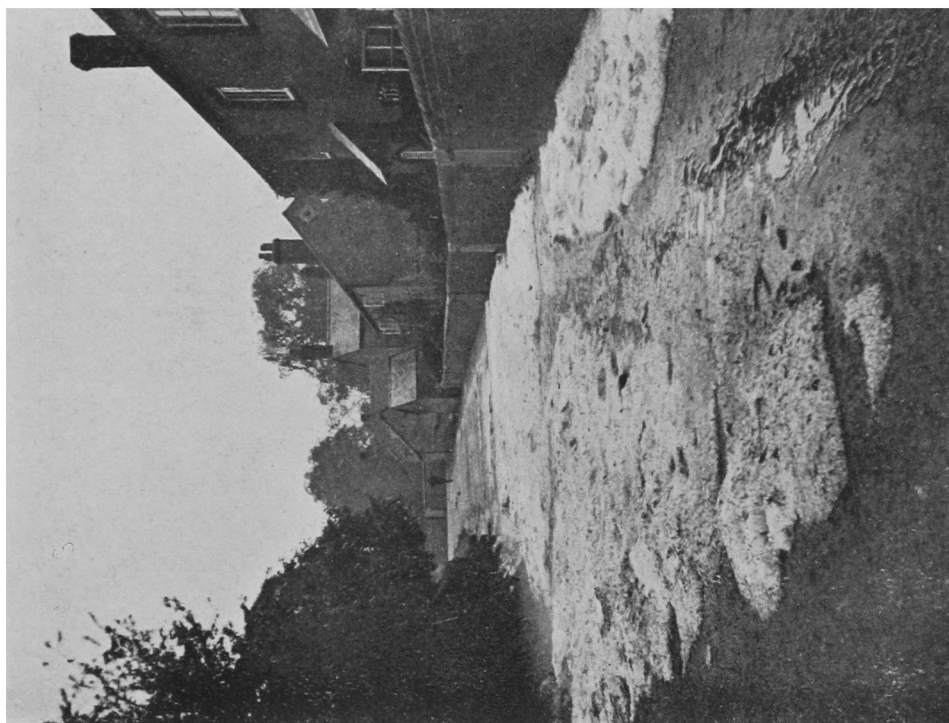


FIG. 2.—Hail in the Village street, Waterstock, at 6.15 p.m., three hours after the fall ceased.

[Photographs by Miss Ashurst.

THE STORM OF JUNE 9th, 1910.

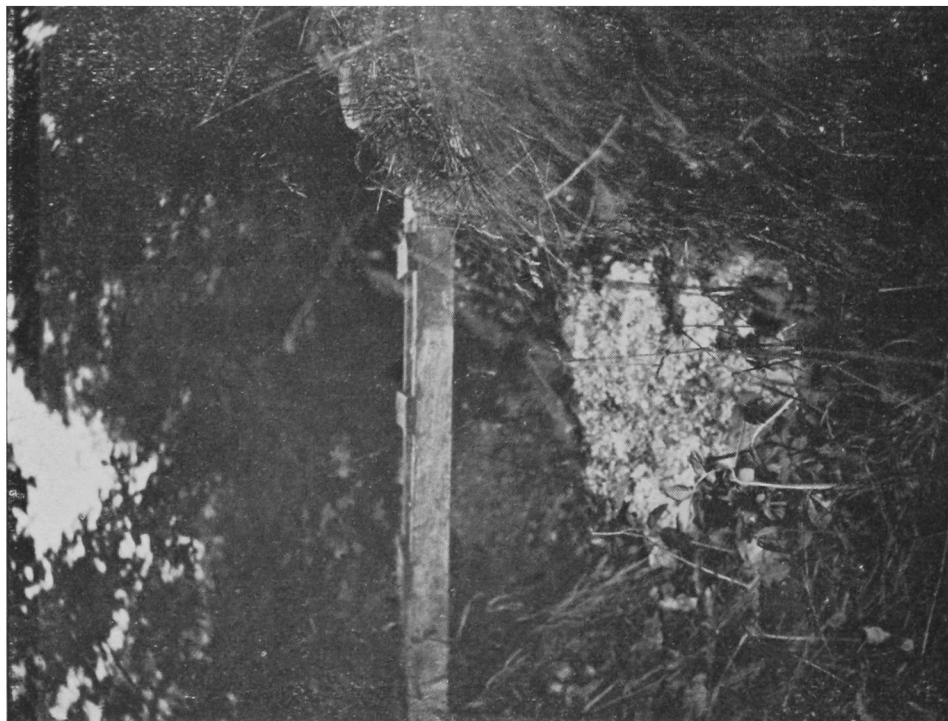


FIG. 3.—Mass of compacted hailstones in ditch, after four days.

BRITISH RAINFALL, 1910.]

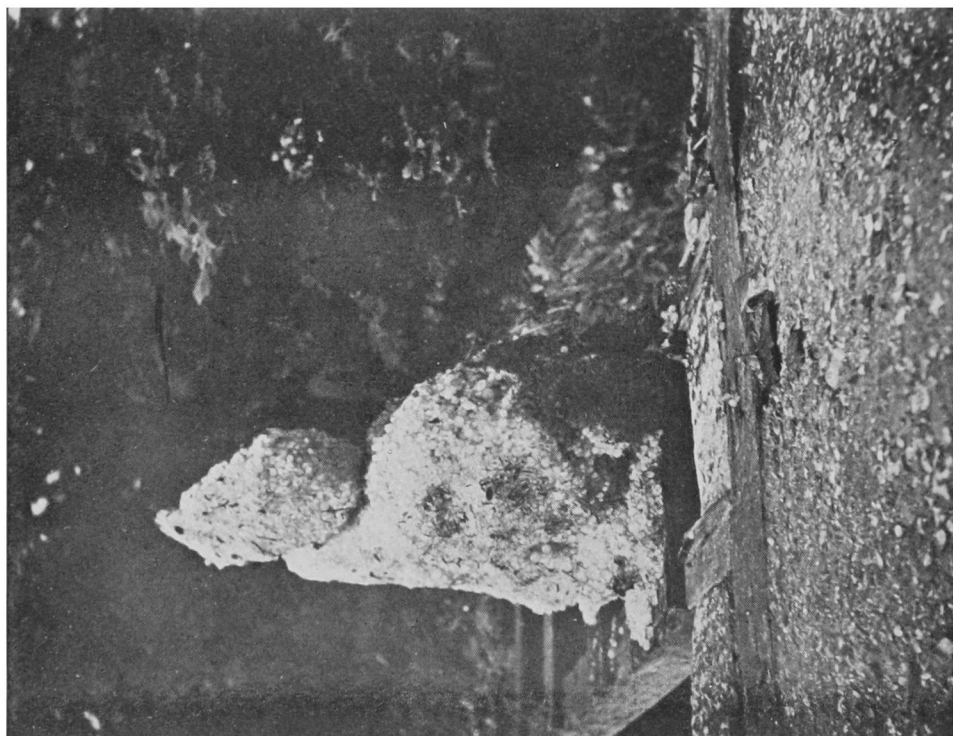
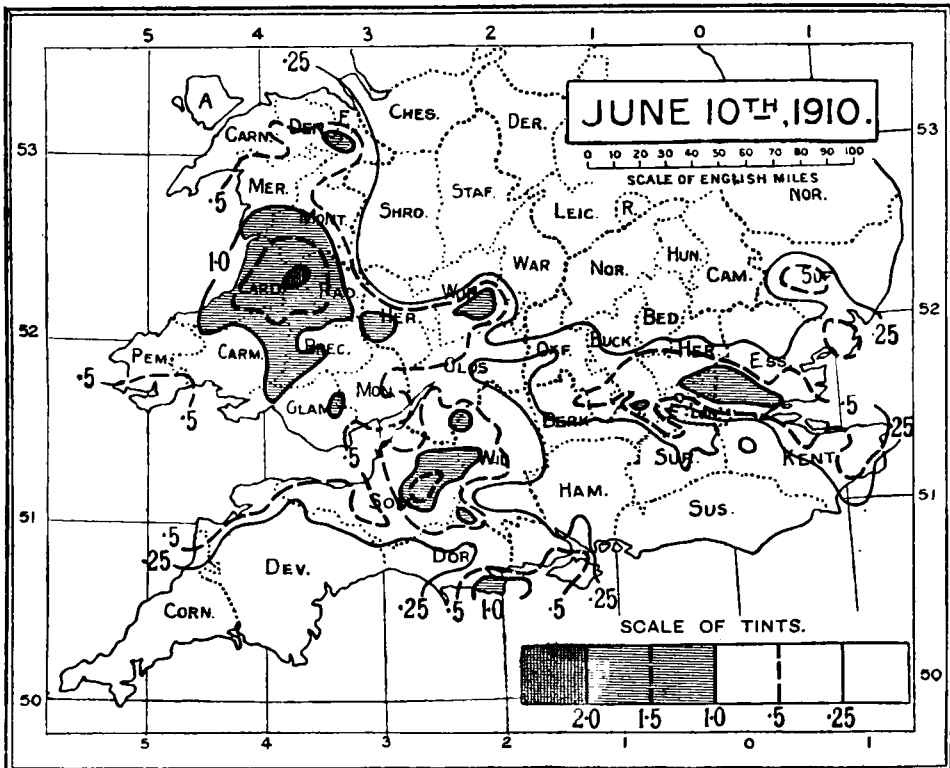


FIG. 4.—Mass of hailstones shown in Fig. 3 lifted from ditch after four days.

[Photographs by Miss Ashurst.

and the lower valley from Ramsgate to Didcot, enclosing two patches where more than 1 inch fell ; but the main body of the wet area lay much farther west, the half inch line extending, with a few slight breaks, from the coast of the Channel, between the Isle of Wight and Portland, to the west coast of Wales. Within this three fairly large patches with more than an inch of rain, increasing in size, in distance from each other and in intensity of rainfall, ran in a straight line from S.S.E. to N.N.W. The smallest, near Swanage, contained no recorded rainfall greater than than 1·20 in. ; the second, in Somerset,



had in its centre a small area with more than 1·50 in., but nothing greater than 1·80 in. ; while the third, comprising nearly half of Wales, included an area of more than 1·50 in. extending over the greater part of the counties of Cardigan and Radnor, and a patch round Rhayader with more than 2 inches. Of the larger patches with more than 1 inch of rain, that in the north-east of London lay east of the spheres of the other storms, those in Worcestershire, Dorset and North Wales lay mainly outside the sphere of the heavy falls of the other days ; but the others lay in the same parts of the country as the heavy rain of the 5th and 9th, and there were some small districts in the counties of Somerset, Glamorgan, Brecon

and Hereford, where more than an inch of rain fell on three out of the four days.

The areas measured on the 10th are :—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles × inches.
More than 2 inches .....	43	2·12	91
1—2 inches .....	3191	1·36	4328
Total over 1 inch	3234		4419

The general rainfall on the area with more than 1 inch was 1·37 in.

### June 24th.

In association with a depression passing from the north of Ireland to the middle of Wales and thence to East Anglia, a few stations in Yorkshire had their highest fall, two being worthy of notice only because the rainfall, for the year, was low.

IX. Doncaster (Hexthorpe Hall) .....	2·44 in. or 9·4 per cent.
„ Barnsley (Jordan Hill).....	2·16 „ 7·7 „

### June 25th.

A large number of stations, chiefly in the neighbourhood of London, recorded their maxima, the rain falling in torrential showers, but not as the result of severe thunderstorms. Only one has to be quoted.

IV. Latchingdon Rectory .....	1·85 in. or 7·6 per cent.
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### July 5th.

The moderately heavy rain of this day, which brought the maximum fall to more than 150 stations scattered irregularly all over the British Isles, was associated with the passage of a quickly moving depression from the north of Ireland to the coast of East Anglia, and with an abnormally low temperature, more appropriate to early Spring or to late Autumn than to the heart of Summer. Although 150 stations registered their maximum fall on this occasion none of the falls was heavy enough to quote, but, notwithstanding this, the map prepared for the day shows some interesting features. The extent of country with more than one inch of rain was large, forming a compact area in the north-west of Wales (with a nucleus in which more than two inches fell) and a much larger and very irregular area extending from Cheshire to Stirlingshire, with no fall greater than 1·50 in. More than half an inch of rain was experienced over the greater part of Great Britain and a small part



The general rainfall of the area with more than 1 inch was 1·21 in.

The track of the depression is only indicated by two points, at 6 p.m. on the 5th off the north of Ireland and at 7 a.m. on the 6th in the Wash; the subsequent track seems to be in a straight line with those two points, and if we are justified in concluding that the depression pursued a straight course in crossing the country, the rainfall was distributed on both sides of the track, though with a greater area on the left. It has often appeared in these maps (*e.g.*, *British Rainfall* 1908, p. [95], and 1909, p. [92]) that there is an approach to bilateral symmetry in the splashes or smears of rainfall accompanying a cyclone which is progressing in a straight line, and this confirms the suggestion of Mr. Corless in *Symons's Meteorological Magazine* for June, 1911, that the curvature of the track is the cause of the excess of precipitation on the left.

### July 20th.

More than 60 maximum falls were reported, mainly from Cheshire and Lancashire; but one station in Wales received enough rain to bring its name before us.

XI. Festiniog (Morwynion Lake) ..... 2·58 in. or 3·6 per cent.

### July 25th.

Two of the rain gauges in North Wales caught large amounts, and more than fifty maximum falls were entered in other parts of the north of England, Wales and Scotland.

XI. Lake Cowlyd (Gors-y-Llithrig) ..... 3·43 in. or 3·5 per cent.  
 „ „ „ (Ffrith Fawr)..... 2·58 „ 2·7 „

### August 1st and 2nd.

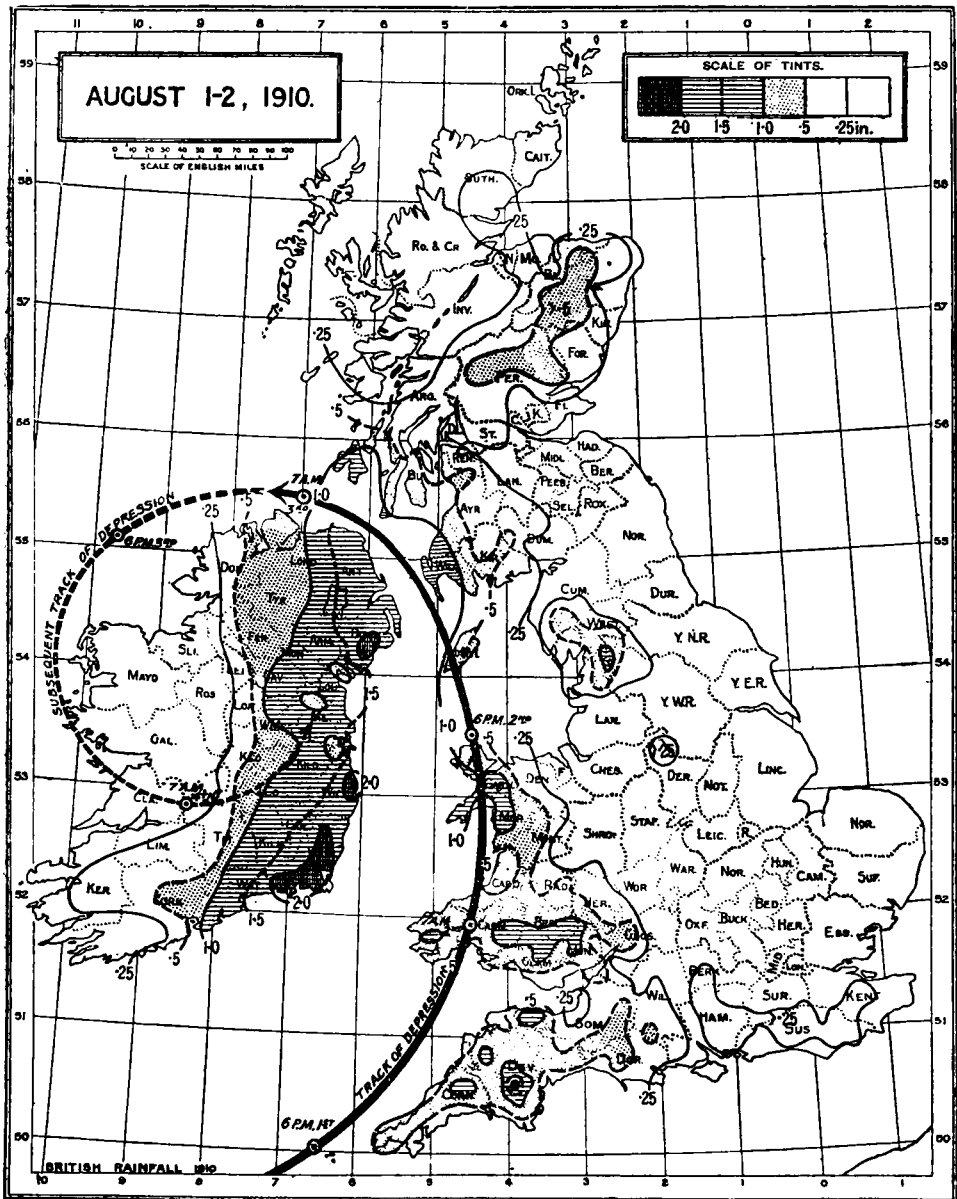
A depression followed a curved track round the south of Ireland, up the Irish Sea, and round the north of Ireland, the centre being off Land's End at 6 p.m. on the 1st; near Carmarthen at 7 a.m. on the 2nd, off Anglesey at 6 p.m., and to the north of Lough Foyle at 7 a.m. on the 3rd. Though the amount of rain was not very great anywhere on either day, the distribution of the fall of the two days together seemed worth a map.

Maximum falls were recorded at more than 60 stations, chiefly in the south-east of Ireland and on Dartmoor on the 1st, and in the north-east of Ireland and south-west of Scotland on the 2nd, though none of the readings was large enough to quote.

For the two days the rainfall showed a distinct centre in the Irish Sea,



and from the known characteristic of cyclonic rain to fall indifferently on high and low ground, it may be expected to fall on the sea-surface also, and the patches with more than two inches, which appear at intervals along the coast of Ireland, may form part of a long narrow strip with more than two inches of rain lying in the west of the



Irish Sea. The lines of 1·50 inch, 1·00 in., ·50 in. and ·25 in., run fairly parallel to each other through Ireland from south to north, showing a steady increase of rainfall up to the east coast; and on the other side of the sea the lines of 1·00 in., ·50 in. and ·25 in., can be

traced or divined along the coast of Scotland, the north of England and Wales, showing an increase of rainfall towards the west. While the great bulk of the rain evidently fell to the left of the track, attention must be called to the considerable falls in Cornwall, Devon and South Wales to the right of the track, and, unlike the splashes on the left side, showing complete harmony with the configuration of the country. The absence of records from the Irish Sea deprives this map of quantitative value; but the measurements may be given for the two days to preserve the usual forms :—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
More than 2 inches .....	834	2·14	1786
1—2 inches.....	12667	1·34	17016
Total .....	13501		18802

The general rainfall for the area over 1 inch was 1·39 in.

#### August 20th.

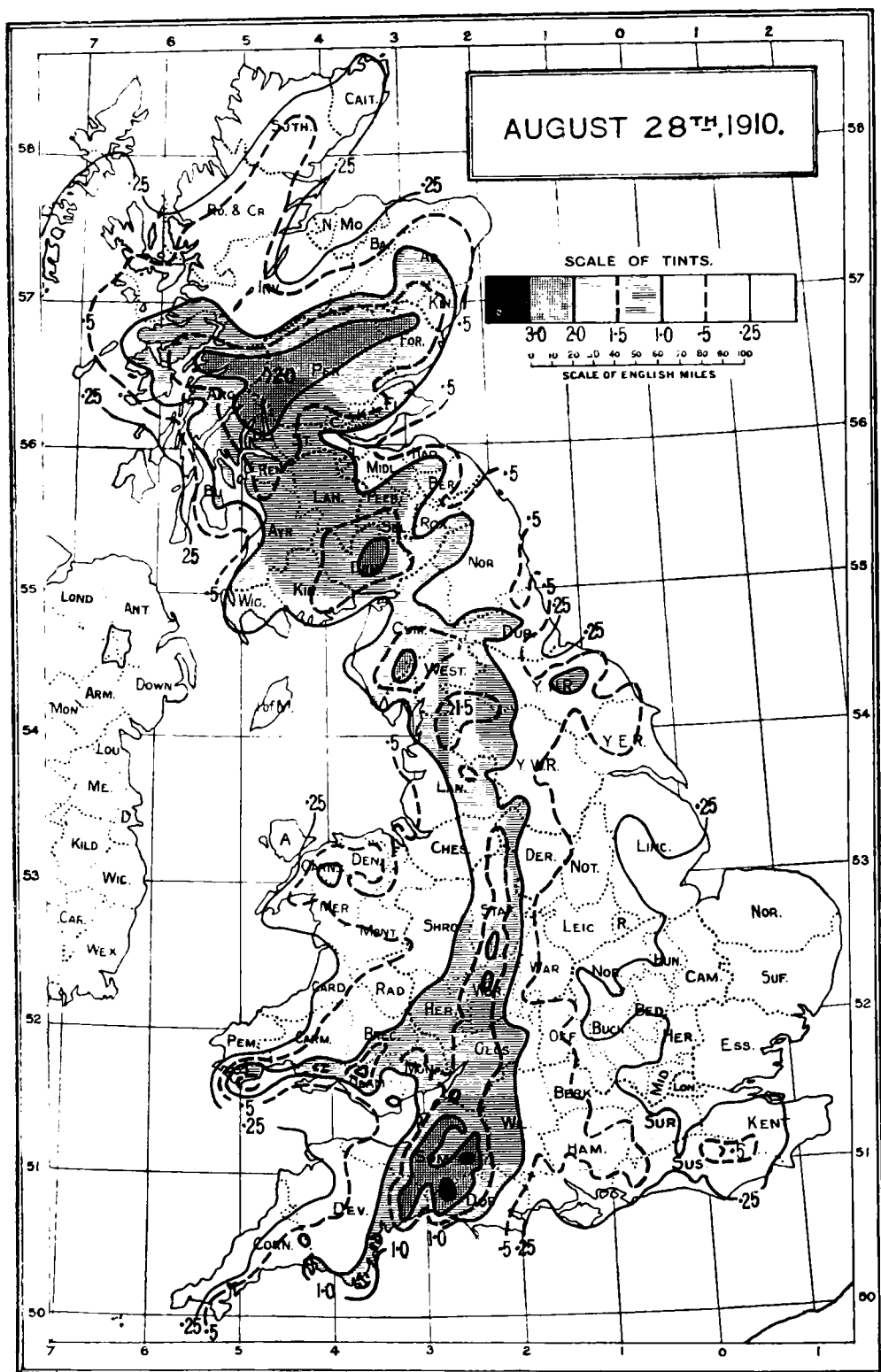
A depression crossing the north of Ireland and the narrow land of the Borders between England and Scotland, brought maximum falls to about 20 stations on the left of the track in the north of Ireland and the south of Scotland, two of the falls being

XIV. Lochwinnoch (Garthland) .....	2·75 in.	or 4·3 per cent.
„ Shaws W.W. (Mansfield) .....	2·61 „	3·2 „

#### August 25th—28th.

Two deep depressions following nearly the same track brought very heavy rain to the north of Ireland and throughout Scotland, especially in the west. The centre of the first depression is shown on the Monthly Weather Report map, as being in the middle of the west coast of Ireland on the 25th, at 6 p.m., on the north coast on the 26th, at 7 a.m., in the Firth of Clyde at 6 p.m., in the Moray Firth on the 27th, at 7 a.m. and at Orkney at 6 p.m. At 6 p.m. on the 28th, a new centre was in the north-west of Ireland, at 7 a.m. on the 29th, in the north-east of Ireland, off the Hebrides at 6 p.m.; in the centre of Scotland due east of that position at 7 a.m. on the 30th, and in Orkney at 6 p.m. Very heavy rains characterised the whole period, and the distribution of this rainfall leads us to believe that the distribution of pressure was much more complex than it was possible for the Meteorological Office maps to show, though it seems quite likely that the sixty odd stations which recorded their maximum falls on the 25th and 26th, in the north of Ireland, the north-west of





England and Scotland were under the influence of the earlier storm. Four of the amounts were considerable.

#### August 25th.

XXII.	Tuam (Castle Hacket).....	2·53 in.	or	5·8 per cent.
„	Cong (The Glebe) .....	2·53 „		5·0 „

#### August 26th.

X.	Borrowdale (Seathwaite).....	4·51 in.	or	3·4 per cent.
XVIII.	Harris (West Tarbert).....	2·89 „		3·9 „

#### August 28th.

This was the most remarkable of the wide-spread rains of the year, for though the list of remarkable falls we quote refers to not more than 13 stations, only one of these had a fall less than 2·50 in., and they were the greatest out of the maximum falls which occurred at about 400 stations in the centre of England and Scotland, from the English Channel to the Grampians. The map, drawn from a very large number of points, is peculiarly interesting on account of the sharp contrasts between the wet and dry portions of the country. The distribution of pressure was complicated as, in addition to the great depression which passed from the north of Ireland to Scotland, the Weather Report refers to a small secondary depression crossing the south of England. It is to this small secondary, no doubt, that the heavy falls in the south-west of England were due, though unfortunately we have no means of determining the track of the depression.

More than an inch of rain fell over a distance of 460 miles from south to north, the strip in England averaging about 40 miles in width, and being of a very uniform outline but for a narrow branch into South Wales ; but in Scotland the average width expands to 100 miles. Within this area the isohyetal line of 1·50 in. marks out the axis from the English Channel to near Manchester, and within that splashes of similar outline, bounded by the 2-inch line, occur, two small patches in Dorset and Somerset receiving more than 3 inches. North of Manchester the 1·50 in. isohyetal no longer runs parallel to the 1-inch line, but forms a series of detached oval areas with the long axes lying east and west, each larger and more distant as one goes from south to north, and each including a similarly outlined splash of more than 2 inches of rainfall. The largest of the 2-inch areas appears in the Highlands in the form of a triangle, with a base in the west of 50 miles, and stretching for 100 miles to the east. At the wider end

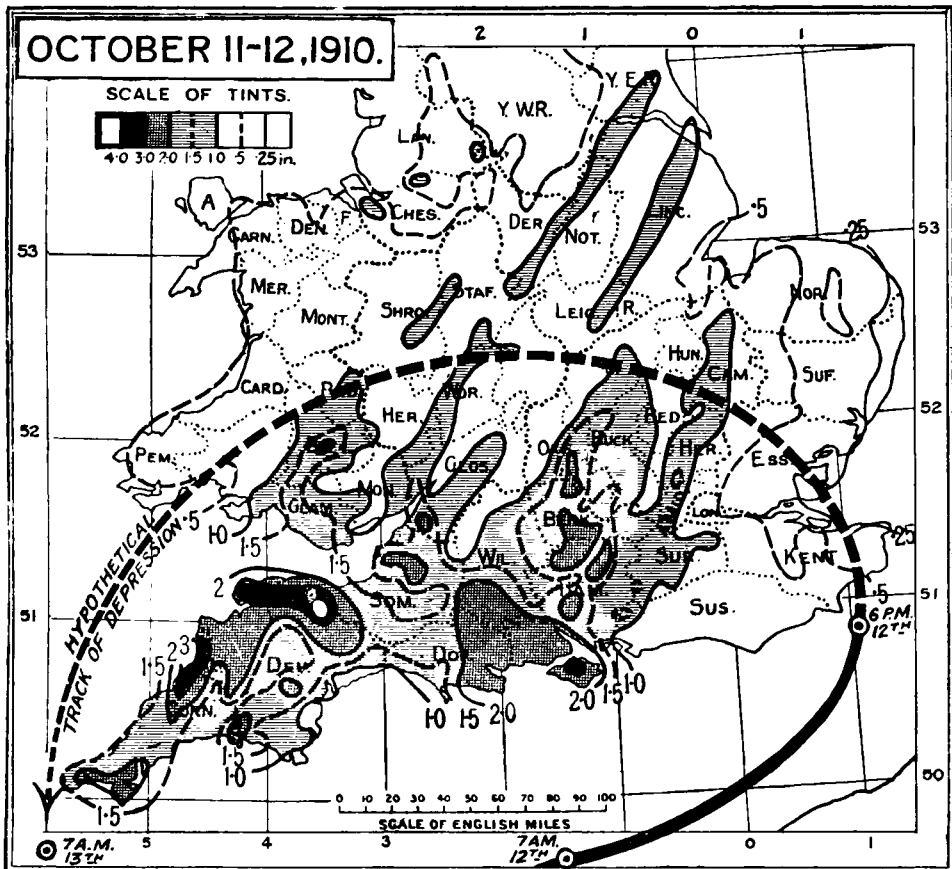
there is a considerable area within the 2·50 in. line, and there seems no reason to doubt that more than 3 inches of rain must have fallen in the centre of this space though there was no station there to record it. There seems to be no doubt that for Great Britain as a whole this was the wettest day of the year, and it is interesting to observe how the excessive rainfall occurred in inland districts, few parts of the coast having so much as half an inch of rain, and the line of a quarter of an inch appearing at intervals. The usual measurements show that the general rainfall of the portion with more than 1 inch amounted to 1·50 in. As the map was made in exceptional detail, we were tempted to complete the Table with the areas of the smaller falls, and the calculation of the general rainfall of the whole of Great Britain showing the whole volume of rain in million gallons for the day; but to do this would have delayed publication by a day, and we refrained.

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
More than 3 inches .....	72	3·24	234
2—3 inches .....	3159	2·29	7231
1—2 inches .....	25952	1·39	36206
Total over 1 inch .....	29183		43671
V. Chedington Court .....		3·24 in.	or 7·2 per cent.
„ Broadwindsor (Blackdown House) .....		2·91 „	5·8 „
„ Beaminster Vicarage .....		2·66 „	5·9 „
„ „ (Fleet Street) .....		2·71 „	6·0 „
„ Crewkerne (Bincombe House) .....		3·01 „	6·7 „
„ „ (Merefield House) .....		3·14 „	6·9 „
„ South Petherton Vicarage .....		3·03 „	8·2 „
„ Stoke-under-Ham .....		2·57 „	6·1 „
„ Rimpton .....		3·94 „	10·1 „
VI. Wolverhampton (Town Hall).....		2·07 „	7·5 „
XV. Ardkinglas .....		2·71 „	3·4 „
XVI. Lochearnhead (Ardvorlich).....		2·79 „	3·6 „
„ Blairgowrie (Ballintuin House) .....		2·52 „	5·5 „

#### October 11th and 12th.

Although there is only one entry in our list for October 11th, maximum falls were recorded at about 200 stations, chiefly in the centre and west of England, on the 11th, and at more than 100 stations in the same parts of the country on the 12th. There were thunderstorms in many places which is rather unusual at this time of year; and as the succession of storms seems to have paid no attention to the arbitrary limits of the rainfall day, we have mapped the two days together. The pressure conditions were peculiar, and worth referring to in passing. A depression moved up the Channel

from the westward, and the centre was south of the Isle of Wight at 7 a.m. on the 12th and off Dover at 6 p.m. ; but at 7 a.m. on the 13th it was back at the mouth of the Channel, and as there were no intermediate isobaric maps, it is impossible to say how it travelled. Venturing to theorize from the rainfall map we have been bold enough to represent the track as forming a loop to the left surrounding the region where the heavy rain occurred. It would be interesting



if an isobaric chart for, say, midnight on the 12th could be constructed to test the hypothesis on which we have traced the dotted track. We should have had more confidence in drawing this presumptive track if the rain splashes had been of the pure cyclonic type ; but they are, in fact, of the characteristic thunderstorm or squall type, the areas being very irregular in outline, and showing a tendency to arrangement in parallel bands of wet and dry, each

wet band consisting of a series of heavy splashes arranged nearly in a straight line.

The measurements *for the two days* are as follows :—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
More than 4 inches .....	14	4·07	57
3—4 inches.....	419	3·21	1347
2—3 inches.....	3141	2·37	7452
1—2 inches .....	14339	1·37	19707
Total over 1 inch .....	17913		28563

The general rainfall of the whole area over 1 inch was 1·59 in.

### October 11th.

III. Cambridge (Herschel House)..... 1·65 in. or 7·7 per cent.

### October 31st.

About 70 stations in the north of England and the west of Scotland recorded maximum falls in a severe south-westerly gale.

X.	Ambleside (Skelwith Bridge).....	2·77 in. or 3·0 per cent.
„	Rydal (The Stepping Stones) .....	2·60 „ 3·2 „
„	Loughrigg (High Close) .....	2·60 „ 3·2 „
„	Grasmere (The Wray) .....	3·28 „ 3·5 „
XIV.	Shaws W.W. (Loch Thom).....	2·60 „ 3·6 „
	„ „ (Hole Glen) .....	2·64 „ 4·1 „
XVIII.	Loch Shiel (Glenfinnan) .....	2·94 „ 2·7 „

### November 6th.

The passage of a typical winter cyclone across Scotland gave rise to about 40 maximum falls chiefly in the north of Scotland, and although there is no other station to support the large figure quoted below, we can see no reason to doubt its accuracy.

XIX. Brora (Gordonbush) ... 3·05 in. or 7·2 per cent.

### November 12th.

About 20 stations in different parts of Great Britain reported maximum falls, one of which is important for its amount and another for its percentage.

XI.	Swansea W.W. (Bwlch) .....	4·05 in. or 2·4 per cent.
XVI.	Inchkeith.....	2·08 „ 8·1 „

### November 27th.

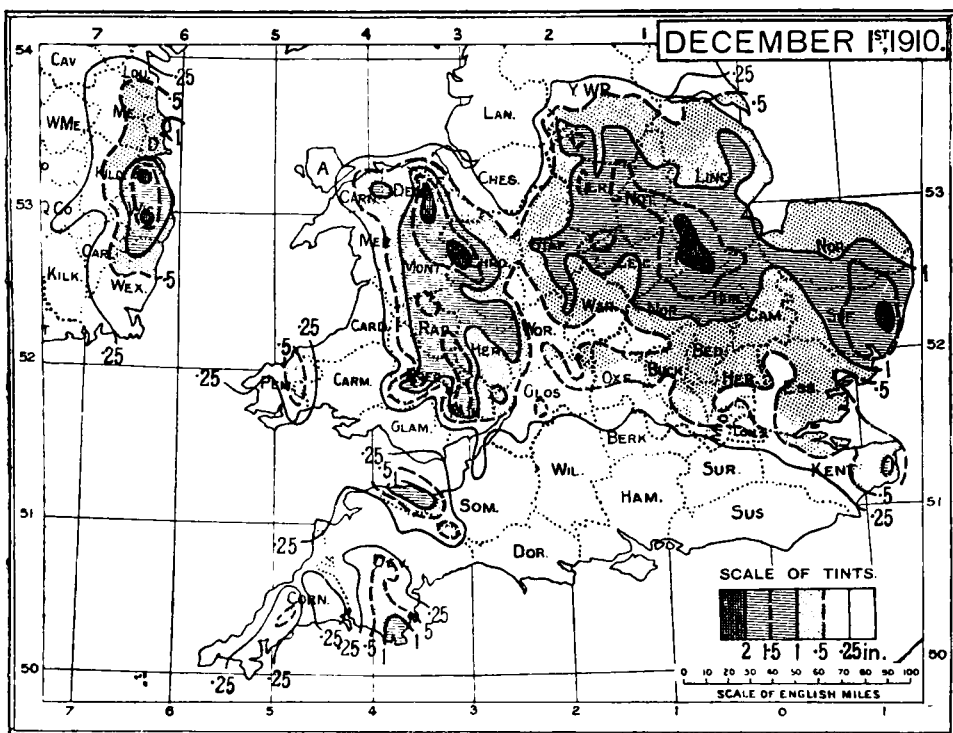
Although there are no figures to quote, about 120 maximum falls occurred on this date giving a rainfall exceeding one inch over a large



part of central and northern England, mainly to the north of the track of a typical winter cyclone, which swept across England from the Severn to the Wash. Although a map of this rain was plotted, it seems unnecessary to fill a page by reproducing what is after all a normal distribution for the season.

### December 1st.

A moderately heavy winter rainfall mainly affecting a belt of country from the coast of East Anglia to the middle of the east coast



of Ireland. The half inch line bounding the heavy fall, ran on the south from the mouth of the Thames to beyond Merthyr Tydfil, then northwards through the middle of Wales to Bangor, and across to the North Sea at the mouth of the Humber. Near Wellington, Salop, the half-inch area was nearly cut in two, and another large area appeared in the east of Ireland. Within the half inch line a large area with over 1 inch lay in the middle and east of England, including one patch with more than 2 inches in Suffolk, and another in Northampton ; a second area over an inch, with patches of more than

2 inches filled eastern Wales and extended into Herefordshire and Shropshire, while a fourth area was found in the east of Ireland also with a patch exceeding 2 inches. The most remarkable fall recorded amongst the 330 maximum falls of the day, of which 10 are quoted below, was 4·36 in. at Glen-na-Smoel a figure so much in excess of what might be expected, that we strongly suspected it of being too large; but after correspondence with the Observer, we have decided to let the figure stand on his strong assurance that there is no reason to suppose that the rain gauge is not in perfect order. Nevertheless, to relieve our own feeling, we think it right to state our surprise at the high reading.

The track of the depression accompanying this storm was perfectly straight from east to west across the north of France, the whole of the rainfall occurring on the right hand side. If the analogy of other cases of falls with a straight-travelling cyclone holds good, we should expect to see a wide-spread heavy rain on the same day in France, but we have no data on this subject.

The measurement of the areas with more than one inch of rain is as follows :—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles × inches.
More than 2 inches .....	491	2·18	1071
1—2 inches.....	11588	1·34	15583
Total over 1 inch ...	12079		16654

The general rainfall of the part of the country with more than 1 inch was 1·38 in. :—

III.	Wittering Rectory.....	2·25 in.	or 8·7 per cent.
„	Kings Cliffe (Fineshade Abbey).....	1·82 „	7·5 „
„	Oundle School .....	1·83 „	7·6 „
„	Etton [Market Deeping]..	1·80 „	7·5 „
IV.	Rendlesham Hall .....	2·01 „	7·5 „
VII.	Great Casterton Rectory.....	2·26 „	8·5 „
„	Stamford (Rutland Terrace) .....	2·02 „	7·7 „
„	Grantham (Saltersford) .....	2·10 „	7·6 „
XI.	Llangynhafal (Plas Draw) .....	2·53 „	6·4 „
XXI.	Glen-na-Smoel (Rathmines W.W.) .....	4·36 „	5·2 „

### December 15th.

About 30 stations in Ireland, Wales and the west of England recorded their maximum daily fall ; one was :—

XI.	Cray Station .....	2·75 in.	or 3·3 per cent.
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**December 16th.**

Many heavy falls occurred in North Wales during the passage of a cyclone across the middle of the British Isles, accompanied by a very heavy gale in the south. The area of high rainfall was small and lay clearly on the right hand side of the track, thus apparently being in contradiction to the usual distribution; a map was not constructed, and we cannot speak definitely on the subject. Considering the small area affected the number of returns to quote is remarkable.

XI.	Llangurig (Dernol) .....	2·51 in.	or 3·4 per cent.
„	Dolgelly .....	3·28 „	4·5 „
„	Lake Cowlyd (Ffrith Carreg Wen) .....	2·94 „	2·9 „
„	Snowdon (Cwm Dyli) .....	2·99 „	3·0 „
„	„ (Pen-y-Gwryd) .....	4·10 „	2·9 „

**December 19th.**

A solitary record without support from any other.

XI.	Trecastle (Lliwel Vicarage) .....	3·00 in.	or 4·7 per cent.
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**December 23rd.**

The last great fall of the year, giving some large figures.

IX.	Malham Tarn .....	2·50 in.	or 4·1 per cent
XI.	Llantrisant (Talygarn) .....	3·70 „	5·2 „
„	Glyncorwg Colliery .....	2·50 „	2·9 „
„	Blaenau Festiniog (Oakley Quarries) ...	2·62 „	2·6 „
XVIII.	Loch Quoich (Glenquoich) .....	2·52 „	2·4 „

**Part II.—Abstract.**

The usual Tables of Comparison for the maximum falls of 1910 and previous years are given in the same form as before, and we have to give the usual cautions with regard to their interpretation. Table I. gives the sixteen highest falls, and, as is the case with all extreme values, the figures quoted lie closest to the region of doubt, and there has this year been more than usual difficulty in drawing the line. As explained on pp. [118]–[119], we have left out the remarkable falls of 5·51 in. at Kidmore End, of 5·49 in. at Wheatley School, and of 4·98 in. at Holton Cottage, Wheatley, as we knew that the gauges used were unsatisfactory in pattern or exposure, and we have had some misgivings in admitting Glen-na-Smoel and Churchill School. As the list stands, there are six falls more than 4 inches and the remaining ten are more than 3·40 inches. The mean of the sixteen highest falls included in Table I. is, as shown in Table II., a little above the average, and the highest fall of all, 4·51 in. at Seathwaite, is the smallest since 1889:—there seems good reason for believing

that a rain gauge of standard pattern, properly exposed in the Oxford area of high rainfall on June 9th, would have caught more.

Table II. gives the sixteen maximum falls which form the largest percentages of the annual total, only three of them exceeding 10 per cent. ; the mean of all is 9·9 per cent., the lowest since 1896.

Table V. illustrates in the first column the steady growth of the number of daily records received, the 3894 of 1910 being 228 more than in 1909, the greatest increase in one year on record, and this increase is due not so much to new rainfall returns as to Observers who formerly sent only monthly figures, taking the additional trouble to send daily readings, or at least the maximum daily reading for each month, as well. The second column shows that as usual in a wet year with many rain days, the average percentage of all the maximum falls to the total rainfall is low, indeed, a lower percentage was only noted in three out of the forty-six years in the Table. The third column shows that the mean amount of the maximum falls was low, ·11 in. less than the average, though it had very often been lower. The last four columns are of value in giving a rough idea of the general rainfall of the country, and although more exact figures on this subject will be given in later sections, it is interesting to notice that 1909 and 1910 are the first pair of consecutive years to be above the average since 1883.

Table VI. shows that although the number of maximum falls exceeding 2·00 in. is large in itself, there are only 82 such falls in 1000 stations, or 36 per 1000 less than the average. Notwithstanding the great increase in the number of stations, the number of maximum falls over 3·00 in. is 7 less than the average, and amounts only to 8 in 1000 stations, or just half the average proportion. This proves that the wetness of the year as a whole, was not due to exceptionally wet days, but to exceptionally numerous days of comparatively small rainfall.

*Summary of Maximum Falls in 1910.*

	No. of Records.	Mean Amount.	Mean Percent- age of Annual Fall.	Falls of 2·00 in. or more.	Per Cent. of Total Number.	Falls of 3·00 in. or more.	Per Cent. of Total Number.
		in.		No.		No.	
England & Wales...	3254	1·34	3·8	232	7·1	30	0·9
Scotland .....	405	1·51	3·6	63	15·6	2	0·5
Ireland .....	235	1·48	3·6	23	9·8	1	0·4
British Isles...	3894	1·37	3·8	318	8·2	33	0·8

This little summary of Table VI. shows that the percentage of the annual fall of the average maximum falls was rather greater for England and Wales than for Scotland or Ireland ; that the number of maximum falls above 2·00 in. was proportionally more than twice as great for Scotland as for England and Wales, while the proportion for the falls above 3·00 in. was twice as great for England and Wales as for Scotland, a result largely due to the fact that very few daily records are received from the wettest parts of Scotland. The concluding summary shows how these figures have varied for each of the three kingdoms since 1905.

*Comparison of Maximum Falls.*

	No. of Records.	Mean Amount.  in.	Mean Percent- age.	Falls of 2·00 in. or more.  No.	Per Cent. of Total.	Falls of 3·00 in. or more.  No.	Per Cent. of Total.
<b>ENGLAND AND WALES—</b>							
1905.....	2719	1·28	4·9	176	6·5	12	0·4
1906.....	2846	1·31	4·6	310	10·9	24	0·8
1907.....	2915	1·30	4·2	95	3·3	16	0·6
1908.....	3002	1·26	4·5	178	5·9	25	0·8
1909.....	3069	1·47	4·4	427	13·9	37	1·2
1910.....	3254	1·34	3·8	232	7·1	30	0·9
<b>SCOTLAND—</b>							
1905.....	332	1·29	3·5	32	9·6	2	0·6
1906.....	325	1·68	3·9	78	24·0	6	1·8
1907.....	342	1·59	3·9	21	6·1	3	0·9
1908.....	386	1·54	4·2	68	17·6	9	2·3
1909.....	393	1·81	4·3	117	29·8	31	7·9
1910.....	405	1·51	3·6	63	15·6	2	0·5
<b>IRELAND—</b>							
1905.....	199	1·88	5·9	72	36·2	31	15·6
1906.....	194	1·14	3·3	7	3·6	0	0·0
1907.....	208	1·21	3·1	2	1·0	2	1·0
1908.....	208	1·47	4·0	29	13·9	2	1·0
1909.....	204	1·46	4·0	14	6·9	1	0·5
1910.....	235	1·48	3·6	23	9·8	1	0·4

TABLE I.—*Maximum Falls in 1910.*

Date.	Div.	Station.	Depth.	Per Cent.	Total.
Aug. 26 ...	X.	Borrowdale, Seathwaite ...	4·51 in.	3·4	134·24 in.
Dec. 1 ...	XXI.	Glen-na-Smoel, Rathmines WW	4·36 „	5·2	83·11 „
June 7 ...	III.	Churchill School .....	4·25 „	11·7	36·37 „
Dec. 16 ...	XI.	Snowdon, Pen-y-Gwryd ...	4·10 „	2·9	142·37 „
Nov. 12 ...	„	Swansea W.W., Bwlch.....	4·05 „	2·4	170·44 „
Aug. 28 ...	V.	Rimpton .....	3·94 „	10·1	39·16 „
June 9 ...	III.	Wheatley, Waterstock .....	3·93 „	13·0	30·14 „
Feb. 23 ...	X.	Patterdale, Greenside Mine	3·75 „	3·7	102·47 „
Mar. 1 ...	„	„ „ „ „ „	3·75 „	3·7	102·47 „
Dec. 23 ...	XI.	Llantrisant, Talygarn .....	3·70 „	5·2	71·11 „
June 7 ...	VI.	Stow-on-the-Wold, Quar Wood	3·61 „	9·8	37·01 „
„ „ ...	„	„ „ „ „ „, Netherswell Manor	3·56 „	10·1	35·11 „
„ „ ...	„	„ „ „ „ „	3·55 „	9·9	36·04 „
Mar. 1 ...	X.	Dungeon Ghyll .....	3·52 „	3·0	119·38 „
Jan. 1 ...	XVIII.	Loch Quoich, Kinlochquoich	3·45 „	3·2	109·75 „
July 25 ...	XI.	Lake Cowlyd Gors-y-Llithrig	3·43 „	3·5	97·19 „

TABLE III.—*Maximum Percentages in 1910.*

Date.	Div.	Station.	Per cent.	Depth.	Total.
June 9 ...	III.	Wheatley, Waterstock .....	13·0	3·93 in.	30·14 in.
„ 7 ...	„	Churchill School.....	11·7	4·25 „	36·37 „
Aug. 28 ...	V.	Rimpton .....	10·1	3·94 „	39·16 „
June 7 ...	III.	Stow-on-the-Wold, Netherswell Manor	10·1	3·56 „	35·11 „
„ „ ...	„	„ „ „ „ „	9·9	3·55 „	36·04 „
„ „ ...	„	„ „ „ „ „ Quar Wood	9·8	3·61 „	37·01 „
„ „ ...	„	Sarsden, Estate Office .....	9·8	3·19 „	32·50 „
Apr. 16 ...	I.	Stoke Newington, New River Filters	9·7	2·29 „	23·57 „
June 9 ...	III.	Henley-on-Thames, Peppard	9·6	2·93 „	30·43 „
Apr. 16 ...	I.	Stoke Newington, New River Res.	9·6	2·51 „	26·19 „
June 9 ...	III.	Stanton St. John, Woodperry	9·5	3·08 „	32·26 „
„ 7 ...	„	Sarsden Gardens.....	9·4	3·15 „	33·47 „
„ 9 ...	„	Caversham, Hemdean Road	9·4	3·04 „	32·26 „
„ 24 ...	IX.	Doncaster, Hexthorpe Hall	9·4	2·44 „	25·97 „
„ 7 ...	III.	Wraysbury, Elmslea .....	9·0	2·67 „	29·82 „
Dec. 1 ...	„	Wittering Rectory .....	8·7	2·25 „	25·78 „

TABLE II.—*Comparison of Maximum Falls with those in previous years.*

MEAN OF 16 HIGHEST.				ABSOLUTE HIGHEST.			
Years.	Depth.	Per Cent.	Mean total fall at these stations.	Depth.	Per Cent.	Station.	Division.
	in.		in.	in.			
1865 ...	3·67	6·4	61·8	6·41	5·5	Seathwaite.....	X.
1866 ...	3·40	4·4	86·2	6·38	3·6	„ .....	„
1867 ...	3·17	9·0	m 42·5	4·78	17·7	Hartlip .....	II.
1868 ...	3·32	6·1	65·9	5·60	4·8	Camusnas .....	XV.
1869 ...	3·68	5·0	77·7	6·70	4·5	Seathwaite.....	X.
1870 ...	3·20	7·5	43·8	6·00	17·1	Tongue .....	XIX.
1871 ...	3·08	5·7	61·6	4·24	9·6	Melbury.....	V.
1872 ...	4·10	6·6	73·1	5·82	3·2	Seathwaite.....	X.
1873 ...	2·97	6·2	60·7	4·20	m 2·9	„ .....	„
1874 ...	3·96	4·6	86·5	5·32	4·4	Bryn Gwynant .....	XI.
1875 ...	4·52	7·8	63·9	5·33	9·7	Newport W. W. ...	„
1876 ...	3·37	5·9	57·6	4·50	5·5	Foffany .....	XXIII.
1877 ...	3·77	4·6	93·4	4·98	5·3	Skye, Portree.....	XVIII.
1878 ...	3·57	7·4	57·2	4·24	8·6	Springfield .....	XI.
1879 ...	3·66	9·5	50·4	m 4·05	4·1	Little Langdale.....	X.
1880 ...	3·50	7·7	51·1	4·75	3·9	Seathwaite.....	„
1881 ...	3·65	4·9	83·1	5·42	4·7	Sligachan ...	XVIII.
1882 ...	3·28	4·5	84·3	4·51	3·0	Seathwaite .....	X.
1883 ...	3·69	6·1	72·4	5·27	9·0	Glen-na-Smoel .....	XXI.
1884 ...	3·45	4·7	80·7	6·78	5·0	Seathwaite .....	X.
1885 ...	3·45	5·8	68·2	4·62	3·2	„ .....	„
1886 ...	3·77	7·7	58·7	4·20	9·9	Little Bredy .....	V.
1887 ...	m 2·83	6·1	56·8	4·93	13·0	Galway Queen's Coll.	XXII.
1888 ...	4·20	5·9	77·0	5·20	5·4	Wythburn Vic.....	X.
1889 ...	3·89	9·9	49·2	4·45	16·5	N. Ockendon .....	IV.
1890 ...	5·01	6·9	95·1	7·29	3·7	Ben Nevis Obs.....	XVIII.
1891 ...	4·38	4·7	M 108·4	6·14	4·2	Seathwaite.....	X.
1892 ...	4·47	7·9	70·1	5·80	4·5	„ .....	„
1893 ...	3·84	5·8	89·6	4·96	3·5	„ .....	„
1894 ...	3·95	5·7	83·0	7·74	5·1	Ben Nevis Obs.....	XVIII.
1895 ...	3·80	7·2	62·2	4·83	16·1	Mellington Hall ...	XI.
1896 ...	3·31	5·9	67·5	4·59	3·7	Seathwaite .....	X.
1897 ...	M 5·24	5·3	95·1	M 8·03	5·6	„ .....	„
1898 ...	4·61	5·3	100·8	6·70	M 18·1	Angerton Hall.....	„
1899 ...	3·92	5·0	86·6	5·21	5·6	Borrowdale, Grange	„
1900 ...	4·29	8·0	64·1	5·40	11·9	Ilkley, Cherry Bank	IX.
1901 ...	4·21	9·9	53·5	5·66	5·7	Dungeon Ghyll ...	X.
1902 ...	3·79	7·9	59·4	5·92	3·8	Ben Nevis Obs. ...	XVIII.
1903 ...	4·13	7·2	84·7	4·78	2·2	„ „ „ .....	„
1904 ...	4·02	7·4	69·5	5·62	6·0	Skelwith Bridge ...	X.
1905 ...	3·90	M 11·5	42·6	5·71	14·0	Glen-na-Smoel.....	XXI.
1906 ...	3·63	m 4·3	90·0	6·15	4·7	Seathwaite .....	X.
1907 ...	3·53	7·3	59·3	4·86	9·4	Kingsbridge.....	V.
1908 ...	3·93	8·0	60·7	4·80	9·9	Treharris .....	XI.
1909 ...	4·79	5·4	91·8	6·46	5·7	Lochquoich, Kinlochquoich	XVIII.
Average	3·82	6·6	71·1	5·45	7·2	.....	...
1910 ...	3·84	6·3	84·1	4·51	3·4	Seathwaite .....	X.
Diff. ...	+ ·02	—0·3	+13·0	—·94	—3·8	.....	...

TABLE IV.—*Comparison of Maximum Percentages with those in previous years.*

MEAN OF 16 HIGHEST.				ABSOLUTE HIGHEST.			
Years.	Per Cent.	Depth.	Mean total fall at these Stations.	Per Cent.	Depth.	Station.	Division.
		in.	in.		in.		
1865 ...	9·9	2·62	28·4	13·0	4·40	Fleckney.....	VII.
1866 ...	8·1	2·31	29·3	10·0	2·48	Burton .....	VI.
1867 ...	11·0	2·85	25·3	17·7	4·78	Hartlip .....	II.
1868 ...	8·6	2·55	30·1	11·0	4·00	Tongue .....	XIX.
1869 ...	7·9	2·17	27·9	10·0	3·40	Tillydesk .....	XVII.
1870 ...	10·0	2·34	22·9	17·1	6·00	Tongue .....	XIX.
1871 ...	9·0	2·43	26·8	11·5	3·62	Warter .....	IX.
1872 ...	8·1	3·43	M 42·5	10·0	3·70	Hillington Hall.....	IV.
1873 ...	9·7	2·39	24·7	11·8	2·77	Oscott .....	VI.
1874 ...	9·2	2·16	23·7	11·9	2·50	Welwyn .....	III.
1875 ...	10·2	M 3·76	37·5	13·2	3·95	Letheringsett.....	IV.
1876 ...	m 7·4	2·49	33·7	m 8·5	3·70	Crag-side .....	X.
1877 ...	8·2	2·73	33·1	9·3	3·09	Wellington.....	VI.
1878 ...	10·2	3·05	30·0	11·8	3·90	Haverstock Hill.....	I.
1879 ...	10·9	3·31	30·5	12·3	3·80	Cambridge M. V. ....	III.
1880 ...	9·5	3·06	32·3	11·7	3·34	Marmont Priory L. ...	„
1881 ...	8·1	2·42	30·3	10·6	3·20	Aboyne Castle.....	XVII.
1882 ...	7·7	2·54	33·4	9·1	2·80	Bothalhaugh .....	X.
1883 ...	9·7	3·00	31·1	12·3	4·31	Skegness .....	VII.
1884 ...	11·7	2·33	m 20·0	13·8	2·66	Diss (Thelveton) .....	IV.
1885 ...	8·9	2·71	30·7	9·6	2·62	Beccles, Ellough .....	„
1886 ...	10·1	3·32	32·7	11·5	4·10	Methley Park.....	IX.
1887 ...	9·5	m 2·11	21·9	13·0	4·93	Galway, Queen's Coll...	XXII.
1888 ...	10·9	3·05	28·3	11·8	3·24	Rothamstead .....	III.
1889 ...	12·7	3·51	27·8	16·5	4·45	N. Ockendon.....	IV.
1890 ...	M 14·4	3·60	25·1	17·2	3·68	Slough, Langley.....	III.
1891 ...	9·7	2·67	27·6	14·4	4·00	Sunnyside Asylum ...	XVI.
1892 ...	12·3	3·37	27·4	15·0	4·27	Tyntesfield .....	V.
1893 ...	12·0	2·81	23·4	16·2	4·48	Cranmer Hall.....	IV.
1894 ...	9·0	2·54	28·3	11·1	3·56	Sidcup .....	II.
1895 ...	10·0	2·87	28·8	16·1	4·83	Mellington Hall.....	XI.
1896 ...	9·5	2·50	26·3	11·1	2·78	Barkby .....	VII.
1897 ...	10·3	2·48	23·2	14·1	m 2·40	Chatteris, H. L. ....	III.
1898 ...	11·5	2·92	25·0	M 18·1	M 6·70	Angerton Hall.....	X.
1899 ...	11·3	2·53	22·6	14·6	3·10	Wallingford .....	II.
1900 ...	11·3	3·37	29·8	13·1	4·50	Gilstead Filters.....	IX.
1901 ...	14·1	3·37	24·0	17·9	4·24	Maidenhead, The Firs	II.
1902 ...	12·7	2·90	22·8	15·5	3·51	Esher Sewage Works.	„
1903 ...	10·6	M 3·76	35·6	12·8	4·41	Dartford, West Hill House	„
1904 ...	12·5	2·87	23·0	15·8	3·48	Leamington, Binswood Av.	VI.
1905 ...	13·8	3·67	26·7	14·9	3·98	Cofton Vicarage .....	V.
1906 ...	10·5	2·51	24·0	11·9	2·50	Cambridge, Herschel House	III.
1907 ...	10·7	3·01	28·5	12·5	3·40	Lincoln, St. Botolph's	VII.
1908 ...	11·4	2·78	24·5	16·0	3·45	Great Glemham. ....	IV.
1909 ...	10·1	2·96	29·4	11·1	3·30	Tidworth Ho. [Ludgershall]	II.
Aver. ....	10·3	2·85	28·0	13·1	3·74	.....	...
1910 ...	9·9	3·15	31·6	13·0	3·93	Wheatley, Waterstock	III.
Diff. ....	—·4	+·30	+·3·6	—·1	+·19	.....	..



TABLE V.—*Comparison of the Mean of all the Maximum Falls of 1910 with similar data for previous years.*

Years.	Number of Returns.	Mean Percentage.	Mean Amount.	Mean Total Fall in year.	Ratio taking 33=100.	Total Fall being assumed =33in. Mean Max. =
			in.	in.		
1865.....	481	5·1	1·70	33	100	5·2 per cent
1866.....	590	3·7	1·48	40	121	4·5 „
1867.....	584	4·6	1·44	31	94	4·4 „
1868.....	676	4·3	1·43	33	100	4·3 „
1869.....	637	4·2	1·42	34	103	4·3 „
1870.....	687	4·9	1·30	27	82	3·9 „
1871.....	752	4·9	1·49	30	91	4·5 „
1872.....	743	<i>m</i> 3·4	1·59	<i>M</i> 47	<i>M</i> 142	4·8 „
1873.....	809	4·6	1·35	29	88	4·1 „
1874.....	1010	4·4	1·41	32	97	4·3 „
1875.....	1081	5·0	<i>M</i> 1·83	37	112	<i>M</i> 5·5 „
1876.....	1112	3·9	1·49	38	115	4·5 „
1877.....	1180	3·8	1·56	41	124	4·7 „
1878.....	1186	4·3	1·49	35	106	4·5 „
1879.....	978	4·2	1·52	36	109	4·6 „
1880.....	1117	4·8	1·72	36	109	5·2 „
1881.....	1194	4·1	1·45	35	106	4·4 „
1882.....	1463	3·6	1·42	39	118	4·3 „
1883.....	1505	4·0	1·41	35	106	4·3 „
1884.....	1691	4·8	1·32	28	85	4·0 „
1885.....	1801	4·5	1·41	31	94	4·3 „
1886.....	1718	4·6	1·64	35	106	5·0 „
1887.....	1921	4·5	<i>m</i> 1·14	<i>m</i> 25	<i>m</i> 76	<i>m</i> 3·5 „
1888.....	1974	4·4	1·41	32	97	4·3 „
1889.....	1812	4·8	1·41	29	88	4·3 „
1890.....	2081	5·0	1·46	29	88	4·4 „
1891.....	2218	4·1	1·47	35	106	4·5 „
1892.....	2231	5·4	1·62	30	91	4·9 „
1893.....	2267	4·8	1·30	27	82	3·9 „
1894.....	2321	4·2	1·46	35	106	4·4 „
1895.....	2423	4·5	1·37	30	91	4·2 „
1896.....	2465	4·4	1·33	30	91	4·0 „
1897.....	2598	4·1	1·36	33	100	4·1 „
1898.....	2691	5·0	1·42	28	85	4·3 „
1899.....	2791	4·7	1·42	30	91	4·3 „
1900.....	2702	4·6	1·61	35	106	4·9 „
1901.....	2747	<i>M</i> 5·7	1·58	28	85	4·8 „
1902.....	2832	4·4	1·20	27	82	3·6 „
1903.....	2936	4·0	1·67	41	124	5·1 „
1904.....	3093	4·6	1·31	29	88	4·0 „
1905.....	3250	4·8	1·31	27	82	4·0 „
1906.....	3365	4·5	1·40	31	94	4·2 „
1907.....	3465	4·1	1·32	32	97	4·0 „
1908.....	3596	4·4	1·31	30	91	4·0 „
1909.....	3666	4·4	1·51	34	103	4·6 „
Average.	1876	4·5	1·45	33	100	4·4 „
1910.....	3894	3·8	1·34	35	106	4·1 „
Diff.....	+2018	-0·7	-·11	+ 2	+ 6	-0·3 „

TABLE VI.—*Maximum 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	.....
3 .....	1505	.....	170	.....	11·3	.....
4 .....	1691	.....	138	.....	8·2	.....
5 .....	1801	.....	179	.....	10·0	.....
6 .. ...	1718	.....	158	.....	9·2	.....
7 .....	1921	.....	52	.....	m 2·7	.....
8 .....	1974	.....	374	.....	18·9	.....
9 .....	1812	.....	170	.....	9·4	.....
1890 .....	2081	.....	345	.....	16·6	.....
1 .. ...	2218	.....	270	.....	12·2	.....
2 .....	2231	.....	470	.....	21·1	.....
3 .....	2267	.....	183	.....	8·1	.....
4 .....	2321	.....	313	.....	13·5	.....
5 .....	2423	.....	249	.....	10·3	.....
6 .....	2465	.....	249	.....	10·1	.....
7 .....	2598	.....	275	.....	10·6	.....
8 .....	2691	.....	373	.....	13·9	.....
9 .....	2791	.....	283	.....	10·0	.....
1900 .....	2702	.....	641	.....	M 23·7	.....
1 .....	2747	.....	497	.....	18·1	.....
2 .....	2832	.....	163	.....	5·8	.....
3 .....	2936	.....	625	.....	21·3	.....
4 .....	3093	.....	246	.....	8·0	.....
5 .....	3250	.....	280	.....	8·6	.....
6 .....	3365	.....	395	.....	11·7	.....
7 .....	3465	.....	118	.....	3·4	.....
8 .....	3596	.....	275	.....	7·7	.....
9 .....	3666	.....	558	.....	15·2	.....
Aver. ....	2487	.....	292	.....	11·8	.....
1910 .....	3894	.....	318	.....	8·2	.....
Diff. ....	+1407	.....	+26	.....	-3·6	.....
					-7	.....
					-0·8	.....

## MONTHLY RAINFALL, 1910.

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WITH the completion of the decade 1900—1909, the number of rain gauges for which a satisfactory average for thirty years or more is available has been notably increased, and we have, therefore, been able to extend the list of stations, for the comparison of monthly rainfall with the average, from 73 to 105. At the same time it was possible to improve the distribution so as to make the means of the readings for all the stations in each of the larger divisions of the British Isles a closer approximation to the general condition of the country than was formerly the case. The period adopted for the average is the thirty-five years 1875—1909, and it is on the basis of these figures that the maps of percentage of the average, on the right hand page at each opening, have been compiled. It is important, for purposes of comparison, to determine, as far as it is possible to do so, the relation between the broad-based average now adopted, and the average of the thirty years 1870—1899 for a smaller number of stations, formerly employed, and this is done in the following Table. The comparison cannot be made directly, as most of the stations which have been dropped out of the list in the re-distribution were incomplete in the first half decade now introduced, and we had, therefore, to set about the matter by comparing the mean for all the stations in each of the great divisions for the period 1870—1899, as used up to last year, with the mean for all the stations in each of the great divisions, for the period 1875—1909 now introduced. It is satisfactory to find that, for the British Isles and for Ireland, there is practically no change so far as the annual total is concerned. In England, however, the new annual average is 5 per cent. less than the old, and in Wales 3 per cent. less, while in Scotland it is 4 per cent. more. We have no hesitation in adopting the new figures as the more correct. The explanation of the considerable diminution in England is, that with only 33 stations the introduction of the very wet Seathwaite unduly raised the average for the country, and the more equable distribution of the 45 stations now employed allow of a juster weight being given to the drier districts. In the case of Scotland the re-distribution of stations has

*General Average Rainfall for 1870-1899 in comparison with that for 1875-1909.*

	No. of Stations	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
Average 1870-1899.	England .....	in. 2.99	in. 2.46	in. 2.29	in. 2.11	in. 2.19	in. 2.40	in. 3.02	in. 3.12	in. 3.13	in. 3.89	in. 3.49	in. 3.30	in. 34.39
	Wales .....	4.25	3.27	2.98	2.50	2.51	2.73	3.82	4.35	4.07	5.39	4.80	4.66	45.33
	Scotland .....	4.13	3.35	3.18	2.34	2.55	2.71	3.50	3.93	3.98	4.54	4.62	4.63	43.46
	Ireland .....	3.79	3.00	2.75	2.51	2.43	2.77	3.34	3.98	3.42	4.00	3.93	4.13	40.05
	BRITISH ISLES..	3.55	2.87	2.67	2.29	2.35	2.58	3.27	3.60	3.48	4.18	3.97	3.93	38.74
Average 1875-1909.	England .....	2.66	2.30	2.32	2.08	2.22	2.40	2.88	3.20	2.69	3.70	3.21	3.23	32.89
	Wales ..	4.03	3.33	3.20	2.63	2.62	2.68	3.29	4.17	3.49	5.14	4.60	4.81	43.99
	Scotland .....	4.34	3.57	3.57	2.60	2.74	2.69	3.53	4.21	3.84	4.60	4.68	4.94	45.31
	Ireland .....	3.65	2.98	2.95	2.59	2.59	2.75	3.17	4.00	3.27	3.82	3.89	4.15	39.81
	BRITISH ISLES..	3.43	2.87	2.86	2.38	2.47	2.58	3.14	3.73	3.19	4.09	3.86	4.02	38.62
Average 1870-1899 when Average 1875-1909=100.	England ..	112	107	99	101	99	100	105	97	116	105	109	102	105
	Wales .....	105	98	93	95	96	102	116	104	117	105	104	97	103
	Scotland .....	95	94	89	90	93	101	99	93	104	99	99	94	96
	Ireland .....	104	101	93	97	94	101	105	99	105	105	101	100	101
	BRITISH ISLES..	103	100	93	96	95	100	104	97	109	102	103	98	100

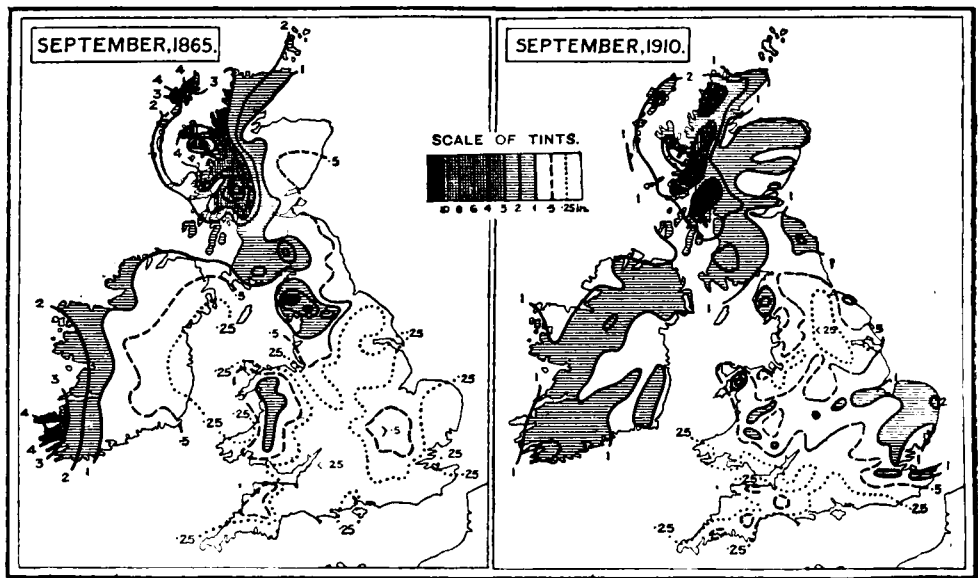
enabled us to give a better representation of the wetter districts, hence the increase noted.

With regard to the individual months, we notice some very considerable variations of the averages, that for June alone remaining practically the same in all parts. In England there is no considerable change for March, April, May, June, August or December ; but the other six months show a marked diminution, illustrating the well-known fact that the seasonal distribution of rain within the year fluctuates far more than the total quantity of rain which falls. It is unnecessary to consider Wales and the Isle of Man, as the number of stations is too small to allow the same weight to be given to them. In Scotland, June, July, October and November are practically unchanged ; September alone shows a pronounced falling off, whilst the greatest increase is shown in March and April. In Ireland, February, June, August, November, and December show no appreciable change ; but March and May are considerably wetter, and January, July, September and October considerably drier in the new averages. There has been a distinct displacement in the distribution of rainfall within the year between the two periods ; and as the new average drops the first five years of the old, and adds a new ten years at the other end, these changes are possibly of a progressive nature. The subject must be gone into more fully on another occasion, it is sufficient to point out at present, that for England, Wales, Scotland and Ireland, individually and collectively, a very marked increase of rainfall is shown for the more recent period in March and May, and a much more remarkable diminution in September, to which we shall refer again.

The dissimilarity between the two sets of averages for the months and the similarity for the year, illustrates the fact, which was already established, that while from 30 to 35 years furnishes a satisfactory period for yearly averages, it is much too short a period for satisfactory monthly averages.

The most remarkable features of the monthly rainfall in 1910 were the wetness of February and the dryness of September, and the latter was probably the more exceptional. We have looked through *British Rainfall* back to the commencement and found only three Septembers which could compare in low rainfall with that of 1910. These were the Septembers of 1865, 1895 and 1907. The general rainfall of each of the great divisions and of the British Isles were calculated for the three last mentioned years and for 1910 by taking

the mean of the values in the long Monthly Rainfall Table in *British Rainfall* ; and for 1865 a similar Table was specially compiled, from fewer points, but from as many as were available.



*Rainfall of the Driest Septembers*

	No. of Stations.	General Rainfall, in.	Average, in.	Per cent. of Average.
<b>1865.</b>				
England .....	50	·39	2·69	14
Wales .....	13	·55	3·49	16
Scotland .....	37	1·73	3·84	45
Ireland .....	29	·99	3·27	30
BRITISH ISLES .....	130	·92	3·19	29
<b>1895.</b>				
England .....	101	·92	2·69	34
Wales .....	19	1·32	3·49	38
Scotland .....	59	1·90	3·84	49
Ireland .....	51	·98	3·27	30
BRITISH ISLES .....	231	1·22	3·19	38
<b>1907.</b>				
England .....	102	·75	2·69	28
Wales .....	19	1·01	3·49	29
Scotland .....	55	1·49	3·84	39
Ireland .....	53	1·59	3·27	49
BRITISH ISLES .....	230	1·14	3·19	36
<b>1910.</b>				
England .....	130	·60	2·69	22
Wales ..	24	·42	3·49	12
Scotland .....	79	1·71	3·84	44
Ireland .....	66	1·13	3·27	35
BRITISH ISLES .....	300	·99	3·19	31

The percentages which the figures so obtained formed of the September average of 1875-1909 were calculated so as to bring them all to a common standard, and the result is set out in the Table on p. [144], which shows that the only September which was drier than that of 1910 was September, 1865.

The fact that the figures in the last column for 1910 do not exactly agree with the percentages for September on p. [149], is due to the circumstance that the mean of 300 well-distributed stations is a much more accurate statement of the general rainfall than the mean of 105 stations there given ; it is very satisfactory to find the two estimates agreeing so well.

Maps were prepared for each of the four months in order to see whether there was any part of the country remarkably dry ; but the only map of sufficient interest to reproduce was that of 1865, and for the sake of comparison we have re-drawn the map on p. [166] to the same scale and show them side by side on p. [144].

There is no doubt that the two driest Septembers in the last fifty years were those of 1865 and 1910, and taking the British Isles as a whole they were equal, with as nearly as possible 30 per cent., or distinctly less than one-third of the average rainfall. In both cases Scotland was less affected by the reduced rainfall, having had only a little less than half of the average amount. Ireland was, as it usually is in rainfall statistics, very nearly equal to the mean of Great Britain ; but in 1865 England had much less rain than in 1910, and in 1910 Wales had decidedly less than in 1865. The maps show that in 1865 less than a quarter of an inch fell on the whole of the south, centre and much of the east of England, a considerable number of stations having recorded nothing, while a large part of Central Wales had more than an inch of rain. In 1910, on the other hand, less than a quarter of an inch only fell on a narrow strip round the Bristol Channel, along the south coast of England, and in an isolated area in Lincolnshire, Yorkshire and Durham. In Ireland the rainfall in 1865 varied from less than a quarter of an inch to more than three inches ; in 1910 there was a much more equable distribution, nothing less than half-an-inch and scarcely anything more than two inches. In Scotland also the contrast between east and west was more marked in 1865 than in 1910, and to sum up we may say that the driest September in England was that of 1865, the driest in Wales that of 1910, while Scotland was the same in both years, having been drier in 1907, and Ireland was rather drier in 1865 than in 1910.

It is a noticeable fact that long records bring out a progressive diminution in the rainfall in September since about 1866, although the month had as a rule been drier also before that period, and may be expected to revert to its normal value in the future. The following figures show in a very striking way by means of averages of 10 years how this diminution has been observed in all parts of the country:—

*Mean Rainfall of September, 10 year means.*

Station	1820-9 in.	1830-9 in.	1840-9 in.	1850-9 in.	1860-9 in.	1870-9 in.	1880-9 in.	1890-9 in.	1900-9 in.
Greenwich .....	2·84	2·54	2·38	2·06	2·35	2·20	2·41	1·77	1·63
Camden Square .....	...	...	...	...	2·53	2·50	2·51	1·84	1·55
Cirencester .....	...	...	...	2·56	3·53	3·29	2·81	2·42	2·08
Boston* .. .....	...	2·15	2·25	1·83	2·03	2·61	2·78	1·50	1·53
Kendal* .. .....	5·12	5·32	3·61	3·52	5·58	4·85	4·03	4·96	3·49
Haverfordwest. ....	...	...	...	3·73	4·87	5·05	4·40	3·20	3·46
Braemar .....	...	...	...	...	3·08	3·94	2·86	3·00	2·12
Dublin* .....	...	...	2·19	2·26	2·49	2·41	1·97	2·08	1·99

\* Not all at the same Station.

The total annual rainfall at these stations did not show the same diminution.

The Table which follows gives the percentage which the monthly rainfall at 105 stations in 1910 formed of the average monthly rainfall for the period 1875-1909 at the same individual stations. These figures were used in plotting the percentage maps on the right hand page in the detailed notice of each month which follows, and though the figures are not given on the maps, the lines of 25, 50, 100, 150, 200, etc., per cent., show where and to what extent the rainfall of the month was deficient or excessive. All parts of the country with more than the monthly average of rain are shown with a tint, so that, speaking broadly, the white areas were dry, the tinted wet.

The maps on the left hand page are reductions of large maps on which the rainfall in inches at about 2,000 stations was entered, and the lines are drawn so as to show the parts of the country with more than 1, 2, 3, 4, 6, 8 or 10 inches of rain in the month, the areas with more than 3 inches being tinted.



TABLE I.—*Monthly Rainfall in 1910: the Average, 1875–1909, being taken as 100.*

Div.	Station.	MONTHLY RAINFALL.												[ 147 ]	
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
I.	St. Pancras, Camden Square ..	86	178	57	129	127	95	98	69	29	74	136	154	101	
II.	Tenterden .....	144	189	77	77	150	93	105	82	21	80	169	159	112	
"	Arundel, Patching .....	121	214	90	114	134	112	143	86	8	92	153	120	114	
"	Fawley, Cadland .....	118	160	45	122	76	112	119	76	6	129	117	157	106	
III.	Basingstoke, Sherborne St. John	111	185	47	108	127	166	103	87	16	128	109	183	116	
"	Hitchin, Wratten .....	97	174	56	137	128	84	67	79	46	98	163	212	110	
"	Oxford, Magdalen College.....	82	152	37	143	85	125	69	61	23	137	131	202	105	
"	Wellingborough, Croyland Abbey	106	135	39	92	120	74	63	82	25	84	140	271	102	
IV.	March .....	99	157	39	147	136	46	97	87	38	68	104	236	101	
"	Shoeburyness .....	86	168	97	83	238	112	94	94	52	58	112	171	109	
"	Braintree, Bocking .....	87	123	57	96	140	65	71	123	57	45	123	153	94	
"	Rendlesham Hall.....	71	150	73	102	199	78	101	134	58	46	156	225	113	
"	Bury St. Edmunds, Westley....	108	121	63	169	144	103	135	99	58	72	113	203	114	
"	Geldeston .....	121	141	61	107	220	177	170	100	97	32	148	194	128	
"	Blakeney .....	164	178	36	116	135	110	166	89	66	57	131	151	115	
V.	Bishops Cannings.....	120	180	40	108	90	154	87	122	9	128	123	170	113	
"	Evershot, Melbury House .....	110	206	45	100	87	132	133	128	14	118	100	225	121	
"	Sidmouth, Sidmount .....	141	185	31	91	168	93	111	171	19	103	148	183	122	
"	Northam Vicarage .....	116	199	35	100	97	112	109	133	3	114	134	124	109	
"	Falmouth Observatory .....	140	184	30	83	120	78	99	128	12	165	179	165	124	
"	Altarnon .....	143	185	35	109	123	94	108	111	6	112	139	147	114	
VI.	Chewton Mendip, The Priory ..	134	222	30	107	107	240	100	170	7	160	134	147	131	
"	Stroud, Upfield .....	94	182	34	117	64	153	81	168	33	115	145	187	117	
"	Leominster, Farm .....	102	177	36	126	77	128	71	199	43	109	161	248	126	
"	Church Stretton, Wolstaston ..	98	135	37	101	96	98	94	117	41	118	148	232	113	
"	Wolverhampton, Wrottesley ..	83	146	30	103	72	46	108	153	21	94	175	208	103	
"	Coventry, Kingswood .....	107	125	44	91	96	64	95	146	31	71	190	158	105	
VII.	Market Overton .....	105	146	59	103	151	67	86	141	63	57	156	286	119	
"	Revesby .....	92	151	42	138	132	85	109	119	31	72	141	169	106	
"	Lincoln, Doddington .....	108	138	38	99	118	61	103	131	16	57	156	177	100	
"	Mickleover Manor .....	114	113	34	136	120	55	97	111	32	83	203	187	107	
VIII.	Northwich, Highfield .....	127	111	38	166	109	87	128	183	14	81	197	111	114	
"	Chatburn, Middlewood .....	208	155	20	140	97	92	89	128	10	82	135	105	105	
"	Southport, Hesketh Park .....	136	156	49	120	109	131	128	126	17	86	153	91	107	
IX.	Sheffield, Redmires Reservoir ..	121	175	32	134	101	97	105	124	20	73	121	162	106	
"	Malham Tarn .....	185	210	30	116	78	93	102	126	16	78	94	134	106	
"	Wetherby, Ribston Hall .....	214	162	44	151	117	111	118	122	13	88	134	128	115	

TABLE I.—*Monthly Rainfall in 1910: the Average, 1875–1909, being taken as 100—(continued).*

Div.	Station.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
IX.	Hull, Pearson Park .....	105	97	41	123	96	144	114	118	12	59	129	125	97
"	Scarborough, Osgodby .....	191	125	33	98	135	73	151	150	28	75	142	118	110
"	Middlesbrough, Albert Park .....	106	140	23	111	83	73	96	102	11	97	88	65	84
X.	Newcastle, Town Moor .....	173	163	20	120	129	81	77	85	37	115	118	83	98
"	Howick Hall .....	148	160	25	91	107	60	83	128	67	91	142	81	98
"	Brampton, Denton House .....	118	214	57	112	126	67	112	115	17	47	128	69	95
"	Borrowdale, Seathwaite .....	114	202	92	135	106	44	103	157	12	53	73	142	104
XI.	Appleby, Castle Bank .....	152	218	105	131	91	57	132	158	14	58	100	86	108
"	Abergavenny, Larchfield .....	102	212	66	123	100	215	76	158	24	117	151	243	135
"	Neath .....	151	187	41	140	101	128	142	184	7	79	137	152	122
"	Cardiff, Ely .....	155	179	43	132	131	178	94	132	4	103	163	130	120
"	Castle Malgwyn .....	88	201	91	139	118	143	70	190	12	70	137	160	118
"	Haverfordwest .....	90	144	54	80	92	115	85	166	6	78	106	137	97
"	Aberystwyth, Gogerddan .....	116	166	55	203	72	222	136	131	16	87	151	123	120
"	Birmingham W.W., Tyrmynydd .....	112	145	53	134	98	249	127	123	12	84	141	166	119
"	Llanelwyl, Palé .....	119	206	51	170	93	122	109	187	11	83	108	182	123
"	Llandudno .....	144	175	43	191	119	120	123	118	21	94	165	149	121
"	Holyhead .....	127	158	74	177	112	111	116	167	35	48	149	130	115
"	Douglas .....	96	144	71	129	86	87	106	134	25	72	222	90	107
XII.	Auchencrain, Torr House .....	95	190	82	107	90	37	111	178	27	80	151	142	111
"	Drumlanrig Castle .....	104	213	126	170	78	66	151	237	37	75	81	122	121
"	Hawick, Branxholm .....	110	153	65	154	58	73	136	141	23	85	99	86	99
XIII.	North Esk Reservoir .....	103	189	55	259	96	75	114	129	27	116	83	65	104
"	Marchmont House .....	91	114	41	116	63	36	123	110	41	90	110	72	85
XIV.	Airdrie, Hillend Reservoir .....	114	135	68	185	70	49	120	149	36	50	76	80	92
"	Girvan, Pinmore .....	92	259	78	135	100	97	145	131	47	56	89	124	110
XV.	Loch Thom .....	123	202	78	171	97	66	127	174	49	77	74	130	113
"	Inveraray, Newtown .....	133	157	64	186	101	65	115	138	44	53	63	102	99
"	Strontian, Laudale .....	145	173	104	203	111	48	65	130	51	60	71	69	100
"	Islay, Ballabus .....	109	226	65	144	115	60	81	127	30	47	113	90	99
"	Mull, Quinish .....	100	157	85	166	97	58	96	142	52	53	69	76	92
XVI.	Loch Leven Sluices .....	105	128	61	140	64	40	117	191	26	71	95	81	96
"	Balquhider, Stronvar .....	110	147	90	181	69	86	177	172	28	54	51	104	102
"	Blair Atholl .....	171	153	80	148	40	142	156	208	37	61	84	128	119
"	Dundee, Eastern Necropolis .....	86	101	53	108	66	66	126	225	42	63	100	101	100
XVII.	Fettercairn, The Burn .....	84	133	69	129	106	62	82	179	33	67	115	147	103
"	Braemar .....	151	186	98	174	60	110	134	155	22	134	85	158	123

TABLE I.—*Monthly Rainfall in 1910: the Average, 1875–1909, being taken as 100—(continued).*

Div.	Station.	MONTHLY RAINFALL.												[ 149 ]	
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.	
XVII.	Aberdeen, Cranford House . . . .	75	120	58	138	106	85	79	133	38	68	182	100	96	
"	Keith . . . . .	141	103	59	193	49	94	122	133	51	98	261	140	122	
"	Cawdor . . . . .	143	54	61	336	84	92	151	84	47	37	194	69	107	
XVIII.	Lochmaddy . . . . .	92	166	70	178	122	65	91	156	48	27	105	86	96	
"	Fort Augustus . . . . .	130	104	72	277	149	61	105	92	23	42	90	70	95	
"	Loch Torridon, Bendamph . . . .	134	129	118	154	132	70	105	118	30	40	96	82	98	
XIX.	Dunrobin Castle . . . . .	121	53	38	160	136	36	122	174	47	44	200	112	105	
"	Thurso, Holborn Head . . . . .	194	87	91	168	86	52	49	110	35	45	152	86	97	
XX.	Cork, The Palace . . . . .	78	190	105	66	79	140	75	150	45	123	96	109	106	
"	Valencia, Cahirciveen . . . . .	80	167	127	94	90	85	93	125	22	63	104	84	94	
"	Killarney, District Asylum . . .	107	183	150	92	112	154	92	153	30	58	105	74	107	
"	Waterford, Brook Lodge . . . . .	59	130	78	96	70	139	69	203	23	107	113	94	100	
"	Nenagh, Castle Lough . . . . .	137	220	96	124	89	125	113	117	25	62	83	80	104	
"	Miltown Malbay . . . . .	112	164	97	134	106	107	151	82	35	40	108	98	99	
XXI.	Gorey, Courtown House . . . . .	65	115	93	116	57	180	69	193	35	86	141	182	113	
"	Abbey Leix, Blandsfort . . . . .	120	187	83	142	97	216	94	157	44	67	102	139	120	
"	Dublin, Fitz William Square . . .	140	195	46	108	123	311	92	109	35	77	96	245	128	
"	Moynalty, Westland . . . . .	116	163	74	91	126	252	94	162	29	61	87	111	113	
"	Mullingar, Belvedere . . . . .	142	182	63	113	90	184	103	173	33	52	93	126	114	
XXII.	Ballinasloe . . . . .	112	194	89	124	67	141	77	117	33	47	99	96	98	
"	Tuam, Gardenfield . . . . .	137	179	108	92	83	161	155	154	43	65	100	62	110	
"	Crossmolina, Enniscoe . . . . .	143	195	85	78	99	164	113	136	18	43	107	40	98	
"	Markree Observatory . . . . .	134	226	113	105	139	177	177	161	35	74	130	62	125	
XXIII.	Belturbet, Cloverhill . . . . .	121	189	97	120	137	173	108	135	40	62	95	83	111	
"	Armagh Observatory . . . . .	96	214	72	114	85	159	88	140	41	37	69	129	102	
"	Seaforde . . . . .	62	186	70	72	79	114	116	162	38	40	97	151	99	
"	Donaghadee . . . . .	82	180	75	101	83	77	123	143	48	70	136	138	106	
"	Ballymena, Harryville . . . . .	108	189	94	116	115	119	117	138	50	76	123	128	114	
"	Bushmills, Dundarave . . . . .	146	177	91	133	103	111	99	158	26	53	147	89	110	
"	Omagh, Edenfel . . . . .	134	216	74	96	102	141	137	163	35	57	100	91	111	
"	Buncrana, Rockfort . . . . .	132	204	84	95	105	154	149	213	28	57	111	78	116	
England (Mean of 45 Stations)		127	173	48	116	115	97	105	125	25	89	132	157	109	
Wales ( " 10 " )		119	177	57	146	103	165	110	155	14	83	139	157	119	
Scotland ( " 26 " )		119	154	79	171	92	66	115	150	38	63	102	99	103	
Ireland ( " 23 " )		111	184	93	103	98	153	110	149	34	64	107	101	108	
British Isles ( " 105 " )		119	170	69	131	103	109	109	141	30	76	119	126	108	



**January.**—The month's rainfall was dominated by an unusual number of cyclonic depressions; those in the first half of the month passing north-eastward to the west of Scotland, those in the latter half crossing England to the eastward. The rainfall was less than 2 inches at intervals along the east coast from Peterhead southward and throughout the east of England north of the Thames, but in no place fell so low as 1 inch. On the west coast less than 2 inches fell in the Rinns of Galloway and in the Cheshire Plain. More than 4 inches fell throughout the Cornwall-Devon peninsula, Wales, the north-west of England and the west of Scotland, running up to more than 10 inches in each of these divisions; the 10 in. area in Scotland



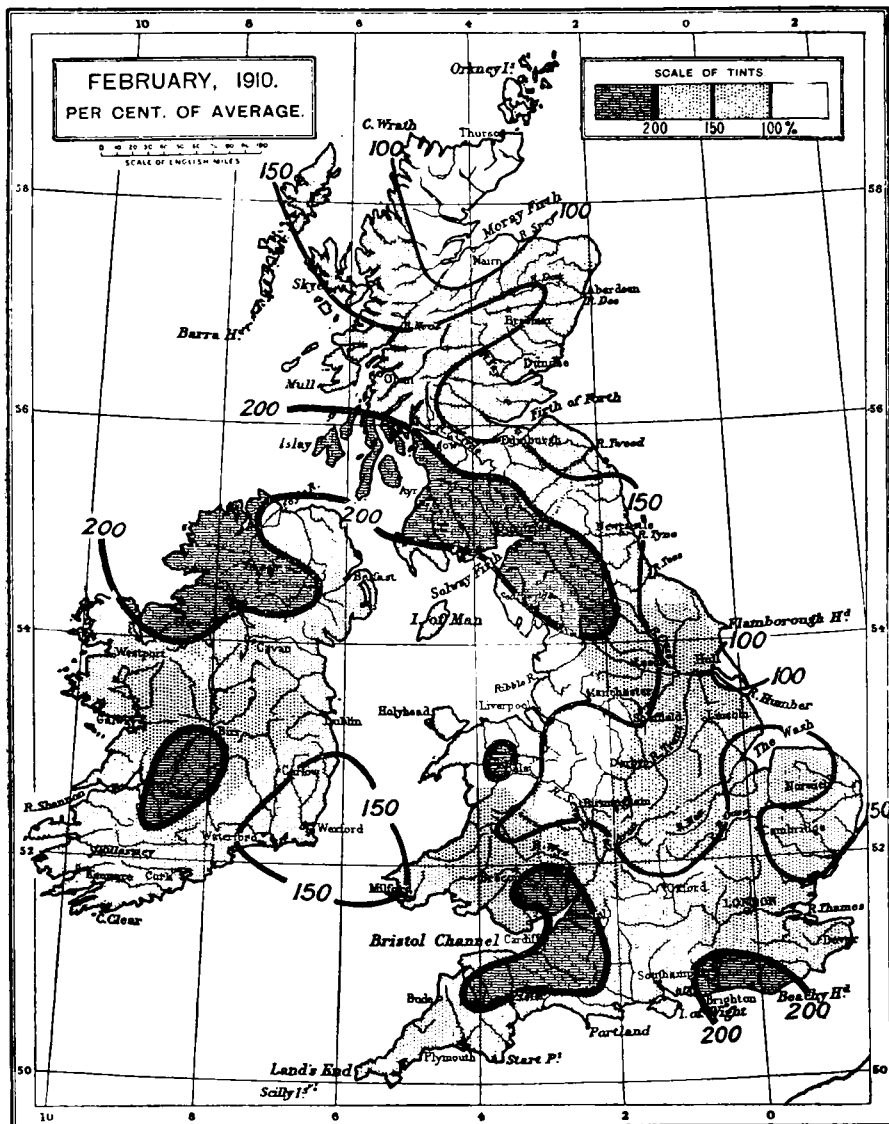
measuring 100 miles by 50. The western half of Ireland had more and the eastern half less than 4 inches of rain.

The average was exceeded everywhere except along the east coast of Scotland, the Thames and Severn valleys, the coasts on the north and on the south of the Irish Sea, and in the Outer Hebrides; but the only area where the rainfall was twice the average amount lay in the West Riding of Yorkshire.

The general rainfall showed an excess in all parts of the country, that of England exceeded the average by 27 per cent., that of Wales and Scotland by 19, and of Ireland by 11; that of the British Isles as a whole having an excess of 19 per cent.



**February.**—The rainfall was exceptionally large in all parts of the country; in Ireland the total was greater than in any other month, and in the British Isles as a whole the number of inches which fell was only exceeded in August and December. Four deep depressions crossed the country from west to east, the tracks of their centres lying between the latitudes of the Humber and the Forth. Less than 2 inches was recorded only in the extreme north-east of Scotland, and in a few small areas scattered along the east coast of Great Britain. More than 4 inches fell over practically the whole of Ireland, the greater part of Scotland, the north-west of England, and over all Wales and the south-west of England in a



continuous expanse reaching along the south coast as far as Kent. Comparatively large areas with more than 10 inches occurred.

The month is normally one of the lowest in rainfall, and the percentage map accordingly shows some high figures. Less rain than the average fell in the north of Scotland only. More than twice the normal rainfall appears in large areas in the south of Scotland and north of England, and in the north-west of Ireland, and smaller areas in the south of England and Ireland and in Wales.

The month was by far the wettest of the year, the excess over the average being 73 per cent. in England, 77 in Wales, 54 in Scotland, 84 in Ireland, and 70 per cent. in the British Isles.



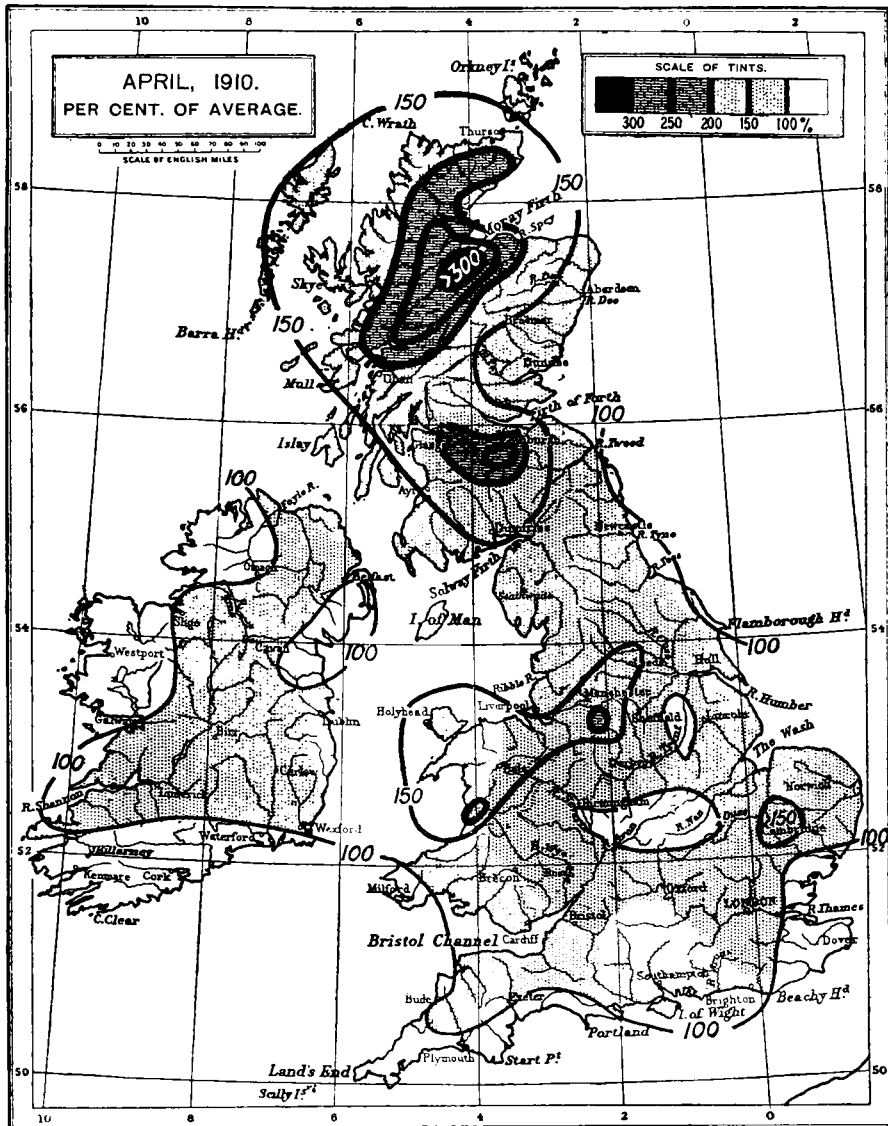




spots in the west of Scotland and Ireland, and in the Lake District, and there but slightly, while more than half England in a broad diagonal belt running from Land's End and the Isle of Wight on the south to the Firth of Forth and Norfolk on the east had less than 50 per cent. of the average. The greatest dearth of rain was along the coast of Northumberland and Durham, where less than 25 per cent. of the average fell. The deficiencies from the average were 52 per cent. in England, 43 in Wales, 21 in Scotland, and 7 in Ireland, the general deficiency for the British Isles as a whole being 31 per cent.

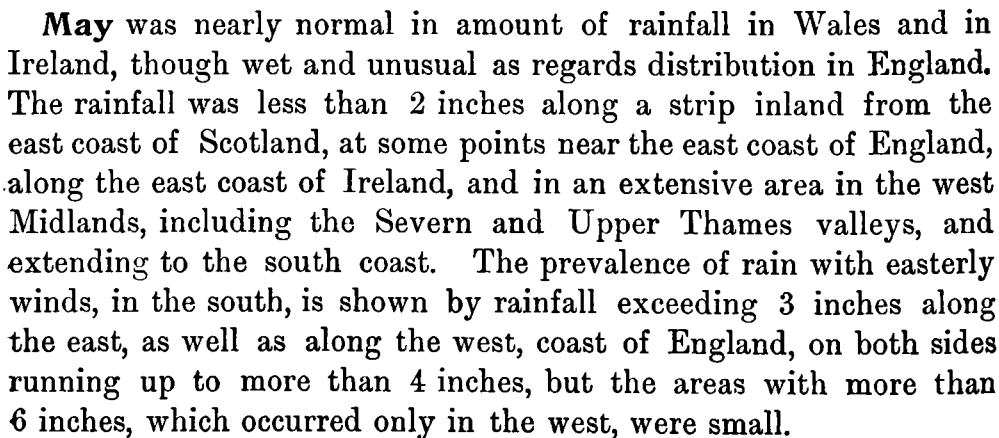


**April** was decidedly wet, very unsettled weather accompanying the passage of an unusual number of depressions, which crossed the British Isles in all directions, from north-east and north-west as well as from the south-west. On the east coast of Ireland and England, and in a few detached areas in the latter country, less than 2 inches fell. Nearly all Wales, and a few scattered portions of England and Ireland had more than 3 inches, while only the extreme east of Scotland had less. The west of Scotland, north of the Clyde, had more than 6 inches, and a considerable area more than 10, this being by far the wettest part of the country, the largest area with more



than twice the normal fall which appears in any map, lying centrally along the Great Glen, through which the Caledonian Canal runs. At the north-eastern end, part of this area had more than three times the average fall. Less than the average rainfall was found in a narrow strip round the west and south coasts of Ireland and the south and east coasts of England, and also in a small area in the Midlands.

The excess of rainfall over the average was only 3 per cent. in Ireland, 16 per cent. in England, 46 per cent. in Wales, and 71 per cent. in Scotland, where April was by far the wettest month in the year, and in the British Isles as a whole, 31 per cent.





The percentage map shows an unusually interesting distribution, the western half of Scotland having more and the eastern half less, than the average rainfall, thus exaggerating the natural contrast. A central belt of England and Wales, from the Isle of Wight to Kendal and Sunderland, had less than the average; to the west of it the rainfall was slightly, and to the east greatly, in excess, the coast of East Anglia, from Yarmouth to Margate, having more than twice the average amount. England had an excess of 15 per cent. and Wales of 3 per cent., while Scotland showed a deficiency of 8 per cent. and Ireland a deficiency of 2 per cent.; the general rainfall of the British Isles having an excess of 3 per cent.



**June** was unsettled in its weather on account of the passing of many depressions across England and Ireland, though few affected Scotland. Two of the depressions took the unusual course of running north-eastward up the Irish Sea. In Scotland, where the mean pressure was comparatively high, the greater part of the country had less than 2 inches of rain, the east coast less than 1 inch, and the only areas with more than 3 inches ran in two parallel lines across the country from south-west to north-east. An area with less than 2 inches, and in part less than 1 inch, lay in the Midlands, and the wettest part of England was to the south-west of a line from the mouth of the Mersey to that of the Thames, the scene of the



great thunderstorms of June 5th—10th. Most of Ireland had more than 4 inches, and some more than 6 inches.

Scotland had less than the average rainfall, except in one small central patch, and in parts less than half the average. England, north of York, and the Midlands, south of Sheffield, also had less than the average rainfall; but a narrow belt with more than twice the average ran from Aberystwith to Bath, the continuation of a broader belt of very high rainfall in Ireland culminating in three times the average near Dublin. Thus while England had a deficiency of 3 and Scotland of 34 per cent., Ireland had an excess of 53 and Wales of 65 per cent.; the whole country had an excess of 9 per cent.

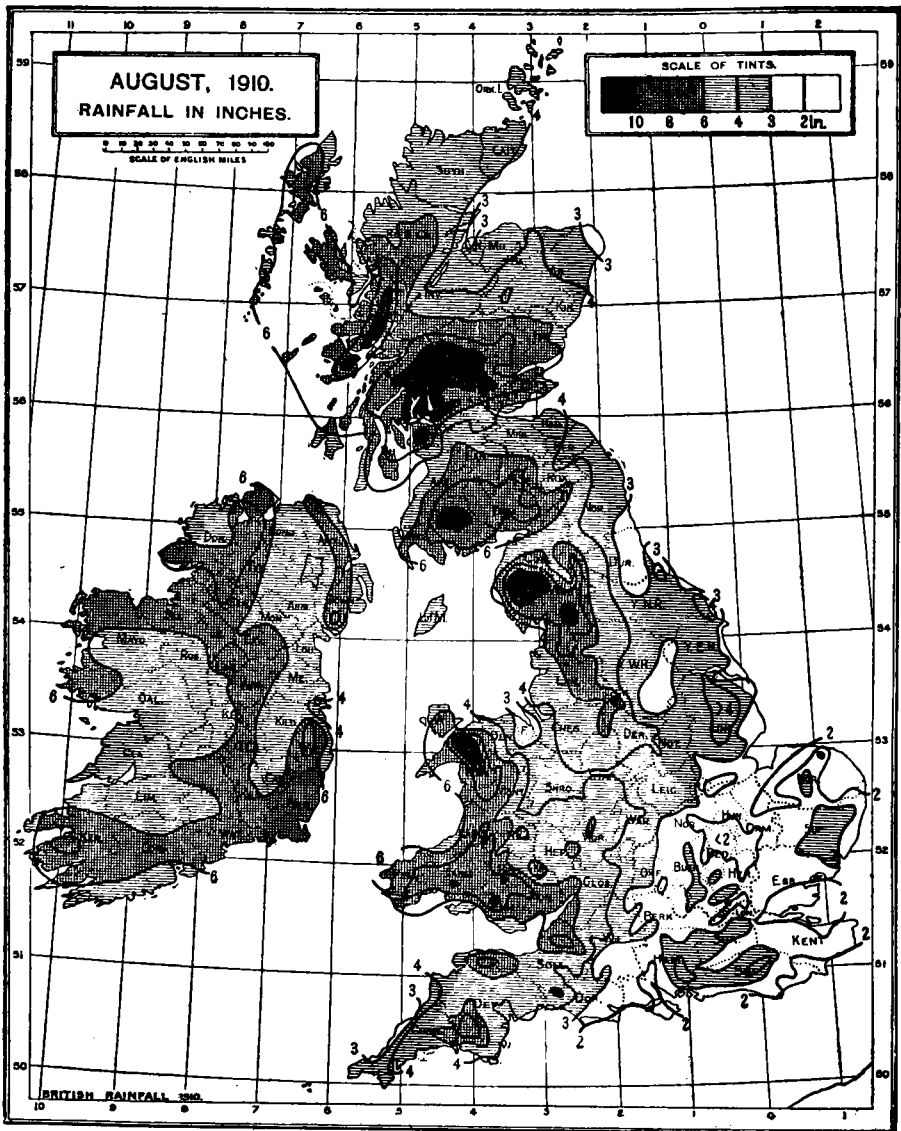


**July.**—This chill and cheerless month witnessed the passage of a remarkable number of depressions from the Atlantic, a large proportion of these crossing Scotland, where practically the whole country had more than 3 inches, and large areas in the Highlands and in the Southern Uplands more than 5 inches. In the Thames estuary, and in patches throughout the Midlands there was less than 2 inches of rain, but the dry central area was almost surrounded to south and east as well as to west and north, by large patches where more than 3 inches fell, and in Wales and in various places in the north of England more than 6 inches fell. More than half Ireland had more than 4 inches, the wetter portion being in the west.



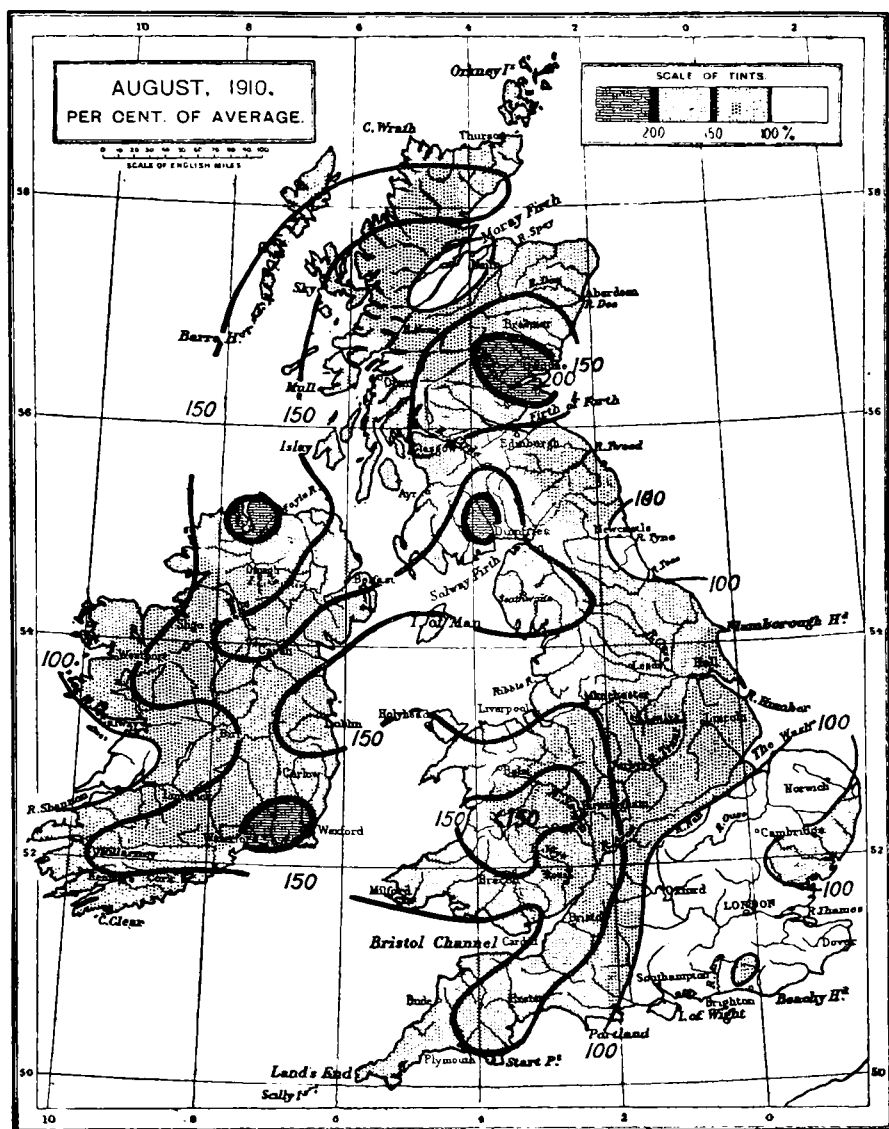


The south-east of Ireland, the extremities of South Wales and Cornwall, and a great area in the Midlands had less rainfall than the average, so also had a very narrow strip round the west, north and east coasts of Scotland, and the extreme north-east of England. The wettest regions, marked by the line of 150, showing an excess greater than 50 per cent. lay in the north-west of Ireland, the centre of Scotland from Nairn to Dumfries, and the east of Norfolk. England had an excess of 5 per cent., Wales of 10 per cent. and Ireland of 10 per cent., Scotland alone showing an excess as great as 15 per cent., while for the British Isles as a whole, the rainfall as in June, had an excess of 9 per cent.



**August.**—For the third summer month in succession the British Isles were the theatre of a procession of depressions which brought a heavy rainfall to all parts of the country, especially to the west and north. Less than 3 inches fell only in an irregular area in the south-east of England, practically the whole of Ireland and Scotland had more than 4 inches, and more than half of those countries had more than 6 inches, culminating in Scotland in many patches with more than 10 inches, the largest of which lay in Argyllshire and Perthshire. Patches with more than 10 inches were also found in the Lake District and in Wales.

The only large area where the rainfall was below the average was



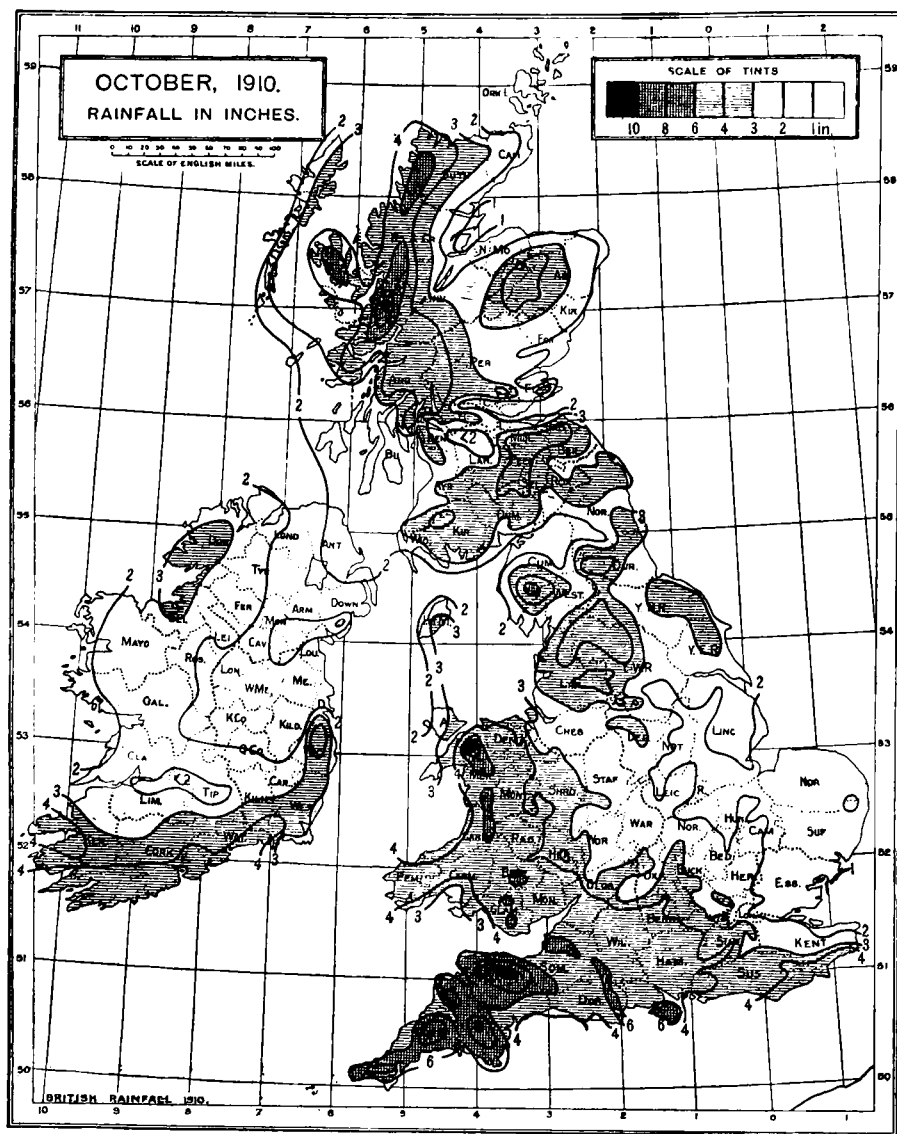
in the south-east of England, but although the excess was greater than 50 per cent. over fully half the area of the British Isles there were only four places where twice the normal amount fell; these were in the south-west of Scotland and round the estuary of the Tay, and at opposite extremities of Ireland, near Lough Foyle and near Waterford. The excess of rainfall in England was only 25 per cent.; but in Wales it was 55 per cent., in Scotland 50 per cent., and in Ireland 49 per cent.; the general excess for the British Isles as a whole being 41 per cent., the month ranking next in wetness to March and just outdistancing December and April.



**September**, with almost unbroken anticyclonic weather, was by far the driest month of the year, and the driest September but one on record. The general rainfall of the British Isles was just 1 inch, or less than a third of the average. In England the greatest amount of rain fell in East Anglia, which, together with a few smaller patches near the east coast, was the only part with more than 1 inch of rain. South of a line drawn from Dover to Aberystwyth less than half an inch of rain fell, and about half of this very dry area had less than a quarter of an inch for the month. The centre of Yorkshire and Durham also had less than a quarter of an inch. Scotland and Ireland did not share this extreme dryness, only a few places having less



than 1 inch, and the west of Scotland had more than 3 inches. This was the only month of the year in which no part of the British Isles approached the average, and indeed 50 per cent. was only reached in some spots on the east coast of Britain, and at one or two points in the west of Scotland and the north of Ireland. The west and south coasts of Ireland, all Wales and England, except in the East and Midlands, had less than 25 per cent., and a small area in Yorkshire together with a great wedge of South Wales and the south of England had less than 10 per cent. The deficiency of rainfall in Scotland was 62 per cent., in Ireland 66, in England 75, in Wales 86, and in the British Isles as a whole 70 per cent.

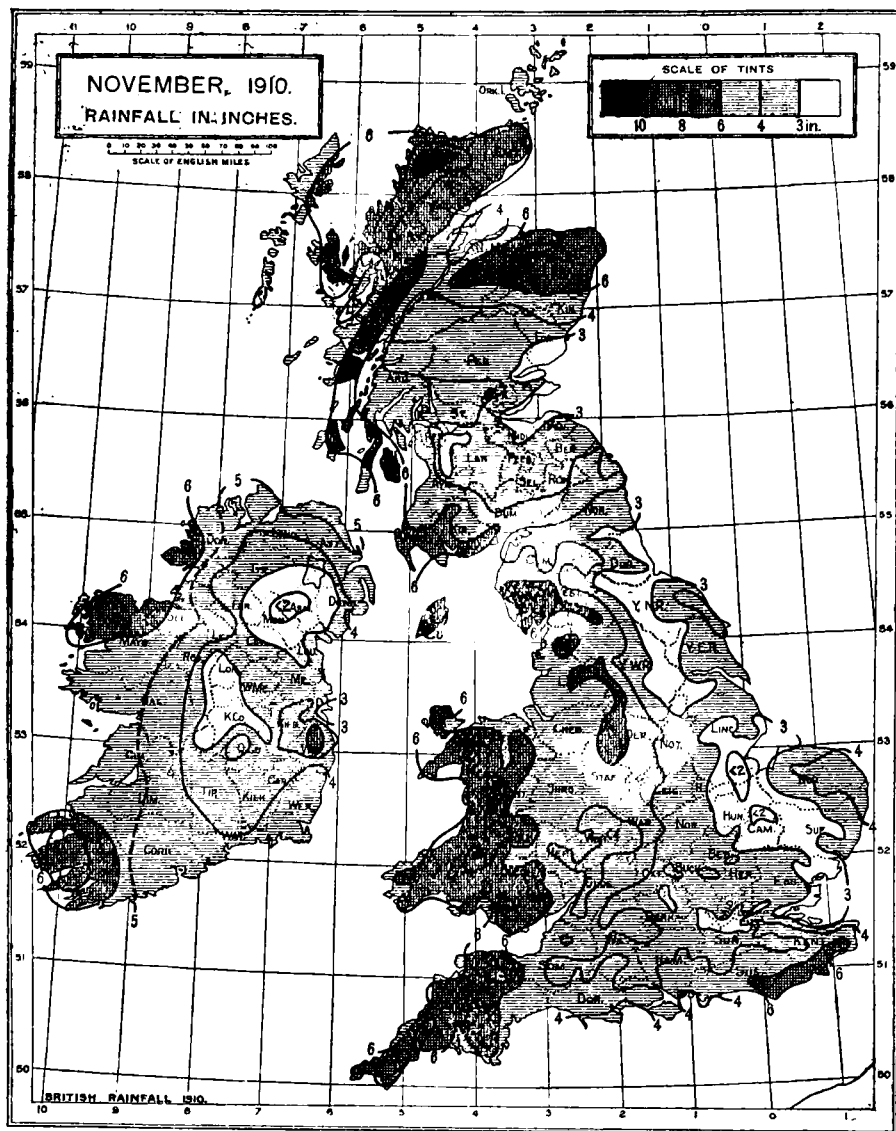


**October** was also a month of small rainfall, September and October together having about half the average for the two months. The number of depressions which crossed the country was considerable, and the track they followed was that usual in October. Except in the east of England and the north-east of Ireland, less than 2 inches fell only in small patches. About one quarter of Ireland, one-third of England, two-thirds of Scotland, and the whole of Wales had more than 3 inches; and 6 inches was exceeded in a very small part of the west of Scotland, a few spots in Wales, and over nearly the whole of Cornwall and Devon.



Small areas of country near Braemar, Edinburgh, Newcastle and Cork had just more than the average rainfall, the only large area with more than the average being the south-west of England. All the rest of the country was relatively dry, and the rainfall was less than 50 per cent. of the average in the west of Scotland and of Ireland, and along the coast of East Anglia.

Scotland and Ireland were thus the driest part of the country, having deficiencies of 37 and 36 per cent. respectively; in Wales the deficiency was 17 per cent., and in England only 11 per cent., the deficiency for the British Isles as a whole being 24 per cent. September and March were the only drier months in 1910.

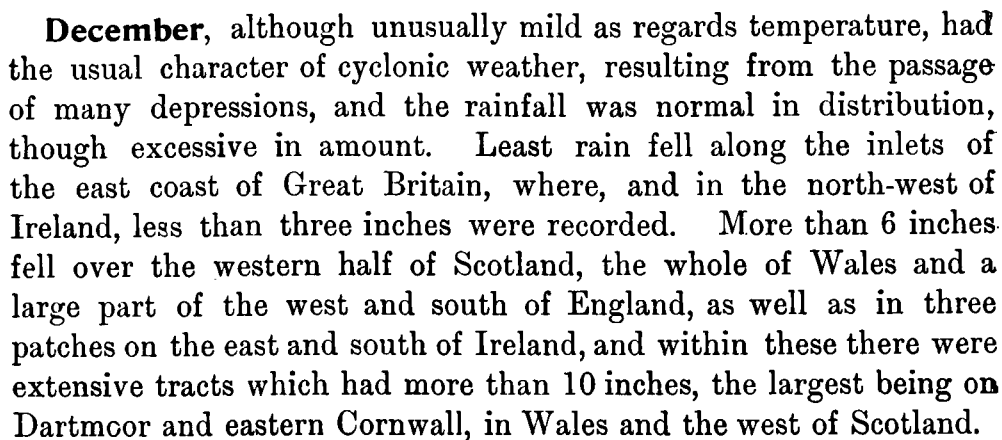


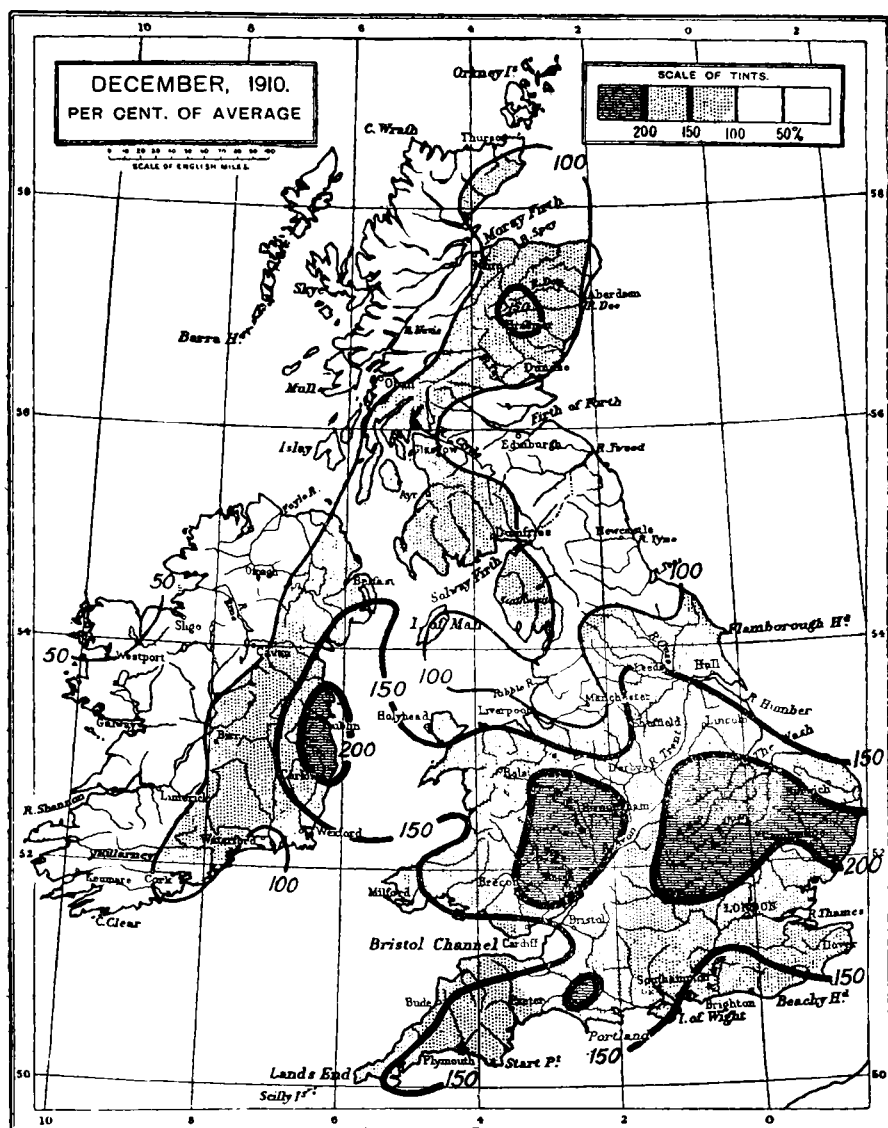
**November** had the typical character of October in its rainfall and of December in its general climate. A continual procession of depressions swept across the country, and the mean pressure was exceptionally low, the result being that the whole country except a few irregular patches on the east of England, Scotland and Ireland received more than 3 inches of rain, while the counties of Aberdeen, Banff and Elgin, the whole north and west of Scotland, the Lake District, Pennines, Wales, Cornwall, Devon, parts of Kent and Sussex, and the north-west and south-west of Ireland all had more than 6 inches, and in half-a-dozen isolated patches the rainfall exceeded 10 inches.





A large mass of the centre of Ireland, the greater part of central Scotland and a strip across the north of England had slightly less than the average. A broad diagonal band across England from the Isle of Man to Kent showed an excess of nearly or more than 50 per cent., and a patch around Derby had twice the average fall. A similar area in the north-east of Scotland culminated in falls of more than twice the average amount round the coasts of the Moray Firth. Scotland and Ireland had on the whole but a small excess (2 and 7 per cent.) above the average, but the excess in England was 32 per cent., and in Wales 39 per cent., while in the British Isles as a whole it was 19 per cent.





Notwithstanding the large amount of rain which fell, there was less than the average in the west of Ireland and Scotland, where December is a month of very high average rainfall, and there was less than the average also in the east, between the Tay and the Tees. The relatively wettest region ran from the east of Ireland across Wales to the south-east of England, and in it there were three large areas round Dublin, in the Valley of the Severn, and in the river basins draining to the Wash where twice the average amount of rain fell. Scotland and Ireland had practically their average amount of rain, while England and Wales had an excess of 57 per cent., and the British Isles as a whole had an excess of 26 per cent.

# MONTHLY RAINFALL AT 300 STATIONS IN THE BRITISH ISLES DURING 1910.

## ENGLAND.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
I.	London	St. Pancras (Camden Sq.)	1.57	2.96	.97	2.24	2.22	2.17	2.53	1.64	.58	2.00	3.19	3.29	25.36
II.	Surrey	Warlingham (Redvers Rd.)	2.86	4.85	1.54	2.09	2.61	2.43	3.17	3.22	1.41	3.21	3.95	4.79	36.13
"	"	Haslemere (Lowder Mill)	3.80	4.90	1.55	2.04	2.15	3.08	2.63	3.08	.49	3.97	4.62	6.55	38.86
"	"	Woking (The Grange) ...	1.89	3.25	1.19	1.64	2.08	2.35	3.19	2.63	.64	3.55	2.96	4.42	29.79
"	Kent	Tenterden (View Tower)...	3.09	3.59	1.51	1.37	2.47	1.88	2.32	1.98	.48	2.77	5.19	4.39	31.04
"	"	Hythe (Hillcrest Road)...	3.45	2.97	1.51	2.11	2.67	2.70	2.39	2.08	.52	4.32	5.68	3.15	33.55
"	"	Margate (Cliftonville) ...	2.09	2.09	1.31	2.49	3.00	2.94	2.83	2.65	1.22	1.27	3.30	3.33	28.52
"	"	Ospringe (Lorenden) .....	2.69	3.48	1.70	1.90	3.46	3.75	2.10	2.08	.83	1.46	4.82	3.95	32.22
"	"	Tonbridge (Beech Hurst).	2.81	4.46	1.59	1.81	2.73	2.38	2.17	2.29	.44	2.59	3.62	3.66	29.90
"	Sussex	Arundel (Patching) .....	3.13	4.64	1.75	2.08	2.42	2.52	3.51	2.16	.21	3.67	5.43	3.48	34.86
"	"	Balcombe (The Gables) ...	3.88	4.91	1.72	2.77	2.52	2.54	3.15	2.84	.39	3.31	4.92	4.45	37.40
"	"	Polegate (Aldiston).....	3.67	3.97	1.61	2.36	2.48	1.94	2.99	2.25	.20	3.93	6.35	4.53	36.28
"	Hampshire	Totland Bay (Aston House)	2.48	3.23	1.18	1.85	1.24	3.29	3.02	1.98	.12	5.05	4.14	4.21	31.79
"	"	West Dean .....	2.75	4.23	.88	2.86	1.98	4.29	1.78	2.23	.21	4.12	3.67	5.57	34.57
"	"	Bps. Waltham (Swanmore Ho)	3.83	5.15	1.36	2.83	2.13	3.41	3.08	3.09	.15	5.03	4.68	5.53	40.32
"	"	Basingstoke (Sherborne S.J.)	2.58	4.12	.98	2.06	2.42	3.81	2.49	2.22	.35	4.44	3.25	5.09	33.81
"	Berkshire	Farnborough Rectory.....	2.70	3.67	1.07	2.55	1.88	6.03	2.02	2.49	.36	4.54	3.46	5.12	35.89
III.	Hertfordshire	S. Albans (County Museum)	2.06	3.50	1.07	1.50	2.86	3.39	1.96	2.64	.62	2.57	3.80	5.58	31.55
"	"	Royston (Therfield Rec.)..	1.67	2.31	1.02	2.82	3.53	1.53	2.20	1.71	1.16	2.55	3.42	3.89	27.81
"	Buckinghamshire..	Slough (Upton) .....	1.95	2.80	.97	1.49	1.80	3.64	2.39	2.22	.39	3.03	3.01	4.14	27.83
"	"	Saunderton (Bedlow Ridge)	2.15	3.88	1.02	2.00	1.97	3.64	1.78	3.05	.40	2.96	3.55	5.78	32.18
"	"	Buckingham (Adstock Fields)	1.55	2.74	.71	2.10	2.16	1.70	1.95	2.19	.52	2.61	3.35	4.99	26.57
"	Oxfordshire .....	Oxford (Magdalen College)	1.46	2.47	.54	2.38	1.53	1.83	1.68	1.50	.45	3.87	2.95	4.16	25.82
"	Northamptonshire	Lilbourne Vicarage.....	2.25	2.29	.75	1.68	2.41	1.07	2.34	3.11	.67	2.10	3.60	5.34	27.61
"	"	Wellingboro' (Croyland Abbey)	2.01	2.28	.66	1.63	2.38	1.55	1.61	1.96	.53	2.19	3.12	5.78	25.70
"	Huntingdonshire....	Huntingdon (Bosworth Ho.)	1.47	2.07	.84	1.89	2.90	1.28	2.11	1.92	.90	1.95	2.60	4.76	24.69
"	Bedfordshire .....	Shillington .....	1.42	2.48	1.00	2.37	2.80	1.37	1.82	2.33	.82	2.34	3.65	4.52	26.92
"	Cambridgeshire ...	Ely (The Palace).....	1.16	2.45	.86	1.89	2.75	1.51	3.77	2.09	1.14	1.79	1.98	4.12	25.51
"	"	Wisbech (Monica Road)...	1.71	2.35	.59	1.89	2.87	1.02	3.44	2.63	.73	1.58	2.09	4.01	24.91
IV.	Essex.....	Grays Sewage Works.....	1.63	2.79	.96	1.22	2.09	1.95	2.73	.94	.64	1.63	2.93	3.06	22.57
"	"	Epping (The Hemnalls)...	1.62	3.42	1.33	1.84	3.35	3.50	3.11	2.58	1.14	2.04	3.04	4.40	31.37

# ENGLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
IV.	Essex	Southminster	1.29	2.56	1.17	1.33	2.54	2.33	1.80	1.49	.81	1.57	2.96	3.23	23.08
	"	Brintree (Bocking, Fennes).	1.37	1.83	.91	1.59	2.51	1.41	1.78	2.77	1.09	1.12	2.88	3.08	22.34
	Suffolk	Clare (Hawkedon Rec.)	1.81	1.97	.88	2.16	3.00	2.31	3.60	2.74	1.20	1.52	2.66	4.25	28.26
	"	Ipswich (Woolverstone Park)	1.32	2.04	.84	2.15	3.30	2.42	2.80	3.50	1.08	1.50	3.33	4.54	28.86
	"	Aldborough (Aldringham Ho)	1.91	2.44	.50	1.78	2.73	1.94	2.80	2.06	1.49	1.32	3.24	4.55	26.76
	"	Walsham-le-Willows	1.85	1.85	.96	2.20	3.13	1.62	3.40	3.49	1.07	1.33	2.87	4.46	28.23
	Norfolk	Geldeston [Beccles]	1.85	1.99	.95	1.66	3.91	3.13	4.03	2.23	2.06	.92	3.69	4.02	30.44
	"	Aylsham (Woodgate)	3.05	2.19	.70	1.97	2.70	2.12	3.62	2.13	1.22	1.78	4.57	4.05	30.10
	"	Sandringham House	2.47	3.02	.88	3.88	3.58	1.56	4.65	2.98	1.74	1.69	3.63	4.21	34.29
	"	Watton	2.44	2.38	.84	2.36	3.23	1.96	3.97	2.89	1.33	1.55	3.52	3.95	30.42
V.	Wiltshire	Trowbridge (W. W., Biss).	3.79	4.74	.78	3.16	1.84	5.35	2.08	4.36	.29	5.06	4.61	7.09	43.15
	"	Mere (The Limes)	3.74	4.37	.82	2.75	1.90	5.16	2.74	3.01	.26	4.97	3.56	6.31	39.59
	"	Salisbury Plain (Shrewton)	3.65	3.82	.67	3.42	1.59	4.26	1.60	2.45	.27	4.47	3.75	6.10	36.05
	"	Marlborough (Mildenhall)	2.74	3.83	.93	2.49	1.81	4.28	2.12	2.63	.25	4.62	4.54	6.36	36.60
	Dorsetshire	Swanage (R. Victoria Hotel).	3.58	3.83	.63	1.79	.94	3.86	3.80	1.54	.11	6.31	3.91	4.21	34.51
	"	Beaminster Vicarage.	3.97	5.09	.01	2.02	1.91	2.71	3.89	5.41	.48	5.41	5.04	8.45	45.39
	"	Horton Vicarage.	3.09	4.26	.78	1.37	1.18	3.81	2.22	1.78	.17	5.18	3.36	4.59	32.29
	South Devonshire.	Kingsbridge (Collapit Creek)	5.04	6.00	.93	2.12	2.58	1.57	3.00	3.77	.35	7.57	5.86	7.63	46.42
	"	Princeton (H. M. Prison)	9.91	11.23	2.18	6.04	5.08	2.73	6.91	11.38	.49	11.40	10.34	17.77	95.51
	"	Teignmouth (Den Gardens)	3.58	5.08	.67	2.04	1.82	1.70	2.44	3.96	.22	4.50	4.51	6.60	37.12
	"	Cullompton	5.03	5.35	.89	2.93	3.46	2.26	2.80	5.23	.35	6.35	5.22	6.92	46.79
	North	Chumleigh (Leigh House)	6.08	5.44	.41	1.89	3.05	2.54	2.21	4.00	.20	4.71	6.33	4.58	41.44
	"	Barnstaple (N. Devon Athenaeum)	5.40	4.84	.67	2.65	2.49	2.49	2.90	4.59	.20	6.16	6.81	4.84	44.04
	"	Okehampton (Oaklands)	7.06	8.73	1.09	3.04	3.34	3.40	3.61	7.02	.26	6.42	7.42	8.82	60.21
	Cornwall	St. Agnes	3.56	5.03	.73	2.83	1.93	1.85	1.75	2.97	.21	5.22	5.23	6.10	37.41
	"	Bodmin (Castle Hill)	5.90	6.89	1.59	3.24	2.67	2.46	3.24	4.43	.34	7.28	7.92	10.85	56.81
	"	Stratton (Poughill)	4.57	4.86	.63	2.77	2.71	2.26	2.96	3.27	.21	5.94	6.32	4.98	41.48
	"	Penzance (Morrah Garden)	4.72	5.65	.82	2.98	2.39	2.10	2.57	3.60	.33	6.13	7.25	5.85	44.39
	"	Altarnon Vicarage	8.61	9.15	1.51	4.08	3.84	2.90	4.30	5.31	.27	7.86	8.48	10.91	67.22
	Somersetshire	Street (Hind Hayes)	3.67	3.73	.61	2.62	2.18	5.12	2.29	4.21	.15	3.97	3.73	4.33	36.61
VI.	"	Holford (Woodlands House).	3.81	4.50	.51	3.07	4.27	3.20	2.76	5.26	.79	6.04	4.94	6.21	45.36
	"	Winsford School	8.09	8.25	1.14	3.34	4.36	3.74	4.69	5.80	.43	10.13	9.41	8.22	67.60
	Gloucestershire	Stroud (Upfield)	2.20	3.86	.69	2.44	1.35	3.73	2.23	4.87	.79	3.70	4.01	5.07	34.94
	"	Mickleton (Bank House).	2.37	3.16	.81	2.71	1.53	3.06	2.34	3.55	.64	2.65	3.87	4.39	31.08
	"	Clifton (Pembroke Road).	3.75	5.06	.67	2.85	1.98	5.43	2.14	6.36	.28	5.23	5.17	5.77	44.69
	"	Fairford (Hatherop Castle).	2.24	3.53	.54	2.41	1.70	3.89	1.99	3.72	.33	2.53	3.94	4.94	31.76
	"														

# ENGLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
VI.	Herefordshire .....	Ross (The Graig).....	2.66	3.56	.91	2.33	1.52	3.66	1.63	5.46	.40	3.74	3.83	5.79	35.49
	" .....	Leominster (Farm) .....	2.30	3.43	.65	2.31	1.85	3.15	1.74	5.42	.93	3.47	4.23	6.53	36.01
	Shropshire .....	Bishops Castle Vicarage..	2.91	3.68	1.12	2.25	2.04	2.79	2.66	3.95	.55	4.01	5.12	7.91	38.99
	" .....	Much Wenlock (Wiley Park)	1.82	2.47	.48	1.95	1.82	1.93	2.20	4.11	.59	3.27	4.26	5.22	30.12
	" .....	Oswestry (The Mount Res.)	2.87	3.53	1.44	2.51	1.96	2.84	2.65	4.21	.34	3.76	5.70	6.19	38.00
	Staffordshire .....	Market Drayton (Old Springs)	2.04	2.50	.76	2.38	2.13	1.99	3.23	3.86	.49	2.13	5.13	4.40	31.04
	" .....	Shugborough .....	2.35	2.93	.62	2.32	2.53	1.50	3.96	4.63	.41	2.88	5.74	5.04	34.91
	" .....	Burton (Shobnall) .....	1.74	2.06	.48	1.76	1.99	.95	3.02	3.20	.39	2.52	4.82	4.83	27.76
VII.	Worcestershire ..	Mayfield Ho. [Ashbourne]	3.11	3.45	.73	2.40	2.36	2.32	3.46	4.28	.71	2.36	7.41	5.22	37.31
	" .....	Worcester (Belmont Rd.)	2.20	2.45	.63	1.97	.98	2.73	1.76	5.22	.78	2.46	3.62	4.00	28.80
	" .....	Stourbridge (Hagley Rec.)	2.28	3.74	.70	2.22	1.93	1.66	2.40	5.83	1.06	2.56	3.78	4.52	32.68
	Warwickshire .....	Wormleighton Hall .....	2.35	3.18	.49	1.91	2.09	1.45	2.14	2.89	.75	2.54	3.84	4.62	28.25
	" .....	Hampton-in-Arden (Hampton Manor)	2.98	3.03	.74	2.72	2.10	1.93	3.14	4.72	1.21	3.09	5.34	6.14	37.14
	Leicestershire .....	Loughboro' (Nan Panton Res.)	1.92	2.64	.68	2.13	2.72	1.06	2.79	3.35	.74	2.29	4.88	5.17	30.37
	" .....	Belvoir Castle.....	1.79	2.69	.65	2.11	2.70	1.37	2.73	3.20	1.09	2.15	3.50	4.88	28.86
	Lincolnshire .....	Stamford (St. George's Sq.)	1.98	2.39	.54	1.48	3.40	.98	2.05	2.51	1.09	1.70	2.79	5.64	26.55
VIII.	" .....	Boston (Black Sluice, Skirbeck)	1.16	2.58	.65	1.91	2.82	1.47	2.36	3.25	1.09	2.14	2.58	4.22	26.23
	" .....	Sleaford (Rauceby Hall)...	1.60	2.10	.66	1.49	2.35	1.73	2.80	3.55	.95	2.10	3.01	4.51	26.85
	" .....	Willingham-by-Stow .....	1.74	1.99	.70	1.55	2.45	2.10	2.73	3.75	.34	2.10	3.17	3.43	26.05
	" .....	Skegness .....	1.72	2.35	.57	2.80	1.86	2.13	3.18	2.67	.66	1.78	2.87	3.42	26.01
	" .....	Louth (Westgate) .....	2.15	2.92	.78	2.12	3.34	1.69	3.38	4.11	.75	2.43	3.87	3.82	31.36
	" .....	Burton-upon-Stather Vic.	1.64	1.67	.74	2.63	2.47	2.06	3.80	3.30	.12	3.72	2.91	2.40	27.46
	Nottinghamshire...	Mansfield (West Bank) ...	2.30	2.74	.71	2.01	2.44	1.30	2.36	4.25	.73	2.71	4.13	5.24	30.92
	Derbyshire .....	Buxton (Devonshire Hospital)	4.41	4.61	1.36	4.78	2.93	2.74	5.74	5.44	.44	3.07	6.27	6.92	48.71
IX.	Cheshire .....	Sandbach (Malkins Bank)	1.42	1.89	.55	2.37	2.09	1.51	3.74	3.99	.47	2.07	5.07	2.68	27.85
	" .....	Frodsham (Helsby).....	2.21	1.59	.67	2.65	2.14	2.22	3.39	3.97	.26	2.45	4.95	3.44	29.94
	South Lancashire..	Manchester (Whitworth Pk.)	3.55	2.61	.94	2.51	3.17	3.53	4.00	4.68	.19	2.67	4.04	2.19	34.08
	Central .....	Burnley (Swinden) .....	5.70	5.50	1.33	3.96	2.83	2.73	4.03	6.56	.51	3.77	5.44	5.96	48.32
	" .....	Wigan Waterworks .....	3.79	3.15	.72	2.49	3.02	2.88	5.04	4.95	.38	3.11	5.69	3.42	38.64
	" .....	Southport (Hesketh Park)	3.48	3.22	1.03	2.20	2.32	2.95	3.74	4.70	.54	3.23	4.82	2.81	35.04
	North .....	Morecambe .....	6.03	7.14	1.44	2.35	1.53	2.00	3.97	6.48	.44	2.47	5.99	4.83	44.67
	" .....	Garstang (Grizedale Intake)	5.48	4.75	.93	2.65	2.24	2.39	7.45	6.75	.55	3.25	5.77	4.54	46.75
IX.	Yorkshire, W. R. ...	Settle (Giggleswick School)	6.62	6.44	1.01	3.24	1.90	2.67	3.69	6.53	.44	3.77	6.13	4.25	46.69
	" .....	Doncaster (Wadworth Hall).	2.15	2.12	.50	2.13	2.22	2.89	2.88	2.59	.30	1.76	3.43	3.67	26.64
	" .....	Sheffield (Weston Park)...	2.95	3.52	.90	2.41	2.40	2.59	1.82	3.47	.29	2.31	4.01	4.31	30.98
	" .....	Meltham (Harewood Ldgc)	6.33	5.64	.89	4.06	4.27	3.86	3.07	5.61	.29	3.53	5.26	5.74	48.55

# ENGLAND—continued.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
IX.	Yorkshire, W.R....	9	2·61	1·87	·37	2·02	2·09	2·91	3·09	3·51	·19	2·55	3·85	2·43	27·49
"	"	10	5·05	4·05	·63	2·86	2·11	2·60	3·13	5·27	·22	4·00	4·54	4·09	38·55
"	"	10	2·31	2·03	·40	2·46	2·02	2·05	2·46	2·54	·21	2·01	2·61	2·15	23·25
"	E.R....	3	1·68	1·91	·55	1·82	1·55	2·56	2·90	3·21	·30	2·25	3·29	2·82	24·84
"	"	3	2·19	2·49	·93	2·36	2·29	1·91	2·79	3·45	·43	4·12	3·68	3·43	30·07
"	"	3	2·06	2·13	·84	1·93	2·19	1·34	1·94	2·50	·56	2·09	3·87	2·35	23·80
"	"	4	4·78	4·54	·84	3·16	1·91	1·77	2·57	3·67	·15	3·81	4·29	3·41	34·90
"	N.R....	1	3·63	2·05	·64	1·68	2·05	1·60	2·56	3·38	·19	2·59	2·92	2·58	25·87
"	"	2	2·66	2·95	·62	2·02	3·71	2·10	2·45	3·55	·47	2·18	2·35	2·57	27·63
"	"	4	2·65	2·75	·53	2·29	3·17	1·87	2·01	2·95	·95	2·68	3·16	2·61	27·62
"	"	5	1·72	1·95	·40	2·36	2·04	2·12	2·49	3·33	·49	3·23	2·20	1·77	24·10
"	"	6	3·61	3·87	1·02	2·75	2·34	2·07	4·01	4·01	·28	2·46	2·39	2·79	31·60
X.	Durham..	1	6·25	9·69	3·23	4·84	3·00	1·37	4·44	6·45	·29	4·56	3·98	5·79	53·89
"	"	2	3·44	2·90	·99	2·88	2·09	1·84	3·32	3·47	·52	3·20	3·26	2·45	30·36
"	"	2	2·96	3·45	·45	2·43	2·12	2·00	3·48	3·34	·60	2·89	2·52	2·28	28·52
"	Northumberland...	3	4·37	3·65	1·17	3·01	1·96	1·67	4·74	4·71	·89	2·89	4·27	3·28	35·74
"	"	4	2·50	2·66	·71	1·97	2·71	1·46	2·85	3·31	1·05	2·89	3·18	1·98	27·27
"	"	5	2·78	2·92	·53	1·56	2·34	1·25	2·22	3·76	1·51	3·08	4·05	2·31	28·31
"	"	6	1·83	2·57	·73	1·86	1·88	1·67	2·73	3·85	·99	3·18	3·92	2·19	27·40
"	"	6	3·85	5·55	1·74	2·24	2·28	1·23	4·45	6·11	·33	2·05	2·92	3·37	36·12
"	Cumberland .....	1	3·44	4·69	2·19	2·27	2·60	1·27	3·77	4·81	·82	1·77	4·61	2·97	35·21
"	"	1	3·16	4·57	1·39	2·35	2·79	1·67	4·14	4·70	·56	1·70	3·81	2·27	33·11
"	"	1	15·31	22·18	9·76	9·32	7·96	3·05	9·16	18·02	1·38	6·71	9·98	21·41	134·24
"	"	2	4·20	6·90	3·90	2·48	2·31	1·71	4·09	6·87	·62	2·40	5·29	5·29	46·20
"	"	3	4·42	5·51	2·13	2·34	2·28	2·34	4·66	6·19	1·24	2·14	6·42	5·78	45·45
"	"	4	6·69	7·55	2·43	2·22	2·77	1·94	4·22	6·27	·38	2·39	3·20	4·07	44·13
"	Westmorland .....	1	7·19	7·40	2·69	3·24	3·15	1·76	5·30	8·51	·56	2·38	5·95	5·25	53·38
"	"	3	3·26	3·91	1·06	2·45	2·50	2·45	3·05	3·86	·60	3·33	4·35	4·84	35·66

England. Mean of 130 stations .....

## MONMOUTH, WALES AND THE ISLANDS.

XI.	Monmouth .....	3	4·15	6·89	1·52	3·11	2·18	6·06	2·77	5·12	·67	4·98	5·58	10·61	53·64
"	"	3	3·29	4·25	·91	2·16	1·77	3·80	2·45	5·45	·43	4·27	3·93	4·73	37·44
"	Glamorgan .....	4	6·68	6·93	1·44	4·20	3·04	4·09	5·61	9·19	·30	4·50	6·76	8·16	60·90
"	"	4	7·56	8·00	2·00	3·49	2·32	6·59	4·37	9·09	·23	4·76	7·33	10·80	66·54

# MONMOUTH, WALES AND THE ISLANDS—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XI.	Glamorgan	7 Cardiff (Penylan)	4·75	5·53	1·15	3·09	2·83	4·67	2·70	5·31	·18	4·69	6·68	5·62	47·20
"	Cardarthen	2 Cardarthen (The Friary)	4·47	5·32	2·29	3·89	2·70	4·13	4·15	8·05	·27	2·91	6·70	7·23	52·11
"	"	2 Llanwrda (Dolaucothy)	5·53	7·45	2·55	4·72	2·64	4·97	5·07	8·28	·41	4·67	8·45	9·31	64·05
"	Pembroke	1 Castle Malgwyn (Llechryd)	3·59	6·74	2·96	3·66	2·94	3·66	2·06	7·08	·40	3·87	6·62	7·92	51·50
"	"	3 St. David's	3·08	3·98	1·46	3·30	1·52	2·49	2·03	6·83	·18	4·30	4·57	4·95	38·69
"	"	4 Tenby (Bryn Hyfyrd)	4·22	4·69	1·47	2·20	1·61	2·30	3·41	7·78	·15	3·86	6·04	6·49	44·22
"	Cardigan	2 Strata Florida (Hafof)	6·28	8·50	1·36	5·23	3·35	8·39	6·68	6·22	·72	4·40	9·11	10·34	70·58
"	"	2 Aberystwyth (N. Parade)	2·78	4·08	1·52	3·52	1·69	5·67	3·86	5·34	·43	3·64	5·18	4·55	42·26
"	Brecon	7 Brecon (New Inn)	8·45	11·13	3·09	4·35	2·82	5·38	4·97	7·88	·48	4·72	6·74	10·79	70·80
"	"	8 Hay (Waunderwen)	2·76	4·58	·59	2·62	1·72	6·81	2·28	5·18	·52	3·60	4·08	10·64	45·38
"	"	8 Llysdinam [Newbridge]	4·74	5·81	1·64	3·16	2·51	6·28	4·12	5·80	·49	4·22	6·77	8·62	54·16
"	Montgomery	5 Newtown (Gregynog)	4·06	4·34	·70	2·85	2·01	5·48	2·94	4·17	·46	4·42	5·74	6·57	43·74
"	Flint	2 Bodfari (Henblas)	1·98	2·42	·87	3·38	2·04	3·23	3·47	3·55	·64	3·82	5·54	4·41	35·35
"	Denbigh	1 Gresford (Trewythen)	1·81	2·96	·96	2·07	2·14	3·02	2·01	3·09	·14	2·68	5·11	4·45	30·44
"	Merioneth	1 Llanderfel (Palé Gardens)	5·49	8·27	1·95	4·79	2·66	3·23	3·43	8·25	·35	4·49	5·30	9·63	57·84
"	"	3 Blaenau Festiniog (Oakley Qrs.)	12·45	10·92	2·85	7·52	5·53	6·97	9·45	13·66	·63	6·77	10·30	13·63	100·68
"	"	4 Dolgelly (Bryntirion)	5·70	6·89	2·61	5·14	3·90	5·48	7·19	6·48	·56	5·13	6·02	11·54	66·64
"	Cardarvon	2 Llandudno	3·61	3·69	·91	3·41	2·21	2·37	3·11	3·74	·52	3·57	5·27	4·24	36·65
"	"	4 Abersoch	3·67	4·83	1·89	4·37	2·65	5·47	4·83	6·28	·34	2·68	7·17	6·92	51·10
"	Anglesey	Llanerchymedd Llywydialth Eegob..	3·30	3·39	1·49	3·69	2·71	2·17	3·56	5·28	·63	2·82	6·68	5·77	41·49
Wales.	Mean of 24 stations		4·77	5·90	1·67	3·75	2·56	4·69	4·02	6·55	·42	4·16	6·32	7·83	52·64
XI.	Isle of Man	Douglas	3·43	4·41	2·01	3·14	2·12	2·19	3·41	5·28	·91	3·39	9·93	4·23	44·45

## SCOTLAND.

XII.	Wigtown	Garliestown (Galloway House)	2·85	5·28	2·09	3·17	2·21	2·04	3·07	6·50	1·11	3·19	5·60	6·33	43·44
"	"	Stoneykirk (Ardwell Ho.)	1·77	4·32	1·77	3·29	2·25	1·39	3·51	6·82	1·21	1·74	7·15	5·88	41·10
"	Kirkcudbright	Dalbeattie (Little Richorn)	3·60	6·10	3·19	2·57	2·37	1·65	4·65	9·73	·95	3·93	6·30	5·86	50·90
"	"	Dalry (Glendarroch)	4·82	9·88	4·52	3·50	2·36	2·14	5·47	9·81	1·77	3·52	5·62	8·51	61·92
"	Dumfries	Langholm (Ewes, Burnfoot)	4·83	6·60	3·81	3·95	2·93	1·76	6·29	7·22	·82	2·87	4·62	5·57	51·27
"	"	Moffat (Auchen Castle)	5·96	8·24	4·85	4·39	2·43	2·50	5·95	8·44	1·24	3·92	3·75	5·74	57·41
"	Roxburgh	Hawick (Wolfelee)	2·45	4·43	2·35	3·31	1·45	1·72	4·32	5·66	·58	2·08	3·95	2·69	34·99
XIII.	Selkirk	Selkirk (The Hangingshaw)	3·70	4·74	2·11	3·28	1·23	·92	4·92	6·10	·24	3·05	3·19	3·02	36·50
"	Peebles	Stobo (Dawcyk Gardens)	3·12	7·22	3·38	4·12	1·71	1·46	4·87	5·56	1·02	3·29	3·92	4·54	41·21
"	Berwick	Marchmont House	2·19	2·46	1·09	2·64	1·60	·85	4·05	3·89	1·09	3·44	3·52	2·04	28·76
"	Haddington	Whittinghame Gardens	2·04	3·13	·98	2·47	2·21	1·14	3·22	4·25	1·07	3·45	3·15	1·65	28·76



# SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XIII.	Midlothian	West Calder (Addiewell).	3.75	5.23	2.16	3.84	2.26	.91	3.45	6.07	.87	1.53	2.98	2.15	35.20
XIV.	"	Edinburgh (Blackford Hill)	2.78	2.84	.85	3.15	1.46	1.13	3.92	5.17	.69	2.16	2.38	.99	27.52
"	Lanark	Leadhills	4.66	7.77	6.83	4.96	2.87	1.47	6.65	13.27	1.61	2.99	4.87	9.25	67.20
"	"	Strathaven (E. Overton Ho.)	5.95	5.97	2.61	4.09	2.99	3.62	4.38	6.03	1.22	2.58	3.15	5.28	47.87
"	Ayr	Barrhill (Dochroyle)	2.79	6.30	2.38	2.80	2.30	2.48	3.48	5.30	1.04	2.90	4.30	5.92	41.99
"	"	Maybole (Culzean Gardens)	2.75	5.55	1.50	2.70	2.35	2.25	4.60	4.45	1.47	1.75	4.45	2.85	36.67
"	"	Mauchline (Catrine)	3.51	5.51	1.63	3.29	2.63	2.50	4.08	5.40	1.80	1.81	2.94	4.15	39.25
"	"	Dalry (Mount Pleasant)	4.49	5.52	2.09	3.16	2.37	2.32	4.58	9.25	2.19	2.66	4.20	4.39	47.22
XV.	Renfrew	Glasgow (Queen's Park)	3.95	3.83	2.02	4.50	1.78	1.73	5.26	5.29	1.69	2.01	2.95	3.52	38.53
"	Dumbarton	Cardross (Kilmaheh)	6.91	6.10	2.52	4.55	1.74	2.59	4.89	8.73	1.86	2.80	4.30	4.83	51.82
"	Stirling	Falkirk (Westbank)	5.60	3.85	2.21	4.08	1.59	.96	4.22	6.48	.71	2.98	3.30	2.61	38.59
"	"	Buchlyvie (The Manse)	7.19	6.50	3.04	6.18	2.83	2.69	5.01	9.28	2.05	2.52	3.73	5.26	56.28
"	Bute	Arran (Brodict U. F. Manse)	6.56	9.63	3.32	4.87	4.39	1.86	4.18	9.96	2.14	3.70	7.44	9.34	67.39
"	"	Rothsay (Orichton Road)	6.21	6.95	2.34	4.09	2.97	3.02	5.14	9.02	2.24	2.79	4.10	5.62	54.49
"	Argyll, Mainland	Campbeltown (Witchburn)	4.43	8.51	2.33	3.56	3.85	2.18	4.05	6.26	1.13	2.05	5.48	6.08	49.91
"	"	Kintyre (Killean Mse., Muasdale)	4.27	7.96	1.58	3.57	2.35	1.24	3.36	4.21	1.24	1.76	3.96	4.96	40.46
"	"	Otter Ferry (Baltimore)	5.06	8.55	2.60	4.40	3.05	2.00	4.99	6.10	3.15	2.40	4.58	6.95	53.83
"	"	Lochgailhead (Nuthill)	9.34	10.35	5.55	6.50	4.09	3.64	5.05	11.11	2.75	3.46	5.24	8.68	75.76
"	"	Dalmally (School House)	11.16	10.50	4.38	7.26	4.30	1.90	5.46	8.50	4.37	3.50	3.67	11.39	76.39
"	"	Oban	6.73	6.93	3.03	5.10	2.71	1.72	4.25	6.91	2.17	2.98	4.27	5.00	51.80
"	"	Ballachulish House	10.62	12.95	5.89	6.29	4.81	1.66	3.41	5.98	2.11	4.98	3.00	8.65	70.35
"	"	Islay (Ardbeg)	5.00	6.35	2.22	4.32	3.43	1.30	3.71	6.52	1.36	1.91	5.85	4.24	46.21
"	Insular	Jura (Ardfin)	5.64	6.76	2.48	4.57	3.29	2.56	3.49	7.40	1.34	2.39	7.88	6.25	54.05
"	"	Iona	4.60	6.08	2.32	3.55	2.45	1.60	3.88	6.51	2.25	2.43	4.75	4.82	45.24
"	"	Mull (Quinish)	5.54	7.00	3.64	4.96	2.90	1.92	3.96	7.11	2.71	3.13	4.31	5.03	52.21
XVI.	"	Colinsburgh (Balcarres)	2.36	2.39	1.14	2.94	1.48	1.23	3.86	7.64	1.30	3.17	2.59	1.75	31.85
"	Fife	Kilmany (Mountquhanie)	1.80	2.41	.90	2.95	1.10	1.60	4.50	7.50	1.03	2.03	3.12	2.55	31.49
"	"	Glendevon (Tormaukin)	6.68	5.48	3.28	4.87	2.50	1.67	5.11	9.92	1.10	4.02	4.31	3.02	51.96
"	Perth	Balquhidder (Stronvar)	9.64	9.32	5.42	7.52	2.83	3.50	7.67	10.72	1.65	3.92	4.00	9.20	75.39
"	"	Grieff (Strathearn Hydro.)	4.64	4.39	2.53	3.72	1.37	1.57	4.84	11.30	.99	2.71	3.84	3.41	45.41
"	"	Coupar Angus	2.92	2.79	1.63	2.56	1.37	2.04	4.79	7.19	.81	1.96	2.99	3.65	34.70
"	"	Glenlyon (Meggerie Cas.)	8.41	8.60	4.75	6.60	2.64	2.60	6.51	10.55	1.31	3.29	3.32	9.69	68.27
"	"	Aberfeldy (Dall Avon)	5.30	5.34	2.78	4.76	1.44	2.84	4.07	8.27	.75	2.51	3.47	6.45	47.98
"	"	Arbroath (Dishland Hill)	1.28	1.40	.91	2.19	1.60	.91	2.51	4.55	.91	2.62	2.34	1.82	23.04
"	Forfar	Glen Prosen (Pearste)	2.98	3.59	2.32	2.21	1.53	1.61	4.98	7.58	.88	2.40	3.31	4.45	37.84
XVII.	"	Fettercairn (The Burn)	2.25	3.36	1.86	3.14	2.44	1.40	2.49	6.34	.94	2.39	4.00	5.06	35.67

# SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XVII.	Kincardine	Crathes (Pinewood)	1.78	3.45	1.81	3.62	2.72	.62	2.01	4.92	.90	2.17	5.18	5.21	34.39
	Aberdeen	Braemar (Derry Lodge)	4.68	4.00	3.31	5.09	1.47	3.12	4.04	4.74	1.05	3.25	4.28	3.86	42.89
	"	Aberdeen (Cranford Ho.)	1.77	2.83	1.55	3.07	2.55	.70	2.38	4.07	1.03	2.21	5.98	3.44	31.58
	"	Strathdon Schoolhouse	3.39	2.53	2.61	4.04	2.19	1.55	2.42	4.81	.91	3.55	6.40	6.17	40.57
	"	Insch (Thornhill)	1.72	2.18	1.37	3.26	1.98	1.29	2.74	4.00	1.23	2.88	6.47	4.44	33.56
	"	New Deer School House.	2.53	2.24	1.01	2.52	1.38	1.90	2.28	3.54	1.23	2.03	6.45	3.79	32.18
	Moray	Gartnony-on-Spey	3.36	2.15	1.89	4.69	1.38	3.96	3.47	3.67	1.60	3.32	6.93	1.94	38.36
	"	Gordon Castle	2.32	1.49	1.02	4.56	1.27	1.19	3.14	4.02	1.13	2.27	6.18	1.94	30.53
	"	Nairn (Achareidh)	2.57	.92	.92	4.69	1.42	1.31	3.15	3.22	1.02	1.02	4.12	1.37	25.73
	Nairn	Loch Shiel (Glenfinnan)	16.87	11.43	9.35	9.28	8.50	2.73	5.55	12.16	4.20	8.79	5.07	14.65	108.58
XVIII.	Inverness	Barra (Castle Bay)	2.89	5.51	1.58	4.33	1.78	2.27	3.14	6.74	1.45	2.17	6.34	3.76	41.96
	"	Spean Bridge (Spean Lodge)	8.56	7.88	4.03	6.05	4.71	1.74	3.99	5.49	1.91	3.05	3.08	4.53	55.82
	"	Arisaig House	6.85	6.08	4.16	6.41	4.66	2.27	3.47	6.47	3.48	4.55	4.62	5.87	58.39
	"	Skye (Strathaird)	13.00	9.81	7.58	7.82	7.81	1.34	3.51	6.31	5.00	6.67	9.56	10.81	89.22
	"	" (Glendrynoch, L. Harport)	3.54	9.00	8.40	7.99	5.06	1.80	3.90	7.14	3.06	6.46	5.37	7.51	69.23
	"	" (Dunvegan)	6.55	9.13	5.24	6.24	5.29	1.73	4.01	7.53	2.53	5.91	5.59	6.67	66.42
	"	N. Uist Lochmaddy	4.65	6.26	2.52	4.64	3.19	1.80	2.99	6.26	2.05	1.37	5.48	4.84	46.05
	"	Loch Quoich (Glenquoich)	17.90	11.87	9.10	10.85	8.24	2.73	4.83	9.79	3.87	6.78	6.54	13.63	106.13
	"	Alvey Manse	3.51	2.32	1.80	4.62	.94	2.19	2.80	3.54	.87	2.27	4.96	1.70	31.52
	"	Drumnadrochit	4.28	1.91	1.80	6.67	2.86	2.25	3.79	3.86	.82	1.83	5.09	2.49	37.65
XIX.	Ross and Cromarty	Applecross (Gardens)	4.18	6.62	8.34	6.95	4.25	3.60	4.24	6.15	2.45	4.00	5.90	5.89	62.57
	"	Kinlochewe	10.54	7.86	4.92	8.05	5.08	2.79	3.12	4.66	1.94	2.98	7.72	7.19	66.85
	"	Poolwee (Inverewe Gdns.)	6.65	6.98	3.80	7.25	3.88	2.19	3.11	4.85	2.43	5.91	5.38	7.67	60.10
	"	Ullapool (Drumruinie)	6.62	7.43	4.08	5.37	3.60	4.61	5.79	5.28	6.04	10.18	8.47	8.76	76.23
	"	Stornoway	6.79	5.26	3.50	6.42	3.30	2.49	3.08	5.91	2.25	3.31	5.98	4.74	53.03
	"	Evanton (Novar Gardens)	4.61	1.74	1.69	5.16	2.92	1.83	4.66	4.62	1.00	1.56	5.23	3.42	38.44
	"	Invershin	2.89	1.91	1.49	4.88	2.66	1.72	3.94	4.91	1.38	2.35	6.14	3.46	37.73
	Sutherland	Dunrobin Castle	3.33	1.36	1.01	3.23	2.98	.75	3.56	4.70	1.18	1.39	6.51	3.46	33.46
	"	Loch Stack (Ardehullin)	8.48	5.86	4.11	8.25	6.39	2.62	2.88	5.36	4.27	6.55	11.14	8.74	74.65
	"	Tongue (Manse)	4.15	2.84	2.15	7.94	1.98	1.35	3.23	6.20	1.64	2.82	6.79	3.98	45.07
XX.	Caithness	Berriedale (Langwell)	3.75	1.72	1.99	5.25	2.35	.75	3.75	4.65	.80	1.90	9.05	3.60	39.56
	"	Thurso (Buckies)	4.31	2.33	1.95	4.09	2.04	1.44	2.06	5.39	1.44	2.09	6.70	4.83	35.67
	"		5.12	5.57	3.03	4.73	2.87	1.95	4.08	6.59	1.71	3.16	5.00	5.26	49.07
	Scotland. Mean of 79 stations														

# IRELAND.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XX.	Cork	Castletownshend (then Barrabane)	5.61	8.28	4.46	2.18	2.10	4.17	1.91	4.30	1.90	3.43	5.66	4.72	48.72
"	"	Dunmanway (The Rectory)	6.43	8.98	3.76	2.40	2.12	2.79	2.61	6.22	1.80	4.61	6.27	6.48	54.47
"	"	Bandon (Ardnacarrig) ...	4.95	6.22	3.64	2.05	1.95	2.86	1.60	5.41	1.72	4.54	4.15	3.50	42.59
"	"	Midleton (Ballynacurra)..	2.62	5.07	2.61	2.01	1.54	5.06	2.35	6.34	1.10	3.94	2.77	4.19	39.60
"	"	Mallow (Summer Hill) ...	3.79	6.68	3.56	2.10	3.26	4.00	2.53	5.56	1.15	3.61	3.53	4.06	43.83
"	"	Mitchelstown Castle. ....	3.86	7.53	2.83	2.86	3.56	4.53	4.13	5.62	1.40	4.02	5.36	4.70	50.40
"	Kerry	Darrynane Abbey .....	6.44	9.62	4.20	4.19	3.75	3.37	3.08	6.21	1.23	4.29	8.00	6.05	60.43
"	"	Kenmare (Derreen) .....	6.22	12.40	6.45	3.56	2.89	3.21	4.03	6.72	1.20	5.81	6.39	8.91	67.79
"	"	Gap of Dunloe (Garrymeen)	12.20	17.60	6.10	4.60	4.00	5.00	5.20	6.50	.80	1.00	4.00	13.60	80.60
"	"	Lough Caragh (Lickeen)..	10.07	14.61	8.91	4.27	3.51	4.25	4.99	9.38	.94	4.96	8.89	8.52	83.30
"	Waterford	Lismore Castle .....	3.40	6.60	2.75	2.07	2.78	3.82	3.8	6.61	1.01	3.43	5.42	4.26	45.23
"	"	Waterford (Brook Lodge)	2.22	4.14	2.05	2.57	1.63	3.88	2.15	7.56	.71	4.28	4.30	4.08	39.60
"	Tipperary	Clonmel (Bruce Villa) ...	2.27	4.52	2.45	1.92	2.59	4.21	2.56	6.00	.76	3.03	3.00	3.78	37.09
"	"	Cashel (Ballinamona) .....	2.91	5.40	2.53	2.84	2.31	4.06	2.93	5.51	.99	1.82	3.59	3.85	38.74
"	Limerick	Foynes (Mount Trenchard)	4.85	6.39	2.53	3.88	3.50	3.14	3.48	4.18	1.09	2.05	5.31	4.48	44.88
"	Clare	Carrigaholt Castle .....	4.68	5.34	2.95	2.83	2.72	2.40	3.50	4.64	1.04	2.23	5.38	4.25	42.01
"	"	Derravoher [Limerick] ...	2.72	5.82	2.10	3.19	2.16	3.22	3.40	4.28	.90	1.66	4.07	3.37	36.89
"	"	Newmarket-on-Fergus (Carrigoran)..	4.09	5.68	2.33	3.35	2.74	3.16	2.78	4.92	1.32	2.50	4.79	3.87	41.53
"	"	Miltown Malbay (Ballyvaskin).	4.50	5.28	3.02	3.61	2.73	3.33	5.41	4.09	1.45	1.72	4.87	4.72	44.73
"	"	Scariff (Woodpark) .....	6.08	7.41	2.83	3.50	2.71	3.68	3.88	5.12	.57	2.58	4.09	3.75	46.20
XXI.	Wexford	Wexford (Bannaboo) .....	2.14	4.10	2.72	3.23	1.27	3.15	2.24	7.34	1.05	3.38	5.83	5.08	41.53
"	"	Templeudigan (Ballindoney)	2.31	4.91	2.53	2.48	2.56	4.06	3.85	6.89	.74	3.22	5.03	4.51	43.09
"	"	Gorey (Courtown House)..	2.07	3.16	2.12	2.74	1.27	4.66	1.99	6.39	.98	3.24	4.80	6.21	39.63
"	Kilkenny	Kilkenny (Lavistown House).	2.59	3.61	1.80	2.07	2.11	4.12	2.12	6.36	.88	2.63	2.96	3.49	31.74
"	Wicklow	Laragh (Glendalough) .....	5.91	8.94	4.59	3.37	3.27	4.51	4.33	7.77	1.24	4.20	6.33	14.56	69.02
"	"	Bray (Passaroe) .....	3.89	5.28	2.48	2.45	2.23	5.59	2.39	5.43	.75	3.24	3.18	9.30	46.21
"	Carlow	Tullow (Hardymount) ...	2.09	3.84	1.36	2.37	1.88	4.85	2.33	5.85	.95	1.91	3.54	4.40	35.37
"	Queen's County	Abbey Leix (Blandsfort)..	3.77	4.78	2.16	3.61	2.35	5.58	2.80	6.19	1.30	2.38	3.35	4.75	43.02
"	King's County	Birr Castle .....	3.58	4.21	1.97	2.72	2.14	3.70	3.00	4.44	.69	1.83	2.87	3.28	34.43
"	"	Ballycumber (Moorock Lodge).	3.45	3.30	1.70	2.43	2.05	4.41	2.96	4.31	.66	1.04	2.59	2.60	31.50
"	Kildare	Monasterevan (Moore Abbey)	3.19	3.88	1.44	2.23	2.40	6.29	2.56	4.47	1.21	2.05	2.78	3.53	36.03
"	Dublin	Balbriggan (Ardgillan) ...	3.39	2.84	1.33	1.91	2.21	4.62	2.81	4.31	.77	1.49	3.72	5.31	34.71
"	Meath	Dunboyne (Stirling Clonee)	3.79	3.00	1.21	2.37	2.44	4.43	3.14	3.97	.55	1.45	4.01	5.10	35.46
"	"	Athboy .....	3.17	3.75	1.90	2.33	2.95	6.04	2.64	5.70	.86	1.44	3.70	4.29	38.77
"	Westmeath	Mullingar (Belvedere) ...	4.41	4.86	1.67	2.68	2.26	5.00	3.27	6.94	1.01	1.65	3.16	4.28	41.19

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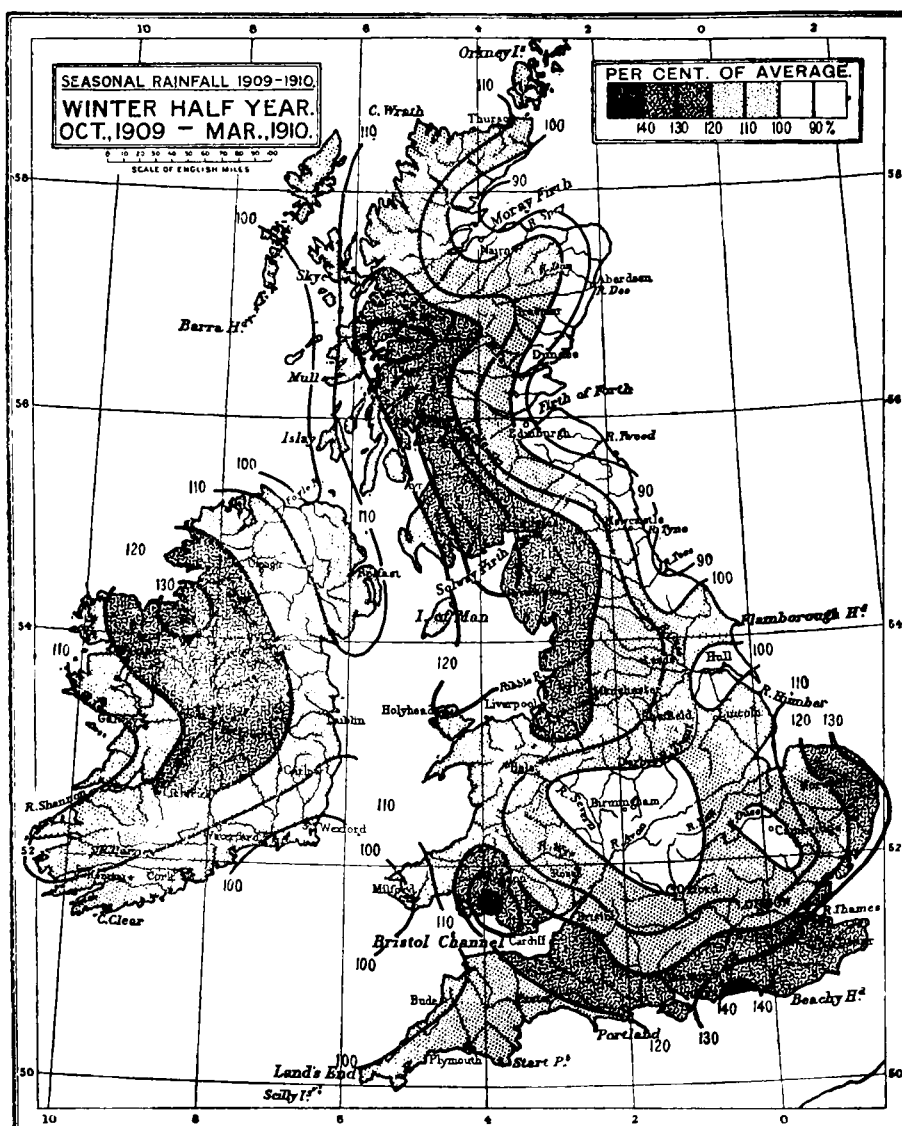
Div.	County.	Station.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
XXI.	Westmeath .....	Castl-spollard (Pakenham Hall)	3·17	4·54	2·00	2·89	4·16	5·48	4·14	6·65	1·08	1·66	3·42	4·18	43·37
	Louth .....	Ardee (Lissrenny) .....	2·66	3·70	1·36	2·12	2·49	5·45	2·88	5·14	·67	1·60	3·05	4·88	36·00
XXII.	Longford .....	Greenore .....	2·30	3·34	1·64	1·78	2·63	3·78	2·91	4·29	·94	1·53	3·46	3·70	32·30
	Galway .....	Ballymahon (New Castle)	3·32	4·87	2·28	2·89	2·52	4·19	4·09	5·91	1·06	1·13	2·66	3·39	38·31
	Ballinasloe .....	Ballinasloe .....	3·76	4·86	2·36	2·94	1·72	3·80	2·36	4·64	1·00	1·51	3·55	3·55	36·05
	Tuam (Gardenfield) .....	Tuam (Gardenfield) .....	5·14	5·66	3·49	2·83	2·35	4·66	4·88	6·81	1·53	2·55	4·31	2·91	46·96
	Strokestown (Castlenode) .....	Strokestown (Castlenode) .....	3·42	5·71	2·27	1·83	2·38	4·30	2·79	5·28	1·67	1·51	3·04	2·39	36·59
	Mayo .....	Cong (The Glebe) .....	6·33	6·68	4·57	2·13	2·29	4·77	4·41	5·97	1·37	2·16	5·73	3·95	50·36
	Westport (St. Helens) .....	Westport (St. Helens) .....	4·52	6·82	3·92	2·57	3·07	4·70	4·42	4·97	·83	2·13	5·61	3·48	47·04
	Dugort (Slievemore Hotel) .....	Dugort (Slievemore Hotel) .....	8·51	10·64	5·80	4·02	5·23	5·38	6·21	7·25	1·67	2·14	7·08	4·53	68·46
	Crossmolina (Enniscoe) .....	Crossmolina (Enniscoe) .....	7·64	8·19	3·69	2·44	3·13	5·20	3·69	6·38	·80	2·29	6·13	2·43	52·01
	Collooney (Markree Obs.) .....	Collooney (Markree Obs.) .....	5·18	7·24	3·75	2·65	3·89	5·52	5·94	6·94	1·27	3·10	5·22	2·68	53·38
	Leitrim .....	Mohill (Rectory) .....	3·41	5·65	2·55	1·95	2·88	4·49	3·99	6·95	2·04	2·06	4·56	3·21	43·74
	Killeshandra (Drom Mullac) .....	Killeshandra (Drom Mullac) .....	3·73	5·11	2·51	2·41	3·56	4·67	4·27	6·07	1·37	1·97	3·09	3·07	41·83
XXIII.	Fermanagh .....	Enniskillen (Portora) .....	3·87	5·85	2·36	2·54	3·11	4·97	2·64	8·22	1·57	2·16	3·52	2·73	43·54
	Belleek .....	Belleek .....	4·27	6·82	2·37	2·68	3·41	4·80	4·24	5·82	1·28	2·35	3·97	2·85	44·86
	Dartrey [Cootehill] .....	Dartrey [Cootehill] .....	3·47	5·05	2·70	2·50	3·32	4·64	3·66	6·06	·98	2·07	2·85	4·03	41·33
	Armagh Observatory .....	Armagh Observatory .....	2·48	4·53	1·65	2·37	2·06	4·08	2·67	4·91	1·11	1·06	1·96	3·63	32·51
	Seaforde .....	Seaforde .....	2·15	5·22	1·98	1·99	2·15	3·29	3·84	5·91	1·23	1·47	3·73	5·69	38·62
	Donaghadee .....	Donaghadee .....	2·12	4·02	1·62	2·04	1·94	1·85	3·55	4·58	1·28	2·11	4·28	4·16	33·58
	Belfast (Springfield) .....	Belfast (Springfield) .....	3·88	5·21	1·67	2·98	3·01	3·47	5·33	6·18	1·35	2·21	4·69	5·09	45·12
	Ballymena (Harryville) .....	Ballymena (Harryville) .....	4·04	5·66	2·89	2·97	3·28	3·45	4·04	5·78	1·73	2·86	4·84	5·09	46·63
	Bushmills (Dundarave) .....	Bushmills (Dundarave) .....	4·65	4·52	2·48	2·77	2·43	2·83	3·26	6·42	·89	1·92	5·53	3·43	41·13
	Garvagh (Moneydig) .....	Garvagh (Moneydig) .....	4·49	5·05	2·28	2·42	2·16	3·02	3·77	6·32	1·33	2·25	5·23	3·69	42·01
	Myroe (Culmore House) .....	Myroe (Culmore House) .....	3·92	3·93	1·89	2·17	1·99	4·15	3·29	5·07	·84	2·04	4·72	3·23	37·24
	Omagh (Edenfel) .....	Omagh (Edenfel) .....	4·64	5·80	2·20	2·40	2·71	3·98	4·59	6·87	1·20	2·13	3·65	3·56	43·73
	Cookstown (Lissan) .....	Cookstown (Lissan) .....	3·65	4·33	2·24	2·37	2·04	3·77	3·37	5·82	1·78	1·73	3·45	3·50	38·05
	Killybegs .....	Killybegs .....	6·57	9·58	3·25	4·17	4·31	4·77	6·09	8·61	1·10	3·93	7·08	5·48	64·94
	Convoy .....	Convoy .....	6·22	7·27	2·81	3·05	3·37	5·32	5·16	7·74	1·16	3·05	4·90	3·80	53·85
	Buncrana (Rockfort) .....	Buncrana (Rockfort) .....	4·69	5·66	2·61	2·34	2·70	4·29	5·10	8·75	·99	2·43	4·59	3·32	47·47
	Dunfanaghy (Horn Head) .....	Dunfanaghy (Horn Head) .....	5·52	6·14	2·43	2·52	2·73	4·13	3·62	6·87	·89	2·28	4·31	2·62	44·06
	Ireland. Mean of 66 stations ..	Ireland. Mean of 66 stations ..	4·30	6·00	2·80	2·70	2·68	4·22	3·53	5·98	1·13	2·52	4·42	4·55	44·83
BRITISH ISLES.	Mean of 300 stations ..	Mean of 300 stations ..	4·10	4·96	2·01	3·21	2·64	2·89	3·51	5·27	·99	3·17	4·71	5·13	42·59

### SEASONAL RAINFALL, 1909-10.

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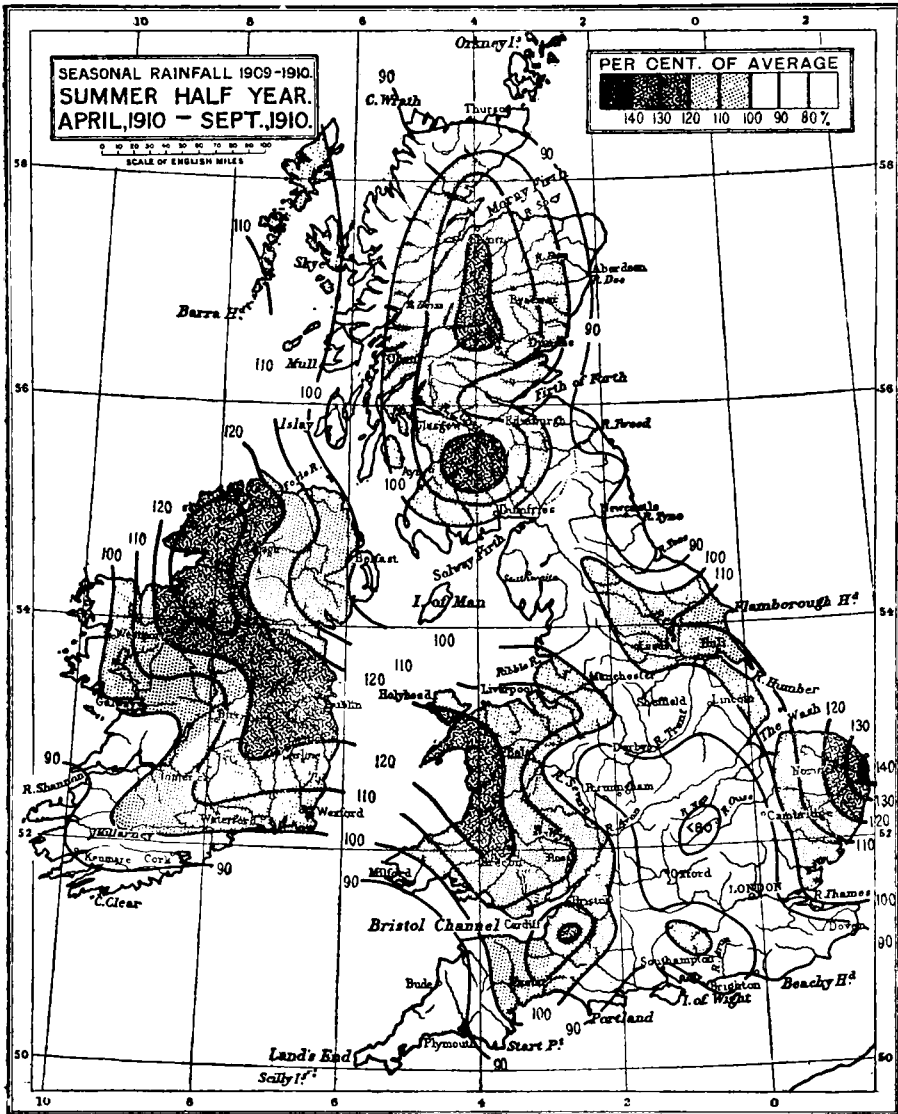
THE most natural division of the year for climatological purposes is into a winter or low-sun half, when the sun starting from the autumnal equinox describes a smaller arc in the heavens each day until the winter solstice, and then an increasing arc each day until the vernal equinox, and a summer or high-sun half, when from the vernal equinox to the summer solstice the sun describes an increasing arc each day and then a decreasing arc until the autumnal equinox. Hence, although for practical purposes we cannot dispense with the year beginning on January 1st, near the winter solstice, it often throws a new light on phenomena to consider also the year commencing on October 1st, near the autumnal equinox. We introduce maps of the seasonal rainfall of a less diagrammatic kind than have been published before, making them on the same scale as the maps of monthly rainfall. They show the variation of the rainfall from the average by lines drawn at intervals of 10 per cent., and they are tinted to show the areas which had a rainfall above the average of the winter half-year, the summer half year, or the combined seasonal year respectively.

The winter half-year, October, 1909—March, 1910, was slightly below the average in rainfall throughout the Midlands of England and along the east coast of the north of England and Scotland, but almost all other parts of the country were very wet, a large area with more than 20 per cent. of excess and in some parts more than 30 per cent. occupying the western half of Scotland and the north-west of England; a broad band of equal excess ran from South Wales across Somerset and Dorset, and along the south and east coasts of England as far as the Wash, while the centre of Ireland was occupied by a third area showing the same excess. For the British Isles as a whole the excess over the average for the half-year was 14 per cent.; and so uniform were the different countries in this respect that the only variations were from an excess of 16 per cent. in Wales to an excess of 12 per cent. in Scotland. The effect



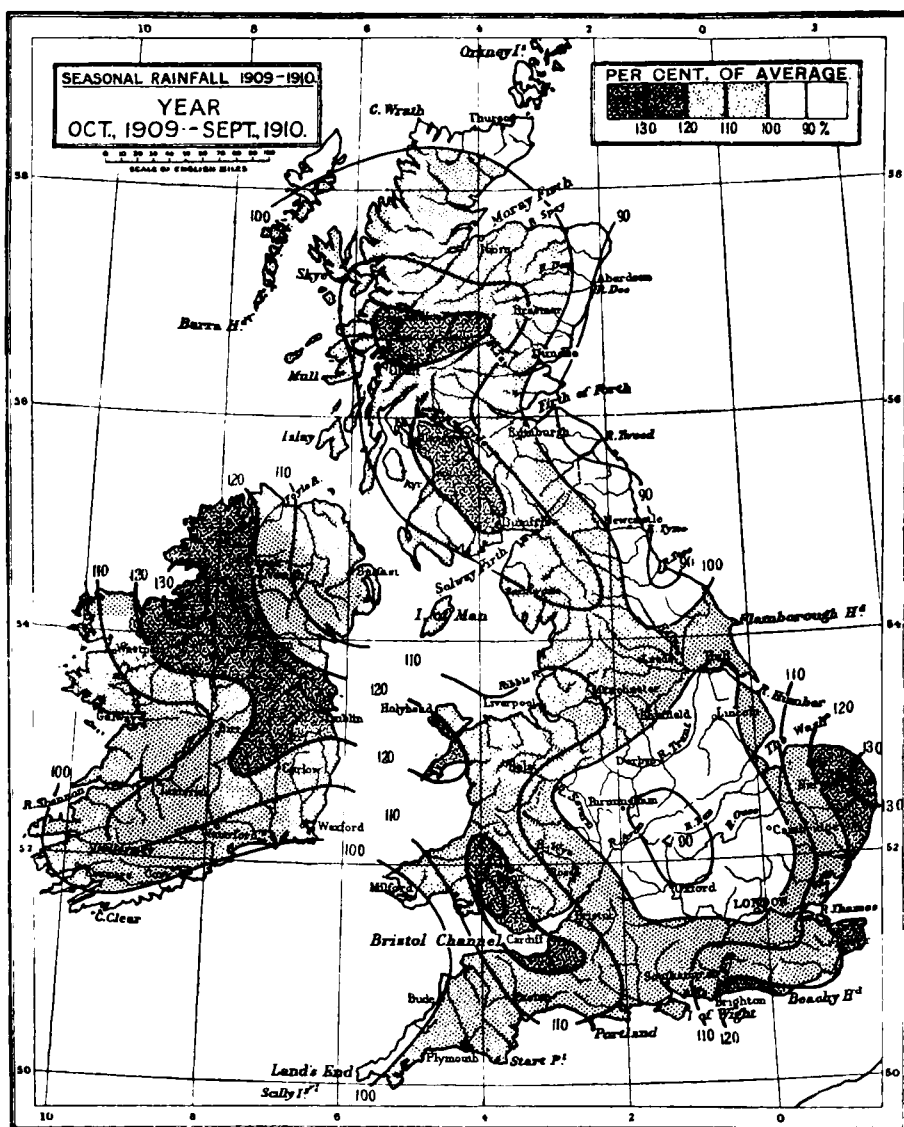
of the remarkably dry November of 1909 was quite masked by the very wet months, October and December, 1909, and February, 1910.

The summer half year of 1910 also contained an extraordinarily dry month in September, but the generally wet character of the other months gave an excess of 4 per cent. for the half-year's rainfall for the British Isles; although England showed a deficiency of 3 per cent., Wales had an excess of 14 per cent., Scotland of 5 per cent. and Ireland of 9 per cent. The map of the summer rainfall shows that the whole of Wales had an excess of more than 10 per cent., while the west of Wales together with a great slice of central Ireland had more than 20 per cent., an excess which was matched on the east and in



East Anglia. Generally speaking England was dry in the north and along the centre, but very wet in the middle of both the west and the east coasts. Scotland and Ireland, on the other hand, were very wet in the centre but dry round the coasts, except on the east of Ireland.

Both half years being essentially similar in the distribution of excess and deficiency of rainfall, the map of the combined year's rainfall necessarily shows the same features, a dry core extending through the middle of England and along the east of Scotland, its axis running due north between the meridians of  $1^{\circ}$  and  $2^{\circ}$  W. ; while two wet axes run to the north-west, one from the Lake District



through the west of Scotland, the other from Wales to the north-west of Ireland, and a third very wet band runs along the east coast from Sussex to Norfolk.

The following table of the seasonal rainfall and its variation from the average at 105 stations shows that for the composite year England had an excess of 6 per cent., Wales of 15, Scotland of 9, Ireland of 10 and the British Isles as a whole of 9 per cent., practically the same as for the calendar year 1910 and a very marked contrast with the previous composite year 1908-09, which showed a deficiency of 13 per cent. for the British Isles.



*Seasonal Rainfall, 1909-1910, in Relation to the Average, 1875-1909.*

Div.	Stations.	Winter Six Months, October, 1909—March, 1910.				Summer Six Months, April—September, 1910.				12 Months Oct., 1909—Sept., 1910. Per cent. of Average.
		Rain- fall.	Aver- age.	Difference from Average.	Per cent. of Aver.	Rain- fall.	Aver- age.	Difference from Average.	Per cent. of Aver.	
I.	St. Pancras, Camden Square.....	13.19	12.38	+ .81	107	11.38	12.73	- 1.35	89	98
II.	Tenterden .....	20.41	15.31	+ 5.10	133	10.50	12.33	- 1.83	85	112
"	Arundel, Patching .....	24.26	17.17	+ 7.09	141	12.76	13.31	- .55	96	122
"	Fawley, Cadland .....	22.01	17.89	+ 4.12	123	11.53	13.98	- 2.45	82	105
III.	Basingstoke, Sherborne St. John	18.19	15.86	+ 2.33	115	13.35	13.31	+ .04	100	108
"	Hitchin, Wratten .....	14.08	12.35	+ 1.73	114	11.16	12.81	- 1.65	87	100
"	Oxford, Magdalen College .....	11.72	11.98	- .26	98	10.37	12.60	- 2.23	82	90
"	Wellington, Croyland Abbey	12.89	12.24	+ .65	105	9.66	12.93	- 3.27	75	90
IV.	March .....	11.08	10.71	+ .37	103	10.97	12.32	- 1.35	89	96
"	Shoeburyness .....	13.42	9.82	+ 3.60	137	10.19	9.46	+ .73	108	122
"	Braintree, Bocking .....	11.32	11.52	- .20	98	11.15	12.30	- 1.15	91	94
"	Rendlesham Hall .....	14.53	11.98	+ 2.55	121	12.63	11.70	+ .93	108	115
"	Bury St. Edmunds, Westley .....	13.65	12.26	+ 1.39	111	15.18	13.14	+ 2.04	115	114
"	Geldeston .....	14.58	11.91	+ 2.67	122	17.02	11.82	+ 5.20	144	133
"	Blakeney .....	15.55	11.96	+ 3.59	130	13.54	11.87	+ 1.67	114	122
V.	Bishops Cannings .....	16.59	15.70	+ .89	106	14.53	15.17	- .64	96	101
"	Evershot, Melbury House .....	28.17	22.27	+ 5.90	126	15.56	15.93	- .37	98	114
"	Sidmouth, Sidmouth .....	20.30	17.49	+ 2.81	116	15.71	14.51	+ 1.20	108	113
"	Northam Vicarage .....	22.97	20.78	+ 2.19	110	13.30	14.77	- 1.47	90	102
"	Falmouth Observatory .....	29.51	26.14	+ 3.37	113	14.01	16.55	- 2.54	85	102
"	Altarnon .....	40.79	35.83	+ 4.96	114	20.70	23.14	- 2.44	89	104
"	Chewton Mendip, The Priory ..	29.43	24.28	+ 5.15	121	25.39	21.03	+ 4.36	121	121
VI.	Stroud, Upfield .....	16.48	15.15	+ 1.33	109	15.41	14.66	+ .75	105	107
"	Leominster, Farm .....	15.03	14.46	+ .57	104	15.40	14.08	+ 1.32	109	107
"	Church Stretton, Wolstaston ..	16.03	16.57	- .54	97	14.72	15.84	- 1.12	93	95
"	Wolverhampton, Wrotesley .....	12.38	12.64	- .26	98	11.79	13.75	- 1.96	86	92
"	Coventry, Kingswood .....	13.15	14.59	- 1.44	90	12.72	14.39	- 1.67	88	89
VII.	Market Overton .....	14.30	13.40	+ .90	107	14.03	13.70	+ .33	102	105

*Seasonal Rainfall, 1909-1910, in Relation to the Average, 1875-1909—(continued).*

Div.	Stations.	Winter Six Months, October, 1909—March, 1910.				Summer Six Months, April — September, 1910.				12 Months, Oct., 1909—Sept., 1910.
		Rain- fall.	Aver- age.	Difference from Average.	Per cent. of Aver.	Rain- fall.	Aver- age.	Difference from Average.	Per cent. of Aver.	
VII.	Revesly .....	13.42	12.59	+ .83	107	12.62	12.56	+ .06	100	104
	Lincoln, Doddington .....	11.63	11.42	+ .21	102	11.04	12.17	- 1.13	91	96
	Mickleover Manor .....	12.72	12.75	- .03	100	12.61	13.90	- 1.29	91	95
VIII.	Northwich, Highfield .....	18.41	14.98	+ 3.43	123	18.06	15.70	+ 2.36	115	119
	Chatburn, Middlewood .....	27.31	23.39	+ 3.92	117	18.56	20.28	- 1.72	92	105
IX.	Southport, Hesketh Park .....	20.01	16.73	+ 3.28	120	16.45	15.97	+ .48	103	112
	Sheffield, Redmires Reservoir.....	24.74	22.20	+ 2.54	111	18.62	19.11	- .49	97	105
"	Malham Tarn.....	37.65	31.62	+ 6.03	119	23.72	26.40	- 2.68	90	106
	Wetherby, Ribston Hall.....	14.71	13.31	+ 1.40	111	14.34	13.56	+ .78	106	108
"	Hull, Pearson Park .....	12.24	13.17	- .93	93	13.58	13.25	+ .33	102	98
	Scarborough, Osgodby.....	15.19	14.17	+ 1.02	107	13.41	12.23	+ 1.18	110	108
"	Middlesbrough, Albert Park.....	10.36	11.50	- 1.14	90	10.32	12.65	- 2.33	82	86
	Newcastle, Town Moor .....	13.49	13.92	- .43	97	12.18	14.02	- 1.84	87	92
X.	Howick Hall .....	13.72	14.91	- 1.19	92	12.64	13.87	- 1.23	91	92
	Brampton, Denton House .....	20.82	17.15	+ 3.67	121	16.21	17.77	- 1.56	91	106
"	Borrowdale, Seathwaite .....	95.91	76.47	+ 19.44	125	48.89	53.01	- 4.12	92	112
	Appleby, Castle Bank .....	23.92	18.62	+ 5.30	128	15.75	15.79	- .04	100	115
XI.	Abergavenny, Larchfield .....	21.79	20.77	+ 1.02	105	18.96	16.34	+ 2.62	116	110
	Neath .....	39.70	27.60	+ 12.10	144	26.43	22.33	+ 4.10	118	132
"	Cardiff, Ely.....	28.96	23.26	+ 5.70	124	20.39	19.02	+ 1.37	107	117
	Castle Malgwyn.....	29.35	26.02	+ 3.33	113	19.80	17.68	+ 2.12	112	112
"	Haverfordwest .....	27.00	27.12	- .12	100	17.90	19.69	- 1.79	91	96
	Aberystwyth, Gogerddan .....	27.98	24.58	+ 3.40	114	26.00	20.88	+ 5.12	125	119
"	Birmingham W.W., Tyrmynydd .....	39.40	37.20	+ 2.20	106	29.64	24.86	+ 4.78	119	111
	Llandderfel, Palé.....	33.50	28.04	+ 5.46	119	22.71	19.17	+ 3.54	118	119
"	Llandudno .....	18.82	16.56	+ 2.26	114	15.36	13.80	+ 1.56	111	113
	Holyhead .....	24.03	19.96	+ 4.07	120	17.88	15.06	+ 2.82	119	120
"	Douglas .....	26.72	23.40	+ 3.32	114	17.05	18.15	- 1.10	94	105

*Seasonal Rainfall, 1909-1910, in Relation to the Average, 1875-1909—(continued.)*

Div.	Stations.	Winter Six Months, October, 1909—March, 1910.				Summer Six Months, April—September, 1910.				12 Months, Oct., 1909—Sept., 1910.	
		Rain- fall.	Aver- age.	Difference from Average.	Per cent. of Aver.	Rain- fall.	Aver- age.	Difference from Average.	Per cent. of Aver.		
NII.	Anchencairn, Torr House .....	35.41	25.53	+ 9.88	139	20.47	21.27	- .80	96	119	
"	Drunlanrig Castle .....	33.28	25.17	+ 8.11	132	23.68	18.54	+ 5.14	128	130	
XIII.	Hawick, Braxholm .....	19.38	18.49	+ .89	105	15.33	15.31	+ .02	100	103	
	North Esk Reservoir .....	21.20	21.46	- .26	99	20.15	18.29	+ 1.86	110	104	
XIV.	Marchmont House .....	14.08	17.06	- 2.98	83	14.12	16.70	- 2.58	85	84	
	Airdrie, Hillend Reservoir .....	21.40	19.99	+ 1.41	107	17.86	17.73	+ .13	101	104	
"	Girvan, Pinnore .....	33.77	28.37	+ 5.40	119	23.09	21.40	+ 1.69	108	114	
XV.	Loch Thom .....	47.87	36.37	+ 11.50	132	32.01	28.10	+ 3.91	114	124	
	Inveraray, Newtown .....	50.12	40.92	+ 9.20	123	29.21	27.75	+ 1.46	105	116	
"	Strontian, Laudale .....	62.95	46.87	+ 16.08	134	29.64	30.26	- .62	98	120	
"	Islay, Eallabus .....	31.88	28.38	+ 3.50	112	18.26	20.41	- 2.15	89	103	
XVI.	Mull, Quinish .....	34.15	32.98	+ 1.17	104	23.56	23.59	- .03	100	102	
	Loch Leven Sluices .....	20.03	19.86	+ .17	101	17.16	16.68	+ .48	103	102	
"	Balquhiddier, Stronvar .....	50.90	45.08	+ 5.82	113	33.89	28.69	+ 5.20	118	115	
"	Blair Atholl .....	21.74	17.91	+ 3.83	121	18.42	14.44	+ 3.98	128	124	
XVII.	Dundee, Eastern Necropolis .....	11.47	14.08	- 2.61	81	16.86	14.56	+ 2.30	116	99	
	Fettercairn, The Burn .....	17.05	18.36	- 1.31	93	16.75	16.39	+ .36	102	97	
"	Braemar .....	21.47	19.11	+ 2.36	112	17.59	15.82	+ 1.77	111	112	
"	Aberdeen, Cranford House .....	15.16	17.32	- 2.16	88	13.80	15.41	- 1.61	90	88	
"	Keith .....	16.78	16.05	+ .73	105	18.28	17.35	+ .93	105	105	
XVIII.	Cawdor .....	13.65	14.77	- 1.12	92	17.67	14.56	+ 3.11	121	107	
	N. Uist, Lochmaddy .....	28.46	28.38	+ .08	100	20.93	19.55	+ 1.38	107	103	
"	Fort Augustus .....	29.17	27.84	+ 1.33	105	18.11	16.69	+ 1.42	109	106	
XIX.	Loch Torridon, Bendauph .....	59.37	51.06	+ 8.31	116	31.69	32.55	- .86	97	109	
	Dumrobin Castle .....	15.68	17.46	- 1.78	90	16.40	14.44	+ 1.96	114	101	
XX.	Thurso, Holburn Head .....	21.04	18.99	+ 2.05	111	11.26	13.72	- 2.46	82	99	
	Cork, The Palace .....	23.78	22.43	+ 1.35	106	15.34	16.23	- .89	95	101	
"	Valencia, Calhirciveen .....	35.80	32.08	+ 3.72	112	20.31	23.93	- 3.62	85	100	

*Seasonal Rainfall, 1909-1910, in Relation to the Average, 1875-1909—(continued).*

Div.	Stations.	Winter Six Months, October, 1909—March, 1910.				Summer Six Months, April—September, 1910.				12 Months, Oct., 1909—Sept., 1910.
		Rain- fall.	Aver- age.	Difference from Average.	Per cent. of Aver.	Rain- fall.	Aver- age.	Difference from Average.	Per cent. of Aver.	
XX.	Killarney, District Asylum.....	in. 37.81	33.49	+ 4.32	113	in. 22.45	21.32	+ 1.13	105	110
"	Waterford, Brook Lodge.....	21.67	21.72	- .05	100	18.53	17.85	+ .68	104	102
"	Nenagh, Castle Lough.....	26.59	21.46	+ 5.13	124	17.67	17.97	- .30	98	112
XXI.	Miltown Malbay.....	25.80	23.98	+ 1.82	108	20.62	21.13	- .51	98	103
"	Gorey, Courtown House.....	19.55	18.80	+ .75	104	18.03	16.19	+ 1.84	111	107
"	Abbey Leix, Blandsfort.....	22.42	18.51	+ 3.91	121	21.83	17.41	+ 4.42	125	123
"	Dublin, Fitz William Square.....	16.12	13.84	+ 2.28	116	17.44	13.84	+ 3.60	126	121
"	Moynalty, Westland.....	22.92	19.17	+ 3.75	120	22.68	18.02	+ 4.66	126	123
XXII.	Mullingar, Belvedere.....	22.17	18.37	+ 3.80	121	21.16	17.78	+ 3.38	119	120
"	Ballinasloe.....	21.73	18.98	+ 2.75	114	16.46	17.66	- 1.20	93	104
"	Tuam, Gardenfield.....	28.26	23.27	+ 4.99	121	22.60	19.42	+ 3.18	116	119
"	Crossmolina, Enniscoc.....	38.03	31.04	+ 6.99	123	21.64	21.83	- .19	99	113
XXIII.	Collooney, Markree Observatory	30.41	22.97	+ 7.44	132	26.21	19.74	+ 6.47	133	133
"	Belturbet, Cloverhill.....	20.82	17.24	+ 3.58	121	19.52	16.50	+ 3.02	118	120
"	Armagh Observatory.....	17.57	15.52	+ 2.05	113	17.20	16.36	+ .84	105	109
"	Seaford.....	20.66	20.34	+ .32	102	18.41	18.57	- .16	99	100
"	Donaghadee.....	17.97	16.17	+ 1.80	111	15.24	15.53	- .29	98	105
"	Ballymena, Harryville.....	23.55	21.49	+ 2.06	110	21.25	19.35	+ 1.90	110	110
"	Bushmills, Dundarave.....	19.81	19.72	+ .09	100	18.60	17.84	+ .76	104	102
"	Omagh, Edenfel.....	23.70	20.45	+ 3.25	116	21.75	18.93	+ 2.82	115	115
"	Buncrana, Rockfort.....	25.34	22.04	+ 3.30	115	24.17	18.85	+ 5.32	128	121
	England (45 stations).....	19.83	17.41	+ 2.42	114	14.97	15.47	- .50	97	106
	Wales (10 " ).....	29.05	25.11	+ 3.94	116	21.51	18.88	+ 2.63	114	115
	Scotland (26 " ).....	28.75	25.69	+ 3.06	112	20.62	19.62	+ 1.00	105	109
	Ireland (23 " ).....	24.46	21.44	+ 3.02	114	19.96	18.37	+ 1.59	109	110
	British Isles (105 " ).....	23.99	21.13	+ 2.86	114	18.11	17.49	+ .62	104	109

## THE RELATION OF THE TOTAL FALL OF RAIN IN 1910 TO THE AVERAGE.

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IN order to find the relation of the total fall of rain of any year to the average for the country as a whole, or for any large part of it, the best possible procedure is to calculate from a correct map of average rainfall the general value for each of the areas in question, then to make a similar calculation from a map of the rainfall of the year in question, and compare the two sets of figures. The best possible of anything is frequently beyond the means of those most anxious to secure it, and its place must be taken by the best available. In this instance the most serious bar to the best possible procedure is the non-existence of the correct map of average rainfall, which we are always hoping to find time to complete, and hitherto have failed to accomplish. A second difficulty is that as the final values of the rainfall figures in the General Table are not all settled until a few weeks before the appearance of this volume, it is impossible to construct a complete map of the year under review, and to carry out the elaborate measurements and calculations necessary to arrive at the general rainfall, without postponing the publication of the volume to a date which would deprive it of much of its value.

The best available is always capable of improvement, and this year we are happy to have a surer foundation than ever before for determining the average rainfall of the country and the relation to it of the year. As explained under the section on Monthly Rainfall, we have adopted the average of the 35 years, 1875—1909, and for the purpose of comparing the yearly totals we can draw on a larger number of stations than for the monthly values, as the bug-bear of records being possibly closed on the morning of the 31st of a month instead of on the 1st of the month following is less serious in the case of the year's than of the month's rainfall. The Table which concludes this section contains 219 records, instead of 177 as in recent years, and the distribution of the stations over the country is better, though it still leaves much to be desired in Wales, Scotland and Ireland. The accuracy of the general rainfall of the country as

deduced from the average of readings at individual stations, depends wholly (granting the records themselves to be accurate) on the distribution being uniform and representative ; and, of course, every readjustment to secure a more accurate result introduces a discrepancy with previous attempts, which makes it difficult to compare past years with the average appropriate for the year under discussion for which the stations have been selected. Here, also, we have to be content with the best available, pending the realization of the best possible.

In the new selection of stations with long records, the greater number have trustworthy figures for every year from 1875 to 1909 inclusive ; but it sometimes happens that the value for a particular year is known to be erroneous, or it may be missing, and when that occurs a computed figure is substituted which is known to be a close approximation to the truth, being derived from the comparison of neighbouring records, perhaps of short duration and only available for the particular year. In the same way, when a record, otherwise suitable, wanted some years at the beginning, these were computed, and whenever more than one year was supplied in any way, the average value is printed in italics ; but there is no reason to suppose that it is not an accurate figure for the purpose in view.

The Table gives the average for the decade 1900-09, as well as that for the 35 years 1875-1909, because many Observers with short records are interested in the relation of the year to a recent short average which may be compared with their own. The difference from the average in the Table refers to the 35 years' average only.

Glancing through the Table of 219 stations, we notice at once the great preponderance of + signs, indicating excessive rainfall in England, where the values range from +37 per cent. at Holford in Somerset to -16 per cent. at Middlesbrough ; but while 18 other stations out of the 100 in England show excesses of 20 per cent. or more, only two other stations show deficiencies of 10 per cent. or more. In Wales all the stations quoted show an excess of rain ranging from 4 to 35 per cent. In Scotland, though positive values preponderate, the range in the 57 stations quoted is from +26 to -16. In Ireland the range in the 44 stations quoted is from +25 to -6 per cent. The following summary shows the general rainfall for each of the large divisions, England and Wales being given separately as well as combined, calculated from the mean of the rainfall figures at the individual stations.

## ABSTRACT.

COUNTRIES.	No. of Records utilized.	Average. 10 years 1900-09.	Average. 35 years 1875-1909.	1910.	Diff. from Average 1875-1909.	
					Amount.	Per cent.
		in.	in.	in.	in.	
England .....	100	31·43	32·28	35·98	3·70	+ 11
Wales .....	17	45·50	46·13	53·50	7·37	+ 16
England and Wales...	117	33·47	34·29	38·53	4·24	+ 12
Isle of Man .....	1	41·35	41·55	44·45	2·90	+ 7
Scotland .....	57	46·24	45·10	46·46	1·36	+ 3
Ireland .....	44	41·21	41·00	44·23	3·23	+ 8
British Isles .....	219	38·39	38·49	41·77	3·28	+ 9

This abstract of the Table of 219 stations shows some differences from the summary of the 105 stations in the monthly Table ; but these are due to the broader basis and more accurate results of the study of the annual fall.

The excess of rainfall above the average was greatest in Wales ; next greatest in England, then in Ireland, and least in Scotland.

In order to make a comparison with earlier years we must have recourse once more to the old imperfect Rough Comparison which now extends to 30 years. It is made by taking values for the general rainfall of each country from a map compiled in 1903 (which could now be much improved) and with these are compared, for each year, the mean of the annual values from the Tables of annual or monthly rainfall in each volume of *British Rainfall*. The distribution of the stations in these tables from 1898 to date was sufficiently good to yield fair results for each country ; but before 1898 the distribution was good enough to be trusted for England and Wales only, the figures for Scotland and Ireland (and consequently for the British Isles also) being much too low. To facilitate comparison an attempt is made in the last column to correct the earlier values for the British Isles so as to make possible some reasonable comparison of the thirty years ; but it must be remembered that the figures in the above abstract are the more trustworthy.

The most interesting result of the rough comparison is that 1910 was the first wet year for the British Isles as a whole since 1903, and, with the exception of that almost unparalleled year and of 1900, it was the wettest since 1882. In the case of England and Wales 1910 was the wettest year since 1882, except 1903.

A point of great interest is that 1909 and 1910 were the first

*Rough Comparison of the Rainfall for 30 Years ; based on assumed average values.*

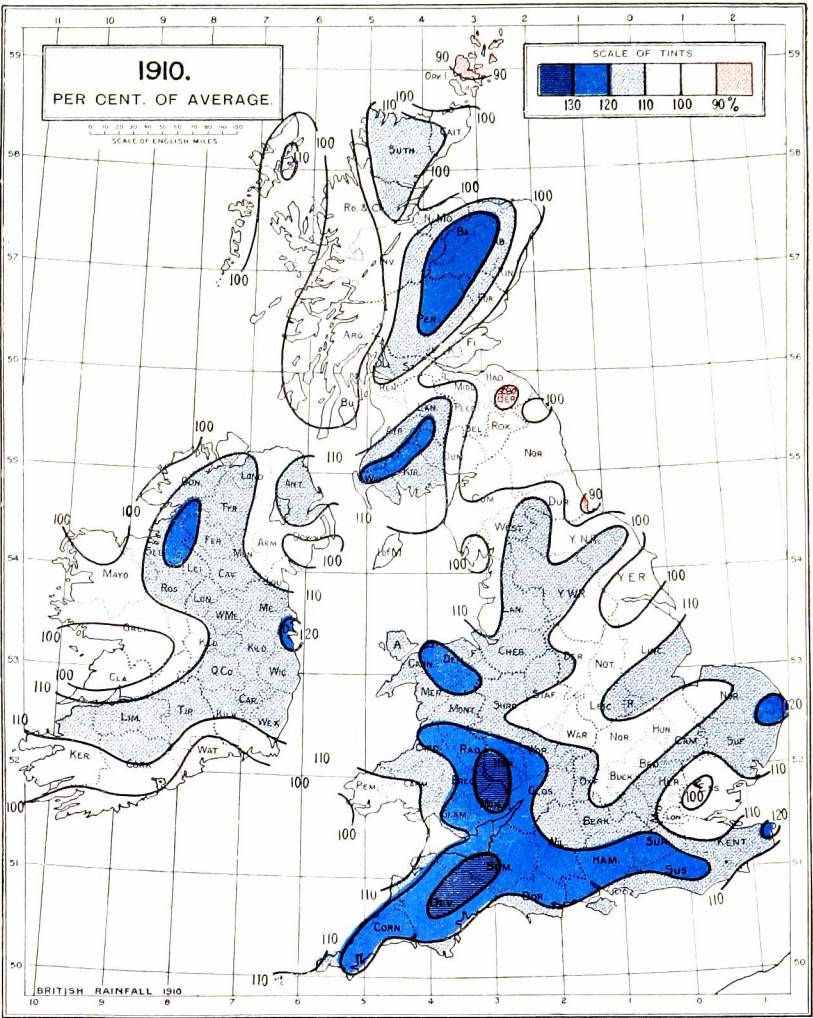
	ENGLAND & WALES.			SCOTLAND.			IRELAND.			BRITISH ISLES.			Corrected Value
	Fall.	Diff. from Average.		Fall.	Diff. from Average.		Fall.	Diff. from Average.		Fall.	Diff. from Average.		
		Amt.	p.c.		Amt.	p.c.		Amt.	p.c.		Amt.	p.c.	
Average	in. 33·92	in. —	—	in. 46·85	in. —	—	in. 42·28	in. —	—	in. 39·25	in. —	—	
Year.													
1881	35·81	1·89	+ 6	38·09	8·76	—19	36·11	6·17	—15	36·26	2·99	— 8	+ 2
1882	41·91	7·99	+24	44·75	2·10	— 4	40·83	1·45	— 3	42·42	3·17	+ 8	+18
1883	36·82	2·90	+ 8	39·81	7·04	—15	39·91	2·37	— 6	37·51	1·74	— 4	+ 6
1884	29·24	4·68	—14	40·25	6·60	—14	35·50	6·78	—16	31·56	7·69	—20	—10
1885	33·25	·67	— 2	33·78	13·07	—28	35·52	6·76	—16	33·41	5·84	—15	— 5
1886	37·53	3·61	+11	37·31	9·54	—20	41·61	·67	— 2	37·59	1·66	— 4	+ 6
1887	23·60	10·32	—30	29·14	17·71	—38	24·72	17·56	—42	24·80	14·45	—37	—27
1888	31·66	2·26	— 7	37·10	9·75	—21	39·61	2·67	— 6	32·98	6·27	—16	— 6
1889	31·10	2·82	— 8	32·81	14·04	—30	33·49	8·79	—21	31·52	7·73	—20	—10
1890	30·07	3·85	—11	46·56	·29	— 1	38·54	3·74	— 9	36·20	3·05	— 8	— 3
1891	37·36	3·44	+10	43·59	3·26	— 7	39·35	2·93	— 7	39·41	·16	+ 0	+ 5
1892	30·35	3·57	—11	42·55	4·30	— 9	39·13	3·15	— 7	35·42	3·83	—10	— 5
1893	28·21	5·71	—17	41·67	5·18	—11	32·50	9·78	—23	32·63	6·62	—17	—12
1894	36·14	2·22	+ 6	44·20	2·65	— 6	40·82	1·46	— 3	39·18	·07	— 0	+ 5
1895	31·32	2·60	— 8	39·32	7·53	—16	37·63	4·65	—11	34·66	4·59	—12	— 7
1896	30·94	2·98	— 9	42·11	4·74	—10	37·35	4·93	—12	35·06	4·19	—11	— 6
1897	34·14	·22	+ 1	43·70	3·15	— 7	43·53	1·25	+ 3	38·38	·87	— 2	+ 3
1898	29·42	4·50	—13	49·82	2·97	+ 6	38·40	3·88	— 9	36·46	2·79	— 7	— 2
1899	31·52	2·40	— 7	47·82	·97	+ 2	40·04	2·24	— 5	37·28	1·97	— 5	— 5
1900	36·37	2·45	+ 7	53·38	6·53	+14	45·48	3·20	+ 8	42·34	3·09	+ 8	+ 8
1901	29·83	4·09	—12	41·04	5·81	—12	40·33	1·95	— 5	34·85	4·40	—11	—11
1902	28·01	5·91	—17	38·73	8·12	—17	37·56	4·72	—11	32·71	6·54	—17	—17
1903	43·81	9·89	+29	59·05	12·20	+26	51·11	8·83	+21	49·26	10·01	+26	+26
1904	30·25	3·67	—11	43·70	3·15	— 7	40·67	1·61	— 4	35·81	3·44	— 9	— 9
1905	28·80	5·12	—15	43·04	3·81	— 8	35·80	6·48	—15	33·92	5·33	—14	—14
1906	34·23	·31	+ 1	48·69	1·84	+ 4	37·85	4·43	—10	38·71	·54	— 1	— 1
1907	33·61	·31	— 1	47·33	·52	+ 1	41·55	·73	— 2	38·87	·38	— 1	— 1
1908	30·65	3·27	—10	45·09	1·76	— 4	40·63	1·65	— 4	36·44	2·81	— 7	— 7
1909	35·30	1·38	+ 4	45·59	1·26	— 3	38·13	4·15	—10	38·56	·69	— 2	— 2
1910	38·53	4·61	+14	46·47	·38	— 1	44·23	1·95	+ 5	41·77	2·52	+ 6	+ 6

instance of two consecutive wet years for England and Wales since the long run of wet years ended in 1883 ; and it is also interesting to notice that the succession of one wet year following two dry years, which was repeated seven times without a break, from 1889-91 to 1907-1909, has at last broken down. These facts seem to point to the approaching close of the long period of preponderating dry





RELATION OF RAINFALL OF 1910 TO THE AVERAGE OF 1875-1909.



The area coloured Red had rainfall below the average, that coloured Blue had rainfall above the average.

years which has led many rainfall Observers with records extending over 30 years, or a little more, to suppose that the rainfall of the British Isles is steadily diminishing. The truth seems to be that long irregular spells in which wet years predominate alternate with similar spells in which dry years predominate.

Having looked at these general considerations, based on the figures for the various stations considered collectively, we have now to see how the different parts of the country shared the high rainfall of 1910. In order to show this, a map has been prepared from the figures in the last column of the Table, distinguishing, by colour, the parts of the country with excessive and deficient rainfall, the amount of excess and deficiency being shown in the usual way by lines drawn at intervals of 10 per cent. of the average.

The year, though wet on the whole in each of the great divisions, was dry in some parts of England, Scotland and Ireland, as is brought out vividly in the map. The pale pink tint, indicating less than the average, appears in the south of Ireland as a narrow band along the coast and just fails to reach the south-west of Wales. There is a patch in the middle of the west of Ireland, a narrow fringe along the north-west coast, a broad strip through the centre of the west of Scotland, an occasional strip on the north and east and a large area in the south-east of Scotland and the north-east of England. A small patch, probably just under the average, also occurs in the east of Essex. Only two stations out of the 219 showed a deficiency of more than 10 per cent., and these are represented by spots of the deeper red tint near the mouths of the Tweed and the Tees.

The blue colour dominates the map and the palest shade is merely a narrow border to the broad stretches of the tint showing more than 10 per cent. of excess, while the deeper tint, for more than 20 per cent., is far more extensively laid on than in any recent year. In Ireland it only forms a spot near Sligo; but in Scotland it appears both in the Southern Uplands and in a broad stretch of the eastern mountain mass in Banffshire, Aberdeenshire and Perthshire. The greatest extension of excessive rain is in Wales and the south-west and south of England, where the area with more than 20 per cent. of excess reaches from Cardigan and Cornwall to Sussex. Within it lie two darker areas still, showing more than 30 per cent. of excess in Devon and Somerset in the south, and in the counties of Monmouth, Brecon and Hereford in the north.

Viewed in its broadest lines, the map shows a belt of excessive

rainfall running from north-west to south-east from the north-west of Ireland to the south-east of England, and a roughly parallel belt of nearly average or slightly deficient rainfall from the west of Scotland to the north-east of England.

On comparing the map for 1910 with those for the previous four years, which have been published in the same form, we see how the area of excessive drought which surrounded the southern end of the Irish Sea in all those years has given way at last completely, leaving a very faintly dry fringe in the south of Ireland, but showing a great swing of the pendulum from considerable deficiency to tremendous excess in Wales and the south-west of England. The dryness of a less intense degree which haunted the east and south of England from 1906 to 1908 gave place to a moderate wetness in 1909, and this condition is maintained in 1910. The excessive wetness of the north-east of Ireland and the south-west of Scotland is nearly as pronounced this year as it was in the last four, and without pronouncing upon it definitely, we cannot help looking forward with interest to the possibility of this also changing in 1911. It seems to us that great importance may come to be attached to the wandering of areas of excess and deficiency in rainfall over the surface of the country. So far as we have been able to follow them they seem to show consistent rather than capricious changes from year to year; but the study of these phenomena is only beginning, for we are only beginning to be able to produce rainfall maps of a sufficient degree of accuracy to justify such discussion.

**COMPARISON OF THE RAINFALL OF THE YEAR 1910  
WITH THE AVERAGE OF THE PERIODS  
1900-09 & 1875-1909.**

**ENGLAND.**

DIV.	COUNTY and river-division.	STATION.	Average 00-09.	Average 1875- 1909.	Depth in 1910.	Difference from Average 1875-1909.	
						Per Amount.	cent
			in.	in.	in.	in.	
I.	London .....	2 St. Pancras (Camden Square)	24·57	25·11	25·36	·25	+ 1
II.	Surrey .....	5 Dorking (Denbies) .....	32·31	31·83	38·72	6·89	+ 22
	„ Kent .....	1 Tenterden .....	26·34	27·64	31·04	3·40	+ 12
	„ „ .....	2 Margate .....	21·03	23·29	28·52	5·23	+ 22
	„ „ .....	3 Selling (Harefield) .....	29·86	29·85	35·19	5·34	+ 18
	„ „ .....	4 Tonbridge (Beech Hurst).....	26·79	27·31	29·90	2·59	+ 9
	„ Sussex .....	1 Chichester (Westgate) .....	27·75	28·53	31·14	2·61	+ 9
	„ „ .....	3 Steyning .....	32·11	33·58	39·83	6·25	+ 19
	„ „ .....	5 Eastbourne .....	28·66	30·49	34·80	4·31	+ 14
	„ Hampshire .....	1 Ventnor (Consumption Hos.)	28·84	29·35	32·73	3·38	+ 11
	„ „ .....	5 Alresford (Ovington) .....	33·49	32·25	41·46	9·21	+ 29
	„ „ .....	8 Basingstoke (Sherborne St. John)	29·27	29·17	33·81	4·64	+ 16
III.	Hertfordshire .....	1 Tring (Cowroast Lock) .....	28·73	28·89	32·02	3·13	+ 11
	„ „ .....	4 Hitchin (Wratten) .....	25·13	25·16	27·73	2·57	+ 10
	„ Buckingham ..	4 Slough (Langley) .....	23·52	24·18	27·27	3·09	+ 13
	„ „ .....	5 Buckingham (Adstock Fields)	24·25	25·96	26·57	·61	+ 2
	„ Oxfordshire .....	3 Oxford (Magdalen College)...	23·31	24·58	25·82	1·24	+ 5
	„ „ .....	3 Bloxham Grove .....	26·39	27·03	31·74	4·71	+ 17
	„ Northampton .....	4 Wellingborough (Croyland Abbey)	23·32	25·17	25·70	·53	+ 2
	„ Cambridgeshire ..	2 Cambridge (Quy Hall).....	22·00	23·11	25·95	2·84	+ 12
	„ „ .....	3 March .....	22·37	23·03	23·26	·23	+ 1
IV.	Essex .....	3 Shoeburyness .....	18·69	19·28	21·10	1·82	+ 9
	„ „ .....	4 Chelmsford (High Street).....	22·66	23·02	24·37	1·35	+ 6
	„ „ .....	6 Langham Rectory .....	23·96	24·50	27·34	2·84	+ 12
	„ „ .....	7 Newport .....	24·06	24·92	25·35	·43	+ 2
	„ Suffolk .....	3 Rendlesham Hall.....	22·20	23·68	26·78	3·10	+ 13
	„ „ .....	5 Walsham-le-Willows .....	23·58	25·55	28·23	2·68	+ 11
	„ Norfolk .....	1 Geldeston [Beccles] .....	22·74	23·73	30·44	6·71	+ 28
	„ „ .....	2 Worstead (Dilham) .....	25·67	26·37	29·45	3·08	+ 12
	„ „ .....	3 Blakeney .....	22·64	23·83	27·34	3·51	+ 15
	„ „ .....	4 Swaffham .....	24·61	26·42	28·22	1·80	+ 7
V.	Wiltshire .....	3 Bishops Cannings.....	29·49	30·87	34·79	3·92	+ 13
	„ „ .....	4 Landford (Northlands) .....	30·04	30·11	37·26	7·15	+ 24
	„ „ .....	6 New Swindon .....	26·38	28·05	31·86	3·81	+ 14
	„ Dorset .....	1 Evershot (Melbury House) ...	37·70	38·20	46·09	7·89	+ 21
	„ „ .....	3 Wareham (South Street).....	32·10	31·39	37·94	6·55	+ 21
	„ South Devon ..	2 Devonport (Rowdens Res.)...	33·78	35·58	43·50	7·92	+ 22
	„ „ .....	2 Polapit Tamar [Launceston]..	38·62	38·27	49·05	10·78	+ 28
	„ „ .....	4 Ashburton (Druid House) ...	48·68	51·64	63·26	11·62	+ 23
	„ „ .....	6 Cullompton .....	33·22	35·18	46·79	11·61	+ 33
	„ „ .....	7 Rousdon [Lyne Regis] .....	32·38	33·54	37·76	4·22	+ 13
	„ North Devon .....	1 Lynton (Lee Abbey).....	37·90	37·92	47·47	9·55	+ 25

## ENGLAND—(continued).

DIV.	COUNTY and river-division.	STATION.	Average 00-09.	Average 1875- 1909.	Depth in 1910.	Difference from Average 1875-1909.
						Per Amount. cent
			in.	in.	in.	in.
V.	North Devon ..... 3	Okehampton (Oaklands).....	43·95	46·25	60·21	13·96 + 30
"	" ..... 3	Northam Vicarage .....	34·13	35·55	38·59	3·04 + 9
"	Cornwall ..... 2	Penzance (St. Clare) .....	41·34	42·59	46·94	4·35 + 10
"	" ..... 2	Falmouth (New Observatory)	41·95	42·69	53·14	10·45 + 24
"	" ..... 2	St. Austell (Trevarna).....	43·85	46·21	55·35	9·14 + 20
"	Somerset ..... 2	Street.....	28·73	29·94	37·26	7·32 + 24
"	" ..... 4	Holford (Woodlands House)	32·01	33·00	45·36	12·36 + 37
VI.	Gloucestershire ... 3	Stroud (Upfield) .....	29·03	29·81	34·94	5·13 + 17
"	" ..... 5	Clifton (Pembroke Road) ...	32·43	34·88	44·69	9·81 + 28
"	Herefordshire ..... 1	Ross (The Graig).....	26·65	28·78	35·49	6·71 + 23
"	" ..... 1	Kington (Lynhales).....	31·55	33·28	43·58	10·30 + 31
"	Shropshire ..... 3	Church Stretton (Wolstaston)	31·74	32·41	36·69	4·28 + 13
"	" ..... 4	Market Drayton (Buntingsdale)	29·39	28·57	33·34	4·77 + 17
"	Staffordshire ..... 3	Wolverhampton (Wrottesley)	24·65	26·39	27·69	1·30 + 5
"	" ..... 5	Cheadle (The Heath House)	32·10	32·65	36·50	3·85 + 12
"	Worcestershire ..... 2	Stourport (Lincombe Lock)..	25·09	26·17	29·22	3·05 + 12
"	" ..... 3	Northwick Park .....	28·99	29·15	34·58	5·43 + 19
"	Warwickshire ..... 1	Coventry (Kingswood) .....	27·50	28·98	29·89	·91 + 3
VII.	Leicestershire .. ... 4	Thornton Reservoir.....	25·73	26·44	29·12	2·68 + 10
"	" ..... 4	Belvoir Castle .....	24·80	26·05	28·86	2·81 + 11
"	Rutland..... 3	Market Overton .....	26·74	27·10	32·20	5·10 + 19
"	Lincolnshire ..... 3	Boston .....	23·21	23·35	27·08	3·73 + 16
"	" ..... 4	Louth (Westgate).....	27·30	28·74	31·36	2·62 + 9
"	" ..... 5	Brigg .....	25·83	26·21	26·86	·65 + 2
"	" ..... 6	Lincoln (Doddington).....	22·63	23·59	23·69	·10 + 0
"	Nottinghamshire ... 4	Eastwood Colliery .....	27·78	28·46	30·27	1·81 + 6
"	" ..... 5	Worksop (Hodsock Priory)...	23·15	24·46	24·87	·41 + 2
VIII.	Cheshire ..... 1	Macclesfield (The Park) .....	33·58	34·73	38·29	3·56 + 10
"	" ..... 1	Torrside Reservoir .....	42·95	44·46	48·98	4·52 + 10
"	" ..... 4	Chester (Christleton Hall) ...	27·69	28·32	31·16	2·84 + 10
"	South Lancashire... 3	Bolton (Smithills Hall) .....	46·80	46·29	51·42	5·13 + 11
"	Central " ..... 1	Stoneyhurst College.....	45·88	46·79	53·27	6·48 + 14
"	" ..... 3	Southport (Hesketh Park) ...	31·13	32·70	35·04	2·34 + 7
"	North " ..... 2	Ulverston (Poaka Beck) .....	54·39	53·07	47·01	6·06 — 11
"	" ..... 4	Wray Vicarage .....	43·74	44·34	45·90	1·56 + 4
IX.	West Riding..... 7	Sheffield (Redmires Res.) ...	40·25	41·31	43·68	2·37 + 6
"	" ..... 10	York (Cherry Hill) .....	23·50	24·66	24·55	·11 — 0
"	" ..... 10	Arncliffe Vicarage .....	62·37	61·49	69·33	7·84 + 13
"	" ..... 11	Wetherby (Ribston Hall).....	28·10	26·87	30·82	3·95 + 15
"	" ..... 11	Pateley Bridge (Castle Stead)	37·42	40·59	41·78	1·19 + 3
"	East " ..... 3	Patrington .....	22·40	24·05	24·84	·79 + 3
"	" ..... 3	Lowthorpe (The Elms) .....	25·09	27·35	26·71	·64 — 2
"	North " ..... 1	Leyburn (Bolton Hall).....	31·72	32·79	34·90	2·11 + 6
"	" ..... 4	Scarborough (Osgodby) .....	24·09	26·40	29·13	2·73 + 10
"	" ..... 6	East Layton Hall.....	27·99	28·71	29·09	·38 + 1
"	" ..... 6	Middlesbrough (Albert Park)	23·38	24·15	20·18	3·97 — 16
X.	Durham..... 2	Weardale W.W. (Waskerley)	32·19	32·04	35·49	3·45 + 11
"	" ..... 2	Sunderland (W. Hendon Ho.)	25·29	26·07	24·93	1·14 — 4
"	Northumberland ... 4	Hallington (Fawcett) .....	28·11	28·95	26·13	2·82 — 10

## ENGLAND—(continued).

DIV.	COUNTY and river-division.	STATION.	Average 00-09.	Average 1875- 1909.	Depth in 1910.	Difference from Average 1875-1909.	
						Per Amount, cent	
X.	Northumberland ... 5	Rothbury (Crag-side) .....	33·66	34·24	31·10	3·14	— 9
"	" ... 5	Howick Hall .....	29·69	28·78	28·31	·47	— 2
"	" ... 6	Pawston [Coldstream] .....	30·47	30·34	33·20	2·86	+ 9
"	Cumberland .....	Wigton (Brookfield) .....	39·24	36·68	35·21	1·47	— 4
"	" .....	Brampton (Denton House)...	32·98	34·92	33·11	1·81	— 5
"	" .....	Borrowdale (Seathwaite).....	126·16	129·48	134·24	4·76	+ 4
"	" .....	Whitehaven (Irish Street) ...	43·57	41·70	46·20	4·50	+ 11
"	Westmorland .....	Appleby (Castle Bank) .....	35·15	34·41	37·15	2·74	+ 8
XI.	Isles of Scilly .....	St Mary's .....	30·44	32·36	36·62	4·26	+ 13

## WALES.

XI.	Monmouth ... 3	Abergavenny (Larchfield) ...	34·83	37·11	50·28	13·17	+ 35
"	Glamorgan .....	Neath .....	50·75	49·93	60·90	10·97	+ 22
"	" .....	Cardiff (Ely Pumping Station)	41·02	42·28	50·56	8·28	+ 20
"	Cardmarthen .....	Cardmarthen (The Friary).....	47·85	48·80	52·11	3·31	+ 7
"	" .....	Llanwrda (Dolaucothy) ...	55·89	56·60	64·05	7·45	+ 13
"	Pembroke .....	Castle Malgwyn [Llechryd]...	43·54	43·70	51·50	7·80	+ 18
"	" .....	St. Davids .....	37·72	36·75	38·69	1·94	+ 5
"	" .....	Pembroke (Stackpole Court)	37·83	40·26	41·89	1·63	+ 4
"	Cardigan .....	Aberystwyth (Gogerddan) ...	45·81	45·46	54·51	9·05	+ 20
"	Brecon .....	Nanthir Reservoir [Aberdare]	57·23	59·39	70·24	10·85	+ 18
"	Radnor .....	Birmingham WW (Tyrmynydd)	59·27	62·06	74·06	12·00	+ 19
"	Montgomery .....	Lake Vyrnwy (Bank Cynon Isaf)	54·83	55·33	61·34	6·01	+ 11
"	Flint .....	Bodfari (Nantlys) .....	27·30	28·10	33·52	5·42	+ 19
"	Merioneth .....	Llanderfel (Palé Gardens) ...	47·34	47·21	57·84	10·63	+ 23
"	" .....	Tan-y-bwlch (The Gardens)..	62·93	62·25	69·87	7·62	+ 12
"	Carnarvon .....	Llandudno .....	29·76	30·36	36·65	6·29	+ 21
"	Anglesey .....	Llanerchymedd : Llywdiarth Esgob	39·66	38·57	41·49	2·92	+ 8

## ISLE OF MAN.

XI.	Isle of Man .....	Douglas (Borough Cemetery)	41·35	41·55	44·45	2·90	+ 7
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## SCOTLAND.

XII.	Wigtown .....	Stoneykirk (Ardwell House)..	38·52	36·40	41·10	4·70	+ 13
"	" .....	Corsewall .....	36·15	33·56	41·18	7·62	+ 23
"	Kirkcudbright .....	Auchencairn (Torr House) ...	48·94	46·80	51·75	4·95	+ 11
"	" .....	Dalry (Glendarroch) .....	55·17	52·60	61·92	9·32	+ 18
"	Dumfries .....	Durrisdeer (Drumlanrig Gdns.)	46·22	43·71	52·97	9·26	+ 21
"	" .....	Moffat (Ericstane) .....	51·65	53·09	54·13	1·04	+ 2
"	Roxburgh .....	Hawick (Branxholme) .....	32·27	33·80	33·45	·35	— 1
XIII.	Selkirk .....	Galashiels (Abbotsford Road)	31·87	33·26	33·37	·11	+ 0
"	Peebles .....	N. Esk Reservoir [Penicuik]	39·94	39·75	41·35	1·60	+ 4
"	Berwick .....	Marchmont House .....	32·52	33·76	28·86	4·90	— 15
"	Haddington .....	Haddington (District Asylum)	27·39	27·21	25·34	1·87	— 7
XIV.	Lanark .....	Biggar (Cambus Wallace) ...	29·09	30·14	35·45	5·31	+ 18
"	" .....	Airdrie (Hillend Reservoir)...	38·13	37·72	34·89	2·83	— 7

## SCOTLAND—(continued.)

DIV.	COUNTY and river-division.	STATION.	Average 00-09.	Average 1875- 1909.	Depth in 1910.	Difference from Average 1875-1909. Per Amount. cent
			in.	in.	in.	in.
XIV.	Ayr .....	Girvan (Pinmore) .....	53·19	49·77	54·78	5·01 + 10
"	" .....	Kilmarnock (North Craig Res.) .....	45·21	40·92	43·30	2·38 + 6
"	Renfrew .....	Glasgow (Queen's Park) .....	38·60	35·97	38·53	2·56 + 7
"	" .....	Shaws W.W. (Loch Thom) ...	67·46	64·47	72·98	8·51 + 13
XV.	Argyll (Mainland) ...	Mull of Kintyre .....	46·02	41·42	42·85	1·43 + 3
"	" .....	Kintyre (Skipness Castle) ...	49·95	49·44	45·57	3·87 — 8
"	" .....	Inveraray (Newtown) .....	71·25	68·67	68·21	·46 — 1
"	" .....	Kilmelfort (Arduaine) .....	59·13	57·60	55·01	2·59 — 5
"	" .....	Strontian (Laudale) .....	83·40	77·13	77·28	·15 + 0
"	" (Insular) .....	Islay (Eallabus) .....	51·26	48·79	48·29	·50 — 1
"	" .....	Mull (Quinish) .....	57·55	56·57	52·21	4·36 — 8
XVI.	Kinross .....	Loch Leven Sluice ..	36·70	36·54	34·93	1·61 — 4
"	Fife .....	Colinsburgh (Balcarres) .....	32·78	33·37	31·85	1·52 — 5
"	Perth .....	Balquhiddier (Stronvar) .....	74·43	73·77	75·39	1·62 + 2
"	" .....	Blair Atholl .....	33·36	32·35	38·55	6·20 + 19
"	Forfar .....	Dundee (Eastern Necropolis)	27·72	28·64	28·70	·06 + 0
"	" .....	Kirriemuir (Lintrathen) .....	35·32	35·33	36·33	1·00 + 3
XVII.	Kincardine .....	Fettercairn (The Burn) .....	35·13	34·75	35·67	·92 + 3
"	Aberdeen .....	Braemar .....	34·11	34·93	42·90	7·97 + 23
"	" .....	Logie Coldstone (Loanhead).	32·72	30·67	38·73	8·06 + 26
"	" .....	Aberdeen (Cranford House) ..	32·70	32·73	31·58	1·15 — 4
"	" .....	Ellon .....	30·42	30·58	31·31	·73 + 2
"	Banff .....	Keith Station .....	35·28	33·40	40·61	7·21 + 22
"	Elgin .....	Grantown-on-Spey .....	32·65	31·23	38·36	7·13 + 23
"	Nairn .....	Cawdor .....	29·38	29·33	31·35	2·02 + 7
XVIII.	West Inverness .....	Fort William .....	77·59	75·80	69·10	6·70 — 9
"	" .....	Arisaig House .....	62·88	61·75	58·89	2·86 — 5
"	" .....	Skye (Scalpay Island) .....	77·22	74·40	80·73	6·33 + 8
"	" .....	N. Uist (Lochmaddy) .....	43·81	47·93	46·05	1·88 — 4
"	East .....	Glenquoich .....	115·15	109·34	106·13	3·21 — 3
"	" .....	Fort Augustus (St. Benedict's)	45·19	44·53	42·22	2·31 — 5
"	" .....	Drumnadrochit .....	35·09	35·00	37·65	2·65 + 8
"	West Ross & Cromarty	Glencarron .....	87·59	86·50	78·79	7·71 — 9
"	" .....	Loch Torridon (Ben Damph)	90·40	83·93	82·32	1·61 — 2
"	" .....	Braemore House .....	61·89	60·02	58·66	1·36 — 2
"	" .....	Stornoway .....	50·49	48·40	53·03	4·63 + 10
"	East .....	Strathpeffer .....	30·85	30·35	33·61	3·26 + 11
"	" .....	Fearn (Lower Pitkerrie) .....	23·49	23·19	22·96	·23 — 1
XIX.	Sutherland .....	Invershin .....	34·19	33·17	37·73	4·56 + 14
"	" .....	Dunrobin Castle .....	33·07	31·90	33·46	1·56 + 5
"	" .....	Cape Wrath .....	35·88	39·58	44·81	5·23 + 13
"	Caithness .....	Wick .....	31·35	29·88	32·47	2·59 + 9
"	" .....	Thurso (Holburn Head) .....	35·41	32·71	31·75	·96 — 3
"	Orkney .....	Shapinsay (Balfour Castle) ...	30·57	32·13	27·08	5·05 — 16

## IRELAND.

XX.	Cork .....	Cork (The Palace) .....	36·74	38·66	41·12	2·46 + 6
"	" .....	Mallow (Summer Hill) .....	38·20	38·90	43·83	4·93 + 13



## IRELAND—(continued).

DIV.	COUNTY and river-division.	STATION.	Average 00-09.	Average 1875- 1909.	Depth in 1910.	Difference from Average 1875-1909.	
						Per Amount.	cent
XX.	Kerry ..	Kenmare (Derreen) .....	in. 70·26	in. 68·27	in. 67·79	in. ·48	— 1
	„	Valencia.....	56·10	56·01	52·81	3·20	— 6
	„	Killarney (District Asylum)..	50·48	54·81	58·88	4·07	+ 7
	Waterford .....	Waterford (Brook Lodge) ...	40·12	39·57	39·60	·03	+ 0
	„	Glenam [Clonmel] .....	40·86	41·59	41·24	·35	— 1
	Tipperary .....	Nenagh (Castle Lough) .....	38·55	39·43	41·08	1·65	+ 4
	Limerick .....	Foynes .....	39·23	39·60	44·88	5·28	+ 13
	Clare .....	Carrigaholt Castle .....	36·97	36·60	42·01	5·41	+ 15
	„	Newmarket-on-Fergus(Carrigoran)	41·99	42·00	41·53	·47	— 1
	„	Miltown Malbay (Ballyvasken)	46·22	45·11	44·73	·38	— 1
XXI.	Wexford .....	Enniscorthy (Ballyhyland) ...	42·13	42·70	46·86	4·16	+ 10
	„	Gorey (Courtown House) ...	33·34	34·99	39·63	4·64	+ 13
	Kilkenny .....	Kilkenny (Lavistown House)	30·92	31·15	34·74	3·59	+ 12
	Wicklow .....	Laragh (Glendalough).....	58·10	58·70	69·02	10·32	+ 18
	„	Bray (Fassaroe).....	39·80	41·10	47·90	6·80	+ 17
	Carlow .....	Carlow (Browne's Hill) ..	34·30	34·36	39·27	4·91	+ 14
	King's County .....	Birr Castle.....	32·77	32·86	34·43	1·57	+ 5
	Kildare .....	Monasterevan (Moore Abbey)	32·18	32·50	36·03	3·53	+ 11
	„	Straffan House .....	30·56	31·61	35·93	4·32	+ 14
	Dublin .....	Balbriggan (Ardgillan) .....	28·62	29·57	34·71	5·14	+ 17
XXII.	Meath .....	Moynalty (Westland) ..	36·99	37·19	41·92	4·73	+ 13
	Westmeath .....	Mullingar (Belvedere).....	35·89	36·15	41·19	5·04	+ 14
	Louth .....	Dundalk (Farndreg).....	31·16	30·91	31·53	·62	+ 2
	Galway .....	Ballinasloe.....	37·08	36·64	36·05	·59	— 2
	„	Tuam (Gardenfield).....	44·06	42·97	46·96	3·99	+ 9
	Mayo .....	Cong (The Glebe) .....	49·78	48·90	50·36	1·46	+ 3
	„	Westport (St. Helen's) .....	47·10	46·20	47·04	·84	+ 2
	„	Crossmolina (Enniscoe) .....	54·37	52·87	52·01	·86	— 2
	Sligo .....	Collooney (Markree Obs.) ...	44·40	42·71	53·38	10·67	+ 25
	Cavan .....	Belturbet (Cloverhill) .....	35·52	33·74	37·56	3·82	+ 11
XXIII.	Armagh .....	Armagh (Observatory).....	32·09	31·88	32·51	·63	+ 2
	Down .....	Seaforde.....	39·47	38·91	38·62	·29	— 1
	„	Donaghadee .....	31·71	31·70	33·58	1·88	+ 6
	Antrim .....	Belfast (Queen's University)..	35·89	33·81	40·57	6·76	+ 20
	„	Ballymena (Harryville) .....	42·52	40·84	46·63	5·79	+ 14
	„	Bushmills (Dundarave) .....	37·91	37·56	41·13	3·57	+ 9
	Londonderry .....	Garvagh (Moneydig) .....	38·88	38·86	42·01	3·15	+ 8
	„	Londonderry (Creggan Res.)	42·94	41·78	48·63	6·85	+ 16
	Tyrone .....	Omagh (Edenfel) .....	42·30	39·38	43·73	4·35	+ 11
	Donegal .....	Killybegs .....	60·95	60·60	64·94	4·34	+ 7
XXIV.	„	Convoy .....	48·64	45·94	53·85	7·91	+ 17
	„	Dunfanaghy (Horn Head) ...	45·18	44·40	44·06	·34	— 1

## EXTREMES OF RAINFALL IN 1910.

Greatest Rainfall, at Llyn Llydaw Copper Mill, Carnarvonshire... 187·06 in.  
 Least Rainfall, at Stockton, Ropner Park, Durham ..... 19·44 ,,

## ENGLAND.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
X. The Sty, D.....	144·40	X. Stockton (Ropner Park).....	19·44
„ Mickleden .....	138·59	„ „ (Rimswell) .....	20·17
„ Borrowdale (Seathwaite).....	134·89	IX. Middlesbrough (Albert Park) ..	20·18
„ Styhead Tarn .....	126·70	IV. Bradwell-on-Sea (Bradwell Hall)	20·53
„ Dungeon Ghyll .....	119·38	IX. Patrington (Spurn Head) .....	20·61
„ Little Langdale (Fell Foot) ..	116·38	„ Middlesbrough (Linthorpe) ....	20·65

## MONMOUTH AND WALES.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
XI. Snowdon (Llyn Llydaw Copper Mill)	187·06	XI. Overton (Fairleigh).....	27·56
„ Llanbedr-y-Cennin (Llyndulyn)	105·81	„ Gresford (Horsley Hall) .....	27·62
„ Taff Fechan (Neuadd Res.) No. 6	104·06	„ Rhyl (Sewage Works) .....	28·79
„ Plynlimon .....	102·50	„ Prestatyn (Edlestone House) ..	29·42
„ Lake Cowlyd (Ffrith Carreg Wen)	101·12	„ Gresford (Trewythen) .....	30·44
„ Blaenau Festiniog (Oakley Quarries)	100·68	„ Wrexham (Gwersyllt).....	31·32

## SCOTLAND.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
XVIII. Loch Quoich (Laon) .....	145·45	XIII. Coldstream (The Hirsell) .....	22·86
„ „ „ (Kinlochquoich) ..	109·75	XVIII. Fortrose (Hollyside) .....	24·17
„ Loch Shiel (Glenfinnan) .....	108·58	XIII. Coldstream (Lochton).....	24·25
„ Loch Quoich (Glenquoich) ....	106·13	„ Davidson's Mains (Broomfield) ..	24·48
„ Achnashellach (Glennuaig) ....	106·10	XVI. Carnbee (Ovenstone W.W.) ....	24·85
„ Loch Arkaig (Glen Dessary) ..	103·34	XIII. { Drummorie [Musselburgh] .... }	25·11
		„ { Dalkeith Gardens .....	

## IRELAND.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
XX. Lough Caragh (Lickeen) .....	83·30	XXIII. Lurgan (Belle Vue).....	29·20
„ Gap of Dunloe (Gearahameen)	80·60	„ Banbridge (Corbet Reservoir) ..	30·35
XXI. Laragh (Glendalough) .....	69·02	XXII. Ruskey .....	30·57
XXII. Dugort (Slievemore Hotel) ....	68·46	XXIII. Loughgall (Manor House) ....	30·73
XX. Kenmare (Derreen).....	67·79	XXI. Victoria Lodge [Meelick].....	30·74
„ „ (Dunkerron) .....	65·09	XXIII. Moyallon House [Portadown] ..	30·81

## NOTE.

Second gauges and those at Lighthouses are excluded from the above, as also are those to which a ? has been attached in the General Table. In selecting the minima, records are only used from gauges the receiving surface of which is known to be less than 3 feet above the ground. The highest only of the records from the Snowdon Power Company's gauges in Carnarvonshire has been quoted, and records from the Isles of Scilly and the Channel Islands have been excluded. Italics signify corrected values.

BRITISH RAINFALL, 1910.

PART III.

GENERAL TABLE

OF

TOTAL RAINFALL IN 1910,

AT NEARLY

5000 STATIONS

IN THE

BRITISH ISLES,

WITH THE NAMES OF

THE OBSERVERS

OR OTHER

AUTHORITIES FOR THE OBSERVATIONS.

## EXPLANATORY NOTE.

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The counties of England and Wales are divided up into numbered areas, corresponding to the river-basins. A full description of these sub-divisions is given in a special article in Part I., with detailed maps of all the sub-divisions in each division (pp. 37—56).

The divisions in the General Table are shown on the map on p. 49. They are the same as those adopted by the Registrars General of England and Scotland. The stations in each sub-division are arranged nearly in the order of their latitude from South to North.

For convenience, the first name is almost always that of a place given in *Bradshaw* or the *Post Office Guide*; the second name is added to fix the site of Observation more closely. In a very few instances, when in [ ] instead of ( ), it is that of the nearest town in an adjoining county; *e.g.*, “Haslemere (Weycombe)” means Weycombe near Haslemere, both in one county; but “Geldeston [Beccles]” means Geldeston near Beccles, which is in another county.

In the column headed “diameter,” figures in old-style type indicate the length of the sides of rectangular mouthed gauges.

The letter D denotes that a copy of the daily record has been received, that it is complete for the year, and that the printed amount is the correct total of the daily entries. The letter M indicates that the gauge is read only on the first of each month. (R) denotes that the gauge used is a self-registering or a recording instrument, the correct reading of which depends upon the mechanism being in working order.

A few entries of total rain will be found in italics—indicating that the values have been corrected, *e.g.*, when monthly gauges are read on a date other than the 1st, or when snow has been lost, or when the amount for a short period has been computed from other records.

A dagger (†) denotes that the rain gauge has been visited and examined by the Editor or his assistants, and a section (§) that it has not been seen by the Editor, but is subject to inspection by the Meteorological Office or by one of the Meteorological Societies. A note of interrogation (?) implies doubt, not necessarily error, nor does it cast any suspicion on the accuracy of the Observer. The absence of information is indicated by ...

In the column of altitudes the sign ⌒ means that a series of levels has been taken from the gauge to an Ordnance Survey bench mark; †, that the height has been ascertained approximately from the Ordnance Survey maps; and B, that the altitude has been taken by the barometer.

## COUNTY INDEX TO GENERAL TABLE.

### E N G L A N D .

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Berkshire .....	224	Hertfordshire .....	227	Rutland .....	264
Buckinghamshire...	228	Huntingdonshire...	233	Shropshire.....	258
Cambridgeshire ...	234	Kent .....	213	Somerset .....	250
Cheshire.....	270	Lancashire .....	271	Staffordshire...	259
Cornwall .....	249	Leicestershire .....	263	Suffolk .....	238
Cumberland .....	290	Lincolnshire .....	264	Surrey .....	209
Derbyshire .....	267	London .....	206	Sussex .....	217
Devonshire .....	245	Middlesex.....	226	Warwickshire .....	261
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Essex .....	236	Northamptonshire.	231	Worcestershire ...	260
Gloucestershire....	255	Northumberland ..	289	Yorkshire .....	278
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### W A L E S .

Anglesey .....	303	Carnarvon.....	302	Merioneth .....	301
Brecon .....	297	Denbigh.....	300	Montgomery .....	299
Cardigan .....	297	Flint ...	300	Pembroke .....	296
Carmarthen .....	296	Glamorgan .....	294	Radnor .....	299

### I S L A N D S .

Guernsey .....	303	Isle of Man .....	303	Isles of Scilly .....	303
Jersey .....	303	Sark .....	303		

### S C O T L A N D .

Aberdeen .....	316	Fife .....	313	Orkney .....	320
Argyll .....	311	Forfar .....	315	Peebles.....	306
Ayr .....	309	Haddington .....	307	Perth .....	314
Banff .....	317	Inverness .....	317	Renfrew .....	309
Berwick.. .....	306	Kincardine .....	316	Ross and Cromarty	319
Bute .....	311	Kinross .....	313	Roxburgh .....	305
Caithness .....	320	Kirkcudbright .....	304	Selkirk.....	306
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Dumbarton .....	310	Midlothian .....	307	Sutherland .....	319
Dumfries .....	305	Nairn.....	317	Wigtown .....	304
Elgin or Moray ...	317				

### I R E L A N D .

Antrim .....	327	Kerry.....	321	Monaghan .....	327
Armagh.....	327	Kildare .....	324	Queen's County ...	324
Carlow .....	324	Kilkenny ..	323	Roscommon .....	326
Cavan.....	327	King's County .....	324	Sligo.....	326
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Detailed Maps showing the sub-division of each county into River Basins are given in Part I., pp. 51—65.

# ENGLAND AND WALES.

## DIVISION I.—LONDON.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
1.—THAMES—Right Bank Tributaries.							
LAMBETH,							
D§ West Norwood (Thornlaw Rd.)	W. Marriott, Esq. ....	5	1	0	221	27·83	191
D „ (Brockwell Park) .....	London County Council	8	1	3	140	30·58	183
D „ (Brixton Hill) .....	Met. Water Board .....	5	3	2	115	24·91	196
D „ „ (St. James's Road) ...	C. A. Bracey, Esq. ....	5	1	0	...	26·01	174
D BATTERSEA (Battersea Park) ...	London County Council	5	9	8	23	23·95	174
D† „ (Water Works) .....	Mr. F. J. Goldsworthy	5	3	6	21	23·69	156
D „ Nine Elms (Heathwall)	M Fitzmaurice Esq CMG	8	37	0	54	22·94	181
WANDSWORTH,							
D Lower Tooting (Longley Road)	Mrs. G. B. Latham ...	5	1	0	51	26·09	191
D† „ Streatham (Southwark W.W.)	Met. Water Board .....	5	4	1	120	25·29	182
D „ Clapham Park (Atkins Road)	D. W. Horner, Esq. ...	5	1	0	120	25·10	174
D „ (Putney Heath) .....	Met. Water Board .....	5	1	0	180	26·17	185
D „ Wimbledon Pk. (Woodhouse)	Sir A. E. Bateman ...	5	1	1	150	29·21	...
D§ „ Wandsworth Com. (Patten Rd)	F. C. Bayard, Esq. ...	5	1	0	100	25·20	190
D Clapham Com. (Macauley Rd.)	Miss A. H. Boyson .....	5	1	0	75	25·47	157
D „ „ „ (The Chase) ...	H. N. Prentice, Esq. ...	5	1	5	70	24·48	...
D CAMBERWELL (Dulwich Wood Pk)	F. C. Bayard, Esq. ...	5	1	2	276	28·60	183
D† „ Nunhead (Southwark W.W.)	Met. Water Board .....	5	1	0	173	24·89	190
D DEPTFORD (Telegraph Hill) .....	London County Council	5	9	6	135	23·18	165
D† „ (Kent Water Works)	Met. Water Board .....	5	1	0	20	24·53	159
GREENWICH							
D† (Deptford Pumping Station)	M Fitzmaurice Esq CMG	10	4	0	18	29·39	162
D† „ (Royal Observatory) No. 8	F. W. Dyson, Esq. F.R.S.	8	1	0	150	27·39	187
D† „ ( „ „ ) No. 6	„ „ „	8	0	5	150	28·06	195
† „ ( „ „ ) No. 7	„ „ „	8	0	5	155	26·95	196
† „ ( „ „ ) No. 5	„ „ „	8	10	0	165	27·27	203
† „ ( „ „ ) No. 4	„ „ „	8	21	6	176	24·70	195
† „ ( „ „ ) No. 3	„ „ „	8	38	4	193	21·65	192

## DIVISION I.—LONDON.—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.		
		Diameter	Height Above Ground		Height Above Sea Level		1910	
		in.	ft.	in.	feet.	inches.		
1.—THAMES—Right Bank Tributaries—(con.)								
LEWISHAM,								
	Sydenham (Lethen Grange)	G. F. Chambers, Esq...	5	1	5	220	27·81	...
D	„ Forest Hill (Dartmouth Rd.)	F. C. Bayard, Esq. ...	5	1	0	220	28·04	153
D†	„ „ „ (Barr Beacon)...	Met. Water Board.....	5	1	0	344	26·69	193
D	WOOLWICH, Eltham (High St.).	„ „ „ .....	5	1	0	245	27·59	165
2.—THAMES—Left Bank Tributaries.								
D§	PADDINGTON (Harrow Road) ...	C. W. Heinemann, Esq.	8	1	0	101	24·41	185
D†	KENSINGTON (V. & A. Museum).	J. Storr, Esq. ....	8	0	6	27	22·53	190
D	„ „ (Holland House) ...	Mr. C. Dixon .....	5	4	0	68	23·18	174
D	„ „ (Addison Gardens).	G. H. M. Whish, Esq..	5	1	1	23	22·99	179
D†	„ „ (Campden Hill) ...	Met. Water Board.....	8	1	0	142	26·64	189
D	HAMMERSMITH (The Creek).....	M. Fitzmaurice, Esq. CMG	8	20	0	35	23·88	186
FULHAM,								
D†	W. Kensington (Edith Rd.)	G. Searle, Esq. ....	5	0	10	16	22·80	178
D	CHELSEA (Lots Road) ...	M. Fitzmaurice, Esq. CMG	8	33	6	54	22·21	192
D	„ „ (Paulton Square) .....	A. Hampton Brown, Esq.	5	1	0	21	22·85	190
D	„ „ (Pumping Station) ...	M Fitzmaurice Esq CMG	8	1	0	19	24·14	178
D	„ „ (Physic Garden) .....	W. Hales, Esq. ....	5	1	0	20	24·54	191
D	„ „ (St. Luke's Gardens) ..	T. W. E. Higgins Esq. CE	5	1	0	25	24·47	192
D	WESTMINSTER (Grosvenor Wharf)	Mr. W. A. Cairns .....	4	28	0	48	21·49	177
D	„ „ (King's Scholars Pond)	M. Fitzmaurice, Esq CMG	8	11	6	31	26·21	171
D	„ „ (Winchester Street) ..	Mr. G. T. Osborn .....	5	8	0	21	21·90	182
D	„ „ „ „ „ „ „ „ ..	„ „ „ „ „ „ „ „ ..	4	6	6	21	21·95	182
D	„ „ „ „ „ „ „ „ ..	„ „ „ „ „ „ „ „ ..	4	6	6	21	21·52	...
D	„ „ (Chester Square) .....	Mrs. Lethbridge.....	5	10	0	35	22·39	188
D†	„ „ (Buckingham Palace)	Mr. W. Osborne.....	5	8	6	35	23·97	181
§	„ „ (St. James's Park) ...	Meteorological Office ..	8	1	0	54	23·36	201
„	„ „ (Spring Gardens) ... (1)	M Fitzmaurice Esq CMG	8	66	4	95	21·75	...
„	„ „ „ „ „ „ „ „ .. (2)	„ „ „ „ „ „ „ „ ..	12	65	11	95	20·83	...
„	„ „ „ „ „ „ „ „ .. (3)	„ „ „ „ „ „ „ „ ..	8	6	0	35	22·67	...
D	„ „ (Strand) .....	J. J. Steward, Esq. ...	5	40	0	80	24·02	174
ST. MARYLEBONE								
	(Northwick Terrace) .....	E. Heron Allen, Esq...	5	0	5	130	25·72	...
D§	„ „ Regent's Pk (R Botanic Gdns)	J. B. Sowerby, Esq. ...	8	0	8	126	25·94	168
„	„ „ (Hamilton Terrace) .....	Miss Cobb .....	5	0	11	125	23·76	...
D†	HAMPSTEAD (Barrow Hill Res.)..	Met. Water Board.....	5	3	4	197	22·95	187
D§	„ „ (Akenside Road) ...	E. L. Hawke, Esq. ...	5	0	8	285	25·94	193
§	„ „ „ „ „ „ „ „ ..	„ „ „ „ „ „ „ „ ..	8	1	0	285	25·80	...
„	„ „ (Arkwright Road) ...	E. Farmiloe, Esq. ....	5	0	10	...	24·82	...
D	„ „ (Southend Road) ...	J. E. Whiting, Esq. ...	5	1	6	240	25·32	201
„	„ „ (Kemplay Road) ..	C. Clarke, Esq. ....	5	2	0	...	23·66	...
D†	„ „ (Kidderpore Res.) ...	Met. Water Board .....	5	2	0	323	23·99	166
„	„ „ (New End Square) ..	Mr. W. Pikesley .....	5	1	0	...	22·76	...
D†	„ „ Observatory .....	E. L. Hawke, Esq. ...	8	1	0	451	24·80	193
D†	„ „ (Golders Hill) .....	London County Council	5	9	8	350	23·35	157
D†	St. PANCRAS (Camden Square)...	Dr. H. R. Mill .....	8	0	9	111	25·36	186
†	„ „ „ „ „ „ „ „ weekly	„ „ „ „ „ „ „ „ ..	5	1	2	111	25·22	...
D†	„ „ „ „ „ „ „ „ Snow g.	„ „ „ „ „ „ „ „ ..	8	3	5	113	23·56	172

DIVISION I.—LONDON—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
2.—THAMES—Left Bank Tributaries—(con.)						
† St. PANCRAS (Camden Sq.) float g.	Dr. H. R. Mill .....	8	0	11	111	24·62
D „ (St. Augustine's Rd.)	A. E. Payne, Esq. ....	5	1	0	150	25·01
D ISLINGTON (Highbury Terrace) ..	J. A. G. Simpson, Esq. ....	5	1	0	...	26·16
„ Crouch End (Arrington Ho.)	H. Sowerby Wallis, Esq. ....	5	1	0	250	26·58
STOKE NEWINGTON						
D† „ (New River Filter Beds)	Met. Water Board .....	5	1	0	101	23·57
D† „ „ „ „ Reservoirs)	„ „ „ „ „ .....	5	4	0	105	26·19
D HACKNEY (Clapton Pond) .. (R)	Norman Scorgie, Esq. CE ..	8	2	6	70	23·22
D† HOLBORN (Stone Yard) .....	E. F. Spurrell, Esq. ...	5	12	0	89	25·13
D† FINSBURY (New River Head) ...	Met. Water Board .....	5	3	8	100	22·09
CITY OF LONDON (Guildhall) ...	F. Sumner, Esq., C.E. ..	8	5	1	95	24·40
D „ „ „ „ „ „ „ „ „	„ „ „ „ „ „ „ „ „	8	2	6	46	23·50
D STEPNEY (Mile End) .....	J. Metson, Esq. ....	5	10	0	50	25·64
D POPLAR, Isle of Dogs (Stewart Rd.)	M Fitzmaurice Esq CMG ..	8	1	0	15	25·13
„ „ (Island Gardens) .....	London County Council ..	5	4	6	...	25·29
D „ „ (Old Ford) .....	Met. Water Board .....	8	0	9	19	21·99
D „ „ „ „ „ Penstocks) ...	M Fitzmaurice Esq CMG ..	8	1	0	35	21·30
WOOLWICH (N. Woolwich Pumpg. Sta.)	„ „ „ „ „ „ „ „ „	8	0	9	12	24·49
D „ „ (Barking Outfall) ...	„ „ „ „ „ „ „ „ „	8	0	6	6	21·89

A map of this Division, showing the sub-divisions, will be found in Part I.



## DIVISION II.—SOUTH EASTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with -01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
<b>SURREY.</b>						
<b>1.—ARUN.</b>						
† Haslemere (Clammer Hill) .....	Col. Farquhar Glennie..	5	1 0	400	37·60	174
† „ (Grayswood Hill) ...	late B.E.C. Chambers Esq	5	0 6	580	42·82	...
Dunsfold (Durfold) .....	Miss Billiter .....	5	1 0	225	30·31	...
„ Rectory .....	Rev. W. H. Winn.....	5	1 0	170	30·85	...
d Oakwood Vicarage.....	Rev. Canon J. Shearme	5	0 9	285	32·94	185
Abinger (Feldemore) .....	E. Waterhouse, Esq....	5	3 6	505	32·90	...
d „ (Joldwynds, Holmbury)	Mr. F. Cornish .....	5	1 0	550	37·33	175
<b>2.—MEDWAY.</b>						
d Lyden Croft [Edenbridge] .....	Surg.-Gen. C. Planck ..	8	1 0	212	29·24	194
<b>3.—THAMES—Darent.</b>						
Chelsham (Fairchildes) .....	A. S. Daniell, Esq. ...	8	1 0	600	36·33	...
„ „ „ .....	Mr. G. Mansfield .....	5	0 10	600	35·69	...
d Addington (Hares Bank).....	F. C. Bayard, Esq. ...	8	1 0	331	33·28	198
d† „ Hills Reservoir.....	„ „ „ .....	8	0 9	473	31·60	201
d South Norwood (Woodvale).....	„ „ „ .....	5	1 0	216	30·14	216
„ „ (Holmesdale Road)	E. A. Martin, Esq.....	5	...	...	28·93	...
„ „ (Apsley Road).....	W. H. Cullis, Esq.....	5	1 2	125	27·84	...
d Norwood (Auckland Road) .....	Miss J. Cooper .....	5	1 5	230	25·65	173
d Penge (Anerley Town Hall).....	H.W. Longdin, Esq. C.E.	5	1 6	120	27·48	178
<b>4.—THAMES—Wandle.</b>						
d§ Upper Gatton.....	F. Druce, Esq. ....	5	1 0	601	33·19	196
d Caterham Reservoir .....	A. E. Cornwall-Walker, Esq.	5	1 0	705	35·60	189
d Chaldon Rectory .....	F. C. Bayard, Esq. ...	5	1 0	542	33·94	171
d Chipstead (Eyhurst) .....	D. Morphew, Esq.....	5	0 11	538	32·12	189
„ (Nepicar) .....	F. C. Bayard, Esq. ...	5	1 0	550	30·25	...
d Caterham Asylum .....	Dr. P. E. Campbell ...	5	1 0	660	34·07	197
d „ Valley (Bradenhurst).	Henry Haes, Esq.....	5	1 0	600	35·05	207
d Warlingham (The Larches) .....	Mrs. B. F. Harris .....	5	1 0	615	37·86	226
d§ „ (Redvers Road) ..	R. H. Curtis, Esq.....	8	1 0	610	36·13	213
d „ (Egremont) .....	H. Rogers, Esq.....	8	1 0	614	36·68	200
Caterham Valley (Mount Vernon)	M. Ll. Evans, Esq. ...	5	0 10	500	34·22	177
d „ „ Dépôt .....	A. E. Cornwall-Walker, Esq.	5	1 6	431	35·10	200
d Banstead (Burgh Heath) .....	Capt. E. R. Taylor.....	5	1 0	571	33·85	184
d „ „ „ Reservoir) ..	W. Vaux Graham Esq CE	5	1 0	570	34·34	161
d Chipstead (How Green Reservoir)	„ „ „ .....	5	1 0	528	33·15	167
d Kenley (Hazelea) .....	Mrs. Carr Dyer .....	5	1 0	281	30·74	194
d „ (Shord Hill) .....	A. Wildy, Esq. ....	5	0 10	450	34·46	201
d „ Pumping Station.....	A. E. Cornwall-Walker, Esq.	5	1 0	264	32·70	181
d Purley (Riddlesdown Road) No.1	J. Edmund Clark, Esq.	5	1 0	365	33·45	196
d „ „ „ „ No.2	„ „ „ .....	5	1 0	365	33·87	196
d „ (Pumping Station) .....	A. E. Cornwall-Walker, Esq.	5	1 0	215	32·11	190
d „ (Russell Hill) .....	C. J. Barker, Esq.....	8	1 0	314	29·42	...
d Sanderstead (Beechwood Road)..	E. Alexander, Esq. ...	5	0 10	370	31·57	195
d South Croydon (Avondale Road)	Dr. G. J. Hinde, F.R.S.	5	1 0	225	32·18	207
d Wallington (Cotswold).....	F. C. Bayard, Esq. ...	5	4 1	140	32·03	207
„ „ „ .....	„ „ „ .....	8	1 0	140	31·39	213
d Carshalton (Sewage Works).....	Baldwin Latham Esq CE	5	1 0	118	27·33	169

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
SURREY—(con.)						
4.—THAMES—Wandle—(con.)						
D Beddington (Foxley Lane) .....	F. C. Bayard, Esq. ....	5	1 0	350	32.55	197
D „ (Sewage Farm) .....	„ „ „ .....	5	1 0	129	26.38?	192
D§ „ (Riverside).....	Miss Rostron .....	5	1 0	120	30.06	190
D Croydon (Waddon New Road)...	G. Corden, Esq.....	5	1 0	146	30.04	191
D „ (Park Hill Rise).....	H. F. Parsons, Esq., M.D.	5	1 3	240	27.93	191
D „ ( „ „ House).....	Baldwin Latham Esq CE	8	1 0	265 A	31.51	201
D Beddington Corner (Millgreen Rd)	F. C. Bayard, Esq. ....	5	4 0	80	29.48	181
Thornton Heath (Thornton Lodge)	H. Wyndham, Esq. ....	...	...	...	28.82	...
D Wimbledon (Kingston Road) ...	H. A. Marshall, Esq....	5	1 0	54 A	28.35	205
D „ Park (Park View)...	S. Single, Esq. ....	5	1 0	150	27.05	181
D „ (Sewage Works).....	C. H. Cooper, Esq., C.E.	5	1 0	55 A	24.52?	177
5.—THAMES—Mole.						
Newdigate (Cudworth) .....	R. J. Wallis, Esq.....	5	1 0	270 ?	32.92	201
D Outwood (The Orchards) .....	F. C. Bayard, Esq. ....	5	1 0	280	26.82?	207
† Dorking (Fir Tor) .....	F. Taylor, Esq. ....	5	1 0	300 B	36.72	...
D „ (Stone House, Rose Hill)	Lt.-Col. J. R. Greenhill	5	1 0	240	36.38	203
D „ (West Street) ... ..	Mrs. W. A. Marsh.....	8	26 0	224 T	38.11	167
D „ (Denbies).....	Mr. J. Ansell .....	5	0 9	610 T	38.72	205
D† „ (Pixham Firs).....	J. Croft Deverell, Esq..	8	0 6	150 ?	34.98	195
D Brockham (North Lodge) .....	H. R. Kempe, Esq. ....	8	0 9	160 T	34.16	187
D Reigate (Hartwood).....	R. W. Clutton, Esq....	5	1 0	174	29.93	193
D South Nutfield (Hale Edge).....	R. C. Grant, Esq. ....	5	1 0	270	28.27	190
D Earlswood (Sewage Farm) .....	F. T. Clayton, Esq., C.E.	5	1 6	196 A	27.71	175
D Redhill (Station Road) .....	W. H. Fowler, Esq. ....	5	1 6	270 A	30.78	173
D „ (Wigmore) .....	W. A. Gunner, Esq....	5	1 0	250 B	32.81	189
D „ (Warwick Road).....	A. E. Cornwall-Walker, Esq.	5	1 6	284 A	33.31	203
D Reigate (Holmfels) .....	T. Jackson, Esq. ....	5	1 2	260 T	28.23	187
D „ (The Gas Works).....	W. H. Price, Esq. ....	8	1 0	275	30.95	190
D „ (The Knowle) .....	G. Weston, Esq. ....	5	1 0	390 T	31.02	192
D „ (Wray Lodge) .....	A. Rosling, Esq. ....	5	1 0	316 T	32.37	191
D „ (Northcote) .....	F. C. Pawle, Esq. ....	5	1 0	375	29.82	207
D „ (Castle Grounds) .....	F. T. Clayton, Esq., C.E.	5	1 6	350 A	28.95	186
D „ (Laglands) .....	J. Welch, Esq. ....	5	1 2	375 T	34.09	193
D Redhill (Sid Court) .....	Miss Janvrin .....	5	1 0	290	33.17	196
D Nutfield Priory .....	Mrs. Fielden .....	8	1 2	468 A	30.11	226
D „ „ .....	Mr. J. Moffatt .....	8	1 2	331 T	31.50	222
D „ (Holmesdale) .....	C. Trentham Maw, Esq.	8	3 0	500 T	29.74	203
D Blechingley House .....	Rev. Canon AHS Barwell	5	1 0	550 A	36.35	207
Betchworth (Sandhills).....	C. J. Whittington, Esq.	8	3 0	250 T	28.18	...
D „ (The Holmes) .....	F. R. Rushton, Esq....	5	0 8	322 T	35.32	211
D Reigate (Hatherlow Observatory)	S. T. Klein, Esq.....	5	0 9	405	29.72	189
Dorking (High Ashurst) .....	Mr. A. Houghton .....	5	3 0	550	37.10	...
Mickleham (Juniper Hall) .....	G. MacAndrew, Esq....	5	1 0	185	34.82	...
Headley (The Hurst) .....	F. C. Bayard, Esq. ....	5	1 3	450	36.86	...
D Walton-on-the-Hill (Hedgecroft)	G. R. Crompton, Esq....	5	1 0	570 T	33.87	202
D „ „ (Walton Manor)	Mr. J. Millichamp.....	5	1 0	600	32.96	193
D „ „ (Shirley) .....	E. P. Hawthorn, Esq....	5	0 6	650	31.21	177

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
SURREY—(con.)							
5.—THAMES—Mole—(con.)							
Leatherhead (Downside) .....	A. Tate, Esq. ....	5	1	0	250	31·52	182
§ „ (Emlyn House) ..	A. T. Miller, Esq. ....	5	1	0	160	32·17	...
D Ashtead (Hill Field).....	C. F. Howell, Esq. ....	5	1	0	215	30·81	197
D „ (D'Abernon Chase).....	Sir W. Vincent, Bart..	5	1	0	280 T	27·50	159
D „ (Barnet Wood Lane) ...	Rev. Theodore E. R. Phillips	5	1	0	167 T	27·36	176
D „ (Oakfield Road) .....	H. F. Acocks, Esq. ...	5	0	9	189	28·66	177
D „ (The Hut) .....	F. C. Bayard, Esq. ....	5	0	5	200	30·29	179
Cobham (Hatchford Park) .....	Sir H. B. Samuelson, Bart	8	1	0	170	28·47	...
„ (Fairfield).....	H. Sanderson Poole, Esq.	5	1	6	200	27·88	176
D Banstead (The Hall).....	F. C. Bayard, Esq. ...	8	1	0	480	33·28	186
D „ (Basing House) .....	„ „ „ „ „ „ „ „	8	1	0	456	33·05	189
D§ Epsom (Ashley Road).....	No. 1 Spencer C. Russell, Esq.	5	1	0	161 T	30·39	215
D§ „ ( „ „ „).....	No. 2 „ „ „ „ „ „ „ „	5	1	0	161 T	29·88	209
„ (Water Works).....	W. Vaux Graham Esq. CE	5	3	1	149 T	26·50	...
D Weybridge (Burcote) .....	C. Sanger, Esq. ....	5	0	9	120	24·92	188
D Sutton (Camborne Road) .....	F. E. Wright, Esq. ...	5	1	0	250 T	30·49	178
D Claygate (Hertslets) .....	N. C. Armitage, Esq. ...	5	1	0	106 T	23·65?	198
D Esher (Sewage Works) .....	F. C. Bayard, Esq. ...	5	1	0	42 T	23·28?	164
D Sutton (Water Works) .....	W. Vaux Graham Esq. CE	5	1	6	166 T	28·15	177
D „ (Sewage Works) .....	W. H. Grieves, Esq., C.E.	8	1	0	94 T	28·89	195
Worcester Park (Parkside) .....	A. Vaughan Pott, Esq.	5	1	0	80	26·44	...
D† Surbiton (Seething Wells) ...	Met. Water Board.....	5	0	10	34 T	25·83	179
D „ (Vronvelin, Lovelace Rd.)	F. J. Barclay, Esq. ....	5	1	0	50	27·31	182
„ (Tandridge House) .....	Charles Price, Esq. ...	5	0	10	...	27·67	186
D† West Molesey.....	Met. Water Board.....	5	1	0	49 T	23·75	180
D New Malden Sewage Works ...	R. H. Jeffes, Esq. ....	5	5	0	45	24·63	162
D „ „ (Edenfield).....	W. J. Carter, Esq. ....	5	1	0	40 T	28·51	198
D Kingston (County Hall) .....	E. Underwood, Esq. ...	5	0	9	31 T	27·65	161
D „ „ Sewage Works .....	F. C. Bayard, Esq. ...	5	1	0	25	30·26	193
D „ „ (Union Street) .....	Mr. T. Davis .....	8	3	0	26	25·50	166
D Wimbledon (Raynes Park) .....	C. H. Cooper, Esq., C.E.	5	1	0	50 T	26·17	176
„ „ (Worple Road) .....	N. Langsmith, Esq. ...	5	1	1	100 ?	27·67	189
D „ „ (Alyn Bank, The Downs)	F. C. Bayard, Esq. ...	5	1	1	162 T	28·35	203
„ „ Common (The Priory)	H. J. Hunt, Esq. ....	5	0	6	172	27·23	...
D Richmond (The Terrace) .....	F. C. Bayard, Esq. ...	8	1	6	109	24·71	179
D „ „ (The Old Palace).....	Rev. A. Welsh Owen...	8	0	9	...	25·93	180
D† „ „ (Kew Observatory)(R)	Dr. C. Chree, F.R.S. ...	11	1	9	19 T	25·55	180
D Kew (Kew Gardens Road) .....	Dr. L. Burrell .....	5	1	2	19	26·50	189
6.—THAMES—Wey.							
Haslemere (High Field) .....	Earl of Altamont .....	5	1	6	690 ?	37·08?	...
D „ „ (Lowder Mill) .....	A. F. Parbury, Esq. ...	5	0	10	501 T	38·86	211
„ „ ( „ „ „).....	M „ „ „ „ „ „ „ „	5	1	0	501 T	38·87	...
D† „ „ (Courts Hill) .....	Mr. J. I. Kennard .....	8	4	0	481 T	40·08	203
D† „ „ (Hazelhurst) .....	T. P. Newman, Esq. ...	5	1	0	550 B	41·68	210
D† Hindhead (Stoatley Hall).....	Mr. H. Simmons .....	5	1	0	800	43·60	160
D Churt (Furze Hills) .....	Rev. Clements G. O. Bond	5	0	6	390	35·86	196
Witley (Sandhills).....	L. W. Lodge, Esq. ...	8	1	0	450 ?	36·02	184

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge			Depth of Rain. 1910	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>SURREY—(con.)</b>						
<b>6.—THAMES—Wey—(con.)</b>						
Witley (Sandhouse) .....	<i>Surrey Advertiser</i> .....	...	...	...	...	38·06
D „ (King Edward's School) ..	J. Wood, Esq. ....	5	1	3	400	38·52
D „ (The Mount) .....	Mrs. J. H. Foster .....	5	1	0	375 B	37·81
Hascombe Rectory .....	C. T. Musgrave, Esq. ....	8	1	0	450 A	34·28
D Cranleigh Common (Homefield Cott.)	A. F. Jones, Esq. ....	5	1	2	175 T	33·88
„ (Stonewall) .....	W. Welch, Esq. ....	5	1	0	182 A	34·79
§ „ (County School) .....	Royal Meteorological Soc	5	1	0	232 A	30·51
D „ (Winterfold) .....	Mr. R. Turvey .....	8	3	6	603 T	35·28
D Bramley (Grafham Grange) .....	Sherringham A. Shepherd, Esq	8	0	4	180 T	33·94
Milford (Heath End) .....	H. Phipps, Esq. ....	8	2	6	...	34·99
D Ewhurst (Downhurst Lodge) ...	Mr. W. Bradfield .....	5	1	0	350	35·42
D „ (Garlands) .....	G. Johnston, Esq. ....	5	1	0	360 A	36·86
D „ (Malquoits) .....	W. Webb, Esq. ....	5	1	0	400	35·06
D „ (Coneyhurst) .....	Miss Ewart .....	8	1	0	561 A	36·63
„ (Woolpit) .....	Mr. H. W. Perrin .....	8	1	6	600	35·26
D Godalming (Charterhouse) .....	O. H. Latter, Esq. ....	5	1	0	315 A	34·26
D Farnham (Charleshill) .....	Mrs. Oliver .....	5	1	0	230 B	34·24
D „ (The Lower Bourne) ...	G. Sturt, Esq. ....	5	1	0	320	34·25
D „ (Bourne Corner) .....	Miss I. M. Deedes .....	5	1	0	357	33·70
D Godalming (Tilthams) .....	Col. A. C. Bigg-Wither	5	1	0	130 A	32·96
D „ (Compton Rectory) ...	Rev. H. H. Gillett .....	5	1	2	185	39·62
D Abinger Rectory .....	Miss Brodie Hall .....	5	1	0	381 A	35·35
D „ Hall .....	Lord Farrer .....	8	2	0	320 T	40·90?
Farnham (Crooksbury) .....	B. W. Bentinck, Esq. ...	5	1	0	450	34·65
D „ ( „ Ridges) ...	F. R. Walters, Esq. M.D.	5	1	4	440 A	35·86
D „ (West Street) .....	V. B. Longhurst, Esq. ..	5	1	1	250 ?	32·23
„ Castle .....	Mr. H. Dowding .....	8	1	0	330	36·12
D „ (Short Heath) .....	Morris Birkbeck, Esq. ..	5	1	0	352 T	34·69
D „ ( „ „ Lodge) ...	Col. G. Chrystie .....	5	1	0	365 A	33·51
„ (Hale School) .....	E. Caesar, Esq. ....	5	0	11	520 P	34·85
D Seale (Great Down) .....	Mrs. Kitchin .....	12	1	0	470 T	32·72
D „ (Poylehill House) .....	C. B. Penlington, Esq. ..	5	0	9	395	35·04
Gomshall (The Croft) .....	<i>Surrey Advertiser</i> .....	...	...	...	...	34·11
D Guildford (Piccard's Rough) ...	H. A. Powell, Esq., M.D.	5	6	0	350 T	31·55
„ (Roy. Grammar Sch.) ..	H. N. Weller, Esq. ....	5	1	2	...	28·13
D „ (Newlands Corner) ...	Mr. H. Tann .....	5	1	6	550 P	34·24
D „ (Hillside) .....	Miss H. S. Pitman .....	5	1	0	250 T	34·11
D „ (Cross Lanes) .....	F. F. Smallpiece, Esq. ...	5	0	8	200	31·54
D „ (Craigie, „ „) ..	Miss Lomer .....	5	0	9	250 T	30·60
„ ( „ „ Merrow, Paddock) ..	„ „ .....	...	...	...	250 T	31·33
D „ (Burpham) .....	W. H. Burbidge, Esq. ..	5	0	8	...	33·48
D „ (Temple Court) .....	Arthur H. Bowles, Esq.	8	4	0	264 T	32·42
High Clandon .....	F. B. Eastwood, Esq. ...	5	0	6	500 T	35·06
D Horsley Towers .....	The Earl of Lovelace ...	8	1	2	285 A	32·45
D „ (Woodcote Lodge) .....	Rt. Hon. Sir H. E. Roscoe	7	0	6	600	37·75
Worplesdon (Perry Hill) .....	Mr. G. H. Claydon .....	...	...	...	140 ?	29·50

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
SURREY—(con.)						
6.—THAMES—Wey—(con.)						
Sutton Park (Manor House).....	S. à Court, Esq. ....	5	1 1	100 T	27.86	...
Pirbright .....	A. D. Stables, Esq. ...	5	0 6	160 ?	31.28	157
Send (Sendholme) .....	<i>Surrey Advertiser</i> .....	...	...	...	28.14	...
" (Sendbarns) .....	J. W. G. Bond, Esq....	5	0 11	100	29.55	160
" Ripley (Dunsborough House) ...	C. F. M. Cleverly, Esq.	5	1 6	...	29.36	159
" Woking (The Grange) .....	Rev. F. Wilson .....	5	0 8	78 T	29.79	203
" (Northwood) .....	S. Price-Williams, Esq.	5	1 3	115 T	27.67	161
" Pyrford (Pyrford Croft) .....	H. W. Page Phillips, Esq.	5	1 6	100 ?	26.78	188
" Horsell (Lindisaye) .....	H. Horncastle, Esq. ...	5	4 2	120 T	26.85	180
" ( " ) ... weekly g.	" " " " " " " "	5	0 9	120 T	26.73	...
" (Kettlewell Hill) .....	Claude Marzetti, Esq....	5	0 9	115	28.07	190
" Wisley (R.H.S. Gardens) .....	Meteorological Office...	8	1 0	150	26.41	174
" (West Hall Gardens).....	Mr. G. Carpenter .....	...	...	75 ?	25.57	...
" West Byfleet (Hollywood) .....	Allanson Bailey, Esq....	5	1 1	100 ?	26.05	182
" (Broadoaks).....	R. W. Pretor-Pinney Esq	5	1 0	66	26.36	...
" Weybridge (Field Place) .....	Mrs. Yool .....	5	1 0	118 T	25.49	200
" ( " )..... M	" " " " " " " "	5	1 0	109 T	25.71	...
" (Heath Field).....	Miss A. T. Gardiner ..	5	1 0	100 T	25.72	155
" (Portmore Road) ...	Mr. W. E. Anderson...	5	1 0	47	26.75	177
" (West Oaks).....	A. Whittet, Esq. ....	5	1 0	36 T	24.26	175
" (Station Road) .....	H. K. G. Rogers, Esq..	5	1 1	85	25.81	...
" (Lyncecroft) .....	Maj.-Gen. J P Battersby	5	0 10	70	24.31	175
7.—THAMES—Bourne.						
" Brookwood (Knapp Hill) .....	Mr. G. C. H. Simmonds	5	1 0	181 T	28.85	205
" ( " " " Lynwood)	C. Wigan, Esq. ....	5	1 8	200	27.89	...
" Chobham (Sandpit Hall) .....	K. H. Power, Esq. ...	5	1 0	100	27.64	193
" (Chobham House).....	Miss C. M. Perceval ...	5	1 6	80	31.57	189
" Bagshot (Penny Hill Park) .....	<i>Surrey Advertiser</i> .....	7	...	350 ?	30.98	...
" Chertsey (Ottershaw) .....	R. H. Otter, Esq. ....	5	1 0	200 T	25.76	192
" (Long Cross) .....	F. A. Baker, Esq. ....	5	3 0	205 T	26.24	...
" (Botleys Park Gardens)	<i>Surrey Advertiser</i> .....	...	...	100 ?	26.40	...
" Windlesham (Westwood) .....	Col. G. A. Curzon .....	5	0 10	300 T	27.25	165
" Sunningdale (The Camp) .....	Lady Hooker .....	5	1 2	252	28.39	156
" Virginia Water (St. Ann's Heath)	Rev. J. Peck .....	8	1 1	120	25.32	185
" Egham Park .....	J. R. FitzGerald, Esq.	4	0 11	150 ?	28.59	166
" Englefield Green (Queenswood)..	W. G. Rigden, Esq. ...	8	1 0	200	32.21	205
8.—THAMES—Lodden.						
" Frimley Green (Ridgemount) ...	C. C. Haviland, Esq....	5	0 9	350	33.92	218
" (Hale Cottage) .....	Dr. F. N. Brown .....	5	1 6	210 T	33.87	155
" (Tomlinscote) .....	Mr. T. Dawson .....	5	1 9	200	32.11	214
KENT.						
1.—ROTHER & C.						
" Hawkhurst (Hensill).....	F. Ross Thomson, Esq.	5	3 0	200	33.26	169
" Tenterden (Summerhill) .....	Mrs. Wilkin .....	8	1 0	150 T	32.09	201
" ( " ) .....	" " " " " " " "	5	1 0	150 T	33.21	201

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
<b>KENT—(con.)</b>						
<b>1.—ROTHER &amp; C—(con.)</b>						
Benenden (Pullington) .....	Major H. Neve .....	5	1 0	330	34·66	206
§ Tenterden (View Tower) .....	J. Ellis Mace, Esq. ....	8	1 5	190 $\nabla$	31·27	212
§ " ( " " ) <i>Snowdon</i> .....	" " " " " .....	8	1 5	190 $\nabla$	31·04	203
" (West Cross) .....	J. Munn Mace, Esq. ...	5	1 0	170 $\nabla$	31·51	158
Cranbrook (Hartley) .....	G. Pile, Esq. ....	5	1 3	405 $\nabla$	33·50	190
§ Benenden (East End Sanatorium) ..	Dr. W. D. Wilkins ...	5	1 0	...	30·55	164
Biddenden (Sandpit Wood) .....	J. Ellis Mace, Esq. ...	5	1 0	218 $\nabla$	32·55	...
§ Dungeness .....	Meteorological Office ...	8	1 3	21	35·48	193
§ Hythe (Hillcrest Road) .....	J. B. Jordan, Esq. ....	5	1 0	190 $\nabla$	33·55	188
§ " (Sandling Park) .....	Rt. Hon. L. Hardy, M.P.	8	1 0	268	36·06	171
§ Sandgate .....	C. J. Conquest, Esq., C.E.	5	1 0	52 $\nabla$	31·94	183
§ Folkestone (Sanatorium) .....	M. Yunge Bateman, Esq.	5	1 0	102 $\nabla$	34·64	180
§ " (Cheriton Road) .....	J. Duncan Walker, Esq.	5	1 0	160	32·93	175
§ " (Radnor Park) .....	J. W. Stainer, Esq. ...	5	4 8	129 $\nabla$	33·72	176
§ " (Cherry Gardens) ...	H. Turner, Esq. ....	5	1 6	230 $\nabla$	36·96	190
§ " (Lower Standen, Capel) ..	" " " " " .....	5	2 11	250 $\nabla$	40·53	197
§ Dover .....	Meteorological Office ...	8	1 0	231	34·05	192
§ " (Water Works) .....	W. C. Hawke, Esq., C.E.	5	1 6	200 $\nabla$	38·40	182
§ Kearsney (Chilton Farm) .....	" " " " " .....	5	1 6	127 $\nabla$	40·67	167
<b>2.—STOUR &amp; C.</b>						
§ Ashford (Willesborough Rectory) ..	Rev. A. L. Brine .....	5	1 1	175	30·41	204
§ " (Oakwood) .....	H. F. Horsnaill, Esq. ...	5	1 4	170 $\nabla$	32·37	176
§ Dover (Martin Mill) .....	F. L. Ball, Esq. ....	5	11 0	298 $\nabla$	31·25	161
§ Wye (S.E. Agricultural College) ..	H. C. Chapelow, Esq. ...	8	1 0	150	31·43	161
§ Charing Pumping Station .....	F. L. Ball, Esq. ....	5	1 0	593 $\nabla$	31·38	227
§ Tilmanstone (Danefield) .....	Mrs. C. A. Rice .....	6	1 1	130 ?	35·60	152
Deal and Walmer W. W. ....	M. A. Mantle, Esq. ....	12	1 0	110 $\nabla$	32·95	...
§ " " " " " .....	" " " " " .....	5	1 0	110 $\nabla$	32·87	186
" " " " " .....	E. Kent Scientific Soc.	5	1 0	11	34·66	...
Hardres (Junipers) .....	G. Marshall, Esq. ....	...	...	450	33·69	...
§ Eastry .....	L. A. Fawcett, Esq. ...	5	0 10	85 $\nabla$	34·93	193
§ Sandwich (Upton House, Word) ..	W. Elwin Napier, Esq.	5	1 0	32	35·70	169
§ Chilham (Lower Ensden) .....	F. Ivo Neame, Esq. ...	5	3 0	305 $\nabla$	31·63	198
Wingham (Crockshard) .....	late J. E. Elgar, Esq. ...	5	1 0	50 $\nabla$	33·93	...
" (Margate W. W.) .....	Mr. W. R. Hosking ...	5	1 0	138 $\nabla$	33·70	154
§ Sandwich (St. George's Golf Club) ..	W. Ryder Richardson Esq	6	1 1	3	28·04	174
§ " (Mayfields) .....	Roy. Meteorological Soc.	5	...	17	32·20	188
§ Littlebourne House .....	T. M. Patterson, Esq. ...	5	1 6	37	30·97	196
§ Canterbury (Irrigation Works) ..	C. Terry, Esq., C.E. ...	5	2 6	15 $\nabla$	33·57	200
§ " (Medical Hall) .....	A. Lander, Esq. ....	5	1 0	40	31·66	...
§ " (St. Thomas' Hill) ...	J. Spillett, Esq. ....	5	0 6	230 $\nabla$	33·32	159
" " " " " .....	E. Kent Scientific Soc.	...	...	95	28·24	...
§ Wickhambreux (The Willows) ..	A. Baird, Esq. ....	5	0 8	22 $\nabla$	31·47	193
§ Minster (Gas Works) .....	W. Thomson, Esq., C.E.	6	1 0	60 $\nabla$	33·40	155
§ Ramsgate (Southwood W. W.) ...	" " " " " .....	6	1 0	169 $\nabla$	31·69	165

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
KENT—(con.)						
2.—STOUR & C—(con.)						
D Ramsgate (Archer House) .....	Miss L. M. Wainwright	5	0 11	...	30·83	176
D Broadstairs (Providence House).	Cecil Hamersley, Esq...	5	2 0	50 T	29·96	177
D Reculver .....	Allington Collard, Esq.	5	5 2	27 T	26·48	170
D St. Peter's .....	Rev. H. C. V. Snowden	5	0 9	140 T	30·03	175
D „ „ Court .....	A. J. Richardson, Esq.	5	1 0	135 T	29·88	182
D Birchington (Hollydene) .....	W. Tomlin, Esq., Junr.	6	6 0	75 T	27·16	162
D Margate (Cliftonville) .....	J. Stokes, Esq. ....	5	1 0	77	28·52	182
Kingsgate (White Ness) .....	Mr. T. Tullett .....	5	3 0	98 L	30·63	180
3.—SWALE & C.						
D Selling (Luton) .....	F. Ivo Neame, Esq. ...	5	4 9	263 T	33·82	197
D „ (Harefield) .....	Sidney Neame, Esq. ...	5	4 6	219 B	35·19	236
Sittingbourne (Sharsted Court).	H. Court, Esq. ....	5	1 6	287 T	25·84	...
D Bicknor Rectory .....	No. 1 Rev. W. T. Martin ...	5	0 9	540 T	33·25	168
D „ „ „ No. 2, <i>Snowdon g.</i> „ „ „	Rev. „ „ „	5	0 9	540	36·10	169
D Boughton-under-Blean Vic. ...	Rev. W. H. Rammell..	5	2 4	116 T	29·09	207
D Ospringe (Lorenden) .....	Walter C. Stunt, Esq..	5	1 2	180 B	32·22	157
Teynham (New Gardens) .....	J. F. Honeyball, Esq...	5	1 5	30 T	28·29	181
D Faversham (Westwood Court)...	Messrs. G. W. Finn & Sons..	...	...	30 ?	30·44	161
D Sittingbourne (Newington Vic.)	Rev. P. M. Bowman ...	5	0 9	60	32·02	200
D Whitstable (Western House) ...	J. W. Hayward, Esq..	5	0 10	17 T	24·78	178
D „ (Tankerton) .....	F. Gaster, Esq. ....	8	0 11	73	24·26	167
Herne Bay (Water Works) .....	G. J. Lavel, Esq. ....	5	0 6	122 T	28·78	...
†Sheppey (Old Rides, Eastchurch)	H. C. Warren, Esq. ...	5	2 0	40 T	24·51	...
4.—MEDWAY.						
Goudhurst (Scotney Castle) .....	E. W. Hussey, Esq....	5	4 4	203 T	31·09	...
D „ (Maypole) .....	G. Parker Hinds, Esq..	8	1 8	412	32·43	174
D „ (Taywell) .....	Miss E. M. Ridout .....	5	1 3	400	36·92	201
D „ (Brandfold) .....	Dr. Douglas .....	5	2 0	238 T	35·44	199
D „ (Gore Court) .....	J. A. Druce, Esq. ....	5	1 0	196	33·90	205
D Horsmonden (Broad Ford House)	Mrs. L. E. Maude .....	5	1 0	96	32·55	197
D Tunbridge Wells (Hawkenbury)	D. W. Horner, Esq. ...	5	1 2	435 T	34·36	205
D St. „ „ (Bredbury) ...	F. G. Smart, Esq. ....	5	1 0	418 T	35·32	198
D „ „ (Courtlands)(R)	E. Weldon, Esq. ....	8	5 6	470 T	33·96	182
D Speldhurst Rectory .....	Rev. D. D. MacKinnon	5	1 0	320 T	30·73	207
D „ (Etherton Hill) .....	E. W. Winton, Esq....	5	1 5	288 T	33·05	194
D Tunbridge Wells (Pembury WW)	W. H. Maxwell, Esq. C. E.	8	1 8	196 T	31·57	181
D Paddock Wood (Matfield Grange)	J. A. Perkin, Esq. ....	5	0 9	370	36·38	189
D St. „ „ „ „ „ „ „	D'Arcy W. Reeve, Esq.	5	1 0	321 T	34·34	193
D Southborough (The Hall) .....	Rev. G. A. Robins .....	5	3 0	400 T	35·16	183
D „ (Bentham Hill) ...	C. Stanley Pott, Esq...	5	1 0	350	31·83	174
D Edenbridge (Falconhurst) .....	Hon. Mrs. John Talbot	5	1 3	400	34·43	186
Tonbridge (Colebrooke) .....	W. A. Smith, Esq. ....	5	0 10	350 T	33·60	171
D „ „ „ „ „ „ „ <i>Snowdon</i>	„ „ „ „ „ „ „	5	1 0	350 T	32·47	171
D „ (Knowles Bank) .....	J. Waley Cohen, Esq...	5	0 8	319 T	29·86	174
D Edenbridge (Markbeech) .....	Rev. J. T. Pearse .....	5	1 0	320 T	31·51	195

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with "0 or more recorded."
		Diameter	Height Above Ground	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
KENT—(con.)						
4.—MEDWAY—(con.)						
Staplehurst (Lindridge Farm)...	J. Norris, Esq. ....	5	1 4	310 A	32·21	216
d Tonbridge (Penshurst Place) ...	Lord De L'Isle ....	5	1 6	150 ?	34·99?	155
d " (" Park) ...	Mr. J. M. Sturgess ...	5	0 9	265 T	25·79?	179
d " (Mabledon Park).....	J. F. W. Deacon, Esq....	5	1 2	190 ?	29·22	165
" (Brooklands) .....	G. J. Kimmins, Esq....	5	0 10	120 A	29·72	191
d " (Beech Hurst).....	W. C. Punnett, Esq....	5	1 6	102 A	29·94	180
" (" " )Snowdon	" " "	5	1 6	102 A	29·90	180
" (" " ) .....	M " " "	8	4 0	105 A	28·97	...
d " (London Road) .....	Dr. G. H. Cressy .....	5	1 6	105	29·87	190
d Edenbridge (Cluny) .....	J. L. Boyson, Esq.....	5	1 6	161 T	27·17	196
d Hadlow Place.....	C. J. G. Hulkes, Esq...	5	1 0	50	29·55	206
d " (Golden Green) .....	F. W. E. Shrivell, Esq..	5	1 0	100	29·86	200
d\$Hildenborough (Hollanden Ho.).	C. H. Scott, Esq. ....	8	1 0	100	26·64	177
d Edenbridge (Crockham Hill) ...	E. C. Ouvry, Esq.....	5	1 0	705 T	31·19	179
d Sevenoaks (Ide Hill Vicarage)...	Miss A. C. M. Raikes..	5	0 9	700 A	28·67?	214
d Ulcombe Place .....	A. O. Walker, Esq. ...	5	1 0	350 T	27·09	179
d Linton Park .....	Mr. C. Pratt .....	5	0 8	...	30·69	186
d Langley (Rumwood) .....	Mr. W. J. Gould .....	5	1 9	354	30·48	217
d Leeds (Schoolhouse) .....	H. E. Bridge, Esq. ...	5	1 0	300 ?	29·78	198
d+Sevenoaks (River Hill).....	Lt.-Col.J.M.Rogers,dso	8	4 0	535 A	30·48	177
d " (Soar Farm, Plaxtol)	H. Stonham, Esq. ....	5	3 0	300 T	31·48	186
d Maidstone (Lower Tovil) .....	Lawrence Green, Esq..	5	1 0	30 L	26·48	193
d " (W.W., Barming) ...	W. J. Ware, Esq., C.E.	8	1 0	30 A	31·24	188
d " (Long Rede, " ) ...	Rev. T. W. Carr .....	8	3 2	280 T	29·24	171
d+ " (Brenchley Gardens)..	T.F.Bunting,Esq.,C.E.	5	0 9	50	28·86	180
d+ " (Mill Street).....	" " "	8	6 0	38 A	29·12	198
d East Malling (Broadwater) .....	C. B. Mercer, Esq. ...	5	1 6	169	29·75	211
d West Malling (St. Leonards) ...	G. Phillips, Esq. ....	5	1 0	...	31·98	190
d Maidstone (Allington Lock).....	Mr. J. Rose .....	5	1 0	45 ?	28·70	173
d+Detling (The Croft) .....	R. Cooke, Esq. ....	5	1 2	330 T	32·39	206
Maidstone (Allington Nursery)...	Messrs.G.Bunyard&Co.	5	1 6	112	29·41	...
d Ightham (Belmont Lodge) .....	BurleighD.KilburnEsq	5	1 4	380 T	35·79	226
d\$Wrotham (Whitehill) .....	A.F. Bowker, Esq.,C.E.	5	1 0	365 T	33·47	185
" .....	M " " "	8	1 0	366 T	31·57	...
d Bredhurst Vicarage .....	Rev. E. E. Phillips ...	5	1 0	450	31·77	175
Halling Pumping Station.....	F. L. Ball, Esq.....	5	1 0	75 A	26·56	...
d Rainham (Meersborough).....	S. Wakerley, Esq.....	5	1 0	235 ?	31·77	170
Chatham (Luton W.W.) .....	W. Coles Finch, Esq....	5	3 0	88 A	29·62	185
d Rochester (Knights Place) .....	J. Pye, Esq. ....	5	3 0	320	31·00	216
Stroud Water Works .....	W. Banks, Esq., C.E...	5	3 0	112 A	28·25	196
d Frindsbury (The Shrubby) ...	Warwick Stunt, Esq...	5	1 6	150	27·29	178
d " (Stonehouse) .....	E. W. Wood, Esq.....	5	5 0	20	27·87	186
d Hoo St. Mary (St. Mary's Hall)..	H. Pye, Esq. ....	5	5 6	146 T	24·81	189
5.—THAMES—Darent.						
d Westerham (The Fishponds) ...	Met. Water Board.....	5	1 0	380	31·33	196
d " Hill Estate .....	" " " .....	5	1 0	539	30·78	197
Sevenoaks (Bitchet Wood) .....	Admiral G.S.Bosanquet	5	1 0	580 A	37·15	...



## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with '01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in	ft.	in.	feet.	inches.
<b>KENT—(con.)</b>						
5.—THAMES—Darent—(con.)						
D Sevenoaks (Dartford Road) .....	Mrs. W. W. Wagstaffe	5	1	3	404 T	34·16 186
D† Brasted (Combe Bank) .....	Robert Mond, Esq. ....	8	0	10	323 A	31·08 208
D Tatsfield (Betsom Hill) .....	Met. Water Board .....	5	0	7	820 A	36·30 190
Sevenoaks (Seal, St. Lawrence Res.)	Mr. T. W. Heath .....	8	1	0	665 A	31·93 ...
„ ( „ „ Oak Bank Res.)	„ „ „ „ „ „	8	1	0	550 A	33·96 ...
„ ( „ „ ) .....	M A. F. Bowker, Esq., C.E.	5	6	0	324 A	33·25 ...
„ (Kemsing Pumping Sta.)	Mr. T. W. Heath .....	5	1	0	292 A	34·08 ...
D „ (Chevening Gardens) .....	Mr. C. Sutton .....	5	1	0	360	33·64 178
† Knockholt (Kent Waterworks) ..	Met. Water Board .....	5	1	0	785	33·32 ...
D Otford (Beechy Lees) .....	Mr. R. Edwards .....	5	0	10	480 T	33·36 197
D† Halstead Rectory .....	Rev. F. H. Deane .....	5	1	0	539 T	35·82 226
„ Place .....	Mr. W. Dryden .....	5	1	3	523 T	35·84 ...
D Downe (Council School) .....	A. J. Ridge, Esq. ....	5	0	8	500 T	35·53 184
D Keston (Forest Lodge) .....	F. C. Bayard, Esq. ...	5	1	0	300	36·38 176
D West Wickham (Wickham Court)	„ „ „ „ „ „	5	1	2	300	35·31 167
D Hayes (Hayes Place) .....	„ „ „ „ „ „	8	1	0	350	31·53 164
D† Orpington (Kent Waterworks) ..	Met. Water Board .....	5	1	0	220	31·07 188
Meopham .....	Jesse Garratt, Esq. ...	5	1	1	290 A	27·90 172
D Farningham Vicarage .....	Rev. L. A. Williams ...	5	0	6	117 A	30·57 194
D Bromley Common (Elmfield) ...	Rev. J. P. Faunthorpe ..	5	0	9	240 A	28·80 192
D Bickley (Sunnydene) .....	Sir J. Wrench Towse ...	5	1	0	270 T	28·48 186
Bromley (Widmore Road) .....	D. G. Simpson, Esq. ....	8	1	3	260 T	28·06 204
D „ (The Palace) .....	F. C. Bayard, Esq. ...	5	1	0	187	28·54 177
D „ (Ravensfell) .....	H. L. Richardson, Esq.	5	1	0	200	28·20 185
„ (Lansdown Road) .....	C. A. Case, Esq. ....	5	1	0	220	28·04 ...
„ (Rodway Road) .....	E. Kinder, Esq. ....	5	2	3	220	27·91 ...
D „ (Kinnaird Avenue) ...	C. T. Drew, Esq. ....	8	3	0	300 ?	26·17 188
Shortlands (The Gables) .....	A. March Tapp, Esq. ...	5	1	0	200	26·92 ...
D Beckenham (Croydon Road) .....	J. A. Angell, Esq. ....	8	1	0	110 T	33·26 195
Chislehurst (Foxbury) .....	H. F. Tiarks, Esq. ....	8	5	6	250	28·51 202
D „ (Hawkwood) .....	F. C. Bayard, Esq. ....	5	1	0	300	28·50 175
D Gravesend (Thong) .....	C. H. Scriven, Esq. ...	5	1	0	255 B	29·91 221
D Southfleet (Kent Waterworks) ..	Met. Water Board .....	5	1	0	82	26·68 191
D Wilmington ( „ „ „ ) .....	„ „ „ „ „ „	5	1	0	25	24·78 188
D Dartford (West Hill House) .....	F. C. Bayard, Esq. ...	5	1	3	100	28·69 164
D Higham (Oakleigh) .....	C. Lake, Esq. ....	8	1	2	25	25·98 162
D Cooling (Broomy Farm) .....	Mr. J. Filmer .....	5	1	6	10	26·63 185
D Erith (Crossness) .....	M Fitzmaurice Esq CMG	14	0	6	16 A	21·66 178
<b>SUSSEX.</b>						
1.—LAVANT & C.						
D† Selsey (Large Acres) ... Snowdon	E. Heron Allen, Esq. ...	5	1	0	25	33·11 183
D† „ ( „ „ ) .....	„ „ „ „ „ „	5	1	0	25	32·13 184
§ Bognor .....	Royal Meteorological Soc	8	1	0	15	28·07 174
D „ (Albert Road) .....	H L F Guernonprez, Esq.	8	1	0	20	29·88 179

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
SUSSEX—(con.)							
1.—LAVANT & C.—(con.)							
Bognor (Lidsey Lodge).....	H. Neale, Esq. ....	8	1	2	25	30·77	160
D West Thorney (The Manor House)	H. Padwick, Esq. ....	5	1	0	23 †	28·87	160
Arundel (Yapton) .....	W. Harrison, Esq.....	5	1	0	24 †	30·83	170
„ ( „ Drove Farm). „	„ „ „ „ „ „	5	1	0	14 †	30·49	170
D Chichester (Westgate) .....	G. A. Tyacke, Esq. ...	8	0	6	40	31·14	181
D West Bourne [Emsworth] .....	Rev. L. B. Birkett.....	5	0	8	30	35·68	194
D Funtington.....	J. A. Greenwood, Esq.	5	1	0	95 †	34·65	178
West Stoke Rectory .....	Rev. W. F. Shaw .....	5	1	0	176 †	36·03	182
Chichester (Goodwood Gardens).	Mr. F. Brock .....	5	1	3	133	38·46	190
D „ (Watergate).....	W. M. Christy, Esq....	5	1	0	236 †	36·87	221
„ (West Dean Park) ...	Mr. W. H. Smith .....	10	1	6	190 †	38·69	...
„ (Chilgrove) .....	J. W. Woods, Esq. ...	5	0	6	284 †	36·10	...
D Compton House [Petersfield] ...	Rev. H. M. Langdale...	5	1	0	255 †	40·91	217
2.—ARUN.							
D Littlehampton (Dorset House)...	G. H. Beecheno, Esq... 5	2	0	30	32·45	169	
Angmering .....	Rev. J. B. Orme.....	5	0	9	44	32·57	...
D Tortington .....	Major J. A. Travers ...	5	1	0	25 †	32·70	169
D Arundel (Patching) .....	J. Drewitt, Esq.....	5	1	0	180	34·86	191
D „ ( „ ) .....	Mrs. Joad .....	5	0	10	130 B	35·95	205
Sutton (Coldharbour) .....	Mr. J. Campbell.....	5	2	0	340	37·58	...
D Midhurst (Cocking Rectory) ...	Mrs. Randall .....	5	1	0	193	39·08	207
„ (Linch Farm, Bepton). „	G. Eames, Esq. ....	5	0	8	276 †	39·83	185
„ (Fairfield, Bepton) ...	Major W. A. Chauncy..	5	0	8	155 †	35·87	170
West Harting [Petersfield] .....	Miss Monkhouse.....	5	0	6	...	40·20	...
D Selham Rectory .....	Rev. R. D. H. Gray ...	5	1	0	77 †	39·61	203
D Stedham (Rotherhill).....	Dr. W. A. Wills .....	8	0	8	170 †	42·61	195
D Easebourne (Hollist House).....	Nigel V. Combe, Esq... 5	0	10	107 †	40·64	180	
D Petworth Park .....	Mr. E. W. Pull.....	5	1	0	182 †	37·59	162
Tillington (River House) .....	Lady Cunliffe.....	5	1	0	230	36·59	184
Midhurst (Lodsworth) .....	Lt.-Col. E. O. Hollist, RA	8	1	3	200	33·07	...
§ „ (K. Edward VII. San.)	Roy. Meteorological Soc.	5	1	0	489	39·71	208
Wisborough Green (Lowfold) ...	B. de F. Osmaston, Esq.	5	1	6	120	31·32	...
D Linchmere (Borden Wood) .....	E. G. Lamb, Esq. ....	8	1	0	260 †	40·86	193
„ (Hollycombe) .....	J. C. Hawkshaw, Esq..	8	6	6	550	36·76	...
D Fernhurst (Blackdown House)...	Lady Philipson Stow... 5	2	0	488 †	33·54	152	
D Lower Beeding (The Warren) ...	Leicester M. Reed, Esq.	5	0	10	430 †	37·15	158
Horsham (Denne Park).....	Mr. F. Manners .....	5	4	0	246 †	32·67	...
§ „ (Christ's Hospital).....	Royal Meteorological Soc	5	1	0	161	31·15	187
D Slinfold (Rapkyns) .....	W. Duncan Knight, Esq.	5	1	0	170	30·27	161
† Horsham (Manor House) .....	H. Padwick, Esq. ....	8	0	10	140 †	34·56	175
D† „ (Richmond Road) .....	Miss L. E. Whitling ...	5	1	2	190	34·89	222
D† „ (Wimblehurst) .....	Miss E. M. Allcard ...	5	1	0	195 †	33·21	214
3.—ADUR & C.							
D Rottingdean .....	G. Mason, Esq. ....	5	1	0	100	34·45	149
Worthing (Grand Avenue) .....	A. Morris Butler, Esq..	5	1	0	27 †	30·03	177
D „ (Victoria Park) .....	Dr. R. H. Wilshaw ...	8	1	0	36 †	32·57	191
D† Brighton (Old Steyne) .....	D. Forbes, Esq., M.D..	5	1	0	32 †	32·39	179

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1910	Days with 0.1 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
SUSSEX—(con.)							
3.—ADUR & C—(con.)							
D Brighton (W.W. Goldstone Bottm)	J. Johnston, Esq., C.E.	8	0	7	140	30.70	175
D „ ( „ Lewes Road)...	„ „ „	8	3	6	88	34.02	179
D „ ( „ Upper Portslade)	„ „ „	8	1	3	167	36.34	193
D „ ( „ Patcham).....	„ „ „	5	1	6	207	39.01	212
D „ ( „ Race Hill Res.)	„ „ „	8	1	0	466	35.07	179
D† „ (Preston Drive, Preston)	F. H. Phillips, Esq. ...	8	1	0	143	30.69	191
D „ (Ashford Road, „)	C. Biddlesden, Esq. ...	5	5	3	315	34.65	209
D† „ (Ditchling Road, „)	G. Berry Hamlin, Esq.	5	1	0	302	34.85	193
† „ (Upper Roedale).....	„ „ „	5	1	0	385	36.69	...
D Falmer (Brighton W.W.).....	J. Johnston, Esq., C.E.	8	1	8	209	35.76	203
D Steyning.....	Mrs. Ingram.....	5	1	0	80	39.83	174
„ (Crescent Road).....	Mr. H. J. Hide.....	5	1	0	80	39.37	176
D Hassocks (Pyecombe).....	Mr. F. S. Mitchell.....	5	0	7	392	38.39	182
Clayton Windmills.....	E. A. Martin, Esq.....	5	1	0	584	45.73	211
„ Rectory.....	Rev. T. H. R. Shand...	9	1	6	201	41.73	206
D Hurstpierpoint (Danny Park) ...	Mr. J. J. Bunney.....	8	1	3	180	45.60	164
D Ditchling.....	E. A. Martin, Esq.....	5	1	0	220	38.41	170
Keymer (The Limes).....	Miss Berry.....	5	1	1	145	40.50	...
Burgess Hill (Ote Hall).....	Mrs. Woods.....	5	1	6	...	38.43	...
D Bolney Vicarage.....	Rev. T. Austen Holcroft	5	0	11	99	34.68	180
Cowfold (Maple Bank) ...	Mr. S. Ford.....	5	1	6	373	31.36	...
D Cuckfield (Henmead Hall).....	Maj.-Gen W.M. Campbell	5	4	5	365	35.82	203
D Lower Beeding (Leonardslee) ...	Sir E. G. Loder, Bart...	8	1	0	365	34.51	180
4.—OUSE.							
D Seaford College.....	Col. F. W. Savage.....	5	1	6	38	31.51	164
D Newhaven (Poverty Bottom) ...	J. T. Bickford, Esq. ...	8	1	1	51	31.79	157
D Falmer Court.....	R. H. Verrall, Esq. ...	5	3	0	312	35.24	184
D§ Lewes (Bedford Lodge).....	Mrs. Kemp.....	5	1	0	85	30.59	211
D Isfield Place.....	Major H. King.....	5	1	0	51	30.82	181
„ „..... weekly g.	„ „.....	5	1	0	51	30.69	...
„ „..... monthly g.	„ „.....	5	1	0	51	30.77	...
D Uckfield (Agricultural College)...	Prof. S. Allinson Woodhead	8	1	0	166	29.30	199
D Haywards Heath (Franklyn Road)	Mr. R. Inglis.....	5	1	0	260	34.67	175
D „ (S. Wilfrid's Par.)	Mr. J. E. Shirley.....	5	1	0	300	33.33	187
D Buxted Park.....	Mr. G. Phillips.....	8	0	7	94	34.83	202
„ (Strawberry Hall).....	C. Rintoul, Esq.....	5	1	0	180	35.93	184
D Nutley Vicarage.....	Rev. H. J. Peckham ...	5	1	0	386	34.46	210
D „ (The Hall).....	Miss Cook.....	5	0	10	417	35.42	194
D Haywards Heath (Brook House)	H. R. G. Clarke, Esq..	8	1	0	240	34.64	184
D Ardingly (Lywood House).....	G. Forrester Scott, Esq.	5	0	9	240	33.99	203
D Balcombe (The Gables).....	Mr. G. J. Warren.....	8	1	3	358	37.40	205
D „ (Stockerott).....	R. Newton, Esq. ....	5	1	1	341	37.64	192
D „ (Waterworks).....	F. Martin, Esq., C.E...	8	1	0	471	39.09	159
„ (Highley Manor).....	H. Faure Walker, Esq.	8	1	6	420	36.57	184
5.—CUCKMERE & C.							
† Beachy Head.....	Miss Brodie Hall.....	5	1	0	515	27.48	...
D† Eastbourne (Wilmington Square)	Dr. W. G. Willoughby	5	1	0	39	34.80	174

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
SUSSEX—(con.)						
5.—CUCKMERE & C—(con.)						
D Eastbourne (Glenthorne) .....	Miss Woodd .....	8	1	6	86 $\pi$	35·57 200
„ (Arundel Road) .....	J. C. Wright, Esq. ....	5	1	0	70	36·79 ...
D „ (Staveley Cross) ...	J. Weston, Esq. ....	5	1	6	110 $\uparrow$	35·50 203
D West Dean .....	F. Stileman, Esq., C.E.	8	1	0	112 $\pi$	31·17 200
D Jevington (Church Farm) .....	„ „ „	8	0	9	274 $\pi$	37·33 200
„ Litlington (Plough & Harrow Inn)	„ „ „	8	1	0	19 $\pi$	30·47 ..
D § Bexhill (Marina) .....	Mr. G. Brisley .....	8	1	0	27	29·78 189
† St. Leonards (West Marina) ...	H. Colborne, Esq. ....	8	1	0	24 $\pi$	31·90 196
† „ „ (Gensing Gardens).	„ „ „	8	1	0	179 $\pi$	28·90 212
D Polegate (Alciston) .....	R. Matthews, Esq. ....	5	1	0	172 $\uparrow$	36·28 208
D Hailsham .....	Rev. F. Clyde Harvey..	5	1	0	105	36·43 160
D „ (Magham Down) .....	W. E. Bear, Esq. ....	5	2	9	90 $\uparrow$	33·30 162
„ Hurstmonceux Place .....	H. A. James, Esq. ....	5	1	8	83 $\pi$	32·36 ...
§ Hastings .....	Meteorological Office ...	8	1	0	174	28·90 212
D „ (Newgate) .....	(R) P. H. Palmer, Esq., CE	8	5	6	240	30·57 160
„ (Filsham Reservoir) ...	H. Colborne, Esq. ....	5	0	10	91	32·10 ...
„ (Halton Reservoir) .....	„ „ „	5	0	10	301	33·35 ...
„ (Fairlight Reservoir) ...	„ „ „	5	0	10	517	33·75 ...
D § „ (Cemetery) .....	Walter Field, Esq. ...	5	0	8	500	31·62 160
„ (High Beech, Hollington)	Miss Lewis .....	5	1	0	320 $\uparrow$	27·97 201
D Horeham Manor .....	Miss P. C. Harrison ...	5	0	9	250	34·36 221
D „ Grange .....	W. F. Beauford, Esq..	5	1	2	260 $\uparrow$	34·58 205
D „ Road (Hollycroft Cottage)	J. Hamlin, Esq. ....	5	1	0	300 $\uparrow$	34·80 221
D Heathfield (The White Cottage)	J. F. Leigh Clare, Esq.	5	1	3	500 $\uparrow$	33·48 189
6.—ROTHER.						
D Hastings (Guestling Rectory) ...	Rev. E. N. Bloomfield.	5	1	5	125 $\pi$	33·29 182
„ Winchelsea .....	Miss G. Leigh .....	5	1	1	95 $\uparrow$	33·68 ...
D Battle (Whatlington) .....	Miss H. Gripper .....	5	1	3	90 $\uparrow$	40·67 202
„ Udimore (The Hammonds) .....	J. G. Mair-Rumley, Esq.	8	1	0	144 $\pi$	31·10 176
D Heathfield (Tottingworth Park).	Mr. J. Masson .....	5	1	0	500 $\uparrow$	36·48 197
D Beckley (Bay Tree Cottage) .....	R. Forbes-Bentley, Esq.	5	1	0	150	35·47 178
D Robertsbridge (Salehurst Vic.) ..	Rev. E. J. Sing .....	5	0	9	110 $\pi$	36·87 222
D Mayfield (Five Ashes) .....	Miss Emily Aston .....	5	1	5	300	34·19 221
D Bodiam (South Park) .....	L. M. Jackson, Esq. ...	5	1	1	208 $\uparrow$	31·49 181
D Wadhurst (The Olives) .....	Miss Edith P. Luck ...	5	1	0	380	35·19 224
D Ticehurst (Myskyns) .....	E. H. Cartwright, Esq.	5	1	0	340 $\pi$	34·09 206
D „ House .....	Mr. J. D. Jordan .....	5	4	9	423 $\pi$	33·63 168
7.—MEDWAY.						
D Nutley (Chelwood Beacon) .....	late Sir H. C. Jervoise, Bt	5	1	3	530 $\uparrow$	35·26 195
D Crowborough (Jarvis Brook) .....	Crowborough Water Co.	5	1	0	325 $\pi$	37·24 192
D „ (Te Whare) .....	Miss Hames .....	5	1	0	796 $\uparrow$	43·85 234
D Wadhurst (Lower Cousley Wood)	F. Wilkin, Esq. ....	5	1	0	416 $\pi$	31·64 190
D Nutley (Pippingford Park) .....	Mr. P. Sutherland .....	5	1	0	600	33·34? 198
D Forest Row (Wych Cross Place) ..	D. W. Freshfield, Esq.	5	0	10	600 $\uparrow$	40·93 193
D „ „ (Hindleap Lodge) ...	Mr. A. Adam .....	5	1	6	620	35·12 157
„ „ (Charlwood Farm) ...	A. Hoare, Esq. ....	5	1	0	250 $\uparrow$	36·86 ...

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with '01 or more recorded.
		Diameter	Height Above Ground			
		in.	ft.	in.	feet.	inches.
SUSSEX—(con.)						
7.—MEDWAY—(con.)						
D Frant (Henley Lodge) .....	E. Malden, Esq. ....	5	1	0	445 T	33·34 207
D „ (Eridge Castle) .....	Mr. A. Wilson .....	5	2	0	400	39·70 165
D „ (Highfield) .....	C. M. R. Cleeve, Esq. ...	5	2	3	413	33·57 ...
D Crawley Down (Grange) <i>Snowdon</i>	T. H. W. Buckley, Esq.	5	1	0	430 T	35·73 212
D East Grinstead (Cranston Road).	Mr. G. Mitchell .....	8	2	2	420 T	37·04 199
D Glen Andred [Groombridge] ...	Mrs. Boardman .....	8	1	0	320	34·93 178
Cozleigh [ „ ] ...	J. Anderson, Esq. ....	8	2	0	230	35·61 184
8.—THAMES—Mole.						
D Worth (South Hill) .....	T. E. Ravenshaw, Esq.	8	1	6	558 T	37·58 246
Crawley (Stonehurst) .....	Miss A. H. Boyson ...	5	1	0	275 ?	35·51 177
HAMPSHIRE.						
1.—ISLE OF WIGHT.						
D† Ventnor (Flint Cottage) .....	J. S. Ineson, Esq. ....	5	1	0	99 T	32·27 181
D† „ (Consumption Hospital)	Miss M. Gibson .....	5	1	0	80	32·73 205
D Shanklin .....	E. C. Cooper, Esq., C.E.	8	1	0	184 T	34·47 166
D Sandown (Free Library) .....	C. E. Gilchrist, Esq. ...	8	1	0	15	36·43 203
Brighstone (Pitt Place) .....	A. A. H. Wykeham, Esq.	8	1	3	180 T	33·08 165
D† Totland Bay (Aston House) .....	J. Dover, Esq. ....	8	1	3	145 T	31·79 179
D† Newport (Grammar School) .....	C. D. Vibert, Esq. ....	5	1	0	65	38·36 201
Brading (Ryde W.W., Knighton)	J. T. Harvey, Esq., C.E.	8	2	0	73 T	35·50 160
D† Ryde (New Lodge, St. John's Park)	Capt. W. A. Dobie .....	5	1	1	147	34·10 188
„ (Perivale) .....	Major E. C. Murray ...	5	1	3	193 T	38·55 172
† „ (Pier Street) .....	T. Cole Flower, Esq. ...	12	9	0	35	35·73 ...
D „ (Esplanade Gardens) .....	C. Mathew, Esq. ....	8	2	0	6 T	32·23 178
D† „ (Beldornie Tower) .....	P. Craven Hall, Esq. ...	5	1	0	30 T	30·84 196
D† Wootton (Fernhill) .....	C. G. Brodie, Esq. ....	8	0	6	118 T	38·75 164
D East Cowes (Spring Hill) .....	G. Shedden, Esq. ....	5	1	0	121 T	31·69 178
Cowes (High Street) .....	Mr. H. S. Benzie .....	5	6	0	20	31·56 158
„ (R. Yacht Squad. Castle)	„ „ „ .....	8	4	0	0	27·70? 157
2.—STOUR.						
D Bournemouth (West Cliff) .....	Rev. G. A. Rideout ...	5	1	0	130	33·77 190
D „ (Clarendon Court).	G. Galpin, Esq. ....	5	1	0	130 T	33·27 179
† „ (South Cliff) .....	C. Dales, Esq. ....	5	1	0	41	29·88? 189
† „ (Pleasure Gardens)	„ „ „ .....	5	1	0	41	35·59 189
§ „ (Vale View) .....	„ „ „ .....	5	1	0	145	34·48 190
D „ (Wellington House)	Messrs. Primavesi Bros.	5	1	0	100 T	30·66 194
D Christchurch (The White House)	A. H. Searle, Esq. ....	5	1	4	18 T	35·22 206
D „ (Heron Court) .....	The Earl of Malmesbury	5	1	2	25 T	38·32 196
D „ (Mill House, Hurn)	Mr. G. Rea .....	8	1	0	25 T	37·78 188
3.—EAST AVON & C.						
D Christchurch (Kenilworth) ... (R)	J. Hargrave Bridgford, Esq.	8	2	2	21	26·88? 181
D „ (Winkton Lodge) ..	Miss Lassell .....	5	1	0	34 T	31·53 191
D Ringwood (West Mount) .....	R. F. Williams, Esq. ...	5	1	0	100 T	36·81 202
„ Vicarage .....	Rev. W. D. Bodkin ...	5	1	0	60 T	34·42 ...

## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
<b>HAMPSHIRE—(con.)</b>						
<b>3.—EAST AVON &amp; C—(con.)</b>						
D Ringwood (Friday's Cross) .....	Dr. W. Dick .....	5	1 0	50 T	35·19	176
D Fordingbridge (Cuckoo Hill) ...	Heywood Sumner, Esq. ....	5	0 7	150	36·22	193
D " (Oaklands) .....	S. B. Rake, Esq. ....	8	1 0	135 T	35·72	189
D Tidworth House [Ludgershall]..	Mr. G. A. Inglefield ...	5	1 8	357 T	29·77	186
<b>4.—TEST &amp; SOLENT.</b>						
D Milford-on-Sea (Salt Grass) .....	A. C. G. Heygate, Esq. ....	5	1 0	6	33·61	178
D " " " (Milford House)..	E. L. Agar, Esq. ....	5	0 8	40	32·07	190
D Lymington (The Salterns) .....	P. A. Ouvry, Esq. ....	5	1 0	1	32·24	194
D " .....	F. Hill Parr, Esq., C.E. ....	5	1 0	78 T	36·55	172
Milton (Wootton Hill) .....	Lt.-Col. R. Harman ...	5	1 0	188 T	35·86	188
Ringwood (Park View, Burley)..	Rev. W. Esdaile .....	5	1 0	170 T	34·84	168
D Fawley (Cadland) .....	A. C. Drummond, Esq. ....	8	4 6	52 T	33·73	187
D Hythe (Heathfield, Dibden) .....	Jesse Reeves, Esq. ....	5	1 3	127	35·43	182
" (Heatherdown, Purlieu)..	H. S. Gilman, Esq. ...	5	1 4	126 T	34·98	190
Lyndhurst (Cuffnells) .....	R. G. Hargreaves, Esq. ....	6	1 0	200	39·09	...
§ Southampton (East Park) .....	Col. S. C. N. Grant ...	8	1 0	65 T	33·61	189
" Common Res. .... M	C. H. Roberts, Esq., C.E. ....	5	1 0	193 T	28·75	...
D Ampfield Vicarage .....	Rev. Vere Awdry .....	5	3 0	233 T	31·84	175
D Romsey (Timsbury) .....	(R) W. Matthews, Esq., C.E. ....	8	1 8	96 T	31·94	181
D West Dean .....	Rev. E. Wells .....	5	1 0	149 B	34·57	201
Horsebridge (Bossington House)	W. H. Deverell, Esq. ....	8	0 9	92 T	34·16	176
D Stockbridge (Ashley) .....	Legh S. Powell, Esq. ....	5	1 3	235 T	32·90	175
D Broughton .....	W. Steele Tomkins, Esq. ....	5	1 0	125 T	37·02	182
D Barton Stacey (Moody's Down)..	H. J. Gardiner, Esq. ....	5	1 3	230	33·06	177
D Micheldever (Northbrook House)	Miss E. M. Hare .....	5	0 11	325	33·91	187
D Sutton Scotney (The Nursery)...	R. d'Eyncourt Day, Esq. ....	5	1 0	200	32·17	175
D Oakley Rectory .....	Rev. F. G. Hume .....	5	1 6	400	37·07	221
D Facombe Manor .....	H. Gibson, Esq. ....	8	1 3	760 T	39·08	187
<b>5.—ITCHEN &amp; SPITHEAD.</b>						
Portsmouth (Eastney) .....	A. W. Ward, Esq., C.E. ....	8	0 9	16 T	27·19	...
D§ " (Victoria Park) .....	Dr. A. Mearns Fraser... ..	5	1 0	18 T	31·36	170
D Hayling Island (Littlemead) ...	Douglas S. Bird, Esq. ....	5	1 2	5 T	29·75	175
D " " (Lama House) .....	J. Johnson, Esq. ....	5	1 2	14 T	28·88	162
Porchester (Noel Cottage) .....	Miss Montgomerie Frost ..	5	2 0	...	28·96	...
Fareham (Belvoir House) .....	E. Woakes, Esq., M.D. ....	5	0 11	20	28·17	...
" (Cams Hall) .....	Capt. J. Ramsay .....	5	1 6	40	30·24	...
D " (The Mount) .....	H. R. Pink, Esq. ....	5	1 6	250 T	31·02	173
D " (Roche Court) .....	Mrs. H. F. Rawstorne.. ..	5	1 0	104 T	33·95	182
D† Havant (Farlington) .....	H. Ashley, Esq., C.E. ....	5	1 0	77 T	28·65	175
† " " .....	" " " .....	5	1 0	77 T	29·07	...
D† " .....	" " " .....	5	1 0	25 T	30·16	191
† " .....	" " " .....	5	1 0	25 T	30·46	...
" (Warblington Cottage)...	G. H. Evans, Esq. ....	5	0 6	9 T	31·08	...
D Netley (Lake House) .....	Col. W. A. Pennington ..	8	1 0	54 T	33·26	211
Cosham (Purbrook Grange) .....	Miss F. A. Deverell ...	8	0 9	100 ?	34·07	158
Southampton (Thornhill Park)...	Mr. G. Busby .....	5	1 8	220 T	30·41	...
" (Bitterne, Moorlands)	Courtenay F. Wilson Esq ..	5	1 0	200	32·73	166

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with -01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1910	
		in.	ft.	in.	feet,	inches.
<b>HAMPSHIRE—(con.)</b>						
<b>5.—ITCHEN &amp; SPITHEAD—(con.)</b>						
B Botley (Hedge End) .....	Rev. T. H. Philpott ...	8	1	1	178 A	33·97
B† „ (Botley Hill) .....	Lady Jenkyns .....	5	1	6	36 I	33·52
B† „ (Beechcroft, Curdridge)..	Miss L. M. S. Pasley...	5	1	0	96	33·28
† Horndean (Blendworth Lodge)...	Mrs. Long .....	8	0	10	217	45·25
B Catherington .....	R. H. Archer, Esq. ...	5	1	3	370 I	41·67
B Hambledon (Rosecroft).....	Mr. L. Dawes .....	5	2	6	200 I	39·66
Chalton (Woodcroft) .....	M C. J. P. Cave, Esq. ...	5	1	0	230	40·04
Bishops Waltham (Swanmore House)	W. H. Myers, Esq. ....	8	1	0	390 I	40·32
B „ „ (Hill Place) .....	Major W. A. Daubeney.	8	0	9	260 I	35·77
B „ „ (Wintershill Hall) .....	J. S. Moss, Esq. ....	5	1	0	290 A	33·57
B Droxford (Uplands) .....	Miss Bridge .....	5	1	0	279 I	39·18
B „ (Fairfield House) .....	H. Hamilton Bridge, Esq.	5	1	0	254	35·66
B „ (Fir Hill) .....	Capt. Mackenzie-Grieve	5	3	6	212 A	36·88
B Eastleigh (Fair Oak Park) .....	G. H. Pember, Esq. ...	5	1	0	180	32·81
B Chandlers Ford (Fryern) .....	Miss Grace Stuart .....	5	1	2	150	33·55
B† Petersfield (Ditcham Park) .....	C. J. P. Cave, Esq. ...	8	1	0	555 A	41·04
† „ „ „ „ ) .....	„ „ „ „ „	5	0	11	539 A	38·54
† „ „ „ „ „ ) .....	„ „ „ „ „	5	1	2	374 A	41·51
B† East Meon (Westbury House) ...	Col. Le Roy Lewis, D.S.O.	5	2	6	296 A	41·67
B Otterbourne (Elderfield) .....	G. Norsworthy, Esq. ....	5	1	0	137 A	34·81
B „ (W.W., Shawford). .....	C.H. Roberts, Esq., C.E.	5	1	0	113 A	31·03
„ „ „ „ „ ) M .....	„ „ „ „ „	5	1	0	113 A	32·06
West Meon (East End).....	F. W. Dowson, Esq. ...	3	4	0	271	42·05
B Twyford (Pumping Station)..(R)	W. Matthews, Esq. C.E.	8	1	9	139 A	31·78
Kilmeston Manor .....	C. G. Heathcote, Esq. ...	5	4	6	323 I	37·46
B Colmer Rectory .....	Rev. A. C. Hervey .....	5	1	1	560 A	42·02
B Alresford (Ovington Rectory) ...	Rev. H.F. La M. Stowell	5	1	0	221 I	41·46
East Tisted (Rotherfield Park)...	Mr. W. H. Yates .....	5	1	0	550 I	45·44
B Newton Valence Vicarage.....	Rev. A. C. MacLachlan.	5	1	0	586	39·97
B§ Swarraton Rectory .....	Rev. W. L. W. Eyre...	5	1	0	310 A	34·86
B Medstead Manor .....	(R) Capt. E. Jervoise, R.N.	8	1	10	705 I	55·71
B Ellisfield Manor .....	H. Hoare, Esq. ....	...	0	9	630	40·41
<b>6.—ARUN.</b>						
† Petersfield (Sunwood) .....	M C. J. P. Cave, Esq. ...	5	0	10	479 A	42·24
† „ (The Miscombe) ... M	„ „ „ „ „	5	1	1	250 B	42·81
† „ (Old Ditcham).....	„ „ „ „ „	5	1	1	250 I	40·97
„ (Weston) .....	Capt. P. W. Seward ...	8	0	9	330	39·84
„ (Nursted House) .....	J. Rowe Bennion, Esq..	5	1	9	350	42·20
B† „ (Fairley) .....	A W Leachman, Esq. MD	5	0	9	202 I	42·47
„ (The Mount, Ramshill) .....	F. G. Padwick, Esq....	8	1	0	250	43·78
B Liss (Overcombe) .....	Miss Jebb .....	5	1	0	500	41·65
B „ (Highfield) .....	J. S. Gamble, Esq., C.I.E., F.R.S.	5	0	9	325 A	39·74
B „ (Kippences) .....	Rev. W. A. H. Thorold	5	0	9	250	38·39
B „ (Berry Grove) .....	E. Latter, Esq. ....	5	1	3	250	41·29
B Greatham (King's Holt) .....	Mrs. Chase Parr .....	5	1	7	325 I	37·19
„ (Manor House).....	F. Coryton, Esq. ....	7	4	0	250	37·63

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with '01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>HAMPSHIRE—(<i>con.</i>)</b>						
<b>7.—THAMES—Wey.</b>						
1) Liphook (Fowley) .....	E. A. Lee, Esq. ....	5	0	10	296 T	38·89 213
1)† Grayshott [Hindhead] .....	Mrs. Lyndon .....	5	1	0	660 T	39·46 216
1) Headley (Eveley) .....	Mr. T. Carter .....	5	1	3	295 T	39·47 173
Liphook (Bordon Camp) .....	Major R. N. Harvey ..	8	1	0	268 T	35·60 170
Headley Park .....	Mr. G. Glaysher .....	8	1	6	250 ?	31·46 ...
Alton (Shalden Manor) .....	J. Gathorne Wood, Esq. ...	8	3	0	594 T	42·87 198
1) Froyle (Park Edge) .....	R. B. Sedgwick, Esq. ...	5	1	0	350 T	37·59 191
1) Bentley (Marelands) .....	Mrs. Seawell .....	5	0	8	310	34·67 151
<b>8.—THAMES—Loddon.</b>						
1) Herriard Vicarage .....	Rev. E. L. Crawhall .....	5	1	0	557 T	36·67 197
1) Warren Corner [Farnham] .....	F. Wilkin, Esq. ....	5	1	0	575 T	31·63 190
1) Upton Grey (Hoddington Ho.) .....	Lord Basing .....	8	1	0	378 T	41·22 175
1) Mapledewell .....	H. B. Thorp, Esq. ....	8	1	2	270	34·16 157
1)§ Aldershot (Sewage Works) .....	Mr. J. Edwards .....	5	1	0	231	34·75 216
1)§ Basingstoke (Queen's School) .....	A. M. Pitkin, Esq. ....	5	1	0	289	35·40 190
1) „ (Pumping Station) .....	F. R. Phipps, Esq., C.E. ...	5	0	6	320 T	33·11 174
1) „ (Sherborne St. John) .....	Rev. D. W. Chute .....	5	1	2	267 T	33·81 210
1) Winchfield (Elvetham Park) .....	Mr. G. B. Mitchison .....	8	1	0	217 T	32·01 201
Hartley Wintney .....	W. G. Machin, Esq. ....	5	1	2	222 T	31·15 170
1) „ Grange .....	F. Walkinshaw, Esq. ...	8	1	0	221 T	34·71 182
1) Strathfieldsaye Rectory .....	Rev. F. Page-Roberts .....	5	1	0	164	32·11 202
1) „ Gardens .....	Mr. A. G. Nichols .....	5	1	8	166	31·92 187
1) Heckfield (Park Corner) .....	Miss Martineau .....	5	1	2	257	29·33 187
<b>9.—THAMES—Kennet.</b>						
1) Wolverton (Ewhurst Gardens) .....	Mr. R. H. Nudds .....	5	2	2	400 ?	34·01 ...
1) Kingsclere (Tower Hill House) .....	Dr. R. Maples .....	5	0	3	327 T	38·26 205
<b>BERKSHIRE.</b>						
<b>2.—THAMES—Bourne.</b>						
1) Sunningdale (Lynwood) .....	G. Rodie Thompson, Esq. ...	5	1	0	266 T	30·71 206
<b>3.—THAMES—Loddon &amp; c.</b>						
1) Sandhurst Lodge .....	Sir W. J. Farrer .....	8	2	9	263	31·87 164
1) Wellington College .....	C. A. Stocken, Esq. ....	5	1	0	283 T	32·38 179
1) Finchampstead (West Court) .....	C. E. Harris-St. John, Esq. ...	5	1	0	180 T	31·51 233
1) Swallowfield Park .....	Sir Charles Russell, Bart. ...	5	1	0	150	30·96 175
1) Ascot (Winkfield Manor) .....	C. A. Ferard, Esq. ....	5	1	0	240 T	31·27 202
1) Wokingham (Staverton) .....	H. C. Mylne, Esq. ....	5	1	0	220 T	29·92 218
1) „ (Pinewood) .....	Meteorological Office .....	8	1	0	219	29·90 185
1) Bracknell (Warfield) .....	late Rev B. C. Littlewood ...	5	0	6	206 T	28·64 188
1) Winkfield (Ryemead) .....	Mrs. Aubrey Elliott .....	5	0	10	220 T	30·21 204
1) Windsor (Royal Gardens) .....	Mr. T. Edwards .....	5	1	0	88 T	29·17 207
1) Reading (Earley) .....	M. J. Sutton, Esq. ....	8	1	6	150 T	27·13 ...
1) Maidenhead (Heywood Park) .....	Greville H. Palmer, Esq. ...	8	1	0	100	28·20 166
1) „ (Hall Place) .....	Sir G. A. C. East, Bart. ...	8	2	2	275	29·05 182
1) Bisham Vicarage .....	Rev. W. Farrer .....	5	1	0	100	29·06 183
1) Temple House [Marlow] .....	Mr. G. Groves .....	5	1	0	106	29·92 219



## DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
BERKSHIRE.—(con.)						
4.—THAMES—Kennet & c.						
D Mortimer (Wokefield Park) .....	A. Palmer, Esq. ....	5	4 0	180 $\nabla$	29.31	179
D Newbury (Sandleford Priory) ...	Mr. R. H. Butcher	8	2 0	381 $\nabla$	42.11	200
D „ (Greenham Common) ..	H. L. Bowman, Esq. D. Sc.	5	1 0	328 $\nabla$	34.95	188
D Mortimer (Burghfield Common) ..	Major R. H. Kirkwood	...	...	315	30.83	...
D Sulhampstead (Firlands) .....	J. T. Strange, Esq. ...	5	1 0	300 $\uparrow$	32.17	189
D Aldermaston Wharf .....	„ „ „ „ „	5	1 0	181 $\nabla$	33.36	222
D Woolhampton (Douai Abbey) ...	Rev W. B. Buggins, O.S.B.	5	1 3	365 $\uparrow$	28.05	197
D Beenham House .....	Capt. W. Waring .....	8	2 2	320	31.42	179
§ Bucklebury Place .....	Meteorological Office ...	4	1 0	409	30.85	191
D Reading (Calcot Place) .....	Maj.-Gen. Swettenham	5	1 4	176 $\uparrow$	29.66	195
§ „ (Leighton Park) .....	Meteorological Office ...	8	1 0	265	26.22	178
D „ (Forbury Gardens) .....	J. Bowen, Esq., C.E. ...	5	1 5	145 $\nabla$	31.04	204
D § „ (University College) ...	Dr. H. N. Dickson .....	5	1 0	152 $\nabla$	23.37	206
D „ (The Cedars, London Rd.)	W. Haynes, Esq. ....	5	2 7	151 $\uparrow$	29.89	197
D „ (Caversham Lock) .....	R. A. Swarbreck, Esq. ...	...	...	...	29.51	208
D Newbury (Welford Park) .....	Mr. C. Pope .....	5	1 0	341 $\uparrow$	40.80?	204
D „ (Weston) .....	R. Osmond, Esq. ....	5	1 4	335 $\nabla$	33.39	200
D Lambourn (East Garston) .....	J. H. Spackman, Esq. ...	5	2 6	395 $\uparrow$	32.58	214
D „ (Clarionville) .....	F. Gullett, Esq. ....	5	1 6	500	33.96	176
5.—THAMES—Ock & c.						
D Reading (Englefield) .....	J. H. Benyon, Esq. ...	5	1 1	175 ?	32.59	181
D Frilsham House .....	Mr. W. E. Austen .....	5	1 0	370	33.15	188
D Yattendon Court .....	Mr. F. Pitman .....	5	0 10	440 $\uparrow$	33.50	194
D Farnborough Rectory .....	Rev. J. B. H. Whitehurst	5	1 3	713 $\uparrow$	35.89	208
D Wallingford (Aston Tirrold) ...	J. Harold Slade, Esq. ...	5	1 1	250	28.42	...
D Didcot (Upton) .....	Miss Fry .....	5	2 3	240 $\uparrow$	31.74	205
D Wantage (Ginge Manor) .....	Miss Elliot .....	3	3 0	332 $\uparrow$	35.18	220
D „ „ „ „ „	W. Hanson, Esq., C.E.	5	1 0	304	31.99	177
D „ „ (St. Katherine's School)	Miss J. O. Cudlipp .....	5	1 0	300	30.71	195
D Woolstone (Mill House) .....	Miss Turner .....	5	1 0	300	33.00	...
D Steventon (Milton Hill) .....	R. H. Betteridge, Esq.	5	2 0	300	30.18	169
D Wallingford (Woodlea) .....	G. F. Slade, Esq. ....	5	0 6	200 ?	28.21	176
D „ „ Castle .....	Miss Hedges .....	5	1 0	175 $\nabla$	28.05	...
D „ „ (Brightwell) .....	Lt.-Col. G. Hart Dyke.	5	1 4	164	27.60	182
D Little Wittenham .....	J. Latham, Esq. ....	5	2 0	187	24.04?	169
D Long Wittenham (Manor Ho.) ...	Admiral Clutterbuck ...	12	1 0	170 $\nabla$	28.14	174
D „ „ (Willington) ...	H. J. Hewett, Esq. ....	5	1 0	167 $\uparrow$	27.82	195
D Faringdon .....	Mr. C. Luker .....	5	1 0	333 $\uparrow$	30.82	158
D Abingdon (The Square House) ...	E. Estridge, Esq. ....	5	1 9	180 $\uparrow$	29.65	187
D „ „ (Twickenham House) ..	Mr. A. Fawdry .....	5	10 0	220	28.45	165
D „ „ (Caldecott House) ...	Maj.-Gen. T. M. Bailie	5	1 6	177 $\nabla$	29.45	...
D „ „ (Sewage Works) .....	G. Winship, Esq., C.E.	5	0 6	169	27.31	...
D „ „ Union .....	Mr. J. Fray .....	5	1 0	196	30.02	185
D „ „ (Donnington) .....	R. W. Langford, Esq. ...	...	1 6	196	28.49	184
D „ „ (Oakley Warren) .....	Mrs. Blakeney .....	8	0 11	253 $\uparrow$	27.47	162
D „ „ (Northcourt House) ...	M. T. Tatham, Esq. ...	5	0 7	190 $\uparrow$	29.66	...

A map of this Division, showing the sub-divisions, will be found in Part I.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1910	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
<b>MIDDLESEX.</b>							
<b>1.—THAMES—Colne &amp; Brent.</b>							
d† Hampton	Met. Water Board.....	8	1	0	42 ⅞	23·38	181
d „ Wick (Park House) ...	A. Shorter, Esq.....	5	1	0	28 ⅞	28·49	181
d Teddington (Clarence Road) ..	T. Gale, Esq. ....	5	1	3	40 ½	25·89	149
d Staines (Belle Vue) .....	J. Gundry, Esq. ....	5	1	0	51 ⅞	29·33	217
d „ (Cambria House) .....	C. Ashby, Esq. ....	5	0	10	50 ½	27·02	188
d Twickenham (Sewage Works)...	F.W. Pearce, Esq., C.E.	5	1	7	37 ⅞	23·93	172
d § Isleworth (Mandeville House) ...	A. Worsley, Esq. ....	12	1	0	24	32·74 ½	...
d Sipson (Hollycroft) .....	Mr. W. J. Mitchell ..	5	1	0	95 ½	23·78	...
d† Kew Bridge .....	Met. Water Board.....	8	3	0	37 ⅞	26·50	165
d Chiswick (Grove Park).....	M. G. Brounger, Esq....	5	1	1	18 ⅞	24·65	179
d Hayes (Council Offices).....	Douglas C. Fidler, Esq.	8	4	0	135 ⅞	29·49	179
d Ealing (Grange Park) .....	H. M. Baker, Esq.....	5	1	6	97 ⅞	25·81	189
d „ ( „ „ ) .....	M	5	1	6	97 ⅞	25·21	...
d „ (Longfield Avenue) .....	C. Jones, Esq., C.E. ...	5	9	0	114	26·92	176
d „ (Gordon Road) .....	Joseph Box, Esq. ....	5	10	0	85 ⅞	25·36	179
d „ (Castle Bar Hill) .....	the late T. Simpson, Esq.	5	1	0	152 ⅞	27·34	171
d „ (St. Stephen's Road) ...	H. W. Peal, Esq. ....	8	1	10	159 ⅞	25·36	172
d Perivale (Northern Sewage Farm)	C. Jones, Esq., C.E. ...	5	12	0	56	26·17	210
d† Willesden Reservoir .....	Met. Water Board.....	5	2	6	199 ⅞	23·30	153
d† „ Green (Strode Road)..	Miss Lamport.....	5	1	0	150	25·93	180
d „ (Stonebridge Farm) (R)	O. C. Robson, Esq., C.E.	10	5	9	100 ⅞	25·23	165
d Highgate (North Hill) .....	L. J. Tatham, Esq. ...	5	1	0	400	25·13	189
d „ ( „ „ ) .....	E. J. Lovegrove, Esq., CE	5	3	10	302	26·75	188
d Harrow (Bessborough Road Depôt)	J. P. Bennetts, Esq., C.E.	5	1	0	215	28·42	199
d Hendon (Central School) .....	J. W. Butler, Esq. ...	5	1	4	200	26·76	203
d Wealdstone House .....	K. R. Cobb, Esq. ....	5	0	11	236 ⅞	26·18	161
d § Harefield (The Scrubbs) .....	Meteorological Office...	5	1	0	338	28·51	189
d Pinner (Hatch End) .....	W. M. Cann, Esq.....	5	0	11	260	29·92	198
d Northwood (Haslemere) .....	Miss McBean .....	5	1	0	200 ½	28·89	173
d „ (Murray Road) .....	Dr. H. Dane .....	5	1	0	240	30·67	210
d „ (The Grange) .....	A. P. Blathwayt, Esq..	5	1	0	220 ⅞	30·70	190
d Harrow Weald (Hill House) ...	A. Crossman, Esq.....	5	3	6	284	27·96	219
d North Finchley .....	Miss M. Shoults.....	5	0	8	295 ⅞	26·35	199
d† Mill Hill (Tennyson Road) .....	Mrs. Edwards.....	5	1	0	250	27·32	172
d† „ „ (The Hollies) .....	Mrs. H. R. Mill.....	5	1	0	380	26·55	195
d† „ „ ( „ „ ) .....	M	5	1	0	350	26·25	...
d „ „ (Sunnyside) .....	H. Harris, Esq. ....	5	0	6	380	27·95	...
<b>2.—THAMES—Lea.</b>							
d Crouch End (Barrington Road)..	E. J. Lovegrove, Esq., CE	6	...	...	140 ½	26·68	183
d Harringay Depôt .....	„ „ „ „	...	...	...	...	22·65	177
d § Tottenham (Drayton Road) .....	W. P. West, Esq.....	5	1	3	53 ⅞	23·15	156
d† Hornsey (High Street) .....	Met. Water Board.....	5	4	0	109	27·32	192
d Muswell Hill (Grand Avenue)...	G Michael Williams, Esq	5	1	0	317	29·33	...
d „ „ (Hillfield Park) ...	E. A. Lee, Esq. ....	5	30	0	380 ½	27·64	174
d „ „ (Colney Hatch Lane)	Miss Abethell.....	5	0	10	310 ⅞	29·77	200
d „ „ (Irish Corner Sewage Farm)	E. J. Lovegrove, Esq., CE	8	4	8	216 ⅞	26·36	177
d Wood Green (Maryland Road)...	Mr. F. C. Hornsey.....	8	9	4	118	24·94	175

## DIVISION III.—SOUTH MIDLAND COUNTIES—(continued.)

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
<b>MIDDLESEX—(con.)</b>						
2.—THAMES—Lea—(con.)						
▷ Finchley (Victoria Park) .....	C. J. Jenkin, Esq., C.E.	5	1 0	272 ♠	27·86	192
▷ „ (Etchingham Park) .....	Mrs. J. W. Scott .....	5	1 2	295 †	26·71	202
▷ Southgate (Reservoir Road) .....	W. B. Butler, Esq. ....	5	1 0	255 ♠	28·97	191
▷ Ponders End (Bylock Hall) .....	H. E. Freir, Esq. ....	5	1 0	50	24·51	191
▷† „ „ .....	Met. Water Board .....	8	1 0	45 ♠	25·41	177
▷ Enfield (Southbury Road) .....	„ „ „ .....	5	4 0	109 †	25·22	163
▷† „ (Carisbrooke Culloden Rd.) .....	J. McEwan, Esq. ....	5	1 0	204 ♠	28·59	209
▷ Enfield (Clay Hill) .....	G. H. C. Lea, Esq. ....	5	1 0	200 ?	28·44	222
▷† Rammey Marsh [Waltham Abbey] .....	Met. Water Board .....	8	1 6	60 ♠	28·85	180
▷† Potters Bar (Little Heath) .....	Henry Ellis, Esq. ....	5	4 8	375	31·66	199
<b>HERTFORDSHIRE.</b>						
1.—THAMES—Thame.						
▷ Tring (Grove Lodge) .....	Miss Boyson .....	8	1 0	450	32·35	209
„ (Pendley Manor) .....	Mrs. Williams .....	5	2 0	420	34·08	203
▷ „ (Cowroast Lock) .....	Gordon C. Thomas, Esq.	5	3 8	394 ♠	32·02	156
2. THAMES—Colne.						
▷ Easby [Northwood] .....	Mrs. Sandford Fawcett	8	0 10	400 †	30·93	168
Gate House [ „ ] .....	O. S. Holt, Esq. ....	8	4 6	448	27·66	178
▷ Rickmansworth (Moor Park) .....	Lord Ebury .....	5	2 0	340	28·86	239
▷ „ (Croxley Green) .....	S. Ingleby Oddie, Esq..	5	0 7	250 †	32·05	167
† Totteridge (West Lodge) .....	W. H. Newman, Esq. ...	5	1 0	390 ♠	28·91	193
▷† „ (Dollis Brae) .....	C. Stewart King, Esq..	5	1 0	350 †	29·83	178
Elstree (Bays Hill) .....	H. S. Winter, Esq. ...	5	1 0	430 †	31·26	...
▷† „ (Aldenhall House) ... (B)	Mr. E. Beckett .....	10	4 9	305	25·42	157
▷ Watford (Bushey Hall Road) .....	J. Durst, Esq. ....	5	0 7	230	29·94	194
▷ „ (Colne Valley W.W.) ...	C. P. Sinclair, Esq. ...	5	1 0	200 †	28·26	196
▷ „ (London Orphan Asylum) .....	Rev. Dr. Cockrem .....	5	1 0	230 †	30·35	214
▷ „ (Weetwood) .....	J. Hopkinson, Esq. ...	5	1 0	269 ♠	31·39	212
„ ( „ ) .....	M .....	5	1 0	269 ♠	31·11	...
▷† Shenley (Kitwells) .....	T. H. Riches, Esq. ...	5	1 0	420	31·21	185
„ ( „ ) .....	M .....	5	1 0	420	29·88	...
Chipperfield (Little Callipers) ...	A. W. Rivington, Esq.	5	1 0	407 †	27·45	...
▷ London Colney (Bowmans) .....	C. Barwell Field, Esq. ...	5	1 0	235	27·80	182
▷ Hemel Hempstead (Apsley Mills) .....	Messrs. J. Dickinson & Co.	24	1 4	260	32·75	212
▷ „ (Church Croft) .....	Rev. Canon F. H. Fisher	5	3 0	300	35·81 ?	193
▷ St. Albans (Bone Hill) .....	J. Hopkinson, Esq. ...	5	1 0	336 ♠	31·71	220
▷ „ (Hill End) .....	G. Goodchild, Esq. ...	5	1 0	295 †	28·89	175
▷ „ (County Museum) ..	J. Hopkinson, Esq. ...	5	1 0	389 †	31·55	204
„ (Gorhambury) .....	Mr. W. Newberry .....	5	1 0	423 ♠	30·29	...
▷† Berkhamsted (Rosebank) .....	E. Mawley, Esq. ....	8	1 0	401 ♠	31·39	185
† „ ( „ ) .....	M .....	8	1 0	401 ♠	30·95	...
§ Harpenden (Rothamsted) .....	A. D. Hall, Esq., F.R.S.	5	0 9	420 †	30·58	200
§ „ ( „ ) .....	„ „ „	8	0 9	420 †	29·65	186
▷§ „ ( „ ) .....	„ „ „	72X87	0 9	420 †	32·13	196

## DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\frac{1}{10}$ or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1910
		in.	ft.	in.	feet.	inches.
<b>HERTFORDSHIRE—(con.)</b>						
<b>3.—THAMES—Lea.</b>						
D Barnet (Gas Works) .....	J. Hopkinson, Esq. ....	8	0	9	212	30·55 188
D „ (Summerhill) .....	F. A. Milne, Esq. ....	5	0	10	400 T	27·12 194
D „ (Bedford Avenue) .....	the late Rev. J. B. Lee	5	1	3	350	30·98 220
D Cheshunt (Goff's Oak House) ...	W. M. Cuninghame, Esq.	5	1	0	310 T	27·78 198
D Northaw (St. Just) .....	Miss Poland .....	5	1	0	400	32·15 210
D „ (Newgate Street) .....	Rev. H. W. Southey ...	5	1	0	370 T	31·26 ...
D† Broxbourne (Stafford House) ...	A. F. Newbery, Esq. ...	5	1	0	118 T	27·31 178
D† Hoddesden (Feilde's Weir) .....	Met. Water Board .....	8	3	8	95 T	25·83 191
D Haileybury College .....	P. H. Latham, Esq. ...	8	1	0	270 T	26·23 179
D Gilston Park .....	Mr. E. Leach .....	8	0	7	175 T	28·61 183
D Hatfield (Holwell House) .....	Wilfrid E. Laurie, Esq.	5	1	6	240 T	27·28 182
D Hertford (Bayfordbury) .....	H. W. Clinton Baker, Esq.	8	1	2	250	29·67 205
D Stanstead Abbots .....	E. H. Barlow, Esq. ...	5	1	2	115 T	25·15 178
D† Hertford (Sewage Works) .....	Met. Water Board .....	8	1	0	121 T	23·21 157
D§ Ware (Red House) .....	„ „ „ .....	5	4	0	115 T	25·48 181
D§ „ (Grammar School for Girls)	Miss Rutter .....	5	1	0	120	24·81 174
D „ (Fanham's Hall) .....	J. Hopkinson, Esq. ...	8	1	0	210 T	28·86 179
D Welwyn (Bridge House) .....	Dr. B. W. Thomas ...	5	2	3	216	33·60 186
D Much Hadham .....	T. W. Mott, Esq. ....	5	1	0	212	26·97 202
D Bishops Stortford (Hadham Road)	H. Sheppard, Esq. ....	5	7	0	300 ?	26·69 ...
D§ Bennington House .....	Rev. Dr. J. D. Parker..	5	1	0	406 T	27·08 190
D „ Lordship .....	A. F. Bott, Esq. ....	5	0	10	365 T	27·38 198
D Little Hadham (Hadham Hall)..	W. Minet, Esq. ....	5	0	10	338	27·44 168
D Standon (Libury Hall) .....	Mr. E. Seiter .....	5	1	3	...	24·03 168
D Buntingford (Hamels Park) .....	H. Shepherd Cross, Esq.	5	1	3	390 T	26·39 179
D „ (Westmill, Coles Pk.)	T. Greg, Esq. ....	5	0	8	379 T	26·98 201
D Hitchin (Preston) .....	R. de V. Pryor, Esq. ...	8	2	5	480 T	28·05 185
D Weston Park .....	M. R. Pryor, Esq. ....	5	0	8	470 T	27·80 203
D Buntingford (Throcking Rectory)	Rev. C. Wigan Harvey	5	1	0	487 T	27·54 218
D Royston (Therfield Rectory) .....	Mr. J. Cracknell .....	5	1	0	513 T	27·81 192
<b>4.—OUSE.</b>						
D§ Offley Vicarage .....	Rev. E. P. Gatty .....	5	1	6	525	28·44 206
D Graveley Rectory .....	Rev. R. E. Chesshyre Walker	...	...	...	320	27·29 ...
D† Hitchin (Wratten) .....	W. Lucas, Esq. ....	5	2	1	238 T	27·73 190
D† „ (The Maples) .....	W. Hill, Esq. ....	8	1	1	220 T	27·74 190
D† „ (The Chilterns) .....	F. Ransom, Esq. ....	5	0	9	300 T	26·76 193
D† „ (High Down) .....	Miss E. Pollard .....	5	1	1	422 T	27·05 195
D „ (Roxley Court, Willian)	Mrs. Bendixson .....	5	1	6	360	26·79 183
D Letchworth (Garden City) .....	A. W. E. Bullmore, Esq.	5	1	0	218 T	27·47 182
D Baldock (High Street) .....	Dr. F. W. Langston Day	5	1	0	214 T	28·67 186
D Royston (Barley) .....	W. W. Cook, Esq. ....	5	1	0	300	26·09 179
D „ (Earlshill House) .....	J. Phillips, Esq. ....	8	1	6	225 T	26·46 209
<b>BUCKINGHAMSHIRE.</b>						
<b>2.—THAMES—Thame.</b>						
D Wendover (Halton Gardens) ...	Mr. R. C. Sanders .....	5	1	10	400	31·62 194

## DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
<b>BUCKINGHAMSHIRE—(con.)</b>							
2.—THAMES—Thame—(con.)							
d Bulbourne [Tring] .....	Gordon C. Thomas, Esq.	5	2	3	401 T	30.11	162
Mentmore Gardens .....	Mr. J. MacGregor .....	5	1	2	400 ?	28.64	...
3.—THAMES—Wye & c.							
d Eton (Tangier Islands) .....	C. Sainty, Esq. ....	5	1	0	67 T	27.88	184
† Slough (Upton) .....	M R. Bentley, Esq. ....	8	2	0	80 T	26.32	...
d† „ ( „ ) .....	„ „ „ .....	5	2	0	78 T	27.83	204
Taplow Court .....	Lord Desborough .....	8	1	0	217 T	25.46	...
d Burnham (Lincoln Hatch) .....	P. Bicknell, Esq. ....	5	1	0	172 T	27.43	183
„ (Burnham Cottage) ...	G. J. Williams, Esq. ....	5	3	0	182 T	27.82	155
d „ (Bedford Villa) .....	L. Lowman, Esq. ....	5	1	0	182	26.53	190
d Farnham Royal (The Chase) .....	F. C. Carr-Gomm, Esq. ....	5	3	0	169 T	29.15	185
Greenlands [Henley-on-Thames] .....	Hon. W. F. Smith, M.P. ....	8	1	3	116	30.89	182
d Hedsor .....	Lord Boston .....	8	1	0	170 T	31.94	180
d Marlow (Thames Bank) .....	S. H. Wright, Esq. ....	8	2	0	105	30.78	214
§ Beaconsfield (Norfolk House) ...	Meteorological Office ...	8	1	0	484	29.20	178
d High Wycombe .....	H. S. Wheeler, Esq. ....	5	0	11	253 T	31.76	201
d Saunderton (Bledlow Ridge) ...	Lewis R. Shorter, Esq. ....	8	0	11	618 T	32.18	174
Bradenham House .....	J. H. Tempest, Esq. ....	8	0	6	...	31.70	...
Saunderton (Speen) .....	H. R. McCarthy, Esq. ....	5	1	0	650	35.14	...
Hampden House .....	The Earl of Buckinghamshire .....	5	1	0	690 T	35.69	...
4.—THAMES—Colne.							
Wraysbury (Elmslea) .....	Lieut. P. C. Pearson, R.N. ....	5	1	0	50	29.82	157
d Horton (Horton Cottage) .....	R. M. Ker, Esq. ....	5	1	0	66 T	27.62	185
d Slough (Langley) .....	R. H. Major, Esq. ....	8	0	10	85 T	27.27	182
Iver .....	A. Chapman, Esq. ....	5	3	0	160	27.58	...
Beaconsfield (Ledborough Lane) .....	A. G. Robins, Esq. ....	5	1	0	400	32.75	177
d Chalfont St. Giles (The Stone) ...	Col. R. W. Phipps .....	5	1	0	270 T	30.84	192
„ „ ( „ ) M .....	„ „ „ „ „ .....	5	1	0	270 T	30.75	...
d „ „ (Woodlands) ...	A. D. Gordon, Esq. ....	5	0	11	400 T	33.07	195
„ „ ( „ ) M .....	„ „ „ „ „ .....	5	0	11	400 T	33.02	...
d Amersham (The Plantation) .....	G. Weller, Esq. ....	8	1	0	464 T	34.18	194
Chesham (Chesham Bois Rectory) .....	Rev. T. H. Fitzpatrick. ....	5	0	11	530 T	34.41	...
5.—OUSE.							
d Oving House .....	H. Yates Thompson, Esq. ....	5	1	0	515 T	29.18	217
„ „ „ M .....	„ „ „ „ „ .....	5	1	6	515 T	28.89	...
d § Winslow (Market Square) .....	R. A. Easton, Esq. ....	8	1	0	380 T	29.94	198
„ (Norden House) .....	Dr. T. F. Vaisey .....	5	0	7	...	27.26	...
d „ (Addington Manor) ...	Mr. J. Collins .....	8	1	0	309 T	28.50	185
Stockgrove Pk. [Leighton Buzzard] .....	Mr. J. Clues .....	5	1	2	500	29.68	165
d Buckingham (Adstock Fields) ...	J. E. S. Weston, Esq. ....	5	0	9	352 T	26.57	194
d „ (The Vicarage) .....	Rev. P. P. Goldingham .....	5	2	0	278 T	29.24	168
d Wolverton (St. George's Vic.) ...	Rev. W. L. Harnett ...	5	1	0	270 T	28.10	199
d „ (The School House) ...	H. J. Hipsley, Esq. ....	5	1	0	264 T	27.84	199

## DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
BUCKINGHAMSHIRE—(con.)							
5.—OUSE—(con.)							
D Newport Pagnell (The Croft) ...	F. Littleboy, Esq.....	5	2	0	191 T	25·73	179
D „ „ (Lovat Bank)..	F. J. Taylor, Esq.....	5	2	0	190	24·78	173
OXFORDSHIRE.							
1.—SEVERN—Upper Avon.							
D Sibford Ferris.....	Joshua Lamb, Esq. ...	5	1	0	575 T	33·09	183
2.—THAMES—Windrush & c.							
Clanfield (The Schools).....	Mr. R. C. Lucas.....	5	1	0	220	27·76	...
Stanton Harcourt School .....	S. Heaton, Esq. ....	6	1	0	202	32·45	...
Bampton (Brize Norton School)..	„ „ „ .....	6	1	0	269	28·68	...
Witney (C. of E. School) .....	F. Hayter, Esq.....	5	1	0	260	27·59	...
D „ (Ringwood Farm) .....	J. W. Abraham, Esq..	5	1	0	400 ?	30·42	179
„ (Hailey School) .....	S. Heaton, Esq. ....	6	1	0	360	34·47	...
Woodstock (Freeland House) ...	W. J. Short, Esq. ....	8	0	9	345	29·45	158
D „ (Wootton Rectory)...	Rev. F. R. Marriott ...	5	0	10	370 T	30·21	186
Shipton-under-Wychwood(C. of E. School)	S. Heaton, Esq. ....	6	1	0	360	30·17	...
Ascot-under-Wychwood ( „ „ )	„ „ „ „ .....	6	1	0	320	36·36	...
D Charlbury (Wychwood House)...	J. H. Glen, Esq. ....	5	1	5	450	31·58	217
„ School .....	S. Heaton, Esq. ....	6	1	3	400	36·04	...
D Lyneham.....	R. de M. Pratt, Esq....	5	1	7	351 T	36·23	197
D Churchill School.....	W. H. Anson, Esq. ...	8	1	3	524	36·37	176
D Sarsden (Estate Office).....(R)	J. M. Blair, Esq. ....	8	3	0	492 T	32·50	192
D „ Gardens.....	Mr. J. Vine .....	5	0	10	538 T	33·47	185
Chipping Norton (Heythrop) ...	Albert Brassey, Esq....	10	4	0	700	27·96?	181
„ „ ( „ School)	S. Heaton, Esq.....	6	1	0	163	34·51	...
Little Tew .....	Guy G. Croft, Esq. ...	5	1	0	590 T	34·64	...
3.—THAMES—Cherwell.							
Nuneham Park Gardens .....	Mr. C. E. Munday.....	8	3	0	280 T	26·05	...
D Oxford (Hincksey Pumping Sta.)	W. H. White, Esq., C. E.	8	1	0	187 T	27·51	175
D „ (Magdalen College) .....	R. T. Günther, Esq....	5	1	0	186 T	25·82	185
„ ( „ „ ) .....	„ „ „ „ .....	5	33	11	223 T	23·96	...
D† „ (Radcliffe Observatory)..	Dr. A. A. Rambaut, FRS	8	1	8	210 T	28·82	190
D† „ ( „ „ „ )(R)	„ „ „ „ .....	11	2	4	210 T	29·18	180
D „ (Banbury Road) .....	Miss E. M. Tawney ...	5	1	1	211 T	27·63	174
D „ (Warneford Asylum) ...	Dr. J. Neil .....	5	1	0	300 T	25·79	164
D „ (Headington Hill) .....	Miss Davenport .....	5	0	10	354	28·57	197
D „ (Elsfield) .....	Miss M. J. Parsons ...	5	1	0	330 T	29·29	190
Ishp.....	Col. G. E. Eliot.....	5	3	0	200 T	28·54	...
D Hampton Poyle Rectory .....	Rev. S. T. Gwilliam ...	5	1	0	201 T	28·41	173
Charlton-on-Otmoor School .....	E. Cartwright, Esq. ...	6	1	3	197 T	30·80	...
D Bicester (Bank) .....	H. A. Fane, Esq. ....	5	0	10	231 T	29·44	182
D „ (Middleton Park) .....	The Earl of Jersey.....	5	2	6	326 T	31·60	204
Steeple Aston (Hill House) .....	B. S. Ogle, Esq.....	5	0	5	400	31·45	202
D „ „ (The Grange).....	Miss Bradshaw .....	8	1	0	400 T	31·19	202
Upper Heyford (C. of E. School)	S. Heaton, Esq. ....	6	1	0	350	34·22	...
D Swerford.....	W. Hall, Esq. ....	5	1	0	500 T	36·69	213

## DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
OXFORDSHIRE—(con.)						
3.—THAMES—Cherwell—(con.)						
D Adderbury (Cross Hill).....	G. H. Norris, Esq.....	5	1	1	338 $\nabla$	29·63 191
D Bloxham Grove .....	W. H. Warriner, Esq.	8	3	10	387 $\nabla$	31·74 196
D Bodicote House .....	J. F. Starkey, Esq. ...	8	1	3	388 $\nabla$	30·38 188
„ (Draycott House) .....	F.B.JudgeBaldwin, Esq	5	1	8	391 $\nabla$	30·92 209
Wroxton.....	Hon. Mrs. FitzGerald...	8	1	3	700	28·09 203
4.—THAMES—Thame & c.						
D Caversham (Hemdean Road) ...	W. Simpson, Esq.....	5	1	0	129 $\nabla$	32·26 201
„ (St. John's School)...	S. Heaton, Esq. ....	...	...	...	128	33·26 ...
„ (Eastfield) .....	C. M. Powell, Esq.....	5	1	0	180 $\nabla$	29·92 188
D „ (St. Benet's Home)...	Mr. H. Hall .....	5	1	3	300	31·11 188
D „ (Kidmore End School)	T. F. Higgins, Esq. ...	5	0	11	330 $\nabla$	36·62 164
D Goring (Elmercroft).....	Major E. Gambier Parry	5	0	10	160	30·73 205
Henley-on-Thames (Peppard) ...	Rev. Hubert Shears ...	5	1	0	336	30·43 209
D „ „ „ (GreysGreen)	Miss Mary Davis .....	5	2	0	350 $\nabla$	32·84 212
D „ „ „ ( „ Lane)	G. Potter, Esq. ....	5	0	9	123	30·05 175
D Nettlebed (Joyce Grove) .....	Mr. A. Johnstone .....	5	1	0	590 $\nabla$	33·64 192
D Assenton .....	Mr. J. Ratty .....	5	1	0	281 $\nabla$	33·47 168
D Dorchester (Bishops Court) .....	T. Latham, Esq. ....	5	2	0	169	25·77 204
D Abingdon (Culham.Vicarage) ..	late Rev. F.C.Clutterbuck	5	1	0	200 $\nabla$	30·46 195
D „ ( „ School House)	F. Mitchell, Esq. ....	5	0	10	180	28·57 187
D „ ( „ College) .....	R. L. Treble, Esq.....	8	0	11	213 $\nabla$	28·10 207
D Clifton Hampden (Manor House)	Lord Aldenham .....	5	1	0	190 $\nabla$	25·31 179
D† Watlington (Pyrton Hill).....	W.H.Dines, Esq.F.R.S.	5	1	0	520 $\nabla$	32·18 186
D „ ( „ Manor).....	Mr. A. Beckenham ...	5	1	6	321 $\nabla$	27·92 178
Brightwell Baldwin School .....	S. Heaton, Esq. ....	6	1	0	400	25·50 ...
Lewknor (Manor House) .....	Miss Spencer .....	5	1	3	360	28·90 174
D Toot Baldon (Potland) .....	D. Clinkard, Esq. ....	5	1	0	288	28·86 194
„ „ School .....	S. Heaton, Esq. ....	6	1	0	292 $\nabla$	28·74 ...
D Great Haseley (Manor House) ...	F. Gelderd-Somervell, Esq....	5	1	0	280 $\nabla$	26·82 167
D† Waterstock.....	W. H. Ashhurst, Esq... 8	3	2	200 ?	30·14	203
D† Wheatley (Schoolhouse) .....	R. Leyshon, Esq. ....	6	1	3	240	35·00? 203
† „ (Holton Cottage).....	Capt. A. Gordon Russell	5	3	0	250 ?	28·24? ...
Thame (Tythrop House) .....	A. W. Smith, Esq.....	...	...	...	230 ?	25·91 166
Stanton St. John (Woodperry)...	J. Thomson, Esq. ....	6	1	0	399 $\nabla$	32·26 210
NORTHAMPTONSHIRE.						
1.—SEVERN—Upper Avon.						
D Winwick Warren .....	Col. R. H. Ainsworth...	8	1	5	648 $\nabla$	30·25 218
D Lilbourne Vicarage .....	Rev. T. R. Price .....	8	1	3	330	27·61 205
D Welford (Salford House) .....	J. Gee, Esq. ....	5	1	3	566	28·47 221
2.—THAMES—Cherwell.						
D King's Sutton (Astrop).....	E. Browne, Esq. ....	5	1	0	338 $\nabla$	28·01 196
D Grimsbury (Banbury W.W.) ...	W. E. Wood, Esq.....	5	1	3	320 $\nabla$	24·84 197
D Thorpe Mandeville.....	C. A. Markham, Esq... 5	1	0	530	30·57	171
3.—OUSE.						
D Brackley House .....	J. Allen, Esq.....	5	1	0	425 $\nabla$	30·71 199
D Towcester (Bradden Rectory) ...	Rev. C. Blathwayt ...	5	4	6	403	25·58 208

## DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\cdot 01$ or more recorded.
		Diameter.	Height Above Ground.	Height Above Sea Level.	1910	
		in.	ft. in.	feet.	inches.	
NORTHAMPTONSHIRE—(con.)						
3.—OUSE—(con.)						
§ Roade (Council School) .....	Roy. Meteorological Soc.	...	...	371	27·98	203
Hargrave House.....	C. K. Murchison, Esq.	5	1 0	273	22·18?	...
4.—NENE.						
D Blisworth (Crieff House) .....	A. Westley, Esq. ....	5	5 0	330	26·51	191
D " .....	T. W. Millner, Esq. ...	5	1 6	300 $\nabla$	26·29	203
D Daventry (Fawsley) .....	The Lady Knightley ..	5	1 0	477 $\nabla$	28·88	166
D Castle Ashby ... ..	R. G. Scriven, Esq. ...	5	1 0	263 $\nabla$	27·56	218
D Little Houghton House.....	Christopher Smyth, Esq.	5	2 2	271 $\nabla$	26·09	166
D Northampton (Hazlewood Road)	C. A. Markham, Esq....	...	...	...	26·82	201
D " (Dallington Av.)...	" " " " .....	5	1 0	265 $\nabla$	25·60	196
D " (Berry Wood).....	" " " " .....	8	1 4	399 $\nabla$	25·57	205
D " ( " " ).....	M " " " " .....	...	...	399	25·57	...
D " (General Hospital) .....	" " " " .....	...	...	...	24·62	180
D Great Billing Rectory .....	Rev. G. H. Mullins ...	8	1 6	275 $\nabla$	26·45	216
D Daventry .....	C. A. Markham, Esq....	5	1 0	486	25·80	...
D " (Tunnel End) .....	T. W. Millner, Esq. ...	5	1 6	394	27·34	215
D Great Brington .....	A. L. Y. Morley, Esq..	5	2 9	448	23·95	...
D Sywell Hall .....	T. A. Dickson, Esq. ...	5	1 0	371 $\nabla$	28·22	207
D Pitsford (Sedgebrook) .....	C. A. Markham, Esq....	5	1 0	311 $\nabla$	26·43	203
D " ( " ) .....	M " " " " .....	5	1 0	311 $\nabla$	26·33	...
D § Rushden (Alfred Street School)...	S. Saddler, Esq. ....	5	1 3	200 ?	23·91	177
D Wellingborough (Swanspool) ...	N. P. Sharman, Esq. ...	5	0 2	155	26·25	202
D " (Croyland Abbey) .....	E. Sharman, Esq. ....	5	1 0	174 $\nabla$	25·70	182
D Watford Court .....	C. A. Markham, Esq....	9	1 2	380	25·20	163
D § Ravensthorpe (Coton Mill) .....	G. S. Eunson, Esq. ...	5	1 0	355	27·84	200
D Finedon Hall .....	C. A. Markham, Esq....	...	...	...	25·95	171
D Orlingbury Hall.....	Mrs. Buckley.....	5	1 0	330 $\nabla$	23·71	154
D Scaldwell .....	Capt. R. Soames.....	5	1 0	404 $\nabla$	24·87	...
D § Raunds (Day School) .....	Léon G. H. Lee, Esq...	8	1 0	205 $\nabla$	24·81	176
D Burton Latimer Rectory .....	Rev. W. B. Jacques ...	5	2 0	280	25·41	179
D § Cranford (Woodford House).....	E. N. Plevins, Esq. ...	8	0 8	262 $\nabla$	25·15	204
D Kettering W.W. (Cransley).....	T. R. Smith, Esq., C.E.	8	0 6	275 $\nabla$	24·38	177
D " (Workhouse) .....	A. Sattin, Esq. ....	5	0 5	297 $\nabla$	24·94	158
D " (Sewage Works) .....	T. R. Smith, Esq., C.E.	8	1 0	199 $\nabla$	24·88	190
D " (George Street) .....	C. W. Lane, Esq. ....	5	1 0	288 $\nabla$	25·38	192
D " W.W. (Clover Hill)...	T. R. Smith, Esq., C.E.	5	0 7	344 $\nabla$	25·32	187
D " (Warkton) .....	Mr. R. H. Brett.....	5	1 3	275 $\nabla$	25·38	178
D Rothwell (Loddington) .....	Mr. J. Oliff.....	5	1 0	400	26·24	...
D Thrapston (Islip) .....	J. Edmonds, Esq. ....	5	1 6	145 $\nabla$	24·00	...
D " (Drayton House).....	" " " " .....	5	1 6	220 $\nabla$	26·28	150
D Aldwinkle St. Peter Rectory ...	C. A. Markham, Esq....	5	0 11	175	24·99	160
D Rushton Manor .....	R. A. Willows, Esq. ...	5	1 0	400 $\nabla$	26·39	181
D Desborough (Council School) ...	H. Wallis, Esq.....	5	1 0	398 $\nabla$	28·15	203
D " .....	C. A. Markham, Esq....	5	3 0	457 $\nabla$	27·30	191
D Barnwell (Lilford Hall) .....	Mr. E. Wilson .....	5	1 0	...	25·95	161



## DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
<b>NORTHAMPTONSHIRE—(con.)</b>							
4.—NENE—(con.)							
Oundle .....	J. M. Siddons, Esq. ...	5	3	4	105 T	23·22	...
§ „ Waterworks .....	Meteorological Office...	5	1	0	147	25·89	172
D „ School .....	R. Williamson, Esq. ...	7	1	1	146	24·12	174
D Corby (Weldon Grange) .....	John Rooke, Esq. ....	8	1	0	342 T	24·87	216
Peterborough (Thorpe Hall) .....	C. A. Markham, Esq. ...	6	1	0	30	23·64	...
D „ (Ashfield) .....	J. A. Percival, Esq. ...	5	0	7	30 ?	23·28	196
„ (Queen Street) ...	J. Shipley Ellis, Esq. ...	5	0	6	30	24·00	162
D „ (Milton House) ...	C. A. Markham, Esq. ...	...	...	...	...	26·00	152
D Wittering Rectory .....	Rev. S. B. Warde .....	5	1	0	180	25·78	163
D Eye (Newborough) .....	R. Williams, Esq. ....	5	1	0	8 T	23·80	187
5.—WELLAND.							
D Marston Trussell Rectory ... (R)	Rev. J. Knight Law...	10	2	6	314 T	24·83	189
D Dingley [Market Harborough]...	E. C. Purton, Esq. ....	5	1	6	...	27·87	192
Rockingham Castle Gardens .....	C. A. Markham, Esq. ...	5	4	4	300 L	24·38	...
Kings Cliffe (Fineshade Abbey)..	„ „ „ „ „ „ „ „ „ „	5	0	9	200	24·31	...
D Etton [Market Deeping] .....	J. C. Gill, Esq., C.E. ...	8	1	0	25 T	23·87	161
<b>HUNTINGDONSHIRE.</b>							
1.—OUSE.							
D St. Neots (Waresley Park) .....	late Lady C. Duncombe	5	0	11	190	26·39	199
D „ (Great Paxton) .....	Rev. A. G. Cane .....	5	1	0	100 T	23·55	167
Offord D'Arcy .....	W. Priestley, Esq. ....	5	0	9	51 T	24·18	162
D Buckden (Stirtloe House) .....	J. Linton, Esq. ....	5	1	0	75	23·50	173
D Huntingdon (Brampton) .....	Miss M. Budge .....	5	1	1	39 T	26·38	187
D „ (Bosworth House)...	H. Lucas, Esq. ....	5	1	6	35 T	24·69	210
D St. Ives (Slepe House) .....	Dr. W. R. Grove .....	5	1	0	25	25·39	182
D Houghton Grange .....	C. H. Coote, Esq. ....	5	1	0	114	25·43	202
D Catworth .....	Miss E. M. Conway ...	5	0	9	210 T	23·29	211
Somersham Vicarage .....	Mrs. de Courcy-Ireland	5	0	10	36	22·32	...
D Great Gidding Rectory .....	E. N. Plevins, Esq. ...	5	1	0	169 T	24·18	175
2.—NENE.							
Whittlesea Mere .....	A. Lunn, Esq., C.E. ...	8	1	6	10 ?	22·32	...
<b>BEDFORDSHIRE.</b>							
1.—THAMES—Colne.							
D Dunstable (Kensworth) .....	Miss Jones .....	5	1	5	630 B	31·69	177
Luton (Stockwood) .....	Francis Crawley, Esq. ..	5	3	0	539 T	25·27	191
2.—THAMES—Lea.							
D Luton (Pumping Station) .....	J. W. Tomlinson, Esq. CE	5	1	0	343 T	25·90	185
D „ (Tennyson Road) .....	Harold F. Smith, Esq. ...	5	1	1	530 T	26·75	195
3.—OUSE.							
D Woburn (Milton Bryant) .....	Mr. C. J. Kilby .....	5	1	0	510	28·29	190
D Shillington .....	Kilham Roberts, Esq. ...	5	1	0	182 T	26·92	190
D Holwell Bury [Hitchin] .....	C. Chittick, Esq. ....	5	1	0	185 T	28·88	167
D Ampthill (Higham Bury) .....	E. J. Jekyll, Esq. ....	5	1	0	310 T	25·32	186

## DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with -01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
<b>BEDFORDSHIRE—(con.)</b>							
<b>3.—OUSE—(con.)</b>							
Shefford (Upper Stondon).....	R. Long, Esq. ....	5	1	0	241 f	25·69	...
Aspley Guise (Oaklands) ...	Mrs. Dymond .....	5	1	0	410 f	24·28	189
D† Woburn (Crawley Mill Farm) ..	H. M. Freear, Esq. ...	8	1	0	292 f	26·82	202
D† „ (Fruit Farm, Ridgmont)	W. H. Neild, Esq.....	5	1	0	270 f	27·01	217
D Stotfold (Three Counties Asylum)	Dr. L. O. Fuller.....	5	1	0	220 f	24·96	190
Shefford (Clifton Bury) .....	A. Inskip, Esq. ....	5	2	1	150	24·32	...
„ Hardwick .....	H. Inskip, Esq. ....	5	2	6	90 ?	24·29	...
D Cranfield School .....	Alfred Death, Esq. ...	5	1	6	365	25·59	161
D Biggleswade (Waterworks) .....	H. Carne, Esq., C.E....	5	1	6	170 f	23·70	196
D „ (Old Warden Park)	Mr. W. C. Modral .....	8	1	2	90	29·87?	196
D Potton (Wrestlingworth) .....	H. J. King, Esq. ....	5	1	0	119 f	24·01	181
Sandy (The Lodge) .....	Viscount Peel.....	5	1	0	200 ?	23·40	177
D „ (Beeston Grange) .....	Col. Maunsell Bowers..	5	1	0	85 ?	22·41	219
D „ Rectory .....	Rev. J. Richardson ...	5	1	0	120	25·15	196
D Bedford (The Park) .....	N. Greenshields, Esq... (R)	8	5	8	123 f	21·84?	180
„ (Castle Road) .....	Miss M. E. Newbery...	5	7	0	100	25·08	...
Goldington (Castle Mills).....	W. H. Rogers, Esq. ...	5	1	6	90 f	21·01?	...
D Great Barford House .....	J. Arnold Whitchurch Esq	5	1	0	120 f	23·62	160
Sharnbrook (Colworth Gardens)	Mr. J. Hoad .....	5	2	0	250	25·65	...
<b>CAMBRIDGESHIRE.</b>							
<b>1.—STOUR.</b>							
D Carlton Hall .....	A. S. Nice, Esq.....	5	1	6	290 f	27·79	193
D Brinkley Hall.....	R. W. King, Esq.....	5	1	0	380	25·98	166
<b>2.—OUSE.</b>							
D Odsey [Ashwell] .....	Sir H. G. Fordham ...	5	1	0	256 f	26·37	190
Abington Pigotts .....	Mr. J. N. Woodham ...	5	0	8	130	23·37	...
D Meldreth (Chiswick Farm) .....	A. Howard, Esq. ....	5	1	1	70 f	24·37	179
D „ (Belmington Close) ...	G. Warren Bindloss, Esq	5	1	0	65 f	24·45	180
D Foxton (The Bury) .....	J. Gifford, Esq. ....	5	1	0	60 f	25·62	225
D Whittlesford (Sawston Hall) ...	D. L. Huddleston, Esq.	5	1	1	86 f	23·34	175
D Harston Vicarage .....	Mrs. E. C. Baldwin ...	5	0	8	47	23·75	164
D Wimpole Hall .....	Mr. W. J. Snell.....	5	1	0	141	25·52	190
D Stapleford House .....	J. H. H. Linton, Esq..	5	2	3	64	21·93	178
D Great Shelford (Riversdale).....	T. Hacking, Esq. ....	5	1	0	60	21·72	195
D Weston Colville.....	Gerald H. Long, Esq...	5	1	0	327 f	25·36	167
D Trumpington .....	C. Parsons, Esq. ....	5	1	0	60 f	25·30	171
D Grantchester Mill .....	J. Nutter, Esq. ....	5	5	0	31 f	23·44	164
D Cambridge (W. W., Fulbourne)...	W. W. Gray, Esq., C.E.	5	1	0	37 f	21·93	199
D „ (W. W. Cherryhinton).	„ „ „	5	1	0	35 f	21·95	220
D† „ (Harvey Road) .....	Smith Nutter, Esq. ...	8	5	5	45	23·83	203
D† „ (Herschel House) ...	C. N. H. Lock, Esq. ...	5	1	1	36 f	21·33?	160
D† „ (Sidney Street) .....	the late W. E. Pain, Esq.	8	53	0	83 f	23·07	194
D† „ (Tenison Avenue) ...	W. B. Parsons, Esq. ...	8	1	2	...	22·87	201
D† „ (Pinehurst) .....	C. F. Foster, Esq. ....	5	0	10	36	24·53	195

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>CAMBRIDGESHIRE—(<i>con.</i>)</b>						
<b>2.—OUSE—(<i>con.</i>)</b>						
†Cambridge (Botanic Gardens) ...	R. Irwin Lynch, Esq. ...	8	0 10	43	22·81	185
D „ (Quy Hall) .....	T. Musgrave Francis Esq.	5	0 5	24 ½	25·95	204
D Croxton Park .....	G. D. Newton, Esq. ...	5	2 6	200 ½	24·51	154
D „ Rectory .....	Rev. A. T. Thompson..	5	1 6	207 ½	24·81	174
D Boxworth [St. Ives] .....	E. H. Thornhill, Esq. ...	5	1 0	76 ½	27·09	199
D Burwell .....	R. Stephenson, Esq. ....	5	2 0	58	25·80	186
D Conington Hall [St. Ives] .....	Philip T. Gardner, Esq.	8	0 5	50 ½	27·89	197
D Cottenham (Bernard House) .....	A. Bull, Esq. ....	5	3 6	30 ½	24·57	154
D Soham .....	T. Everett, Esq. ....	5	2 0	25 ½	22·74	151
D Stretham (Dimocks Cote) .....	H. Nightingale, Esq. ....	5	13 7	...	24·61	162
D „ Engine .....	Mr. J. Housley .....	9	4 9	13 ½	22·54	151
D „ (Orchard House) .....	C. Wright, Esq. ....	8	5 0	42	25·96	176
D Ely (The Palace) .....	Mr. A. Sewell .....	5	1 0	64 ½	25·51	201
D Chatteris (Holwood Farm) .....	Mr. G. Argent .....	5	0 10	12	25·41	151
„ Mepal Engine .....	Mr. J. Goodman .....	5	20 6	25	17·65	...
D Littleport (Highfield House) ...	H. G. Martin, Esq. ...	8	2 7	67 ½	21·85	155
D Chatteris (Aylesby House) .....	A. H. Ruston, Esq. ...	8	0 6	31	26·52	172
D „ (The Priory) .....	H. F. Fryer, Esq. ....	5	0 7	31	23·98	...
<b>3.—NENE.</b>						
Stanground Sluice .....	A. Lunn, Esq., C.E. ...	8	1 6	...	23·08	...
D March .....	„ „ „ .....	9	2 0	...	23·26	164
D Upwell (Marmont Priory Lock) ..	„ „ „ .....	8	1 1	...	23·14	202
D „ (Euximoor House) .....	H. West, jun., Esq. ...	5	0 8	15	23·67	168
D Thorney (Bedford Office) .....	Hugh R. Brodie, Esq. ...	8	3 6	9 ½	21·98	170
D „ (Wryde House) .....	Miss Egar .....	5	1 0	7 ½	23·72	156
Wisbech (Bank House) .....	Lord Peckover of Wisbech	8	0 8	6	23·21	...
D „ (Monica Road) .....	W. Climenson, Esq. ...	8	1 2	6	24·91	165

A map of this Division, showing the sub-divisions, will be found in Part I.

## DIVISION IV.—EASTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
ESSEX.							
1.—THAMES—Lea.							
West Ham (Abbey Mills).....	M Fitzmaurice Esq CMG	8	1	0	11 $\nabla$	24.11	189
Leyton (Town Hall) .....	E. H. Essex, Esq. ....	5	1	0	22 $\nabla$	22.26	177
Lea Bridge.....	Met. Water Board.....	8	0	6	23 $\nabla$	22.52	175
Walthamstow (Ferry Lane).....	" " " .....	8	0	10	30 $\nabla$	23.01	163
Woodford (Haggar Lane) .....	" " " .....	8	0	8	176 $\nabla$	23.42	172
Buckhurst Hill Reservoir.....	" " " .....	8	1	7	275 $\nabla$	25.76	202
" " (Ardmore) .....	Mrs. Eliot Howard ...	8	1	0	270	25.72	169
Chingford Mill .....	Met. Water Board.....	8	0	6	40 $\nabla$	24.17	167
" (Sewardstone Lodge)..	W. P. Robertson, Esq.	8	0	10	200 ?	24.39	167
Loughton (High Beech Reservoir)	Met. Water Board.....	8	1	0	376 $\nabla$	27.25	196
Waltham Abbey.....	" " " .....	8	5	0	66 $\nabla$	27.48	177
" (Gunpr. Factory)	The Superintendent ...	5	2	0	64 $\nabla$	26.65	208
Hatfield Broad Oak (Barrington Hall)	A. H. Gosling, Esq. ...	5	0	10	300 $\nabla$	26.24	161
Hassobury [Bishop Stortford] ...	T. S. Gosling, Esq. ...	5	0	10	290 ?	27.26	196
2.—THAMES—Roding & c.							
Grays Sewage Works .....	A. C. James, Esq., C.E.	8	2	3	9 $\nabla$	22.57	170
East Ham (Central Park).....	Meteorological Office...	5	1	0	13 $\nabla$	23.57	...
" " Well .....	Met. Water Board.....	8	0	11	17 $\nabla$	23.25	164
Barking Cemetery.....	H. Hargreaves, Esq....	5	1	0	18	22.76	156
Vange Pumping Station .....	Southend Water Wks Co	5	1	0	43 $\nabla$	24.01	166
Pitsea .....	" " " .....	5	1	0	29 $\nabla$	21.93	162
Wanstead (Red Bridge) .....	Met. Water Board.....	8	8	0	33 $\nabla$	21.50	164
Manor Park (Albany Road) ...	A. J. Wilmshurst, Esq.	5	3	0	40	21.68	...
Upminster Hall .....	Captain G. H. T. Swinton	5	1	0	121 $\nabla$	22.27	191
Romford (Harold Wood) .....	J. G. Broodbank, Esq..	5	4	0	120	21.40	194
Havering Grange .....	G. P. Hope, Esq. ....	5	1	0	255 $\nabla$	24.22	255
" -atte-Bower (Fernside)	Benjamin Smith, Esq..	5	1	0	341 $\nabla$	26.00	226
Theydon Bois (Suttons) .....	Lady Cunliffe Smith ...	5	0	4	115 ?	23.34	...
" (Thriffs Hall) ...	H. B. Debenham, Esq..	5	0	9	200	26.29	220
Epping (The Hemnalls) .....	J. Nicholl, Esq. ....	8	0	8	345	31.37	178
North Weald (Canes) .....	H. W. Hart, Esq. ....	5	2	4	250 ?	24.07	...
Abbees Roding Rectory .....	Rev. L. Capel Cure ...	8	1	0	300	24.34	...
3.—CROUCH.							
Shoeburyness .....	Superintendt. of Expts.	8	1	0	13 $\nabla$	21.10	181
" .....	M	5	1	0	13 $\nabla$	21.69	...
Southend (Corporation Obsy.) ...	E. J. Elford, Esq., C.E.	8	1	0	90	22.07	174
" (Broadway) .....	H. J. G. Ralph, Esq....	5	1	0	85 $\nabla$	23.52	188
" (Water Works).....	Southend Water Wks Co	8	1	0	112 $\nabla$	23.84	187
Leigh Reservoir.....	" " " .....	5	1	0	177 $\nabla$	24.50	174
Eastwood Pumping Station .....	" " " .....	8	1	0	50 $\nabla$	24.46	199
Thundersley Reservoir .....	" " " .....	5	1	0	277 $\nabla$	25.44	177
Nevendon Pumping Station .....	" " " .....	5	1	0	43 $\nabla$	21.66	148
Billericay (Service Tank) .....	" " " .....	5	1	0	310 $\nabla$	25.04	190
" (Ramsden Hall) .....	T. W. Bacon, Esq. ....	5	0	9	260 $\nabla$	26.16	204
Wickford (Runwell Hall).....	Lt.-Col. H. Kemble ...	5	1	0	75 $\nabla$	27.66	170
Southminster .....	H. Murton, Esq. ....	5	1	1	85 $\nabla$	23.08	153
Bradwell-on-Sea (Bradwell Hall)	J. C. Chillingworth, Esq.	5	1	1	27	20.53	155

## DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
ESSEX—(con.)						
4.—BLACKWATER.						
D Brentwood (Shenfield, The Lodge)	H. P. Landon, Esq. ...	5	0 7	303 A	24·71	184
Old Norton (Latchingdon Rec.)	Mrs. Pope ...	5	1 0	175 T	24·22	175
D Ingatestone (Fryerning)	A. E. Christy, Esq. ...	5	1 0	291 A	23·23	202
D " ( " Furze Hall)	Mrs. Wilde ...	5	1 0	285 T	25·23	201
" ( " " " ) M	" " " " " " " "	5	1 0	285 T	25·28	...
D Maldon (Hazeleigh Rectory)	Rev. G. H. Raynor ...	7	1 1	161 A	21·86	170
D Danbury Rectory	Rev. J. Bridges Plumptre	5	1 0	365 T	23·02	175
D Writtle (Melbourne)	E. Rosling, Esq. ...	5	0 9	140 T	25·28	204
"	R. Woodhouse, Esq. ...	8	2 0	100 ?	24·19	174
" (The House)	Miss Usborne ...	5	2 6	100	26·99	...
Chelmsford (High Street)	F. Chancellor, Esq. ...	8	1 0	92 A	24·37	195
" (County Hort. School)	C. W. Aylett, Esq. ...	5	1 0	...	24·43	...
D § " (Spergula)	J. C. Thresh, Esq., M.D.	5	1 0	136 T	24·12	182
D " (Springfield Place)	Miss Jackson ...	5	0 11	143 A	26·15	236
" (Roxwell)	R. W. Christy, Esq. ...	5	1 0	180 T	23·98	...
D Witham (Terling Vicarage)	H. C. Boutflower, Esq.	5	1 0	115 T	23·58	180
Great Leighs (Lyons Hall)	J. H. Tritton, Esq. ...	5	3 0	130 A	22·80	...
Witham (Faulkbourne Hall)	Miss C. L. Parker ...	5	0 8	100 ?	24·50	172
D Kelvedon (White Barn)	W. & H. J. Sheldrake, Esqs.	5	1 5	135 T	22·12	161
D Braintree (Bocking, Fennes)	H. S. Tabor, Esq. ...	5	1 0	240 T	22·34	161
Great Saling (Saling Grove)	Capt. J. N. Harrison ...	8	1 0	290 T	21·83	169
5.—COLNE & C.						
Mersey Island (Waldegraves)	<i>E. Anglian Daily Times</i> ...	...	...	55 ?	21·93	...
D Clacton-on-Sea (Clacton College)	H. Picton, Esq. ...	5	0 9	40	23·02	170
D § " " " "	Mr. A. W. Shadick ...	5	1 2	55 A	21·49	161
D Fingringhoe (Ballast Quay Farm)	T. B. Grubb, Esq. ...	5	2 0	47	22·60	169
Colchester (Berechurch)	R. P. Blyth, Esq. ...	5	1 3	120 ?	23·42	157
" (King's Ford)	Hon. Lady Digby ...	5	1 0	103 T	23·54	219
D " (Borough Surveyor's Office)	H. Goodyear, Esq., C.E.	8	17 0	82 A	21·84	171
D " (Hill House, Lexden)	S. F. Hurnard, Esq. ...	5	1 0	90 T	21·93	166
" ( " " " ) M	" " " " " " " "	5	1 0	90 T	21·77	...
" (Home Farm, " " )	Mr. W. Bird ...	5	1 0	125 T	22·39	...
Great Bromley (Broughton)	W. Arnold Roberts, Esq.	5	1 0	100	24·38	...
" " " " " " " "	F. J. Baker, Esq. ...	5	1 0	120 ?	24·59	...
Earls Colne (Chalkney House)	H. F. Hills, Esq. ...	5	1 0	188 T	23·55	148
D Manningtree (Bradfield Lodge)	G. Hempson, Esq. ...	5	1 0	113 T	26·73	178
D § Halstead (The Brewery)	E. T. Adams, Esq. ...	5	1 0	144	24·62	168
Great Maplestead (Monk's Lodge)	T. F. Miller, Esq. ...	5	0 9	245 T	23·84	...
6.—STOUR.						
D Harwich (Hill House, Ramsey)	Miss K. Hempson ...	5	0 6	150	30·76	163
D " (Coastguard Station)	Mr. W. Bevan ...	5	1 0	40	23·04	164
D Lawford (Dale Hall)	W. H. Richardson, Esq.	5	1 0	110 T	26·88	162
D Dedham (Dalethorpe)	J. D. Tremlett, Esq. ...	5	1 1	54	25·85	183
Langham Rectory	Rev. T. S. Raffles ...	5	0 11	134	27·34	190
D Bulmer Lodge [Sudbury]	The Misses Burke ...	5	1 3	200 T	28·13	241

#### DIVISION IV.—EASTERN COUNTIES—(continued).

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## DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
SUFFOLK—(con.)							
3.—DEBEN & C—(con.)							
Westleton (St. Helena).....	J. R. Grimsey, Esq. ....	8	2	0	65 $\nabla$	28.97	158
Halesworth (Estate Office) .....	H. S. Stanford, Esq. ....	5	2	6	25 $?$	32.30	177
$\nabla$ Wangford (Henham Gardens)....	Earl of Stradbroke.....	5	3	6	50	28.81	171
$\nabla$ „ (Ford House) .....	Hon. Agnes Eden .....	5	0	10	25 $?$	29.92	148
$\nabla$ Beccles (Sotterley Hall) .....	Capt. Miles Barne .....	5	0	11	50 $\nabla$	32.93	178
4.—YARE & C.							
Stradbroke Vicarage .....	Rev. Canon W. Tate .....	5	1	3	172 $\nabla$	29.46	...
$\nabla$ Halesworth (Rumburgh) .....	Rev. W. Linton Wilson .....	5	3	0	148 $\nabla$	30.57	202
Bungay (Flixton Vicarage) .....	Rev. H. Trethewy .....	5	1	0	80 $\nabla$	30.05	187
$\nabla$ † Lowestoft (Belle Vue Park).....	C. W. Edwards, Esq. ....	5	1	0	86 $\nabla$	29.03	172
$\nabla$ Herringfleet (The Gables) .....	G. H. Wyllys, Esq. ....	5	0	8	52	30.60	197
$\nabla$ Lound Pumping Station .....	Lowestoft Water & Gas Co. ....	8	1	0	34	27.64	161
Fritton .....	Mrs. H. E. Buxton.....	8	0	10	40	28.49	170
$\nabla$ „ Warren .....	Gen. R. Upcher, C.B. ....	...	...	...	...	31.17	149
$\nabla$ Burgh Hall [Yarmouth] .....	H. P. Frederick, Esq. ....	8	0	6	45 $\nabla$	29.77	195
5.—OUSE.							
$\nabla$ Little Saxham Rectory .....	Rev. H. I. Kilner .....	8	0	10	220	28.26	191
$\nabla$ Bury St. Edmunds (Albert Cres.) .....	J. R. Burdon, Esq. ....	5	1	0	196 $\nabla$	26.94	191
$\nabla$ „ „ „ (Westley) .....	R. Burrell, Esq. ....	5	1	0	226 $\nabla$	29.02	185
$\nabla$ „ „ „ (Fornham St. Martin) .....	Rev. J. S. Pratt .....	5	1	0	100	24.92	155
$\nabla$ † Walsham-le-Willows .....	Mr. J. Pamment.....	5	1	0	140	28.23	199
$\nabla$ Elveden Hall .....	Viscount Iveagh, K.P. ....	5	1	0	130 $\nabla$	25.83	226
NORFOLK.							
1.—YARE.							
$\nabla$ Diss (Council School) .....	T. M. Pullen, Esq. ....	5	1	0	90	28.55	198
$\nabla$ Pulham St. Mary .....	W. G. Rutter, Esq. ....	5	1	0	...	28.24	195
$\nabla$ § Geldeston [Beccles] .....	E. T. Dowson, Esq. ....	5	1	0	38 $\nabla$	30.44	214
§ „ „ [„] .....	„ „ „ „ .....	8	1	0	38 $\nabla$	29.02	...
Long Stratton (Gt. Moulton Rec.) .....	Rev. T. D. Chute .....	5	1	0	100	28.41	...
$\nabla$ „ „ (Fritton Rectory) .....	Mrs. Howes .....	5	1	0	120 $\nabla$	30.33	209
$\nabla$ Raveningham Hall [Beccles] .....	N. H. Bacon, Esq. ....	8	1	3	...	32.18	185
$\nabla$ Saxlingham Nethergate .....	Mrs. Pitt .....	5	1	5	...	28.67	200
$\nabla$ Swainsthorpe (The Rookery) .....	Miss E. M. Cross .....	5	...	...	105 $?$	29.60	202
$\nabla$ Wymondham .....	J. B. Pomeroy, Esq. ....	8	1	3	118 $\nabla$	32.60	205
$\nabla$ Hingham Hall .....	E. Noel, Esq. ....	5	1	1	190 $\nabla$	31.14	215
$\nabla$ Norwich (Dunston Hall) .....	A. W. Preston, Esq. ....	...	...	...	...	30.29	193
$\nabla$ † Keswick Old Hall .....	E. Knight, Esq. ....	5	1	0	90 $?$	30.12	206
$\nabla$ Hethersett .....	F. A. Bainbridge, Esq. ....	5	0	9	150 $\nabla$	30.63	216
$\nabla$ Yarmouth (South Dene Lodge) .....	late W. W. Spelman, Esq. ....	5	1	0	7 $\nabla$	30.99	213
§ „ „ (Sailors' Home) .....	Meteorological Office .....	8	4	0	27	28.51	170
$\nabla$ „ „ (Market Place) .....	Harvey Palmer, Esq. ....	5	1	0	25	30.31	196
$\nabla$ † Norwich (Christ Church Rd. Eaton) .....	A. W. Preston, Esq. ....	5	1	0	98 $\nabla$	31.84	233
$\nabla$ „ „ (Carrow House) .....	Miss Colman .....	5	1	3	35 $\nabla$	28.08	209

## DIVISION IV.—EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1910	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	n.	feet.	inches.	
<b>NORFOLK—(con.)</b>							
<b>1.—YARE &amp; C—(con.)</b>							
NS Norwich (Brundall) .....	A. W. Preston, Esq....	5	1	0	66 N	29·85	163
D „ (Ipswich Road) .....	J. H. Willis, Esq.....	5	1	0	110 T	30·83	219
D „ (Heigham) .....	A. W. Preston, Esq....	5	3	2	37 N	29·34	218
D Honingham.....	„ „ „ .....	...	...	...	...	28·86	210
D Drayton .....	„ „ „ .....	...	...	...	...	30·29	193
D Bylaugh Park Gardens .....	Mr. G. Beeton .....	5	1	0	130 T	31·68	185
D Swanington Rectory .....	Rev. G. B. Atkinson...	5	2	7	90	29·15	200
D Reepham (Great Witchingham)..	Maj. W. Amphlett Moss	5	1	4	60 ?	30·26	181
D Great Massingham .....	W. S. Freuer, Esq. ...	5	3	2	245 T	33·55	206
D Reepham (Whitwell Vicarage)..	the late Rev. R. Freeman	8	1	6	130 T	30·32	218
D Cawston Rectory .....	A. W. Preston, Esq. ...	5	1	0	120	30·37	171
West Rudham .....	W. S. Freuer, Esq. ...	5	0	10	180 T	33·08	...
D East Rudham.....	Miss F. E. Mays .....	5	2	0	150 ?	33·96	205
<b>2.—YARE—Bure &amp; c.</b>							
D Moulton .....	A. W. Preston, Esq....	4	...	...	...	33·41	146
D Acle.....	„ „ „ .....	5	0	6	51	33·79	209
D Sprowston Hall .....	Sir Eustace Gurney ...	5	1	0	90 T	28·39	189
D Yarmouth (Ormesby St. Michael)	Gt. Yarmouth W. W. Co.	8	1	0	21 N	33·63	243
Hemsby School .....	R. Cobden Jones, Esq... 5	5	5	0	15	27·79	...
D Coltishall.....	A. W. Preston, Esq....	...	...	...	...	30·61	212
D Aylsham (Rippon Hall) .....	Major H. S. Marsham..	5	0	6	90 ?	29·53	153
„ (Woodgate) .....	R. J. W. Purdy, Esq... 5	5	1	0	50	30·10	188
D Worstead (Dilham) .....	A. W. Preston, Esq.... 5	5	0	8	...	29·45	236
D „ (Lyngate Cottage) ...	R. Cross, Esq. ....	8	1	0	...	30·79	180
D „ (The Grange) .....	Rev. F. R. Walter .....	3	3	0	40 T	29·86	178
D North Walsham (Empson House)	W. S. Horn, Esq. ....	5	1	0	102 N	28·08	185
Mundesley-on-Sea .....	R. W. Cross, Esq. ....	...	...	...	...	26·51	...
D Cromer (Northrepps Hall) .....	Mrs. R. Gurney.....	5	0	4	200	31·85	209
<b>3.—STIFFKEYS &amp; C.</b>							
NS Hillington School .....	A. W. Preston, Esq....	5	3	6	93 N	33·38	213
D Sandringham House .....	Mr. T. H. Cook .....	5	1	1	121 T	34·29	202
Cromer .....	W. H. Archer, Esq. ...	8	1	0	197 T	25·51?	255
D „ (The Warren) .....	F. H. Barclay, Esq. ...	8	1	6	...	29·88	187
D Blakeney (Wiveton) .....	A. W. Preston, Esq....	...	...	...	40 ?	26·43	181
D „ .....	Mr. R. Lee .....	5	1	3	29	27·34	168
Wells (Holkham Hall) .....	Earl of Leicester, G.C.V.O.	12	4	0	43	24·93?	...
<b>4.—OUSE &amp; C.</b>							
D† Thetford (Waterworks) .....	Mr. E. S. Greenwood...	8	1	0	170 T	25·42	195
† „ (Ford Place Gardens)..	Mr. P. Horn .....	5	1	0	95	23·88	196
D Kenninghall (Council School) ...	A. B. Smith, Esq. ....	5	0	6	160 ?	28·08	159
D Santon [Brandon] .....	A. W. Preston, Esq....	5	0	10	32	27·38	193
Weeting [ „ „ ] .....	S. J. Adcock, Esq.....	5	0	7	32 T	22·78?	...
D Southery .....	J. Stanley, Esq.....	5	1	3	13	25·94	202
D Caston Rectory .....	Rev. W. H. Partridge..	5	1	0	148 T	31·65	210
Watton .....	A. A. Gompertz, Esq... 5	5	1	0	166 N	30·42	172
D Denver .....	A. W. Preston, Esq....	...	...	...	...	26·35	175
D Stoke Ferry (Wereham) .....	G. Read, Esq.....	5	2	3	66 T	26·71	194



DIVISION IV.—EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
<b>NORFOLK—(<i>con.</i>)</b>						
<b>4.—OUSE &amp; C—(<i>con.</i>)</b>						
D Swaffham .....	W. H. Plowright, Esq.	5	5 0	250 $\nabla$	28·22	188
D „ (The Paddocks) .....	H. W. Coe, Esq.....	5	0 8	245 $\nabla$	30·86	202
D „ (Homewood) .....	Messrs. Vynne & Everett	5	2 6	210	31·73	193
D Sporle .....	T. S. Matthews, Esq...	8	4 0	230	31·49	243
D Swaffham (Little Dunham) .....	A. W. Preston, Esq....	5	1 1	320	31·99	234
D Wiggshall (St. Germans Sluice)	A. Lunn, Esq., C.E. ...	8	1 6	...	25·90	161
Middleton Hall .....	J. de Pass, Esq.....	5	0 9	100 $\nabla$	29·05	...
Gayton Pumping Station .....	A. J. Smith, Esq. ....	5	1 0	131 $\nabla$	27·08	...
<b>5.—NENE.</b>						
D Outwell (Wellbreck Sluice) .....	A. Lunn, Esq., C.E. ...	9	2 6	16	24·32	176
Emneth .....	F. M. Bland, Esq.....	6	1 0	6	24·41	173

A map of this Division, showing the sub-divisions, will be found in Part I.

## DIVISION V.—SOUTH WESTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter.	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
WILTSHIRE.							
1.—LOWER AVON.							
Corsley (Sturford Mead) .....	H. Theodore Cookson Esq	5	0	9	459	44.14	236
D Market Lavington .....	Miss A. P. Bouverie ...	5	0	10	290 †	33.98	211
D Trowbridge (Water Works, Biss) .....	W. W. Gray, Esq., C.E.	5	1	0	311	43.15	207
D „ (Rood Ashton) .....	Mr. W. Strugnell .....	8	1	6	250	45.68	226
D „ (Wingfield) .....	T. H. Clark, Esq. ....	5	1	0	190	36.50	190
D Bradford (The Chantry) .....	late Dr. J. Beddoe, F.R.S.	5	0	9	125	36.93	196
D „ (Winsley Manor) .....	E. W. Knatchbull, Esq.	5	0	6	400	38.61	203
D „ (Bearfield House) .....	G. A. R. FitzGerald, Esq.	5	1	10	290 †	37.85	...
D „ (Woolley Grange) .....	P. K. Stothert, Esq., C.E.	5	0	8	216 †	37.64	211
D Holt (The Retreat) .....	A. V. H. Beaven, Esq.	5	2	6	145 †	37.90	224
D Devizes (Wilts Co. Asylum) ...	Dr. J. Ireland Bowes...	8	2	3	385 †	36.08	175
D Chippenham (County School) ...	G. S. Tuck, Esq. ....	5	1	1	198 †	35.05	197
D Wroughton (Basset Down House) ..	Mrs. Story Maskelyne..	5	1	0	500 ?	35.43	179
D Wootton Bassett (The Lime Kiln) ..	H. Bevir, Esq. ....	5	1	6	422 †	32.91	199
§ Malmesbury (Cowbridge House) ..	Royal Meteorological Soc	5	1	0	236	34.06	202
D „ (Charlton Cottage) .....	Countess of Suffolk ...	6	0	9	400	34.08	201
2.—STOUR.							
Mere (The Limes).....	E. Bracher, Esq. ....	5	1	0	300	39.59	...
D „ (Townend) .....	W. W. Farnfield, Esq.	5	2	6	340 †	41.82	219
D „ (Charnage) .....	A. R. White, Esq.....	5	1	0	426 †	41.47	213
D Stourhead .....	W. Pettit, Esq. ....	5	1	0	583 †	45.29	208
3.—EAST AVON.							
D Downton (Wick House) .....	Dr. F. G. Penrose .....	8	0	5	120	34.30	184
D Donhead St. Mary (Charlton Ho.) ..	Dowager Lady Wynford	5	0	7	515	47.58	201
D Longford Castle.....	The Earl of Radnor ...	5	1	0	141 †	37.00	189
D Tisbury (The Academy) .....	J. Bristol, Esq. ....	5	0	9	380 †	44.46	180
D East Knoyle (Slades).....	E. H. Miles, Esq. ....	5	2	0	560 †	43.91	220
D Salisbury (Fowlers Hill) .....	Mrs. T. Awdry .....	5	1	0	225 †	33.61	191
D „ (Brown Street) .....	T. H. Baker, Esq. ....	5	1	0	155 †	37.93	214
D „ (De Vaux Lodge) .....	the late H. Peniston, Esq.	5	1	0	150	37.18	187
§ „ (Wilton House).....	T. Challis, Esq. ....	8	0	6	180 †	42.83	235
D Stratford-sub-Castle (The Manor Ho.)	J. Carpenter, Esq.....	5	0	9	165 †	33.84	196
D Codford St. Mary (Stockton Ho.) ..	G. Knowles, Esq. ....	5	1	0	260	41.01	212
Maiden Bradley .....	The Duke of Somerset.	8	1	6	626 †	58.18?	210
D Warminster (Rye Hill).....	Stiles E. Jefferys, Esq..	8	2	0	466 †	43.73	227
D Cholderton Rectory .....	Rev. A. E. Brisco Owen	8	1	0	320	33.65	210
D Bulford (Manor House) .....	Mr. J. Bryan .....	5	1	0	242 †	32.77	207
Salisbury Plain (Chitterne House) ..	R. Hayward, Esq. ....	11	4	0	319 †	35.52	178
D „ „ (Shrewton) .....	F. J. Wardale, Esq. ...	5	0	9	322	36.05	210
D Collingbourne Kingston .....	Baldwin Latham Esq CE	5	1	0	470 †	33.05	182
D Devizes (Chirton Old Manor Ho.) ..	Mr. T. Selfe .....	5	3	0	374	35.98	205
D Woodborough.....	Rev. C. W. Hony .....	5	1	0	400 †	36.35	199
D Pewsey (Wilcot) .....	W. R. Wilbraham, Esq.	5	0	6	415 †	35.87	199
„ (Stowell Park) .....	J. H. Smith-Barry, Esq.	5	1	0	450 †	34.58	...
D Bishops Cannings .....	Mrs. H. H. Mogg .....	5	1	0	446 †	34.79	204
4.—TEST.							
Landford (Northlands) .....	Mrs. Wigram .....	5	1	10	167 †	37.26	199

## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with ·01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>WILTSHIRE—(con.)</b>						
<b>4.—TEST—(con.)</b>						
D Ludgershall (Conholt Park).....	E. A. Wigan, Esq. ....	5	1	3	800 T	36·85 171
D Buttermere Rectory .....	late Rev. W. E. Burkitt	5	3	6	847	38·66 212
<b>5.—THAMES—Kennet.</b>						
D Grafton (Wexcombe) .....	K. A. MacAndrew, Esq.	5	1	0	570 T	39·44 212
D Shalbourne (West Court) ....	Mr. T. Barns .....	5	1	0	640 ?	37·84 200
D Devizes (Shepherd's Shore) ....	Mr. J. Carter .....	5	1	6	555 T	28·63 199
§ Marlborough (College) .....	Royal Meteorological Soc	5	1	0	425	39·35 205
D „ (Mildenhall) .....	Rev. Gordon Soames ...	5	1	0	456	36·60 189
D Aldbourne (The Warren) .....	Henry Brown, Esq. ..	5	1	0	550 T	36·03 213
<b>6.—THAMES—Cole &amp; C.</b>						
Wroughton (Water Works).....	J. R. Fisher, Esq. ....	8	1	3	450	34·26 177
D „ (Burderop Park) ...	A. Ashford, Esq. ....	5	0	9	550 ?	36·51 191
D New Swindon .....	H. J. Southwell, Esq...	8	0	11	378	31·86 206
D Highworth (Hannington Hall)...	Mrs. Hussey-Freke ...	5	1	0	375	29·22 203
<b>DORSETSHIRE.</b>						
<b>1.—PARRETT.</b>						
D Evershot (Melbury House) .....	Mr. R. Rintoul .....	5	1	6	500	46·09 182
D Chedington Court .....	Sir Henry Peto, Bart...	5	1	0	605	45·27 196
D Leigh Vicarage .....	Dorset Field Club .....	..	1	0	250 ?	45·78 205
D Sherborne Castle .....	Mr. T. Turton .....	5	1	0	195 T	44·09 220
<b>2.—AXE.</b>						
Broadwindsor (Blackdown House)	C. E. M. Pinney, Esq..	5	0	9	515	49·97 ...
<b>3.—FROME &amp; C.</b>						
§ Portland Bill (New Lighthouse).	Meteorological Office .	8	1	0	23	25·98 194
D „ (Easton) .....	R. S. Henshaw, Esq. C.E.	5	1	6	265 T	33·79 187
D „ (H.M. Breakwater).....	T. C. Malin, Esq. ....	8	1	5	23 T	35·54 188
D Weymouth (Belfield Ho, Wyke Regis)	the late Mrs. Pretor ...	5	0	6	158 T	31·92 196
D § „ (Westham) .....	I. J. Brown, Esq. ....	5	1	0	25	30·65 184
D „ (Massandra) .....	H. W. Green, Esq. ...	5	1	6	40 B	36·56 214
Langton Matravers Rectory.....	Rev. J. W. Coulter ..	...	...	...	250 ?	36·95 ...
D Swanage (Royal Victoria Hotel)	H. B. Vincent, Esq....	5	1	11	50 T	34·51 165
D Chickerell (Montevideo) .....	Mrs. Richardson .....	5	1	0	100	32·07 203
D § „ Rectory .....	Rev. Sealy Poole .....	8	1	0	103	28·89 187
East Fleet (Fleet House) .....	Dorset Field Club .....	5	1	2	40	31·28 ...
D † West Lulworth Vicarage.....	Rev. W. Percy Schuster	5	1	0	128 T	37·14 181
D East Lulworth Vicarage .....	Dorset Field Club .....	5	0	9	175	39·08 176
D Abbotsbury (New Barn) .....	J. C. P. White, Esq. .	5	1	6	111 T	33·61 203
D Upwey (Portland W W.).....	R. S. Henshaw, Esq. C.E.	8	1	0	290 T	36·33 220
D Wareham (East Holme) .....	Gerald D. Bond, Esq...	5	1	0	24	39·61 173
„ (Kings Barrow) .....	L. G. Pike, Esq.....	5	1	0	15 T	35·43 159
„ (Worgate Hill).....	Mr. W. Sargent .....	5	1	1	108	35·80 212
D „ (South Street) .....	S. W. Bennett, Esq. ...	5	2	6	18	37·94 190
D „ (Binnegar Hall) .....	Lt.-Col. P. Farrer.....	5	1	0	65	41·01 183
D Winterbourne Herringstone.....	Dorset Field Club .....	5	2	6	200	41·20 159

## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with .01 or more recorded.
		Diameter	Height above Ground.	Height above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>DORSETSHIRE—(con.)</b>						
<b>3.—FROME &amp; C.—(con.)</b>						
D Abbotsbury (Littlebredy).....	Rev. C. E. R. Romilly.	5	0 6	372	40·17	198
D Winterbourne Steepleton.....	H. Stilwell, Esq. ....	8	1 0	316 $\pi$	42·78	223
D Dorchester Water Works.....	P.T. Harrison, Esq., C.E.	8	1 0	315 $\pi$	40·08	206
D „ (Wollaston House) ...	Capt. J. E. Acland.....	5	1 0	200 $\pi$	40·33	210
D Poole (Parkstone) .....	W. H. Symes, Esq. ...	5	1 3	160 $\uparrow$	35·17	187
D Branksome (Bourne Valley).....	H. W. Woodall, Esq... ..	8	1 3	84 $\uparrow$	34·78	189
„ (Alderney Reservoir)	„ „ „ „ „ „	8	1 3	213 $\uparrow$	31·31	213
Broadstone (Lypiatt Cottage) ...	F. W. Beckford, Esq... ..	5	1 0	220 $\pi$	37·38	...
D „ „ .....	J. E. James, Esq. ....	5	1 4	140 $\uparrow$	35·62	196
D Lyme Regis (Holme Cleve) .....	Mrs. Cave .....	5	1 0	250 $\uparrow$	34·96	180
D „ „ (Colway Cottage)...	Dr. J. Spurr .....	5	1 0	250	37·63	199
D Charmouth (Leslie Cottage).....	M. E. Mills, Esq. ....	8	1 3	120 $\pi$	35·62	209
„ „ „ „ „ „ weekly	„ „ „ „ „ „	5	1 0	120 $\pi$	36·36	...
D Bridport (Coneygar) .....	H. Gordon, Esq., C.E..	5	1 0	110 $\uparrow$	35·89	192
D Bradford Peverell House .....	Mrs. Middleton .....	6	1 1	380	42·01	204
D Charminster (Brooklands).....	R. Dymond, Esq. ....	8	1 3	...	40·96	161
D Puddletown Vicarage.....	Rev. A. Helps .....	5	2 8	195 ?	39·99	179
D Wynford House.....	Lord Wynford .....	5	0 6	410	47·63	225
D Bere Regis (Barrow Hill).....	Mr. A. Lucas .....	5	1 0	120	38·44	175
„ „ (Bloxworth Rectory).	Rev O.P. CambridgeFRS	5	1 6	205 $\uparrow$	38·54	...
D „ „ „ „ „ „ House)...	F. G. A. Lane, Esq. ...	5	1 6	118	42·34	196
D Maiden Newton (Cattistock Lodge)	Major H. H. F. Fagan	5	1 0	361	48·93	212
D Bere Regis (Longthorns) .....	Mr. S. Smart .....	5	1 0	...	43·25	186
D Beaminster Vicarage .....	Rev. A. A. Leonard ...	5	1 0	216 $\uparrow$	45·39	210
D „ „ (Fleet Street) .....	J. Andrews, Jun., Esq.	5	1 0	200 $\uparrow$	45·18	212
D Milton Abbas (Milton Abbey) ...	Mr. C. H. Perkins .....	5	0 10	333 $\uparrow$	47·65	214
<b>4.—STOUR.</b>						
Kinson (Eglington).....	W. C. Keevil, Esq. ...	5	...	44 $\uparrow$	38·02	191
Wimborne (Corfe Mullen) .....	D. Kitchingman, Esq. CE	5	1 6	82	35·51	...
D Winterbourne Whitchurch Vic..	Rev. H. H. T. Bassett.	8	0 6	214	40·75	160
D Sturminster Marshall (Bailie Ho.)	Rev. J. Cross .....	5	0 6	85	37·04	194
Wimborne (St. John's Hill).....	E. H. Widnell, Esq....	...	...	...	37·82	...
D „ „ (Codford).....	G H Batterbury, Esq. MD	5	0 9	69 $\uparrow$	39·05	204
D Witchampton.....	Miss A. L. Homer .....	5	1 0	130	38·27	162
D Horton Vicarage .....	Rev. G. Wellington ...	5	1 0	133 $\uparrow$	32·29	200
D Holwell (Westrow) .....	Mr. H. Caines.....	5	1 0	252	46·66	199
D Wimborne St. Giles (St. Giles Ho.)	Earl of Shaftesbury ...	8	1 0	165	39·20	194
D Iwerne Courtney (Shroton) .....	late Adm. R. W. Stopford	5	1 2	200 $\uparrow$	40·67	166
D Sturminster Newton (Riverside).	A. R. Hallett, Esq. ...	5	5 0	205	36·86	171
D „ „ „ „ „ „ Vicarage..	Dorset Field Club .....	5	2 7	180 $\uparrow$	39·79	185
D Iwerne Minster House Gardens..	J. H. Ismay, Esq. ....	5	1 0	244 $\pi$	40·88	168
D „ „ „ „ „ „ (R)	„ „ „ „ „ „	8	1 1	244 $\pi$	41·95	165
Ashmore Rectory .....	Rev. A. J. Reed.....	8	1 3	700	45·19	...
D Shaftesbury .....	Rev. F. Ehlvers.....	5	1 2	722	36·06	194
D Buckhorn Weston Rectory .....	Rev. W. Hughes D'Aeth	5	1 0	285	34·29	210
D Gillingham .....	S. H. Stephens, Esq....	5	1 2	244 $\uparrow$	40·65	201

## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
SOUTH DEVON.							
2.—TAMAR & C.							
†Plymouth (The Hoe).....	H. Victor Prigg, Esq. CE	8	1	0	116	44.33	207
D „ (Drake's Reservoir)...	F. Howarth, Esq., C.E.	5	1	0	149	46.46	209
D „ (Hartley Reservoir)...	„ „ „	5	1	0	321	49.04	220
D „ (Freedom Fields).....	H. Victor Prigg, Esq. CE	8	1	0	208	49.45	224
D Devonport (Rowdens Res.) .....	F. W. Lillicrap, Esq., CE	5	1	0	201	43.50	222
D Plympton (Leigham).....	Vere Cholmondeley, Esq	5	1	0	50	49.84	222
Bere Ferrers Rectory.....	Rev. F. T. W. Wintle.	5	1	0	100	48.70	222
D Bickley (Roborough Reservoir)..	F. Howarth, Esq., C.E.	5	1	0	548	56.51	248
Lee Moor Clay Works .....	T. Martin, Esq. ....	8	1	6	950	70.71	...
D Beer Alston (Rumleigh) .....	Sir A. Croft, K.C.I.E. ....	5	1	2	123	49.24	226
§Sheepstor Vicarage .....	Roy. Meteorological Soc.	8	...	...	709	77.11	254
„ „ „ „ „ „ „ „ „ „ „ „	M F. Howarth, Esq., C.E.	5	1	0	1024	64.43	...
D „ (Red Stone) .....	„ „ „	5	1	0	763	73.72	259
D „ (Burrator) .....	„ „ „	5	1	0	755	72.86	259
D „ (Head Weir).....	„ „ „	5	1	0	720	65.47	259
D Dartmoor (Lowery) .....	F. W. Lillicrap, Esq., CE	5	1	0	890	66.73	246
D „ (Deancombe Farm) ...	F. Howarth, Esq., C.E.	5	1	0	830	70.52	225
D „ (Leather Tor Farm)...	„ „ „	5	1	0	910	76.96	232
„ (Siwards Cross)..... M	„ „ „	5	1	0	1200	75.73	...
„ (Cramber Tor) .....	M „ „	5	1	0	1435	65.82	...
D§Tavistock (Statsford, Whitechurch)	E. E. Glyde, Esq. ....	5	1	0	594	61.56	250
D „ „ „ „ „ „ „ „ „ „ „ „	Rev. H. B. Grylls .....	5	1	0	400	56.47	236
D „ (Public Library) .....	Mr. J. Quick .....	8	20	0	283	51.28	237
Dartmoor (Leeden Tor)..... M	F. Howarth, Esq., C.E.	5	1	0	1270	60.14	...
„ „ (N. Hessary Tor) No. 1	„ „ „	5	1	0	1625	68.68	...
„ „ „ „ „ „ „ „ „ „ „ „	„ „ „	5	1	0	1502	68.14	...
Marytavy Rectory.....	Rev. Irvine K. Anderson	8	1	0	560	64.45	...
Milton Abbot (Endsleigh).....	Mr. F. Yole .....	5	1	0	180	59.26	...
D Lifton (Kelly House).....	Rev. Maitland Kelly...	8	2	6	462	52.95	230
D Coryton Rectory .....	Rev. H. N. Fowler ...	5	1	6	400	48.81	241
D Polapit Tamar [Launceston] ...	R. C. Coode, Esq. ....	5	1	0	315	49.05	241
D Beaworthy (Halwill Manor).....	Mr. C. J. Newman ...	5	1	0	535	61.25	242
3.—ERM & C.							
D Salcombe (Sandhills).....	W. H. Pike, Esq. ....	5	1	0	118	43.95	222
§ „ „ „ „ „ „ „ „ „ „ „ „	Royal Meteorological Soc	5	1	0	137	46.60	226
South Huish .....	W. Balkwill, Esq. ....	5	5	6	68	48.74	...
D Kingsbridge (Collapit Creek) ...	Ashley A. Froude, Esq. C.M.G.	5	1	6	51	46.42	235
„ „ (Westcombe) .....	T. W. Latham, Esq. ....	5	1	0	100	52.89	219
D Start Bay (Slapton) .....	Horace G. Morgan, Esq.	5	1	0	130	47.88	225
D Revelstoke (Membland) .....	Mr. G. Baker .....	5	1	0	180	46.61	181
D Dartmouth (Stoke Fleming).....	C. F. Selby, Esq. ....	5	0	9	356	49.06	224
„ „ (Redlap House) .....	L. Karslake, Esq. ....	5	1	1	220	42.12	228
Ermington (Strode) .....	H. Gore Hawker, Esq.	5	1	0	100	49.92	222
D Ivybridge (Langham Hill) .....	Miss Glanville .....	5	1	0	400	61.82	228
D South Brent (Blackadon Asylum)	H. Victor Prigg, Esq. CE	5	1	0	607	69.09	257
D „ „ „ „ „ „ „ „ „ „ „ „	Miss Kingwell .....	5	1	0	500	72.15	233
D „ „ „ „ „ „ „ „ „ „ „ „	W. B. Livermore, Esq. ...	...	...	...	680	79.54	236

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
SOUTH DEVON—(con.)							
4.—DART.							
Dartmouth (Kingswear) .....	W. L. G. Bennett, Esq.	5	1	1	100	44.77	...
D Brixham (Lindthorpe) .....	late T. Lakeman, Esq.	5	7	0	120 T	44.94	225
D Paignton (Victoria Street) .....	F. J. Rodgers, Esq.	8	1	0	11 T	41.65	201
D Totnes (North Gate House) .....	Horace F. Lovejoy, Esq.	8	1	0	...	49.19	205
D „ (Berry Pomeroy) .....	C. Barran, Esq.	5	1	0	185 T	47.37	199
D „ ( „ „ Vicarage) .....	Rev. H. Cooper	5	2	1	143 T	48.20	194
D „ (Broadhempston) .....	Charles Mole, Esq.	5	1	0	135 T	47.87	227
D Holne Vicarage .....	Rev. J. Gill	5	1	6	650 B	73.05	229
„ Moor (Ringleshutes) .....	J.C.Hawkins, Esq., C.E.	5	1	0	1130 T	87.81	...
„ „ (Venford Reservoir) .....	„ „ „	5	1	0	942 T	93.13	...
„ „ (Combestone Tor) ...	„ „ „	5	1	0	1130 T	88.21	...
D Ashburton (Dolbear) .....	Maj. W.W.Battiscombe	5	1	0	300 T	58.13	221
D\$ „ (Druid House).....	J. S. Amery, Esq.	5	1	0	584 T	63.26	231
D Princetown (Huccaby House) ...	R. Burnard, Esq.	5	0	11	900 T	75.52	239
„ (Duchy Hotel) .....	Mr. Aaron Rowe	8	1	2	1400	78.87	...
\$ „ (H.M. Prison).....	Royal Meteorological Soc	5	1	0	1360	95.51	242
† Dartmoor (Cowsic Valley).....	F.W.Lillicrap, Esq., CE	8	1	6	1352 T	79.10	...
† „ (Black Dunghill) No.5	„ „ „	8	1	0	1590 T	60.70	...
† „ (Beardown Tor) No.3	„ „ „	8	1	0	1550 T	60.00	...
† „ (White Tor) ..... No.1	„ „ „	8	1	0	1640 T	63.90	...
† „ (Devil's Tor) ..... No.2	„ „ „	8	1	0	1785 T	62.70	...
† „ (Cowsic Head) ... No.4	„ „ „	8	1	0	1580 T	74.30	...
5.—TEIGN.							
D† Torquay (Livermead House) ...	late Edwin Smith, Esq.	5	1	0	20 ?	40.00	221
D „ (Cockington Court) ...	Roger C. Mallock, Esq.	5	1	0	180	46.31	199
† „ (Princess Gardens) .....	F. March, Esq.	5	1	0	12	38.74	216
D† „ (Cary Green) .....	„ „ „	5	1	0	12	38.70	216
„ (Roby Hall) .....	Sir J. Edwards-Moss, Bt.	5	1	0	500 T	44.30	213
D Kingskerswell (South Hill) .....	E. A. Foster, Esq.	5	1	0	270 T	38.46	206
D Abbotskerswell (Court Grange) ..	Mrs. Marcus Hare	5	1	1	150 B	51.29	215
D Newton Abbot (The Chestnuts) ..	E. D. Wylie, Esq.	5	0	6	100 T	42.19	206
D Teignmouth (Woodlands) .....	W. B. Harris, Esq.	8	1	2	98 T	36.76	202
D\$ „ (Den Gardens) .....	Mr. G. Rossiter	5	1	0	20 T	37.12	204
D „ (Bonnieliff) .....	Miss M. Horner	5	1	0	260 T	39.00	219
\$ „ (Benton) .....	W. C. Lake, Esq., M.D.	5	1	0	320	36.14	204
D Dawlish (Blyth).....	Capt. Plenderleath, R.N.	5	1	0	44 T	36.41	218
D „ (The Lawn).....	S.F.C.Churchward, Esq	5	1	0	18 T	36.51	190
„ (Thorns Reservoir).....	„ „ „	5	1	0	550 T	37.66	...
„ (Burrows Reservoir) ...	„ „ „	5	1	0	420 T	36.00	...
D Chudleigh (Ideford Rectory) ...	Rev. G. J. Ford	4	1	0	300 T	42.38	219
D Bovey Tracey (Colehays) .....	Mr. G. Heath	5	1	0	400	66.53	214
Chudleigh (Trusham) .....	Rev. Offley H. Cary	5	0	6	322 T	45.48	216
D Moretonhampstead (Bullaton) ...	S.C.Chapman, Esq., C.E.	8	1	0	928 T	57.16	243
D „ (Mardon) ...	„ „ „	8	1	0	835	56.93	241
D „ (Kennick) ...	„ „ „	8	1	0	836 T	54.44	261
D „ (Laployd) ...	„ „ „	5	1	6	1041 T	59.02	241
D „ (Blackingstone) ...	„ „ „	8	1	0	1158 T	59.26	243

## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.
SOUTH DEVON—(con.)						
5.—TEIGN—(con.)						
D Moretonhampstead Rectory .....	Rev. S. D. Dewey .....	5	1	0	600 B	55.12 260
D Chagford (Dartmoor Sanatorium) ..	Dr. A. Scott-Smith ...	5	1	3	750 T	68.22 204
6.—EXE.						
D Starcross (Cofton Vicarage) .....	Rev. C. F. Benthall ...	5	1	9	60	38.82 209
Exmouth (Manor Grounds) .....	S. Hutton, Esq., C.E...	5	1	0	13 A	36.78 212
„ (Filters, Salterton Rd.) .....	„ „ „ .....	8	8	6	195	36.89 213
„ ( „ Capel Lane) ...	„ „ „ .....	5	8	0	240	35.13 206
D „ (Marpool Hall) .....	Mrs. Chichester .....	5	1	0	87 T	35.33 192
Aylesbeare (Rosamondford) .....	A. T. Loram, Esq. ....	5	0	10	220 T	37.45 218
† Exeter (St. Thomas) .....	E. N. Snow, Esq. ....	5	0	8	65	45.23 198
D† „ (Devon & Exeter Inst.) ..	J. E. Coombes Esq. ...	5	13	7	155 A	38.12 209
D† „ (Elmfield House) .....	W. B. Heberden, Esq. CB	5	4	0	100 T	37.02 216
D Cheriton Bishop .....	Lt. Col. E. C. Thwaites	5	1	0	575 P	47.30 197
† Broad Clyst (Brockhill) .....	W. T. Bayne, Esq. LL.D.	5	1	0	80	38.24 221
D Newton St. Cyres (Sherwood) ..	Mr. C. Bradford .....	5	1	0	400	44.01 215
„ „ „ Vicarage .....	late Rev. J. A. W. Collins	5	1	0	145 T	44.02 233
D Upton Pyne (The Parsonage) ...	Rev. A. Hillyard .....	5	1	0	213 T	41.89 207
D† Brampford Speke Station .....	Mr. A. Tucker .....	5	1	0	83	38.00 202
§ Silvertown (Killerton) .....	Royal Meteorological Soc	5	1	0	161	40.68 233
D Crediton (Okefield) .....	Seymour F. Pope, Esq.	5	1	0	325 T	44.18 230
Copplestone (Copplestone House) ..	Miss Pope .....	5	0	11	315 T	45.89 228
D§ Cullompton .....	M. T. Foster, Esq. ....	5	1	0	202 T	46.79 237
D „ (Verbeer Ho., Willand) ..	R. N. F. Cavendish, Esq.	5	1	6	210 T	46.74 223
D† Tiverton (Broomhill) .....	Mrs. Dickinson .....	5	1	0	380	44.49 216
D† „ (Highfield) .....	Maj.-Gen. G. W. Hanson	5	1	10	450 T	55.41 259
D „ (St. Peter Street) .....	Miss Gill .....	5	6	0	270 B	45.60 235
D „ (Blundell's School) ..	E. G. Peirce, Esq. ....	5	6	3	265 A	44.94 215
D Halberton .....	Capt. G. Izat, R.N. ...	5	0	6	240 T	46.56 203
D Uffculme (Bullmoor) .....	Miss M. E. Gowing ...	5	1	0	280	47.00 242
D Bampton (Huntsham Court) ...	H. Acland Troyte, Esq..	8	1	0	640 T	53.25 215
„ (Wonham) .....	Mrs. J. R. Holland ...	5	1	0	530	50.88 227
7.—AXE & C.						
Budleigh Salterton (Knowle Ho.) ..	Capt. Arthur Pepys ...	5	1	0	200	33.53 ...
„ „ (Squabmoor) .....	S. Hutton, Esq., C.E...	5	1	0	267	36.78 230
D† East Budleigh (Otterton Vic.) ..	Rev. R. Seymour .....	5	1	0	62	38.25 208
D† „ „ (Bicton) .....	Mr. J. Mayne .....	5	1	0	90	39.04 208
„ „ „ ( „ Common) ..	S. Hutton, Esq., C.E...	5	1	0	300	37.15 ...
D† Sidmouth (Eaglehurst) .....	E. S. McEuen, Esq. ...	5	1	2	60 B	36.57 208
D† „ (Sidmouth) .....	Miss C. Radford .....	5	1	0	149 A	39.16 239
† „ (Salcombe Regis Vic.) ..	Rev. D. McLaren .....	5	1	2	410 T	40.33 214
D† Seaton .....	Mrs. Pattinson .....	5	0	10	25	38.01 214
D Axmouth (Millmead) .....	E. H. Waters, Esq. ...	5	4	9	20	37.61 214
D§ Rousdon [Lyne Regis] .....	Mr. C. Grover .....	5	1	0	516 A	37.76 203
D Pinhay* [ „ „ ] .....	Mr. J. F. Stobo .....	5	1	11	465 A	40.21 210
D† Ottery St. Mary (West Hill) ...	B. Stansbury, Esq. ....	5	1	6	340 T	42.50 224
D† „ „ „ (Broad Street) ..	H. D. Badcock, Esq. ...	5	4	0	170 B	45.89 213

\* Formerly called Clevelands.

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
SOUTH DEVON—(con.)							
7.—AXE & C—(con.)							
† Ottery St. Mary (Manor House).	W. A. Willock, Esq....	5	1	2	200	45.21	221
Northleigh Rectory .....	Mrs. W. Champernowne	5	0	6	335	51.22	235
Kilmington (Haddon Corner) ...	A. Hitchcock, Esq.....	5	1	0	400 †	44.53	229
Axminster (Lea Combe House)..	A. C. F. Luttrell, Esq..	5	2	0	180	43.60	198
Honiton (Combe Raleigh).....	Lt.-Col. M. James .....	5	2	4	500 †	45.41	224
Chardstock Vicarage.....	Rev. A. Lewis .....	5	0	8	333	44.98	214
NORTH DEVON.							
1.—NORTH COAST STREAMS.							
† Braunton (Preston Ho., Saunton)	Miss Durham .....	5	0	8	120 B	34.48	197
§ Woolacombe .....	Miss Chichester .....	5	1	0	60 A	36.66	217
Morthoe (Twitchen) .....	Dr. G. B. Longstaff ...	8	1	0	430 †	41.92	227
Parracombe .....	Rev. J. F. Chanter ...	5	1	0	795 †	61.22	211
Ilfracombe (Reservoir) .....	O. M. Prowse, Esq., C.E.	5	1	0	395	49.84	247
„ (Bickleighscombe) ...	Mrs. Slade King .....	5	1	0	300	47.56	221
§ „ (Hotel).....	Royal Meteorological Soc	5	1	0	24	34.44	222
Martinhoe Rectory.....	Rev. R. W. Oldham ...	5	2	3	808	46.55	208
Lynton (Lee Abbey) .....	C. F. Bailey, Esq. ....	5	0	6	320 †	47.47	...
Lynmouth (Gwynallt) .....	A. L. Ford, Esq. ....	8	0	8	284 †	54.16	214
„ (Rock House) .....	T. H. Mead-Briggs, Esq.	5	0	11	22 A	49.93	227
2.—TAW.							
Spreyton Vicarage.....	late Rev. H. P. Knapton	5	1	5	735	43.13	...
Morchard Bishop (Hartnolls) ...	Mrs. Owen Wynne ...	5	1	0	420 †	44.89	...
Chumleigh (Leigh House).....	Mr. W. Gillies .....	5	1	0	400	41.44?	219
Warkleigh Rectory .....	Rev. J. H. Thompson...	5	1	0	439 A	44.96	232
South Molton .....	F. Day, Esq. ....	5	1	0	450 †	61.33	219
§ Filleigh (Castle Hill School) ...	W. H. Reeve, Esq. ....	8	1	0	363 A	51.87	246
„ ( „ „ Gardens)...	T. Wainwright, Esq....	12	3	6	317	51.42	238
Molland .....	S. J. Case, Esq.....	5	1	9	674 †	63.83	256
East Anstey (Rhyll Manor) .....	Mrs. Hancock.....	5	1	0	900	65.03	220
Barnstaple (Newport) .....	T. Wainwright, Esq....	5	1	0	138	44.16	229
† „ (N.Devon Athenæum)	„ „ „ ...	8	1	0	25 †	44.04	220
Stoke Rivers .....	Mrs. Chamings .....	5	1	0	700	57.82	243
§ Arlington Court .....	Miss Chichester .....	5	1	0	613 B	61.09	214
„ „ .....	„ „ „ .....	5	1	0	613 B	59.38	...
Challacombe .....	O. M. Prowse, Esq., C.E.	5	1	2	850	69.68	221
3.—TORRIDGE.							
Okehampton (Oaklands) .....	Maj.-Gen. Holley .....	5	1	0	500 †	60.21	215
Holsworthy (Dunsland) .....	W. Clifton Mogg, Esq.	5	1	6	495 A	55.72	214
Petrockstow (Heanton Satchville)	Mr. A. Eames .....	5	1	0	332 A	46.94	221
Dolton (Hilliers) .....	A. Smythies, Esq.....	5	1	3	380 A	44.29	180
Beaford (Abbots Hill) .....	J. Stuckey, Esq.....	5	1	3	380 †	43.16	212
Roborough (Ebberly).....	J. S. C. Davis, Esq.....	5	1	0	506 †	43.11	223
Torrington (Enfield) .....	G. M. Doe, Esq.....	5	1	0	336 A	46.58	227
„ (Little Silver).....	L. L. Lloyd, Esq. ....	5	1	0	395 †	49.17	225
Parkham (Melbury Moor).....	Baldwin Latham Esq CE	5	1	0	623 A	57.28	270



## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
<b>NORTH DEVON—(con.)</b>						
<b>3.—TORRIDGE—(con.)</b>						
D Parham (Melbury Reservoir) ...	Baldwin Latham Esq CE	5	1 0	516 $\nabla$	61·55	270
D Abbotsham (Riccard's Down) ...	Mrs. Hibbert	5	1 0	87 $\nabla$	43·77	238
D Bideford (Gammaton W. W.) ...	Baldwin Latham Esq CE	5	1 0	335 $\nabla$	42·20	209
D „ (Webbery) .....	Mrs. C. E. Boyd	5	1 10	350 $\nabla$	42·56	223
D „ Rectory .....	Rev. T. Newton Leeke.	5	1 2	150 $\nabla$	44·29	221
D „ (Beecheroff) .....	A. H. Hobhouse, Esq...	2	1 0	125 $\nabla$	42·61	230
D „ ( „ ) .....	„ „ „ „	5	1 0	125 $\nabla$	42·90	227
D „ (Northam Road) .....	Mr. W. Littlejohns	5	0 6	20	39·89	...
D „ (Horwood House) .....	Rev. J. Dene	5	1 0	288 $\nabla$	37·03	239
D Northam Vicarage .....	Rev Preb Dimond-Churchward	5	1 3	173 $\nabla$	38·59	226
D Westward Ho! (Bellevue) .....	A. H. Boyd, Esq.	8	1 0	200 $\nabla$	36·99	234
D Instow .....	Miss Lock	5	1 0	100 $\nabla$	34·36	182
<b>4.—WEST COAST STREAMS.</b>						
D Hartland Abbey .....	Mr. G. Sleep	5	1 6	222 $\nabla$	40·88	199
<b>CORNWALL.</b>						
<b>1.—CAMEL &amp; N.W. COAST STREAMS.</b>						
Phillack Rectory .....	Cornwall County Council	5	1 0	70 $\nabla$	34·94	211
St. Ives (Lower Bussow) .....	F. E. Wintle, Esq.	5	1 0	398	43·96	220
„ .....	Cornwall County Council	5	4 0	60 $\nabla$	43·61	219
Redruth (Tolvean) .....	„ „ „ „	5	0 9	365	50·14	224
D\$ „ (Trewirgie) .....	A. P. Jenkin, Esq.	5	1 0	399 $\nabla$	51·81	234
D „ (Tehidy Park) .....	Mr. F. J. Clark	8	1 1	287 $\nabla$	50·26	222
St. Agnes .....	W. Whitworth, Esq.	5	3 8	320 $\nabla$	37·41	206
Newquay (Reservoir) .....	Dr. C. C. Vigurs	5	1 0	214	37·75	...
D\$ „ (Island Estate) .....	„ „ „ „	5	1 0	100	36·01	215
D Withiel Rectory .....	Rev. W. S. Cruddas	5	0 11	360	53·86	240
D St. Wenn (Trewollack) .....	W. H. L. Shadwell, Esq.	8	1 0	251 $\nabla$	52·77	240
D Bodmin (Polgwin) .....	H. D. Foster, Esq.	5	1 0	280	53·44	253
D „ (Castle Hill) .....	Rev. Prebendary Every	5	0 9	480 $\nabla$	56·81	253
D Camelford (Stannon Clay Works)	Capt. R. M. Richards	8	1 0	800 $\nabla$	66·00	225
Tintagel (K. Arthur's Castle Hotel)	Cornwall County Council	5	1 0	245	35·96	215
D Stratton (Poughill) .....	Miss Field	5	1 0	200 $\nabla$	41·48	233
D Morwenstow Vicarage .....	Rev. H. Lynne Jones	5	0 10	331 $\nabla$	40·00	242
<b>2.—FOWEY &amp; S.E. COAST STREAMS.</b>						
Lizard .....	A. P. Jenkin, Esq.	5	1 0	244 $\nabla$	40·85	...
St. Keverne (Lanarth) .....	P. D. Williams, Esq.	5	0 10	290 $\nabla$	50·30	235
D „ „ (Rosuick Cottage) ...	G. W. Jevons, Esq.	5	1 0	250 $\nabla$	50·06	263
Bosahan .....	Cornwall County Council	...	...	240	38·17	215
Helston (Tenderah) .....	J. Walker Tyacke, Esq.	5	1 6	210 $\nabla$	47·43	232
D Perran Uthnoe (Trenall's Farm)	B. Tunstall-Behrens Esq	5	0 10	25	40·53	210
D† Penzance (Morrab Garden) .....	C. H. Benn, Esq.	5	1 0	55	44·39	238
D „ (Rosehill) .....	(R) David Howell, Esq	10	3 0	212 $\nabla$	41·22	224
D† „ (St. Clare) .....	late Rev Preb Hedgeland	5	1 0	213 $\nabla$	46·94	233
D† „ (Trengwainton) .....	T. Robins Bolitho, Esq.	10	1 0	400 $\nabla$	53·58	237
„ ( „ ) .....	„ „ „ „	...	...	400 $\nabla$	48·17	200

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
<b>CORNWALL—(con.)</b>							
<b>2.—FOWEY &amp; S.E. COAST STREAMS—(con.)</b>							
d Marazion .....	T. Field Michell, Esq. ...	5	2	0	30	47·22	213
d Falmouth (New Observatory) (R)	E. Kitto, Esq. ....	11	2	0	169 T	52·84	234
d " (" " " " Place) ...	J. S. Spry, Esq. ....	5	1	0	12	45·15	218
d " (Carclew) .....	Mr J. Simmons.....	5	0	9	...	55·63	209
d Penryn (Enys) .....	Priestley Hogbin, Esq..	5	1	0	100 T	52·73	232
d Redruth (Trevince) .....	E. B. Beauchamp, Esq.	8	0	8	240 T	50·95	232
d Truro (Killiow) .....	J. C. Daubuz, Esq. ....	5	1	0	230 T	48·49	219
" (Royal Institution).....	Cornwall County Council	5	43	0	83	52·94	245
d " (W.W., Lower Tregurrow)	W. J. Lean, Esq. ....	5	9	0	71 T	50·44	225
Grampound Road (Creed Rectory)	Rev. G. T. C. Pearce ...	5	1	0	130 T	50·13	246
d Probus (Lamellyn).....	H. Tresawna, Esq. ....	5	0	6	230	47·30	208
d Talland (Polperro).....	H. E. Butler, Esq. ....	5	1	0	120	48·61	246
d Fowey (Torfrey) .....	W. G. Mills, Esq. ....	5	0	6	300	51·48	207
d St. Austell (Trevarna) .....	W. M. Coode, Esq. ...	5	1	0	300 T	55·35	240
d Looe (Morval).....	G. Roberts, Esq. ....	5	1	0	150 T	56·46	201
d Lostwithiel (Lanwithan) .....	Miss Foster.....	5	1	0	80	54·76	223
d Roche (Glenceo) .....	S. Browne, Esq. ....	5	0	9	602 T	52·79	246
d Liskeard (Trevillis) .....	L. C. Foster, Esq. ....	5	1	0	320 T	51·98	239
d " (Dean Terrace) .....	S. W. Jenkin, Esq., C.E.	5	1	1	400 T	59·44	247
" (St. Cleer Down) .....	" " "	5	1	1	620 T	50·66	...
<b>3.—TAMAR &amp; C.</b>							
d Empacombe [Devonport] .....	J. Sandercock, Esq. ...	5	1	0	20 T	47·39	244
d Cremyll [Devonport].....	W. Wonnacott, Esq....	5	10	0	25	48·50	257
d St. Germans (Trethill) .....	Lt.-Col. J. D.A. Roberts	5	2	0	200 B	43·64	227
d Antony Vicarage .....	Rev. Alan Clover .....	5	1	0	250 T	45·74	225
Saltash (Pentillie Castle) .....	Cornwall County Council	5	2	4	150 B	59·17	225
d St. Mellion Rectory .....	Rev. F. T. Wintle .....	5	1	0	400	51·18	238
d Callington (Pencrebar).....	Miss A. H. Horndon ...	5	1	9	450 T	49·26	225
d " (Mount Lodge) .....	G. Brown, Esq. ....	8	1	0	400	55·46	244
" (Drakewalls Place)... ..	Mr. C. A. Wadge .....	5	3	0	650 T	51·24	219
d Launceston (Landue) .....	Miss S. E. Tregoning... ..	5	0	11	225 T	53·04	247
" (Hexworthy) Snowdon	R. B. Rogers, Esq. ...	5	1	0	270 T	49·28	...
" " " " " (R)	" " " " " .....	5	1	6	270 T	47·77	214
d Altarnon Sanctuary .....	Rev. A. H. Malan .....	5	1	0	620 T	67·22	252
d Launceston (Tamar Terrace) ...	Captain L. Ching, R.N.	5	0	10	446	49·51	221
Egloskerry (Tregeare) .....	E.G.B.Lethbridge, Esq.	5	1	0	575	53·49	...
North Tamerton (Ogbeare) .....	Mr. J. S. Bray .....	5	4	0	460 T	42·63	209
<b>SOMERSET.</b>							
<b>1.—LOWER AVON.</b>							
d Cranmore (Southill House) .....	S. Poyntz-Wright, Esq.	5	1	0	634 T	48·80	230
d " Hall .....	E. Barclay Whish, Esq.	8	1	9	600 T	54·32	217
d Shepton Mallet (Pondsmead, Oakhill)	Mr. J. Fletcher .....	8	1	0	710	56·38	226
d Frome W.W. (Egford) .....	F. W. Jones, Esq., C.E.	8	2	0	270	44·18	226

## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
SOMERSET—(con.)						
1.—LOWER AVON—(con.)						
D Mells (Wadbury) .....	Mrs. Sykes .....	5	1	0	394 T	45.93 197
D „ (Selwood) .....	Miss E. G. Horner .....	5	1	0	344 T	46.37 229
D Binegar (Gurneyslade) .....	Rev. F. P. Whiteside .....	5	1	0	588 T	56.26 205
D Stratton-on-the-Fosse (Downside Abbey)	„ „ „ .....	8	1	0	600 T	50.75 213
D Frome (Orchardleigh) .....	Rev. W. A. Duckworth .....	8	0	10	303 T	39.49 207
D „ (Beckington) .....	E. M. Nelson, Esq. ..	8	1	3	270 T	39.35 213
D Chewton Mendip (The Priory) ..	The Earl Waldegrave ..	5	1	5	550 T	59.24 235
Ston Easton .....	H. E. Hippisley, Esq. ..	5	3	0	480 T	54.23 220
E. Harptree (Sherborne Res., Litton)	J. A. McPherson, Esq. CE	5	1	0	338 T	58.81 219
D „ „ (Harptree Court) ..	W. W. Kettlewell, Esq. ..	5	1	0	346 T	59.44 215
„ „ „ (Hill) ..	J. A. McPherson, Esq. CE	8	1	0	784	54.60 ...
Camerton Court .....	Miss Jarrett .....	5	1	0	340 T	50.91 171
D Temple Cloud .....	Dr. Theodore Martin ..	5	1	0	340 T	51.36 227
D Clutton (Council School) .....	J. Pullen, Esq. ....	5	1	6	420 T	47.96? 207
D Pensford (Sutton Court) .....	Sir E. Strachey, Bt. M.P. ..	8	1	0	280	53.14 225
Chelwood Rectory .....	H. Satchell, Esq. ....	5	1	0	300 ?	47.18 231
Bath (Combe Hay Manor) .....	F. G. Smart, Esq. ....	5	1	0	...	46.22 233
D „ (Crossways, Monkton Combe)	M. J. Lipscomb, Esq. ....	5	1	0	180	42.84 179
Chew Magna .....	J. A. McPherson, Esq. CE	5	1	4	180 T	50.84 209
D Publow Vicarage .....	Rev. H. H. Tripp .....	5	1	0	96 T	45.84 193
Bath (Royal Institution) .....	Dr. W. H. Symons ..	6	8	0	74	38.74 ...
„ (Royal Crescent) .....	H. Jervis, Esq. ....	...	...	...	...	39.10 ...
D§ „ (Henrietta Park) .....	Dr. W. H. Symons ..	5	1	0	67 T	39.47 191
D „ (Statutory Hospital) .....	„ „ „ ..	5	1	0	520	42.80 183
D „ (Kingswood School) .....	„ „ „ ..	5	1	0	620 T	40.12 186
D „ (Hampstead, Combe Park) ..	„ „ „ ..	5	1	0	165 T	40.64 183
D „ (Somerset Place) .....	R. Lewis Lloyd, Esq. ....	5	0	10	350	41.77 227
D „ (Charlcombe) .....	J. Dent Young, Esq. C.E. ..	8	2	0	325 T	42.21 202
„ „ (Hamilton Ho.) ..	F. E. Rogers, Esq. ....	5	1	6	740 T	42.10 ...
D Saltford House .....	Col. W. V. Rolleston ..	...	...	...	...	38.38 192
D Batheaston .....	Col. Linley Blathwayt. ..	5	1	0	166 T	40.02 203
„ „ „ M „ „ „ ..	„ „ „ „ „ „ ..	5	1	0	166 T	40.09 ...
D „ Reservoir .....	J. Dent Young Esq., C.E. ..	6	2	0	248 T	43.67 229
Barrow Gurney Reservoir .....	J. A. McPherson, Esq. CE	5	1	6	300 T	45.00 216
D Keynsham (West View Road) ..	S. B. Froude, Esq. ....	5	1	0	102 T	41.32 213
Long Ashton (Estate Office) .....	H. B. Napier, Esq. ....	8	1	0	134 T	42.88 ...
Bristol (Coronation Road) .....	H. C. Martin, Esq. ....	5	0	10	50	37.53 ...
D Abbots Leigh .....	Sir Henry Miles, Bart. ..	5	1	0	320 T	44.13 198
D† Failand House [Bristol] .....	Miss Agnes Fry .....	5	1	0	385 T	43.24 223
2.—YEO, AXE & BRUE.						
D Castle Cary (Alford House) .....	Admiral P. F. Tillard ..	5	1	0	98 T	40.46 199
D Somerton (Butleigh Court) .....	R. Neville Grenville Esq. ..	8	1	2	95	38.38 190
D Bruton (Sexey's School) .....	H. Crowther, Esq. ....	5	1	0	300	39.78 201
D „ (King's School) ..	D. E. Norton, Esq. ....	5	1	2	200	45.62 226
D Ditcheat .....	Rev. H. A. Boys .....	...	...	...	200 ?	40.21 194
D Street (Hind Hayes) .....	Joseph Clark, Esq. ....	5	1	5	78 T	36.61 192
D „ „ .....	W. S. Clark, Esq. ....	8	1	0	100	37.26 212

## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>SOMERSET—(con.)</b>						
<b>2.—YEO, AXE &amp; BRUE—(con.)</b>						
Edington.....	A. C. F. Luttrell, Esq..	5	2	6	90 †	40·46 195
d Shepton Mallet (Pilton) .....	J. Dredge Allen, Esq...	5	1	3	354	43·06 228
d Glastonbury (Ynyswytryn) .....	Mrs. Swayne .....	5	1	8	245 †	36·37 232
d Shepton Mallet (Charlton) .....	C. E. Burnell, Esq.. ...	5	1	0	481 †	48·69 206
d „ „ (Field House) ..	F. H. Berryman, Esq..	5	1	0	500	48·16 213
d „ „ (Grammar School)	William Aldridge, Esq.	5	1	0	475	47·65 213
d „ „ (Sewage Farm)..	W. Reader, Esq. ....	5	0	8	310	48·77 205
d Wells (The Deanery Gardens) ..	Mr. A. King .....	5	1	0	170 †	45·88 204
d „ (Woodbury House) .....	Sir J. A. Woolfryes, KCB	5	0	9	216 †	47·25 242
d „ (Somerset & Bath Asylum)	J. E. P. Shera, Esq., M.D.	5	1	0	300	37·10 195
d „ (Wookey Hole) .....	Messrs. Hodgkinson & Co. ...	5	1	4	180	46·12 187
Priddy Vicarage.....	Rev. R. H. Creaton ...	5	1	0	800 ?	51·89 ...
d Burnham (Dunstan Ho., Chalbury)	H. A. Smith Spark, Esq.	5	1	0	20	38·13 178
d „ (Brent Knoll).....	Miss FitzGerald.....	5	2	0	26 †	40·97 212
Compton Martin.....	J. A. McPherson, Esq. CE	8	1	0	276	57·07 ...
d Blagdon (Nordrach-on-Mendip)..	R. Thurnam, Esq., M.D.	5	0	4	862 †	59·68 239
d Winscombe (The Down) .....	J. Grubb, Esq. ....	5	1	0	295 †	48·30 227
d „ (Wintrath).....	F. A. Knight, Esq.....	5	5	5	300 †	43·89 209
d Hutton Rectory .....	Rev. W. F. Rose .....	5	1	0	75	44·39 206
d Banwell (Eversley) .....	Kenneth Anderson, Esq.	5	1	6	50 †	45·55 200
Blagdon .....	J. A. McPherson, Esq. CE	8	1	0	550	55·80 ...
„ .....	„ „ „	8	0	8	112 †	53·44 217
„ (Coombe Lodge).....	„ „ „	8	1	0	388 †	55·44 ...
Nempnett (West Town) .....	„ „ „	8	1	0	263	48·89 ...
d Weston-spr.-Mare (Leycroft Ho.)	C. Brown, Esq. ....	8	1	0	15	38·90 182
d „ „ „ (Town Hall)...	F. Allen, Esq.....	5	1	0	21	39·56 188
d „ „ „ (Worle) .....	Dr. St. John Kemm ...	5	1	0	...	42·32 216
d Wrington (The Cottage) .....	H. C. Bristowe, Esq. M.D.	5	1	0	100	45·30 201
d „ (The Rectory) .....	Rev. G. M. Ashdown...	5	5	0	68	46·48 204
d „ (West Hay).....	late Miss M. B. Harrison	5	2	0	100 †	46·32 210
Yatton (Chelvey) .....	J. A. McPherson, Esq. CE	8	0	8	60	40·35 189
Flax Bourton (Backwell House)	<i>Bristol Times &amp; Mirror</i>	...	...	...	...	45·99 ...
d „ „ „ (Hill Ho.)	W. Garnett, Esq. ....	8	1	10	490	43·63 207
d Clevedon (Water Works).....	J. Harger Pye, Esq. ...	5	1	10	28 †	39·23 207
Wraxall (Boys' School).....	Ebenezer Brown, Esq..	5	1	2	...	41·52 221
<b>3.—PARRETT.</b>						
d Crewkerne (Bincombe House) ...	Miss Sparks .....	5	1	2	294 †	44·83 235
d „ (Merefield House) ...	J. Tompsett, Esq. ....	8	14	5	240 †	46·55 218
d „ „ „ „ „	„ „ „ „ „	8	1	1	231 †	45·38 220
Coker Court Gardens .....	Mr. T. H. Gilham .....	5	1	0	250 ?	40·77 177
d Ilminster (Laurel Bank) .....	W. Beckwith, Esq. ...	5	1	0	180 †	39·93 209
d „ (Whitelackington Ho.)	S. Creed, Esq. ....	5	3	0	200 †	41·69 216
d „ (Dillington Park)....(R)	Mr. W. Goldthorpe ...	8	3	0	161 †	45·30 203
d Yeovil (Gas Works) .....	E. Howell, Esq.....	5	22	0	122 †	37·01 197
d „ (Sew. Wks., Pen Mill)...	Dr. H. Page .....	5	1	0	101 †	41·53 229
d South Petherton (Yeabridge) ...	Miss E. F. Blake .....	8	0	9	100 †	37·52 222
„ „ Vicarage .....	Mr. A. Trim .....	5	1	0	140 †	37·05? ...
d Wellington (Old Way House) ...	T. Fox, Esq. ....	5	1	1	300	45·17 241

## DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1910	
		in	ft. in.	feet.	inches.	
<b>SOMERSET—(con.)</b>						
<b>3.—PARRETT—(con.)</b>						
D Stoke-under-Ham .....	Miss Gillett.....	8	1 0	...	42.32	224
D Tintinhull (Manor House).....	Rev. Dr. S. T. M. Price	5	0 10	145	41.30	187
Angersleigh (Blagdon Reservoir)	H. T. Coles, Esq. ....	8	1 6	590 $\nabla$	45.39	...
" (Leigh Hill Reservoir)	" " " " .....	8	1 6	525 $\nabla$	44.90	...
D " ( " Court) .....	A. Eastwood, Esq.....	8	1 0	350 $\nabla$	46.01	236
Langford Budville (Ritherdens)	Mr. H. Jones .....	5	0 10	380 $\nabla$	46.90	242
D Taunton (Linden Grove) .....	H. Le B. Gunner, Esq.	5	1 0	70 B	39.89	215
" .....	Dr. H. J. Alford.....	...	...	60	42.90	199
D Rimpton .....	H. H. G. Andrews, Esq.	8	3 0	100	39.16	196
Sutton Montis .....	Rev. H. A. Boys .....	5	8 2	...	43.32	207
D Milverton (Spring Grove).....	C. Roberts Gawen, Esq.	5	0 8	500 $\nabla$	50.30	247
D Wiveliscombe.....	T. R. Marsh, Esq.....	5	1 0	409 $\nabla$	52.98	218
D Langport (The Grange).....	Dr. H. Page .....	5	1 0	50 $\nabla$	36.01	236
" (Huish Episcopi) .....	Miss A. M. Kelway ...	8	1 1	30 ?	31.38	...
D Milverton (The Mount, Halse)...	Miss J. E. Smith .....	5	1 2	254 B	44.78	219
D Maperton Rectory .....	Rev. D. E. Norton.....	5	1 0	367 $\nabla$	47.12	228
D North Cadbury Rectory .....	Rev. H. A. Boys .....	8	1 3	256 $\nabla$	42.41	218
D " " (Woolston) .....	" " " " .....	...	...	...	44.04	202
D Somerton (Kingweston) .....	Rev. G. de Y. Aldridge	5	2 6	200 $\nabla$	41.44	228
Cothelstone House .....	C. E. J. Esdaile, Esq...	5	1 0	430	47.30	221
D North Petherton (Shovell) .....	A. M. Wilson, Esq. ...	8	1 0	200 ?	37.17	192
D " " (The Old Rectory) .....	E. C. Curtis, Esq. ....	8	0 6	136 $\nabla$	42.47	223
Bridgwater (Nurseries) .....	Mr. H. Corder .....	5	0 6	30 ?	39.66	200
D " (Blake Gardens).....	F. Parr, Esq., C.E. ...	5	3 1	27 $\nabla$	37.64	191
D " (Ashford) .....	" " " " .....	5	1 5	102 $\nabla$	43.10	209
" .....	H. C. Salmon, Esq. ...	5	4 10	25	40.51	...
D Cannington (Brymore) .....	H. H. P. Bouverie, Esq.	5	1 6	65 $\nabla$	40.40	200
<b>4.—NORTH COAST STREAMS.</b>						
D Williton (Sampford Brett) .....	Rev. A. M. Foster.....	5	1 0	115 $\nabla$	41.05	202
" (Aller Farm) .....	T. Hosegood, Esq.....	5	3 6	210	43.83	...
D Quantockhead (St. Audries) ...	Mr. F. S. Hayne .....	8	1 0	250 $\nabla$	40.51	203
D Holford (Woodlands House) ...	Miss I. L. Joseph .....	5	1 0	391 $\nabla$	45.36	206
Stockland Bristol (Manor House)	Rev. H. A. Daniel.....	5	1 0	65	39.14	181
Watchet (Chapel Cleeve) .....	Rev. F. Sterry .....	5	0 11	65 $\nabla$	39.24	224
D Minehead (Mariansleigh) .....	T. F. Twist, Esq. ....	5	1 0	45 B	42.29	210
D " (Clanville).....	R. Shafto Adair, Esq...	5	1 0	160 $\nabla$	39.08	201
Porlock (Lynch Mead, Allerford)	J. Dyke Acland, Esq...	5	1 3	100 $\nabla$	43.41	201
<b>5.—EXE.</b>						
D Dulverton (Exebridge Fishery)..	T. F. Tracy, Esq. ....	5	1 0	400	58.66	227
D Hawkridge (Liscombe) .....	Mr. E. W. Darby .....	5	3 6	980	71.77	256
D Winsford School .....	W. Dicker, Esq. ....	5	1 2	685	67.60	226
D Cutcombe (Wheddon Cross) .....	H. H. P. Bouverie, Esq.	3	1 2	940 $\nabla$	66.12	248
D Simonsbath.....	Rev. H. F. Ramsay ...	5	1 3	1080 $\nabla$	81.14	246
<b>6.—AXE.</b>						
D Chard (Tatworth Vicarage) .....	Rev. H. Stuart King...	5	1 3	347 $\nabla$	48.49	220
D " Vicarage.....	Rev. Preb. Walter Farrer	5	1 0	380 $\nabla$	50.04	234
Cricket St. Thomas (Cricket Ho.)	Mrs. S. Lyon .....	5	1 0	444	48.02	230

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
SOMERSETSHIRE—(con.)						
7.—STOUR.						
<div> <div> <div></div> <div>D</div> </div> <div>Henstridge (Inwood Ho. Gardens)</div> </div>	Mr. W. Hester .....	5	1 0	350	42·74	207
<div> <div> <div></div> <div>D</div> </div> <div>Temple Combe Rectory .....</div> </div>	Rev. J. C. Fox .....	5	0 6	215	46·09	239
<div> <div> <div></div> <div>D</div> </div> <div>Wincanton (Holbrook) .....</div> </div>	Mrs. Angerstein.....	5	1 6	450 7	35·61	...
<div> <div> <div></div> <div>D</div> </div> <div>„ (Roundhill Grange)..</div> </div>	General C. H. P. Ducat	5	1 9	380	41·78	217
<div> <div> <div></div> <div>D</div> </div> <div>Pen Selwood Rectory.....</div> </div>	Rev. Newton Parsons..	5	0 10	650 7	42·69	204

A map of this Division, showing the sub-divisions, will be found in Part I.

## DIVISION VI.—WEST MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with '01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>GLOUCESTERSHIRE.</b>						
<b>1.—WYE.</b>						
Castleford [Chepstow] .....	Mrs. W. R. Lysaght ...	5	0	8	146 T	37·46 196
Forest of Dean (Braceland) .....	C. O. Hanson, Esq. ...	8	1	0	500	47·90 186
„ „ „ (Ruardean Hill Lo.) .....	„ „ „ ...	8	1	0	900	47·28 200
<b>2.—SEVERN—Right Bank Tributaries.</b>						
Sedbury Park [Chepstow] .....	Sir W. H. Marling, Bart.	8	1	0	150 T	37·56 179
Pen Moel [ „ ] .....	the late Mrs. W. E. Price	5	1	0	240 T	41·89 233
Lydney (Clanna) .....	Captain W. B. Marling	5	1	0	260 T	43·04 166
Forest of Dean (Whitemead Park) .....	C. O. Hanson, Esq. ...	8	1	0	200	44·40 178
„ „ „ (Blakeney Hill Lo.) .....	„ „ „ ...	8	1	0	500	40·21 183
„ „ „ (Worcester Lodge) .....	„ „ „ ...	8	0	11	700	45·81 179
„ „ „ (Edgehills Lodge) .....	„ „ „ ...	8	1	0	700	42·53 170
Westbury-on-Severn (Chaxhill) .....	Mrs. Grant .....	5	3	0	122 T	36·91 208
Mitcheldean (Blaisdon) .....	Colin MacIver, Esq. ...	5	1	0	117 T	38·46 169
Tibberton Court .....	the late Mrs. W. E. Price	5	1	0	109 T	33·92 186
Tewkesbury (Forthampton Court) .....	Mr. H. French .....	5	1	0	48 T	31·24 183
„ (Upper Lode) .....	E. D. Marten, Esq., C.E.	5	1	0	41 T	30·22 196
Bromsberrow Pumping Station .....	W. Osborne Thorp Esq. C.E.	5	1	0	181 T	32·16 177
<b>3.—SEVERN—Left Bank Tributaries.</b>						
Wickwar Rectory .....	Rev. Canon R. J. Lyon	5	1	0	260 T	39·33 206
Tortworth Court .....	The Earl of Ducie .....	8	1	0	264	36·70 200
„ School .....	E. A. Smith, Esq. ....	5	2	0	264	36·87 202
Dursley (Woodmancote) .....	Meteorological Office ...	5	1	0	257	38·22 155
Avening House .....	Maj. Hon. L. Byng ...	8	1	3	350 ?	36·67 167
Cherington Rectory .....	Rev. C. Marriott .....	5	1	2	540 T	30·55 218
Berkeley Castle Gardens .....	Mr. T. Wathers .....	5	1	6	62 T	35·58 177
„ (Sharpness Docks) .....	F. A. Jones, Esq., C.E.	5	3	6	50	34·79 187
Nailsworth (Dunkirk Manor) ...	Miss M. C. Meade-King	5	1	3	400	39·95 183
Chalford (Hyde House) .....	Piers F. Legh, Esq. ...	5	1	6	527 T	36·93 181
Stroud (Stanley Park) .....	Sir W. H. Marling, Bart.	8	1	0	365 T	39·00 190
„ (Upfield) .....	Miss E. R. Stanton ...	5	1	0	226 T	34·94 215
Stonehouse (Wycliffe College) ..	W. A. Sibly, Esq. ....	5	1	0	125	34·09 201
„ (Parklands) No. 1 (R) ..	W. Grey Robinson, Esq.	8	2	6	103 T	32·42 194
„ ( „ ) No. 2 ..	„ „ „ ...	5	2	0	103	32·49 193
Whitminster .....	F. A. Jones, Esq., C.E.	5	1	0	32 T	33·23 197
Haresfield Court .....	Mr. R. J. Tidswell .....	5	1	0	100	32·89 185
Harescombe Grange .....	Stamford Hutton, Esq.	5	1	0	545 T	33·30 199
Longney Vicarage .....	Rev. W. E. Stewart ...	5	1	0	55 T	33·80 200
Quedgeley House .....	Col. Curtis Hayward ...	5	1	0	65 T	34·13 187
Witcombe Reservoir .....	R. Read, Esq., C.E. ...	8	3	0	297 T	36·69 183
Gloucester (Park Road) .....	G. Embrey, Esq. ....	8	1	3	56	31·31 193
„ (Belgrave Road) .....	W. Piffe Brown, Esq. ...	5	1	0	52 T	30·51 182
„ (Alexandra Road) ...	A. J. Stephens, Esq. ...	5	1	0	54 T	30·79 ...
„ (Denmark Road) .....	Harley Butt, Esq. ....	5	1	5	79 T	30·87 ...
„ (Barnwood Vicarage) ..	Rev. F. H. Fowler .....	5	1	0	80 T	33·40 201
„ (Llanthony Lock) ...	E. D. Marten, Esq., C.E.	5	1	2	39 T	30·55 204
„ (Wotton Asylum) .....	Dr. E. F. Kough .....	8	0	9	93 T	31·58 178
„ (Maisemore Lock) ...	E. D. Marten, Esq., C.E.	5	1	1	39 T	33·05 205

## DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>GLOUCESTERSHIRE—(con.)</b>						
<b>3.—SEVERN—Left Bank Tributaries—(con.)</b>						
D Dowdeswell Reservoir .....	J. S. Pickering, Esq., C.E.	5	0	10	357 T	36.35 187
D Charlton Kings (The Grange) ...	Miss E. M. Heberden...	5	0	9	300	36.42 192
D Cheltenham (Northfield) .....	J. S. Pickering, Esq. C.E.	8	5	0	637 T	29.70? 191
D " (Hewletts Res.) ...	" " "	8	1	6	419 T	33.28 191
D " (Sandford Mead) ...	" " "	5	2	6	210 T	33.01 163
" (Kemerton Lodge)...	Rev. Percy Burd .....	5	1	0	211	31.04 184
§ " (High Street) .....	Royal Meteorological Soc	5	1	0	214	31.07 176
D " (Prestbury) .....	J. W. Guy, Esq. ....	5	0	10	...	35.00 205
<b>4.—SEVERN—Upper Avon.</b>						
D Winchcombe .....	Dr. J. Halliwell .....	5	1	2	295 T	38.75 199
Wormington Grange .....	(R) R. E. S. Thomas, Esq..	8	0	10	200	34.65 ...
Chipping Campden .....	W. Godson, Esq. ....	5	0	4	473 T	30.00 ...
D† " " (Hidcote) ...	Major W. Wright .....	5	1	0	525	29.69 182
Prospect Hill [Ilmington] .....	" " " " .....	5	1	0	854 T	28.28? ...
D† Mickleton (Bank House) .....	M. J. Salter, Esq. ....	5	1	0	233 T	31.08 193
<b>5.—LOWER AVON.</b>						
D Monkswood Reservoir [Bath] ...	J. Dent Young Esq., C.E.	5	2	0	365 T	41.48 227
D Bristol Docks (Underfall Yard)..	Engineer, Bristol Docks	8	19	6	45 T	36.31 206
" (Telephone Avenue) .....	J. A. McPherson, Esq. CE	5	50	0	80	40.24 194
Clifton (Oakfield Road) .....	" " "	5	1	0	200	41.75 197
D " (Harley Place) .....	Miss Hooper .....	5	1	5	260 B	43.92 223
D " (Durdham Down) .....	Mrs. Dix .....	5	1	6	310	44.42 232
D " (Pembroke Road) .....	R. F. Sturge, Esq. ...	8	0	10	215	44.69 221
D§ " College .....	D. Rintoul, Esq. ....	8	1	2	230	42.37 194
D " (Stoke Bishop) .....	H. L. P. Lowe, Esq. ...	8	1	3	230 T	42.29 212
Westbury-on-Trym (Cote House)	Mrs. H. St. V. Ames...	8	1	3	243 T	42.17 220
D Filton .....	F. W. Gayner, Esq. ...	5	2	0	202 T	38.56 198
D Winterbourne (Kendleshire) ...	J. Marsh, Esq. ....	5	1	0	170 T	36.50 201
D Frampton Cotterell (Park House)	H. H. Harding, Esq....	5	1	0	158 T	35.74 190
D Chipping Sodbury (Stanshawes Ct)	R. N. Hooper, Esq. ...	5	1	3	280 T	36.99 183
D " " (The Ridge) ...	Lt.-Col. P. Burges.....	5	1	4	375 T	35.35 161
Almondsbury (Over Court, Field)	R. C. C. Lippincott, Esq.	5	1	0	260 T	38.43 ...
" " ( " " " Park)	" " "	5	0	11	147 T	42.51 207
" " ( " " " " M)	" " "	5	1	0	147 T	40.66 ...
D " " ( " " " Garden)	" " "	8	1	0	137 T	40.65 207
Badminton (Lyegrove) .....	A. M. Miller, Esq.....	8	1	0	550 T	43.14 208
" .....	Mr. W. Nash .....	5	1	0	407	39.98 214
<b>7.—THAMES—Windrush &amp; c.</b>						
D Fairford (Kempsford) .....	A. T. Iles, Esq.....	5	1	0	250 ?	28.34 210
D " (The Close) .....	W. Cobbett Arkell, Esq.	5	1	9	...	28.37 183
D " (Draycott) .....	C. W. Edmonds, Esq....	5	2	0	200	30.33 191
" (The Croft House) .....	C. H. Bloxsome, Esq....	5	1	0	300	27.03 ...
D Lechlade (Claydon House) .....	T. T. S. Metcalfe, Esq..	5	1	0	250 T	28.10 212
" (Southrop Manor) .....	Thomas Arkell, Esq....	...	1	0	...	27.11 ...
D† Cirencester (Roy. Agricult. Coll.)	Prof. Ainsworth Davis.	5	0	10	443	33.21 204
D† " (Cripps Mead) .....	Mrs. Wilfred Cripps ...	5	0	8	366 T	34.57 214
D† " (Dollarward House) ..	C. P. Hooker, Esq. ...	5	1	6	366	35.08 218



## DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>GLOUCESTERSHIRE—(con.)</b>						
<b>7.—THAMES—Windrush &amp; c—(con.)</b>						
D† Cirencester (Dollarward House) ..	C. P. Hooker, Esq. ...	8	1	6	366	34·79 218
D Fairford (Hatherop Castle) .....	late G. S. Bazley, Esq. ...	5	1	0	410 †	31·76 213
D Great Barrington .....	H. J. Barrett, Esq. ...	5	1	6	430 †	31·44 192
D Northleach (Sherborne House) ...	Mr. A. Mitchell .....	5	1	0	420	35·32 189
D „ (The Vicarage) .....	Rev. R. C. S. Jones ...	5	0	9	545	35·23 200
D „ (Leygore Manor) .....	Arthur E. Moss, Esq. ...	5	1	0	700	34·46 226
D Bourton-on-the-Water .....	E. W. Kendall, Esq. ...	5	1	6	434 †	35·48 198
„ „ „ (Chardwar)	G. F. Moore, Esq. ...	5	2	6	430	37·43 197
Stow-on-the-Wold (Icomb Place)	G. H. Simpson Hayward, Esq. ...	8	1	3	500 †	34·56 194
D „ „ „ (Quar Wood) .....	Mrs. Bryant .....	5	1	0	690	37·01 198
D „ „ „ (Netherswell Manor) (R)	Mr. D. MacBeath .....	8	2	0	560	35·11 198
D „ „ „ .....	D. W. Horner, Esq. ...	5	1	5	748 †	36·04 208
Temple Guiting .....	Major G. T. Noel .....	5	1	2	680 †	39·07 ...
<b>HEREFORDSHIRE.</b>						
<b>1.—WYE.</b>						
D† Walford-on-Wye Vicarage .....	Rev. Kentish Bache ...	5	3	0	112 †	40·19 216
Weston-under-Penyard (The Sandiway)	G. W. Prevost, Esq. ...	5	0	6	300 †	36·43 175
† Ross (The Graig) .....	H. Southall, Esq. ....	5	1	0	213 †	35·49 192
D Kentchurch Rectory .....	Rev. R. P. Dansey .....	5	1	0	215 †	45·96 218
† Ross (Perrystone Court) .....	General Clive .....	5	1	3	450	31·59 188
D† Much Dewchurch (Bryngwyn) ...	Sir J. Rankin, Bart., M.P. ...	5	0	9	421 †	42·42 201
Woolhope (The Hyde) .....	J. A. Thompson, Esq. ...	5	1	0	440 †	34·63 204
Vowchurch (Whitehouse) .....	Arthur S. Wood, Esq. ...	5	5	0	450 †	45·50 201
D† Hereford (St. Michael's Priory) ..	Rev. W. B. Sander, O.S.B. ...	8	1	0	291 †	36·44 197
D „ (Breinton Court) .....	H. A. Wadworth, Esq. ...	5	3	0	238 †	32·86 183
D† „ (Richmond Place) .....	W. Cooke, Esq. ....	8	0	8	184 †	34·53 191
D „ (Quarry House) .....	Rev. Preb. W. Selwyn ..	5	1	0	180 †	35·96 187
D† „ (Broadlands) .....	Miss Ida M. Lea .....	5	1	0	280 †	34·97 188
† „ (Hinton Court) .....	A. Battiscombe, Esq. ...	5	1	0	185 †	36·95 197
D† „ (Holmer Hall) .....	Rev. Preb. M. Hopton ..	8	1	3	241 †	32·32 205
Bartestree (Hagley Park) .....	Mr. T. Alford .....	5	0	6	311 †	36·52 ...
D Credenhill (Swainshill) .....	B. G. Ronalds, Esq. ...	5	1	0	266 †	32·77 178
D „ (Stretton Sugwas) ...	S. H. Armitage, Esq. ...	5	1	0	226	34·73 181
D† „ .....	R. M. Whiting, Esq. ...	5	1	5	175 †	34·95 212
† Yarkhill Vicarage .....	Rev. A. G. Jones .....	8	1	0	200 †	35·12 198
D† Burghill Court .....	Miss E. D. Woodhouse ...	5	1	2	293 †	32·42 201
D† Ocle Pychard (Ocle Court) .....	G. Cresswell, Esq. ....	8	1	2	298 †	35·58 205
Marden (Fruit Farm) .....	M. Piper, Esq. ....	8	0	9	270 †	32·03 ...
D Whitney-on-Wye .....	Mr. W. Burgess .....	8	1	0	428 †	46·12 219
D Brilley Vicarage .....	Rev. W. Head .....	5	1	0	590 †	45·46 226
† Sarnesfield Rectory .....	Rev. W. Marshall .....	5	0	11	400 †	34·59 192
D† Bodenham (Pigeon House) .....	R. C. Bailey, Esq. ....	5	1	0	215	35·48 219
† Pencombe Rectory .....	Rev. J. Seymour St. John	5	1	0	520 †	35·93 194

## DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground		Height Above Sea level	1910	
		in.	ft.	in.	feet.	inches.	
<b>HEREFORDSHIRE—(con.)</b>							
1.—WYE—(con.)							
D Huntington Court.....	E. Radclyffe Crump, Esq.	5	1	1	833 T	50.86	242
D† Pembroke (Dilwyn).....	Dr. T. Lambert Hall...	5	0	8	290 T	34.51	199
† „ (Burton Court) .....	Col. P. L. Clowes .....	5	1	8	400	36.15	197
D† Kington (Lynhales) . . . . .	S. Robinson, Esq. ....	5	1	0	566	43.58	222
D† „ (Gravel Hill) .....	Col. G. F. Pearson.....	5	0	8	535 T	48.00	277
D† Pembroke (Marston) .....	H. Langston, Esq.....	5	1	5	347 T	38.51	215
D Bromyard (Munderfield Harold)	Capt. N. Enderby .....	5	0	10	550 T	34.00	206
„ (Dumbleton Cottage) ..	Rev. T. V. Philpott ...	5	1	0	393 T	36.32	209
D† „ (Rowden Abbey).....	H. J. Bailey, Esq. ....	5	1	0	450 T	35.91	198
D† „ (Buckenhill).....	Mrs. R. Phipps .....	8	1	6	410	35.56	186
D† Leominster (Farm) .....	Miss Southall .....	5	1	5	268 T	36.01	211
2.—SEVERN—Right Bank Tributaries.							
D Much Marcle (The Mount) .....	Miss A. M. Charles ...	5	0	8	240 T	32.83	209
D† Ledbury (Orchardleigh) .....	M. A. Wood, Esq.....	5	3	6	180	34.90	185
D† „ (Underdown) .....	S. H. Bickham, Esq....	5	1	0	307 T	35.61	195
† „ ( „ ) .....	M. „ „ „ „ .....	5	1	0	306 T	34.90	...
„ (Putley Court) .....	J. Riley, Esq.....	5	1	0	290	37.99	194
D „ (Wellington Heath) ...	Rev. F. S. Stooke-Vaughan	5	1	2	505 T	39.69	215
† Whitbourne Court .....	Lady Harington.....	5	1	0	130	32.86	...
Brampton Brian Hall .....	Mr. H. Fisher.....	8	1	0	450	38.02	...
Leintwardine .....	E. Charnock, Esq. ....	5	1	6	450	40.87	250
<b>SHROPSHIRE.</b>							
2.—DEE.							
D Whitchurch (Fenns Bank) .....	M. W. Sowden, Esq., C.E.	8	1	0	271 T	29.94	194
3.—SEVERN—Right Bank Tributaries.							
D Ludlow (Ashford House) .....	W. Downes Hall, Esq.	5	0	5	315 T	37.12	215
D Bromfield (Oakly Park) .....	Mr. T. Reason .....	5	1	0	300	34.62	240
D „ .....	F. Brayshaw, Esq.....	5	1	0	320 T	37.07	235
Craven Arms (Stokesay Court)...	Mr. J. R. Francis .....	5	0	9	432 T	35.49	...
D Clunbury Vicarage .....	Rev. W. Clark Maxwell	5	1	0	497 T	38.15	196
D Hopesay Rectory .....	Rev. R. J. Roberts ...	5	1	0	565 T	35.68	214
Bishops Castle (Totterton) .....	W. H. Whitaker, Esq.	5	1	0	700	32.39	...
D „ „ (Castle Street) ...	E. Griffiths, Esq. ....	5	2	0	720 T	35.67	205
D „ „ Vicarage .....	Rev. C. E. Warner ...	5	1	6	596 T	38.99	239
„ „ (More Rectory)...	Rev. Ridley Relton ...	6	0	11	600 T	36.11	...
Bridgnorth (Woodlands Hall) ...	Miss Burd Brooks .....	5	2	2	428 T	27.49	...
D Church Stretton (Sewage Works)	E. J. Marsh, Esq. ....	5	1	0	582 T	38.45	230
D† Bridgnorth (Hookfield House) ...	Rev. Preb. F. Burd ...	5	0	11	273 T	29.51	198
D „ (Cantreyn) .....	W. Bayliss, Esq. ....	5	3	0	290	29.62	205
D „ ( „ ) .....	„ „ „ „ .....	5	0	3	290	30.62	205
D „ (Aldenhall Park) ...	Mr. T. Canning .....	5	3	9	430 T	29.65	180
D Church Preen (Preen Manor) ...	Mr. J. Hopkins .....	5	1	0	700 T	33.21	191
D Church Stretton (Wolstaston) ...	Mrs. E. D. Carr .....	5	1	5	800 T	36.69	220
D Much Wenlock (Wiley Park)...	Lord Forester .....	5	3	0	492 T	30.12	198

## DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height above Ground.		Height above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
SHROPSHIRE—(con.)							
3.—SEVERN—Right Bank Tributaries—(con.)							
Minsterley (Hampton Hall) .....	J. Whitaker, Esq. ....	...	1	0	630	32·57	...
D „ (Wallop) .....	Mrs. Severne .....	8	1	8	700	41·61	219
D† Shrewsbury (Ordnance Surv. Off.) .....	Q.-M.-Serg. Pasifull, RE	8	1	0	191	25·94	198
D† „ (The Abbey House) .....	Miss F. Rouse Boughton	8	1	3	180	27·70	186
† „ ( „ „ „ )M	„ „ „ „	8	1	3	171	24·87	...
D „ (Highfield) .....	T. M. Howells, Esq. ...	5	4	6	250	27·08	192
4.—SEVERN—Left Bank Tributaries.							
Bridgnorth (Coton Hall) .....	E. M. Wakeman, Esq.	5	1	6	460	32·38	202
D Shifnal (Hatton Grange) .....	Mr. G. Risebrow .....	5	4	4	262	29·33	211
D „ (Neachley) .....	Col. Hon. F. Bridgeman	5	1	6	280	30·04	197
D „ (National School) .....	F. W. Haswell, Esq. ....	5	1	1	279	29·28	183
D „ (Haughton Hall) .....	W. J. Brooke, Esq. ....	5	3	0	355	29·96	189
§ Shrewsbury (Roden) .....	Royal Meteorological Soc	8	1	0	209	26·61	181
D „ (Fitz Rectory) .....	Rev. W. Brewster ...	5	1	2	238	28·76	222
D „ ( „ Manor) .....	Major J. F. Horner ...	5	1	4	253	29·16	187
D Newport (Aston Hall) .....	Col. R. Leeke .....	5	1	4	280	30·53	216
D „ (Agricultural College) ..	P. Hedworth Foulkes Esq	5	1	0	220	26·93	193
D „ (Edgmond) .....	J. Bodenham, Esq. ....	8	1	0	261	28·74	212
D „ ( „ ) .....	„ „ „ „	5	1	0	261	28·80	...
D „ (Chetwynd Park) .....	Mrs. Burton Borough...	...	1	0	240	30·43	205
D „ ( „ Gardens) .....	Mr. R. Sherwood .....	5	1	0	250	30·96	218
D Cheswardine (Knighton Res.) ...	G. R. Jebb, Esq., C.E.	5	1	0	351	31·34	193
D Oswestry (The Mount Reservoir)	G. W. Lacey, Esq., C.E.	5	1	0	698	38·00	230
Market Drayton (Buntingsdale) ..	Mrs. Tayleur .....	8	3	0	276	33·34	...
D Ellesmere (The Grange) .....	Mrs. Ashton .....	5	0	10	340	32·57	212
STAFFORDSHIRE.							
1.—MERSEY—Weaver.							
Betley Hall [Crewe] .....	Col. J. A. Macdonald...	5	1	0	270	32·05	236
2.—SEVERN—Left Bank Tributaries.							
D Dudley (Shavers End) .....	H. A. Hill, Esq., C.E.	5	1	0	744	32·29	199
D Wombourne (The Bratch) .....	Baldwin Latham Esq CE	5	0	9	271	30·23	209
† Wolverhampton (Town Hall) ...	G. Green, Esq., C.E. ....	5	15	6	481	27·74	194
† „ (West Park) ...	„ „ „ „	5	1	4	432	31·22	205
D Patshull Park .....	The Earl of Dartmouth	8	1	3	273	30·54	176
D Weston Park [Shifnal] .....	The Earl of Bradford...	5	1	6	400	32·34	201
D Norbury Junction .....	G. R. Jebb, Esq., C.E.	8	1	0	332	30·57	195
D Market Drayton (Old Springs) ...	F. E. Harding, Esq. ...	5	1	0	423	31·04	218
Maer Hall Gardens .....	F. J. Harrison, Esq. ...	8	1	6	390	37·52	198
3.—TRENT—Right Bank Tributaries.							
D West Bromwich .....	A. D. Greatorex, Esq., CE	8	4	9	546	33·80	193
D Wednesbury (Ocker Hill) .....	G. R. Jebb, Esq., C.E.	5	0	8	474	29·78	195
D Walsall (Brockhurst Sew. Farm)	J. Taylor, Esq. ....	8	0	11	376	35·03	189
D „ (Wednesbury Sewage Wks.)	T. Wicks, Esq. ....	5	2	8	381	30·24	200
D Bilston (The Lunt Outfall) .....	Vincent Turner, Esq. ...	5	1	0	422	29·64	174
† Wolverhampton (Graiseley) ...	K. C. Berrington, Esq..	6	0	9	506	31·01	178

## DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910
		in.	ft.	in.	feet.	Inches.
<b>STAFFORDSHIRE—(con.)</b>						
3.—TRENT—Right Bank Tributaries—(con.)						
D Wolverhampton (Wrottesley) ...	Mr. E. Simpson .....	8	1	0	500	27.69 168
D Bloxwich (Sneyd Reservoir) .....	G. R. Jebb, Esq., C.E..	5	1	0	507 $\frac{1}{2}$	30.32 190
D Hammerwich (Cannock Chase Res.) ..	" " " " .....	5	1	0	475 $\frac{1}{2}$	29.47 201
D Brewood (Belvide Reservoir) ...	G. R. Jebb, Esq., C.E.	5	1	0	367 $\frac{1}{2}$	30.12 193
D Lichfield (St. John Street) .....	Dr. F. M. Rowland ...	5	0	10	269 $\frac{1}{2}$	30.66 204
" (Maple Hayes) .....	A. O. Worthington, Esq.	5	0	11	380 $\frac{1}{2}$	27.16 ...
D Hednesford (Scout House) .....	H. A. Hill, Esq., C.E..	5	1	0	750 $\frac{1}{2}$	27.77 175
D Church Eaton Rectory .....	Rev. S. Wickham Jones	8	0	8	298 $\frac{1}{2}$	30.93 213
Shugborough .....	The Earl of Lichfield...	5	1	0	260	34.91 219
D Stafford (Tipping Street) .....	W. Fred. Wright, Esq.	5	2	6	258 $\frac{1}{2}$	31.34 191
" (West Bank, Doxey) M	Leslie Wilson, Esq. ...	5	0	6	250 $\frac{1}{2}$	29.85 ...
D Eccleshall (Walton Hall) .....	Sir H. A. Wiggin, Bart.	5	1	0	344 $\frac{1}{2}$	35.01 204
4.—TRENT—Left Bank Tributaries.						
Wichnor Park .....	Basil Levett, Esq. ....	5	0	8	100 ?	26.81 ...
D Burton (Hoar Cross) .....	F. W. Lycett, Esq. ....	8	1	0	400 $\frac{1}{2}$	32.33 182
" (Rangemore) .....	Mr. W. Bennett .....	5	5	6	424 $\frac{1}{2}$	28.97 ...
D " (Shobnall) .....	Messrs. Bass & Co. ...	5	5	6	156 $\frac{1}{2}$	27.76 157
D Longton (The Meir) .....	G. B. H. Soame, Esq., C.E.	5	1	0	618 $\frac{1}{2}$	32.25 191
D " High School .....	H. O. Smith, Esq. ....	5	0	8	500	39.78 205
5.—TRENT—Dove.						
D Hanbury Hall .....	Miss Caroline M. Bott..	5	0	11	483 $\frac{1}{2}$	31.69 200
D Cheadle (The Heath House) .....	Roy. Meteorological Soc.	5	0	6	647 $\frac{1}{2}$	36.50 210
D Oakamoor (Woodbank) .....	(R) M. A. Bolton, Esq. ....	8	4	10	500	35.85 197
D Mayfield House [Ashbourne] ...	Graham C. Lawson, Esq.	8	1	0	374 $\frac{1}{2}$	37.31 206
D " (Doveside) .....	Mr. T. Bridge .....	8	1	0	421 $\frac{1}{2}$	36.86 203
D Leek (Wall Grange) .....	G. B. H. Soame, Esq. C.E.	5	1	0	458 $\frac{1}{2}$	42.79 205
<b>WORCESTERSHIRE.</b>						
1.—SEVERN—Right Bank Tributaries.						
Upton-on-Severn (Willow Bank) .....	J. Selwyn Cowley, Esq.	5	1	3	42	33.63 189
D " " (The Eades) ...	Major E. W. Tennant..	5	0	9	100 $\frac{1}{2}$	34.31 241
D Malvern (British Camp Res.) ...	W. Osborne Thorp, Esq., C.E.	5	0	11	677 $\frac{1}{2}$	34.93 205
D† " (Church Street) .....	" " " " .....	5	1	0	350 $\frac{1}{2}$	36.77 195
D† " (Belle Vue House) .....	A. Mander, Esq. ....	5	4	0	520	36.75 201
D " (Davenham Gardens) ...	Mr. C. A. Bayford .....	5	2	0	300	32.89 193
D† " (Hornycote Road) .....	Rev. T. Wolseley Lewis	5	0	5	492 $\frac{1}{2}$	33.27 186
D " (Madresfield Court) ...	Mr. W. Crump .....	8	2	6	125 $\frac{1}{2}$	33.60 185
Kempsey (Priors Court) .....	Capt. G. M. Archdale...	5	0	11	80 ?	33.47 187
D† Worcester (Boughton Park) .....	Mrs. Isaac .....	5	1	0	82 $\frac{1}{2}$	31.79 184
D† " (Diglis Lock) .....	E. D. Marten, Esq., C.E.	5	1	0	49 $\frac{1}{2}$	25.40? 191
D Martley Rectory .....	Rev. J. F. Hastings ...	5	1	0	220 $\frac{1}{2}$	32.89 188
D Droitwich (Holt Lock) .....	E. D. Marten, Esq., C.E.	5	1	1	55 $\frac{1}{2}$	32.08 173
Clifton-on-Teme .....	Mrs. H. Tayleur .....	5	0	10	640 $\frac{1}{2}$	31.31 ...
Shelsley Walsh .....	Miss M. Constance Hadley	5	0	8	184 $\frac{1}{2}$	37.38 212
Tenbury (St. Michael's) .....	Mrs. & Miss Hewitt ...	5	0	8	343	30.29 ...
D " (Rochford Rectory) ...	Rev. J. Tomson .....	5	1	0	317 $\frac{1}{2}$	32.79 199

## DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1910	Days with '01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
<b>WORCESTERSHIRE—(con.)</b>							
1.—SEVERN—Right Bank Tributaries—(con.)							
Stockton-on-Teme (Eardiston)...	Miss M. Wallace .....	5	0	9	200	34·17	182
†Bewdley (Winterdyne).....	Miss K. M. Sturt .....	5	1	0	100 ?	27·65	181
2.—SEVERN—Left Bank Tributaries.							
D Kempsey (Draycott House) .....	Col. C. E. Southouse Scott .....	5	1	0	55	35·23	198
† Worcester (Belmont Road) .....	G. B. Wetherall, Esq..	5	1	1	180 †	28·80	187
D† „ (Water Works) .....	T. Caink, Esq., C.E. ...	5	0	9	56 †	29·35	197
D „ (Bevere Lock) .....	E. D. Marten, Esq., C.E.	5	1	1	52 †	31·29	181
D „ (Hawford Lodge) .....	F. Ames, Esq. ....	5	1	1	70	34·08	161
D Droitwich (Friar Street Dépôt)...	H. Hulse, Esq., C.E. ...	12	2	9	98 †	31·57	195
D Bromsgrove (Tardebigge Res.)...	F. A. Jones, Esq. C.E.	5	4	6	455 †	31·00	193
D Barnt Green (Upwood).....	Miss M. Gibbins .....	5	0	9	650 †	26·85	190
D Stourport (Lincombe Lock).....	E. D. Marten, Esq., C.E.	5	1	0	62 †	29·22	169
Bewdley (Spring Grove) .....	T. W. Binyon, Esq. ...	5	0	5	...	29·73	204
D Kidderminster (Brinton Park)...	Mr. J. T. Cowderoy ...	5	1	0	160 †	27·39	193
„ (Honeybrook Ho.)	Col. R. Talbot Watson..	5	0	9	75	30·01	...
D Stourbridge (Hagley Rec.) Snow.	Rev. Manley Power ...	5	1	0	700 †	33·25	219
D „ ( „ „ ) .....	„ „ „ „ „ „ „ „ „ „	5	1	0	700 †	32·68	219
D Netherton (Lodge Farm Res.) ...	G. R. Jebb, Esq., C.E..	5	1	0	445 †	29·25	189
Dudley (Borough Cemetery) ...	J. Gammage, Esq., C.E.	5	1	3	591 †	30·60	204
3.—SEVERN—Upper Avon.							
Northwick Park.....	The Lady Northwick...	8	1	6	410 †	34·58	...
Shipston (Tidmington House) ...	Miss Staunton .....	5	1	1	...	34·86	...
D† Evesham (Eastwick).....	C. Burlingham, Esq. ...	5	1	0	110	28·58	156
D† „ (Lansdowne) .....	Miss Burlingham .....	5	5	0	108 †	28·84	155
D „ .....	H. S. Harvey, Esq. ...	8	3	0	86 †	28·36	177
D „ (Bengeworth).....	Messrs. Ross Bros., Ltd.	5	1	0	120 †	29·78	199
Pershore (The Poplars).....	Col. J. F. Miller .....	5	1	6	104 †	29·96	...
D Shipston (Armscote) .....	W. L. Stanton, Esq. ...	5	1	1	241 †	28·94	197
D „ (Talton) .....	Capt. G. Lainson Field	8	1	0	160 †	25·74	195
D Redditch (Hewell Gardens) .....	Mr. A. A. Pettigrew ...	5	1	0	469 †	31·28	204
D Alvechurch (High Croft) .....	D. B. Grubb, Esq. ....	5	1	0	580	30·73	207
D Bromsgrove (Lower Bittal Res.)	F. A. Jones, Esq., C.E.	5	3	0	457 †	33·15	204
4.—THAMES—Windrush & c.							
D Blockley (Upton Wold).....	E. W. Arkell, Esq. ...	5	1	0	...	39·64	208
5.—TRENT—Right Bank Tributaries.							
Northfield (Longbridge Place) ...	Mrs. Frederick Impey..	5	1	3	560 †	34·12	...
D „ (West Heath House).	Prof. Adrian J. Brown	5	1	0	...	32·56	214
D Halesowen (Frankley) .....	E. Antony Lees, Esq. ...	5	0	10	570 †	36·19	199
Selly Oak (Lodge Hill Cemetery)	Mr. W. Garden .....	5	1	4	540 †	34·90	178
Moseley (Prospect Road) .....	Rev. F. Oscar Lane ...	5	1	0	550 †	31·66	...
D Sparkhill [Birmingham] .....	D. H. Owen, Esq. ....	5	1	0	426 †	32·28	191
<b>WARWICKSHIRE.</b>							
1.—SEVERN—Upper Avon.							
Long Compton (Weston Park)...	H. A. Warriner, Esq. ...	8	3	0	510 †	33·46	192
Shipston (Honington Vicarage)...	Rev. E. H. Boddington	5	0	10	215 †	28·62	186

## DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
WARWICKSHIRE—(con.)							
1.—SEVERN—Upper Avon—(con.)							
Bidford (Moor Hall) .....	E. H. Cubberley, Esq...	5	4	3	125 ?	27.20	
D Wormleighton Hall .....	F. W. Burnett, Esq....	5	4	9	515 T	28.25	171
Stratford-on-Avon (Avonfield) ..	G. W. Everard, Esq....	5	0	10	120 T	27.12	184
D „ „ „ (Shotton Hall) .....	R. C. Carter, Esq.....	5	0	8	140 T	27.67	181
D „ „ „ (Hardwicke) ..	Miss E. H. Smith .....	12	6	0	146 T	27.48	186
D Alcester (Ragley Hall) .....	The Marquis of Hertford	5	1	0	270 T	30.94	191
Snitterfield .....	Roden Dixon, Esq.....	8	1	6	274 T	30.56	...
Barford Rectory .....	Rev. W. Ingham Brooke	8	0	11	167 T	26.84	...
D Radford Semele (Radford House)	C. E. G. Hatherell, Esq.	5	1	2	240 T	27.40	202
D Leamington (Binswood Avenue)	Rev. A. Corbet .....	5	0	9	...	27.31	185
„ „ „ .....	H. H. Newark, Esq. ...	5	1	3	174 T	26.10	...
D „ „ (Cubbington) .....	Mrs. Robins .....	5	1	0	282 T	28.08	196
Tanworth-in-Arden .....	F. Davies, Esq. ....	6	4	0	504 T	42.11	...
D Rugby (Bilton Grange) .....	W. H. G. Southcomb, Esq	5	1	0	400	26.05	165
D § „ (Temple Observatory) ...	Rev. Denys E. Shorto..	5	1	1	383 T	27.84	169
D Ryton-on-Dunsmore (Ryton Ho.)	Charles Browett, Esq...	5	1	2	260	30.01	166
D Coventry (City Hospital) .....	E. H. Snell, Esq., M.D.	8	1	0	269 T	29.57	212
D „ „ (Holyhead Road) .....	J. B. Morris, Esq. ....	5	1	0	300 T	28.00	199
D „ „ (Kingswood) .....	R. B. Caldicott, Esq....	8	1	0	340 T	29.89	176
D Foleshill (Foxford School) .....	A. F. Smith, Esq. ....	5	10	9	311 T	28.39	167
D Coventry (Keresley Grange) .....	Miss H. Rotherham ...	5	0	10	413 T	30.30	244
D Bedworth Cemetery .....	Mr. G. O. Bosworth ...	5	1	0	385 T	28.70	173
3.—THAMES—Cherwell.							
D Farnborough .....	Miss Prater .....	5	1	0	515 T	33.98	190
4.—TRENT—Right Bank Tributaries.							
Hockley Heath (Packwood) .....	E. S. Fry, Esq. ....	5	1	2	400	30.70	173
D Hampton-in-Arden (Hampton Manor)	Mr. W. R. Cooper .....	8	0	7	345 T	37.14	194
D Birmingham (Sheldon Rectory) ..	late Mrs Jones-Bateman	8	1	0	323	34.48	172
D § „ „ (Edgbaston) .....	A. Cresswell, Esq.....	8	1	0	515 T	31.18	203
D „ „ (Hagley Road) .....	H. E. Stilgoe, Esq., C.E.	5	0	9	612 T	34.83	204
„ „ (The Crescent) ... M	J. J. Gilbert, Esq.....	5	7	0	480 T	31.00	...
D „ „ (Gravelly Hill) .....	W. Ll. Mold, Esq.....	5	3	0	450	32.08	182
Nuneaton (Chilvers Coton Vic.) ..	Rev. R. Chadwick .....	5	0	10	283 T	27.59	179
D Witton Res. (Birmingham W. W.)	E. Antony Lees, Esq...	5	3	0	347 T	30.10	198
D Whitacre {	„ „ „ „ „	5	1	5	269 T	30.67	221
D Sutton Coldfield (The Park) .....	Mr. H. Harland .....	5	1	0	371 T	30.07	183

A map of this Division, showing the sub-divisions, will be found in Part I.

## DIVISION VII.—NORTH MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded	
		Diameter	Height Above Ground		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
LEICESTERSHIRE.							
1.—SEVERN—Upper Avon.							
Lutterworth (Walcote).....	Major Corbet Smith ...	5	0	6	290 T	30.50	...
2.—WELLAND.							
D Market Harborough (Rose Hill).	G. O. Nicholson, Esq. ...	5	1	0	350 T	27.81	193
East Langton Grange .....	J. W. Logan, Esq. ....	5	1	0	...	27.55	...
D Kibworth Beauchamp .....	E. V. Phillips, Esq. ...	5	2	6	390 T	28.49	181
Hallaton Hall.....	S. N. Bankart, Esq. ...	8	1	3	366	26.40	...
Horninghold House... <i>Snowdong.</i>	Mr. B. Inchley .....	5	1	6	380	27.03	...
4.—TRENT—Right Bank Tributaries.							
D Wistow Hall Gardens .....	Mr. R. W. Thatcher ...	5	1	1	310 T	26.66	174
Newton Harcourt .....	Hon. T. F. Fremantle..	5	1	0	352 T	27.20	...
D Blaby (Whetstone Road).....	G. F. Shoults, Esq. ...	5	0	6	239 T	27.16	184
D Glen Parva (S. Wigston Sew. Fm.)	Mr. W. G. J. Clark ...	8	0	5	231 T	26.44	193
D Billesdon School.....	T. W. Fisher, Esq. ....	5	1	0	600 T	29.24	197
D Leicester (Stoneygate Road) ...	T. Spencer Smithson Esq	5	0	6	258 T	26.09	188
D „ (Town Hall Square) ...	E. G. Mawbey, Esq., C.E.	5	0	6	211 T	23.60	184
D „ „ „ „ „ (R)	„ „ „ „ „	7	2	0	213 T	23.67	179
D Market Bosworth (Osbaston Hall)	Thomas Cope, Esq. ....	8	1	0	393 T	28.22	215
D Desford (Industrial School) .....	F. Lansdell, Esq. ....	5	1	0	401	29.91	163
Humberstone Asylum .....	J. E. M. Finch, Esq., M.D	8	1	0	266 T	28.19	211
Old Humberstone .....	W. R. Kendall, Esq. ...	5	1	6	297 T	29.36	...
Leicester (Anstey Pastures).....	W. P. Viccars, Esq. ...	5	1	1	280	27.22	...
D Thornton Reservoir .....	F. Griffith, Esq., C.E. ...	8	1	2	371 T	29.12	183
D Thurmaston (Cropston, Bradgate Res.)	„ „ „ „ „	8	1	0	246 T	31.17	196
D Markfield (Ulverscroft) .....	W. G. Lillingston, Esq.	8	2	7	560 T	31.38	227
D Barkby Hall .....	Victor R. Pochin, Esq..	5	0	3	217 T	27.64	166
D Syston .....	S. K. Daniels, Esq. ...	5	1	6	180 T	29.74	179
Coalville (Kilham Bridge Sew. Fm.)	L. L. Baldwin, Esq., C.E.	8	1	0	432 T	29.15	...
„ (Water Works) .....	„ „ „ „ „	8	1	0	520 T	30.70	...
D Swithland (The Brand) .....	F. Griffith, Esq., C.E. ...	8	1	0	172 T	30.52	191
D Ratcliffe-on-Wreake College ...	Rev. J. Cremonini .....	5	1	0	288 T	25.43	178
D Ashby-de-la-Zouch (Coleorton Hall)	Mr. H. Wilson .....	5	2	0	540 T	32.01	190
D Barrow-upon-Soar (The Mount).	Mrs. C. Stuart Thomson	5	1	6	...	27.35	153
D Charnwood Forest (Blackbrook Res.)	A. H. Walker, Esq., C.E.	8	1	0	367	29.57	186
D Loughborough (Nan Pantan Res.)	„ „ „ „ „	8	1	0	269 T	30.37	195
Thringstone (Snarrows Sew. Fm.)	L. L. Baldwin, Esq., C.E.	8	1	0	295 T	26.08	...
D Loughborough (The Widenings)	Adrian Young, Esq. ...	5	0	7	197 T	28.93	184
D „ (Sewage Farm) ...	A. H. Walker, Esq., C.E.	8	1	0	134 T	26.80	156
D Burton-on-the-Wolds (Burton Hall)	Lord Ernest St. Maur. ...	5	1	0	270	27.17	176
D Prestwold Hall .....	E. H. Packe, Esq. ....	8	1	0	209 T	28.67	209
D Waltham-on-the-Wolds .....	G. Higgins, Esq. ....	5	1	0	568	30.62	193
D Croxton Kerrial Vicarage .....	Rev. W. E. P. Malden	5	1	0	480 T	30.95	230
D Belvoir Castle.....	W. H. Divers, Esq. ...	8	1	0	260 T	28.86	226

## DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
<b>RUTLAND.</b>							
1.—WELLAND.							
Liddington (Uppingham W.W.)	Messrs G. & F. W. Hodson	5	1	0	152 $\nabla$	23.26	...
<sup>D</sup> Uppingham (Ridlington) .....	N. W. Wortley, Esq. ....	5	4	7	527 $\nabla$	28.83	190
<sup>D</sup> Whitwell Rectory .....	Rev. T. E. Woodhouse.	5	0	11	320	28.26	180
<sup>D</sup> Great Casterton Rectory .....	E. N. Plevins, Esq. ...	8	1	0	137 $\nabla$	26.69	171
3.—TRENT—Right Bank Tributaries.							
<sup>D</sup> Market Overton .....	Miss Grace Wingfield...	8	0	11	475 $\nabla$	32.20	231
<b>LINCOLNSHIRE.</b>							
2.—WELLAND.							
Stamford (St. George's Square)..	T. Booth, Esq. ....	5	4	0	88 $\nabla$	26.55	156
„ (Rutland Terrace) ...	H. Edwards, Esq. ....	5	0	6	...	26.29	156
Market Deeping (Welby House)	B. J. Walker, Esq. ....	5	1	4	29 $\nabla$	26.23	174
<sup>D</sup> „ „ (Wilsthorpe) ...	J. C. Gill, Esq., C.E. ....	8	3	10	55 $\nabla$	26.06	173
<sup>D</sup> Bourne (Guthram) .....	F. S. Robins, Esq., C.E.	8	1	6	19	21.78?	162
<sup>D</sup> Holbeach Marsh (Somerset House)	Miss M. E. West .....	5	0	8	1 $\nabla$	26.40	163
3.—WITHAM & C.							
<sup>D</sup> Grantham (Little Ponton Rect.).	Rev. P. R. Worsley ...	5	1	0	250 $\nabla$	32.32	205
<sup>D</sup> „ (Denton Manor) .....	Sir C. G. E. Welby, Bt. CB	5	3	0	310	30.01	229
<sup>D</sup> „ (Saltersford) .....	H. Preston, Esq. ....	5	0	6	188 $\nabla$	27.75	170
<sup>D</sup> „ (Guildhall) .....	W. Wright, Esq., C.E.	5	13	6	202 $\nabla$	25.75	165
<sup>D</sup> „ (High Street) .....	Messrs. R. & W. Bird ..	5	1	0	202	28.26	160
<sup>D</sup> Boston (Black Sluice, Skirbeck).	F. S. Robins, Esq., C.E.	8	1	3	11	26.23	197
<sup>D</sup> „ (Holland Cottage) .....	J. Shaw, Esq. ....	5	1	2	9	27.93	183
<sup>D</sup> „ .....	G. E. Clarke, Esq., C.E.	8	1	0	11 $\nabla$	27.08	187
<sup>D</sup> „ (Grand Sluice) .....	J. H. Johnson, Esq., C.E.	8	8	0	18 $\nabla$	25.73	177
<sup>D</sup> „ (Bargate End) .....	A. O. Scrivener, Esq. ...	8	1	0	9	26.22	184
<sup>D</sup> § Sleaford (Rauceby Hall) .....	Gen. Sir M. Willson, KCB	5	1	0	125 $\nabla$	26.85	196
<sup>D</sup> Stutton [Newark] .....	G. Nevile, Esq. ....	5	4	6	99 $\nabla$	25.02	185
Claypole .....	Rev. F. R. A. Hamilton	8	2	0	70	24.51	...
§ Fulbeck .....	Rev. V. F. Willson ...	5	0	8	180 $\nabla$	25.87	196
<sup>D</sup> Welbourn .....	Miss M. Burt	5	3	6	120 $\nabla$	24.02	175
§ Temple Bruer .....	Miss A. S. Morley .....	5	1	0	300?	26.89	180
<sup>D</sup> Leake (Lade Bank Engines) .....	J. H. Johnson, Esq., C.E.	8	1	0	10 $\nabla$	24.55	156
<sup>D</sup> Carrington Grange .....	Mr. T. J. Ward .....	5	6	0	15 $\nabla$	27.13	168
Navenby Rectory .....	Mr. J. Thompson .....	5	1	0	218 $\nabla$	26.23	181
<sup>D</sup> Carlton-le-Moorland .....	J. Brocklebank, Esq. ....	5	1	2	49	24.32	154
§ Mareham-le-Fen .....	Meteorological Office ...	5	3	0	11	27.29	192
Revesby .....	J. Shaw, Esq. ....	5	2	0	135 $\nabla$	26.63	...
<sup>D</sup> Woodhall Spa (Galm House) ...	J. Collins, Esq. ....	5	1	0	72	24.23	195
<sup>D</sup> Spilsby (Hagnaby Priory) .....	Miss Pocklington .....	8	1	8	47 $\nabla$	28.76	189
Lincoln (Branston Hall) .....	A. S. Leslie Melville, Esq	5	1	0	122 $\nabla$	23.43	181
<sup>D</sup> Bucknall .....	Mr. Joshua Bint .....	5	1	0	33 $\nabla$	25.35	194
<sup>D</sup> Horncastle .....	H. R. Maynard, Esq. ....	5	1	6	110	28.46	190
Lincoln (Boultham) .....	Neil McK. Barron Esq. CE	5	1	0	19 $\nabla$	21.97	159
„ (Skellingthorpe Hall) ...	A. H. B. Coupland, Esq.	5	1	0	...	24.28	152
„ (St. Botolphs) .....	A. M. Swift, Esq. ....	5	1	2	25 $\nabla$	26.30	...



## DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
LINCOLNSHIRE—(con.)							
3.—WITHAM & C—(con.)							
Lincoln (Station) .....	Great Central Rly. Co.*	9	3	6	26	22·66	177
D „ (Sessions House) .....	H. Hoe, Esq. ....	5	1	0	59 $\frac{1}{2}$	24·81	198
D „ (D'Isney Place) .....	A. H. Leslie Melville Esq	4	1	0	215 $\frac{1}{2}$	24·36	201
D „ (Cottesford Place) .....	F. A. Peacock, Esq. ...	5	0	9	220	25·14	182
D Scampton House .....	Mrs. G. E. Sandars ...	5	1	11	80	26·08	177
Willingham-by-Stow .....	R. C. Bacon, Esq. ....	8	2	0	70 $\frac{1}{2}$	26·05	204
4.—GREAT EAU & C.							
D Wainfleet (Bridge House).....	G. Booth Walker, Esq.	5	1	0	17 $\frac{1}{2}$	26·32	204
§ Skegness .....	Meteorological Office ...	8	1	0	13 $\frac{1}{2}$	26·01	198
D Spilsby (East Keal Rectory).....	Rev. R. H. Simpson ...	5	0	7	180 $\frac{1}{2}$	25·12	228
D „ (Halton Holgate).....	G. Rattenbury, Esq....	5	1	0	89 $\frac{1}{2}$	28·03	182
D „ .....	Dr. J. W. Walker.....	5	1	0	160 $\frac{1}{2}$	29·84	191
D „ (Ashby Road) .....	J. J. Rainey .....	5	1	0	160 $\frac{1}{2}$	27·30	184
D Hagworthingham .....	Mr. R. Wright .....	5	1	1	252 $\frac{1}{2}$	28·89	167
Alford Cemetery .....	Mr. E. Hodgson .....	5	1	0	29 $\frac{1}{2}$	24·40	186
D Mablethorpe (Trusthorpe Hall)..	I. N. Woodiwiss, Esq... ies.	8	1	3	10 $\frac{1}{2}$	24·50	156
D Louth (Westgate) .....	Dr. F. Fawcett .....	5	0	9	120 $\frac{1}{2}$	31·36	180
D Kirmond .....	C. Fieldsend, Esq.....	5	1	2	309 $\frac{1}{2}$	32·27	210
5.—HUMBER—Right Bank Tributaries.							
D Market Rasen.....	Mr. W. B. Jevons.....	5	0	8	84	29·14	146
„ „ .....	Great Central Rly. Co..	9	3	6	100	27·42	170
§ Caistor (Cabourne).....	Rev. R. Thomas .....	5	1	2	280 $\frac{1}{2}$	30·27	...
D Brigg .....	A. Atkinson, Esq., C.E.	8	1	2	11 $\frac{1}{2}$	26·86	213
D Irby-on-Humber .....	H. B. Parker, Esq.....	5	1	0	175	27·49	214
D Grimsby (Abbey Road).....	W. J. Wood, Esq., C.E.	5	3	0	23	26·63	155
„ .....	Great Central Rly. Co..	9	15	0	42	25·70	...
Barnetby.....	„ „ „ „	9	3	6	51	25·43	152
D Brocklesby Park .....	Mr. F. C. Stainsby.....	5	2	0	108 $\frac{1}{2}$	27·30	188
D Burton-upon-Stather(Normanby)	A. G. Wilkes, Esq.....	5	0	10	185 $\frac{1}{2}$	28·19	185
D Thornton Curtis.....	Rev. C. B. Goodacre ...	8	1	4	66	26·60	185
D Horkstow .....	E. J. Turton, Esq.....	5	0	10	75 $\frac{1}{2}$	31·54	177
Ferriby Sluice .....	A. Atkinson, Esq., C.E.	5	1	0	18 $\frac{1}{2}$	26·48	185
New Holland .....	Great Central Rly. Co..	9	3	6	18	22·90	166
6.—TRENT—Right Bank Tributaries.							
D Lincoln (Doddington Hall) .....	G. E. Jarvis, Esq. ....	8	1	2	92 $\frac{1}{2}$	23·69	189
Gainsborough (N. Sandsfield) ...	Mr. J. Creed .....	5	2	3	23 $\frac{1}{2}$	23·79	...
D Burton-upon-Stather Vicarage...	Rev. F. A. Jarvis .....	5	0	6	212 $\frac{1}{2}$	27·46	166
7.—TRENT—Left Bank Tributaries.							
Crowle (N. Level Engine) .....	Mr. H. G. Trafford.....	5	2	6	10 $\frac{1}{2}$	24·04	...
NOTTINGHAMSHIRE.							
2.—TRENT—Right Bank Tributaries.							
D Kingston (Midland Agric. Inst.)..	F. Wakerley, Esq. ...	5	1	0	126 $\frac{1}{2}$	26·56	203
„ Hall .....	Mr. W. H. Cooke .....	5	0	9	130	28·83	185
D Plumtree(Normanton-on-Wolds)	T. A. Hill, Esq.....	8	1	0	170 $\frac{1}{2}$	25·31	210

\* Kept for the Canal Department of the Great Central Railway Company.

Returns supplied by G. Taylor, Esq.

## DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with 0.1 or more recorded.
		Diameter	Height Above Ground.			
		in.	ft.	in.	feet.	inches.
NOTTINGHAMSHIRE—(con.)						
2.—TRENT—Right Bank Tributaries—(con.)						
d Nottingham (Wilford Hill Res.)	F. W. Davies, Esq. ...	8	0	11	296 $\nabla$	23.11 219
Cropwell Bishop (Cropwell Grove)	H. Smith, jun., Esq. ....	5	1	1	160 $\nabla$	23.77 ...
Bingham (Whatton Manor) .....	Capt. M. H. Hall .....	5	3	0	104 $\nabla$	24.71 191
Radcliffe-on-Trent .....	E. T. Yates, Esq. ....	5	1	0	...	26.51 ...
"    "    " (The Cliff House)	Mrs. Hingston .....	5	0	7	150 $\nabla$	24.62 ...
Newark Castle Gardens .....	Mr. J. Mountney .....	5	0	8	63 $\nabla$	24.14 ...
d North Collingham (Markham Ho.)	E. Turton, Esq. ....	5	1	0	28 $\nabla$	28.02 214
4.—TRENT—Erewash.						
d Nottingham (Strelley) .....	T. L. K. Edge, Esq. ...	8	1	0	396 $\nabla$	30.42 229
d "    "						

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
NOTTINGHAMSHIRE—(con.)							
5.—TRENT—Left Bank Tributaries—(con.)							
W <sup>†</sup> Welbeck Abbey Gardens .....	Mr. J. Gibson.....	5	1	0	196 T	27·78	150
Clumber Gardens .....	A. E. Elliott, Esq.....	5	4	0	164 T	27·65	...
Elkesley Pumping Station .....	Neil McK. Barron, Esq., C.E.	5	1	0	118 T	26·95	195
Rampton Manor.....	C. E. Ellis, Esq.....	5	0	5	50	28·86	197
W <sup>d</sup> Worksop (Carlton Road) .....	J. Edeson, Esq. ....	5	1	1	...	26·68	171
„ .....	Great Central Rly. Co..	9	3	6	127	26·86	193
„ (Osberton Gardens) ..	Mr. J. B. Allan .....	5	3	6	70	25·03	181
R <sup>d</sup> Retford .....	Great Central Rly. Co..	9	3	6	52	23·38	174
„ (Grammar School).....	G. R. Davies, Esq.....	8	0	11	53 T	24·99	196
„ (Morton Hall) .....	W. H. Mason, Esq. ...	5	1	0	140 T	26·60	183
„ (Babworth Hall) .....	Col. H. Denison .....	5	1	0	92 T	25·58	...
Worksop (Wigthorpe Hill) .....	R. C. Ramsden, Esq....	5	1	0	100	26·12	176
W <sup>†</sup> „ (Hodsock Priory) .....	Lt.-Col. H. Mellish ...	8	1	0	56 T	24·87	184
† „ ( „ „ )... M	„ „ „ .....	5	1	0	56 T	24·87	...
† „ ( „ „ )... (R)	„ „ „ .....	11	1	0	56 T	25·24	194
W <sup>d</sup> Scrooby .....	Mr. J. Mallender .....	5	4	0	40	24·12	198
The Gardens [Bawtry Hall].....	Mr. F. Hogbin .....	5	1	3	31 T	24·79	177
Stockwith .....	Great Central Rly. Co.	9	3	6	21	24·34	186
W <sup>d</sup> Bawtry (Hesley Hall) .....	B. I. Whitaker, Esq....	8	0	11	61 T	24·63	186
DERBYSHIRE.							
1.—UPPER MERSEY.							
Comb's Moss .....	Great Central Rly. Co..	9	3	6	1669 T	38·33?	...
„ Reservoir .....	„ „ „ .....	9	3	6	710 T	42·72	240
Chapel-en-le-Frith .....	„ „ „ .....	9	3	6	965 T	43·73	217
W <sup>d</sup> Glossop (W.W., Swineshaw) ...	Mr. J. Garner .....	12	4	0	733 T	44·33	210
Woodhead Station.....	Great Central Rly. Co..	9	3	6	878 T	59·11	225
4.—TRENT—Dove.							
W <sup>d</sup> Edlaston Rectory .....	Rev. G. E. Scudamore..	5	1	0	582	37·35	214
Ashbourne (Yeldersley Hall) ...	E. B. F. Wright, Esq..	5	1	0	635 T	32·98	225
W <sup>d</sup> „ Water Works.....	Mr. J. W. Twigg .....	5	1	0	582 T	41·51	215
5.—TRENT—Left Bank Tributaries							
W <sup>d</sup> Chellaston .....	H. Chambers, Esq.....	5	1	0	170 T	28·16	201
Findern (The Longlands).....	Mrs. B. W. Spilsbury..	5	0	9	186 T	26·34	155
W <sup>d</sup> Etwall (Blakeley Lodge) .....	Mr. R. Giles .....	5	1	0	190 T	27·75	161
W <sup>d</sup> „ (Sewage Farm).....	Mr. B. Hydes.....	5	13	0	201 T	25·59	177
Mickleover (County Asylum) ...	R. Legge, Esq., M.D...	5	3	0	300 T	27·76	173
W <sup>d</sup> „ Manor.....	Mr. J. Campbell .....	5	2	0	280	28·62	189
Littleover (The Knoll) .....	W. B. Robotham, Esq..	5	1	0	315	29·69	183
W <sup>d</sup> „ Old Hall .....	E. McInnes, Esq. ....	5	2	6	346	31·13	203
6.—TRENT—Derwent.							
W <sup>d</sup> Derby (Wild Street).....	Messrs. J. Davis & Son	5	1	0	174	31·08	205
W <sup>†</sup> „ (Midland Railway).....	J. Sayers, Esq. ....	5	1	5	156 T	29·53	197
W <sup>d</sup> „ (Royal Infirmary) .....	E. Forster, Esq.....	5	1	0	195	26·30?	204
W <sup>d</sup> „ (Arboretum) .....	J. Ward, Esq., C.E. ...	8	1	0	196 T	31·44	198
„ (Duffield Road) .....	Dr. W. G. Copestake...	5	1	2	190 T	28·54	...
Kirk Langley.....	W. Goodall Copestake Esq	8	1	3	346 T	38·41	...

## DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\cdot 01$ or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1910
		in.	ft.	in.	feet.	inches.
DERBYSHIRE—(con.)						
6.—TRENT—Derwent—(con.)						
Kirk Langley (Langley Hall) ...	G. W. Peach, Esq. ...	5	1	10	396 T	33·30 204
D Breadsall Lodge.....	Col. W. B. Woodforde.	5	1	3	280 T	28·18 208
D „ Priors .....	Miss H. A. Haslam ...	5	1	6	380 T	30·51 186
D Duffield (Castle Hill House).....	Messrs. J. Davis & Son ...	...	...	...	...	31·41 206
D „ (Kirkstyles).....	WB Worthington Esq. CE	5	1	0	235 T	29·57 188
Hazelwood (Chevin) .....	Sir J. G. N. Alleyne, Bart.	5	4	0	503 T	31·96 231
D § Belper (Herbert Strutt School)...	W. W. Tunnicliffe, Esq.	8	1	0	223 T	31·32 208
D § „ (Quarry Bank) .....	J. Hunter, Esq., C.E....	5	0	8	281 T	32·80 189
D „ (Highfield) .....	Lt.-Col. M. Hunter ...	8	0	8	310 T	32·56 178
Ambergate Reservoir (Crich) ...	G. Cooper Drabble, Esq.	5	1	0	690 T	29·82 ...
D Wirksworth (Bridge House) ...	Thomas Gibbs, Esq. ...	5	1	0	500 T	40·06 204
Alderwasley Hall .....	F. C. A. Hurt, Esq. ...	5	1	0	535 T	36·45 ...
D Whatstandwell (Meerbrook Sough)	Messrs. G. & F. W. Hodson..	5	1	0	246	40·52 221
Matlock Bath .....	Miss E. Chadwick .....	5	1	1	500	41·75 196
D „ (The Gables) .....	Mrs. R. Wildgoose.....	5	1	0	450 T	42·22 228
D § „ (Rockside).....	J. D. Evans, Esq. ....	5	1	0	637 T	40·09 229
D Darley Dale (Whitworth Inst.)..	J. D. Dawson, Esq. ...	5	1	8	361 T	38·24 169
D „ Hall.....	A. Clay, Esq.....	5	1	0	400 T	38·96 210
D Bakewell (Catcliff).....	Dr. T. Fentem .....	12	1	6	411 T	41·93 194
† Chatsworth Gardens .....	A. Brown, Esq., C.E....	8	5	5	436 T	37·76 202
D † „ „ .....	Mr. F. Jennings.....	5	1	0	436 T	36·13 188
D Buxton (Portobello Bar) .....	F. Langley, Esq., C.E.	8	1	0	1600 T	65·45 261
D „ (Stanley Moor).....	„ „ „	8	1	0	1340 T	59·39 260
D „ (Burbage Edge) .....	„ „ „	8	1	0	1400 T	63·06 261
D § „ (Devonshire Hospital)...	F. T. Kieldsen, Esq. ...	5	1	0	988 T	48·71 209
D † Holmesfield (Barbrook Reservoir)	Gilbert Frith, Esq., C.E.	8	1	0	1080	41·15 286
D † Eyam (The Rectory) .....	Rev. F. L. Shaw .....	5	1	0	856 T	42·64 204
D „ (Eyam View) .....	Mr. P. Thorpe.....	5	1	0	945	43·85 213
D „ (Bretton).....	Rev. F. L. Shaw .....	5	1	0	1250	53·56 169
† Grindleford (Grouse Inn) No. 58	E. Sandeman, Esq., C.E.	5	1	0	990	40·84 185
Hathersage .....	No. 57 „ „ „	5	1	0	525	40·85 180
Bamford .....	No. 60 „ „ „	8	2	0	680	39·52 201
D „ (Engineer's Office) No. 36	„ „ „	8	2	1	509	42·43 229
Castleton .....	No. 55 „ „ „	5	1	0	625	51·59 203
Hope School .....	No. 56 „ „ „	5	1	0	545	44·28 220
Edale (Dale Head) .....	No. 54 „ „ „	5	1	0	1015	58·46 216
„ (Upper Booth) .....	No. 53 „ „ „	5	1	0	910	51·80 220
Bamford (Yorkshire Bridge Weir) No. 59	„ „ „	5	1	0	540	42·66 235
Ashopton (Win Hill) .....	No. 34 „ „ „	5	1	0	1240	43·13 ...
„ (Cockbridge Farm) No. 33	„ „ „	5	1	0	620	46·53 217
„ (Wooler Knoll) No. 52	„ „ „	5	1	0	1080	44·62 ...
„ Inn.....	No. 32 „ „ „	8	1	0	610	45·41 211
„ (Grimbo Carr) ...	No. 51 „ „ „	5	1	0	1100	35·65? ...
„ (Cutthroat Bldg.) No. 31	„ „ „	8	1	0	994	46·37 ...
„ (Moscar Flat) ...	No. 30 „ „ „	8	1	0	1154	43·88 ...
Derwent Bridge End .....	No. 28 „ „ „	5	1	0	624	47·49 212
„ Dam .....	No. 26 „ „ „	5	1	0	790	39·58 203

## DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
DERBYSHIRE—(con.)							
6.—TRENT—Derwent—(con.)							
Ashopton (Haglee).....No. 50	E. Sandeman, Esq., C.E.	8	1	0	783	43·62	210
Blackdean Moor (Crookstone) 49	„ „ „	5	1	0	1460	52·90	...
Derwent(Lockerbrook Fm.) No. 27a	„ „ „	5	1	0	1174	49·04	232
Woodland Dale (Woodlands, S.) 48	„ „ „	5	1	0	1044	49·43	210
„ „ „ (N.) 47	„ „ „	8	1	0	1063	51·11	211
The Peak (Fairbrook).....No. 46	„ „ „	5	1	0	1009	67·27	222
„ „ (Nungrain).....No. 45	„ „ „	5	1	0	1320	65·01	...
Hayfield (Ashop Head) ...No. 43	„ „ „	5	1	0	1650	50·90?	...
Woodland Dale (Rowlee) No. 24	„ „ „	5	1	0	1540	47·40?	...
Derwent Dale (Walker Ho.) No. 22	„ „ „	8	1	0	758	50·17	225
Alport Dale (Alport Castles) No. 42	„ „ „	5	1	0	955	59·25	207
Featherbed Moss (Redgate Clough) 44	„ „ „	5	1	0	1730	54·90	...
Derwent Dale (Birchinlee) No. 23	„ „ „	5	1	0	870	53·77	226
Birchinlee Moor (Cote Ridge) No. 18	„ „ „	5	1	0	1440	49·98	...
Lady Clough Moor .....No. 41	„ „ „	5	1	0	1720	49·20?	...
Coldharbour Moor (Summit) No. 39	„ „ „	8	1	0	1670	51·64	...
Derwent Dale (Howden Dam) 17	„ „ „	8	1	0	829	50·00	221
„ „ (Banktop Hey) 16	„ „ „	8	1	0	1340	56·99	...
„ „ (Ridge Farm) ...13	„ „ „	5	1	0	1175	43·06	251
Alport Moor (Glethering Clough) ..40	„ „ „	5	1	0	1640	49·30?	...
Westend Moor (Blacklow Cote) 15	„ „ „	5	1	0	970	55·05	...
„ „ .....No. 10	„ „ „	5	1	0	1560	47·60?	...
Alport Moor.....No. 38	„ „ „	5	1	0	1790	49·10?	...
Derwent Dale (Back Dyke) No. 12	„ „ „	5	1	0	1546	55·70	...
„ „ (Mosley Bank) No. 5	„ „ „	8	1	0	1350	52·80	...
Ridgewalk Moor .....No. 9	„ „ „	5	1	0	1650	46·80?	...
Bleaklow Stones .....No. 8	„ „ „	5	1	0	2060	64·60	...
Derwent Dale (Roundhill) No. 4	„ „ „	5	1	0	1675	53·20	...
7.—TRENT—Erewash.							
D Codnor (Cross Hill) .....	A. F. Pine, Esq.....	5	1	0	372 T	29·75	185
D „ „ Park .....	W. B. Worthington, Esq., C.E.	5	1	0	243 T	32·30	232
8.—OUSE—Don.							
Hardwick Hall .....	Mr. E. Wilson .....	8	2	6	594 T	32·10	182
D Grassmoor Colliery .....	Mr. J. Norman .....	5	19	10	370 T	22·38	164
D† Chesterfield (Gas Works).....	Chesterfield Corporation	5	1	0	279	29·63	176
„ „ .....	Great Central Rly. Co..	9	3	6	250	28·94	189
D „ „ (Sewage Works) ...	Mr. W. Tomlinson.....	5	2	0	222	27·03	163
D† „ „ (Linacre Reservoir).	Chesterfield Corporation	8	1	0	460	37·22	190
D† „ „ „ „ „	„ „ „ „ „	5	1	0	490	35·60	190
„ „ (Tapton Grove).....	Mr. W. R. Bloxham ...	5	4	3	400	27·16	...
D Totley Hall.....	W. A. Milner, Esq. ...	5	1	0	700	40·19	200
Eckington (Mosbrough C.E. Schl.)	W. H. Holmes, Esq....	5	1	0	330 ?	27·99	...
Killamarsh (Norwood) .....	Great Central Rly. Co..	9	3	6	226 T	26·82	213
D† Norton.....	Col. Sir N. Creswick, KCB	5	0	8	700 T	34·21	192

A map of this Division, showing the sub-divisions, will be found in Part I.

## DIVISION VIII.—NORTH WESTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
<b>CHESHIRE.</b>							
<b>1.—UPPER MERSEY.</b>							
♢ Macclesfield (The Park) .....	Mr. J. Dale.....	5	1	0	501 ⅞	38·29	201
♢ " (Swanscoe Park) .....	Great Central Rly. Co..	9	3	6	539	32·15	202
♢ " (Bollington (Sponds Hill) .....	T. C. Horsfall, Esq. ...	5	1	0	676 ⅞	41·32	227
♢ " (Cross (Turner Heath) .....	Great Central Rly. Co..	9	3	6	1279 ⅞	32·47?	...
♢ Wilmslow (Parksyde) .....	J. A. Wanklyn, Esq.....	...	...	...	500	37·81	...
♢ Whaley Bridge .....	Miss H. M. Pearson ...	8	1	0	253 ⅞	31·14	196
♢ Handforth (Clare Cottage) .....	Great Central Rly. Co..	9	3	6	602 ⅞	48·32	216
♢ Disley (Lyme Park) .....	A. Brothers, Esq. ....	5	1	6	260 ⅞	36·55	155
♢ " ( " " ) .....	T. Molyneux, Esq.....	12	2	9	674 ⅞	36·65	181
♢ " ( " " ) .....	" " " .....	5	1	0	674 ⅞	37·52	181
♢ " ( " " ) .....	" " " .....	5	1	0	720 ⅞	35·93	181
♢ Runcorn (Weston Point) .....	" " " .....	5	1	0	720 ⅞	35·93	181
♢ Altrincham (Norman's Place)....	J. A. Saner, Esq., C.E.	8	1	4	17 ⅞	32·99	203
♢ " (Barrington House). .....	Miss G. A. Griffiths ...	5	8	0	150 ⅞	37·93	...
♢ Cheadle (Adswood) .....	C. E. Newton, Esq., C.E.	8	2	6	103	33·70	...
♢ Northenden (Wythenshawe Hall) .....	R. W. Wright, Esq. ...	5	0	6	180 ⅞	34·41	...
♢ " ( " " ) M .....	T. E. Tatton, Esq. ...	5	1	0	114 ⅞	35·74	214
♢ Marple Top Lock .....	" " " .....	8	1	0	114 ⅞	34·23	...
♢ Stockport .....	Great Central Rly. Co..	9	3	6	523 ⅞	35·51	203
♢ Godley Reservoir .....	Dr. H. E. Corbin .....	5	1	0	186 ⅞	34·61	222
♢ Newton .....	G. H. Hill, Esq., C.E..	12	2	0	500	35·38	...
♢ Mottram Station.....	Great Central Rly. Co..	9	3	6	396 ⅞	34·87	186
♢ Broadbottom (Harewood Lodge). .....	" " " .....	9	3	6	452 ⅞	33·67	194
♢ Dukinfield (Higher Reservoir)...	Col. Sidebottom .....	5	1	0	440	37·67	203
♢ " (Lower " " ) .....	F. J. Dixon, Esq., C.E.	8	1	6	495 ⅞	36·33	206
♢ Hadfield (Millbrook House).....	" " " .....	5	1	0	435 ⅞	36·68	206
♢ " ( " " ) .....	Mr. S. H. Daxon " .....	8	3	10	442 ⅞	44·16	203
♢ Arnfield Reservoir.....	" " " .....	12	4	0	442 ⅞	44·76	203
♢ Rhodes Wood Reservoir .....	G. H. Hill, Esq., C.E..	12	2	6	550	45·66	...
♢ Torrside Reservoir.....	" " " .....	12	1	0	520	48·55	...
♢ Stalybridge (Market Ground Yard) .....	" " " .....	12	1	6	680	48·98	...
♢ Swineshaw Moor (Lees Hill).....	F. J. Dixon, Esq., C.E.	5	1	0	373 ⅞	43·62	204
♢ Woodhead Reservoir.....	" " " .....	8	3	0	1168 ⅞	44·23?	...
♢ " .....	G. H. Hill, Esq., C.E..	12	0	10	660	54·96	...
<b>2.—MERSEY—Weaver.</b>							
♢ Baddiley (Nantwich W. W.) ...	Baldwin Latham Esq CE	5	1	0	231 ⅞	32·41	201
♢ Nantwich (Dorfold Hall) .....	J. A. Saner, Esq., C.E.	8	1	0	190 ⅞	31·71	219
♢ " (Reaseheath Hall) ...	" " " .....	8	1	0	130 ⅞	31·36	215
♢ Sandbach (Malkins Bank) .....	Mssrs Brunner Mond & Co	5	3	8	244 ⅞	27·85	213
♢ Congleton (Sewage Works) .....	Randle Burslam Esq. CE	5	1	0	248 ⅞	35·35	197
♢ " (Buglawton Vicarage) .....	J. A. Saner, Esq. ....	8	5	0	347	35·33	218
♢ Bosley Reservoir .....	Great Central Rly. Co..	9	3	6	590 ⅞	36·04	213
♢ " Minns .....	" " " .....	9	3	6	1210 ⅞	37·21	234
♢ Middlewich.....	Mssrs Brunner Mond & Co	5	3	10	138 ⅞	28·73	189
♢ " (Bostock Hall) .....	Col. France Hayhurst..	5	2	6	157 ⅞	33·56	151
♢ Chelford (Aste Hall) .....	G. Dixon, Esq. ....	5	1	0	250 ⅞	32·80	182
♢ " ( " " ) M .....	" " " .....	5	1	0	250 ⅞	32·05	...

## DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	feet.
<b>CHESHIRE—(con.)</b>						
<b>2.—MERSEY—Weaver—(con.)</b>						
Northwich .....	Great Central Rly. Co.	9	3	6	76 T	29·13 174
D§ „ (Highfield) <i>Snowdon</i>	J. A. Saner. Esq., C.E..	8	1	0	116 T	35·01 229
D „ (Winnington) .....	Mssrs Brunner Mond & Co	5	1	0	64 T	33·92 201
D „ (Lostock Gralam) ...	„ „ „	5	3	6	75 T	32·57 218
<b>3.—LOWER MERSEY &amp; C.</b>						
D Tarporley (Summer Hill) .....	Col. J. H. Hamersley...	5	1	0	370 T	32·04 182
D „ (Willington Hall) ...	Mr. A. Ellis .....	5	1	0	220	32·63 214
D Frodsham (Helsby) .....	J. H. Howell, Esq. ....	5	1	1	200	29·94 205
D Hooton Water Works .....	P. H. Bettie, Esq. ....	5	1	0	97	32·57 184
D Eastham (Mill Hey) .....	Roger P. Sing, Esq. ...	5	1	7	125 T	33·57 203
„ House .....	J. H. Vernon, Esq. ...	5	1	0	100 T	33·75 216
D Wirral W.W. (Prenton) .....	P. H. Bettie, Esq. ....	5	1	0	91 T	31·19 218
D Rock Ferry (Elmhurst) .....	Miss Shepherd .....	8	6	0	110	35·99 207
§ Birkenhead (Bidston Observatory)	W. E. Plummer, Esq..	8	1	0	189 T	28·59 227
D§ Hoylake (District Council Office)	T. Robinson, Esq. ....	5	1	0	33 T	30·23 210
D Liscard (Warwick Drive) .....	H. Norman Edge, Esq.	5	1	0	67	35·88 220
Wallasey .....	Dr. T. W. N. Barlow...	5	1	0	35 T	31·76 200
D New Brighton (Rutland House)..	W. Bell, Esq. ....	5	0	11	130 B	31·78 203
<b>4.—DEE.</b>						
D Aldford .....	Miss M. Meredith .....	5	1	1	46 T	29·76 258
D Eaton Hall Gardens .....	Mr. N. F. Barnes .....	6	3	0	72 T	28·51 193
Eccleston .....	E. Wells, Esq. ....	5	1	1	94 T	30·05 187
D Chester (Sewerage Works) .....	W. D. Scouller, Esq....	5	1	0	34 T	27·89 203
D „ (Christleton Hall) .....	Mr. J. Weaver .....	5	1	2	142 T	31·16 225
„ (Water Works) .....	A. Bell, Esq. ....	5	0	10	85 T	27·04 217
„ (Northgate Station) .....	Great Central Rly. Co..	9	3	6	84 T	28·60 ...
D West Kirby (Greenfield) .....	H. Bell, Esq. ....	5	1	0	75 T	31·35 215
<b>SOUTH LANCASHIRE.</b>						
<b>1.—ALT &amp; C.</b>						
D Liverpool (Huyton Vicarage) ...	Mrs. E. M. Sanderson..	5	0	11	116 T	37·40 223
D „ (Knotty Ash) .....	W. M. Reade, Esq. ...	5	1	0	100	34·49 216
D West Derby (Croxteth Hall) ...	Mr. J. Gibbins .....	5	1	0	79 T	35·64 198
Blundellsands (Park Corner) ...	A. L. Reade, Esq. ....	5	1	0	33 T	32·95 217
D Ormskirk (Bickerstaffe Pump Sta)	S. R. Raffety, Esq. ...	5	1	2	128 T	36·01 222
D „ (Aughton Springs) ...	C. E. Maples, Esq. ...	5	1	0	138 T	37·04 257
D† Downholland (Barton Moss) .....	J. Baxendell, Esq. ....	5	0	9	14 T	34·83 217
<b>2.—LOWER MERSEY.</b>						
Widnes (Gas Works) .....	Isaac Carr, Esq., C.E..	5	8	0	36 T	30·50 ...
D Garston (Grassendale Park) .....	Miss E. C. Abraham ...	5	1	0	35 T	34·63 215
D Aigburth (Holmfield) .....	Miss Maxwell .....	5	1	0	100 T	35·78 221
D Woolton (Roseleigh Gardens) ...	Mr. J. Stoney .....	8	1	0	180	36·14 208
D Warrington (Howley Yard) .....	T. Longdin, Esq. ....	10	0	10	19 T	34·21 191
„ (Central Station) ...	Great Central Rly. Co..	9	3	6	59 T	32·76 177
Liverpool (Monument Place) ...	J. A. Brodie, Esq., C.E.	5	1	3	126 T	35·33 213





## DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
SOUTH LANCASHIRE—(con.)							
3.—MERSEY—Irwell—(con.)							
† Bolton (Belmont) .....	Lewis Mitchell, Esq., CE	5	0	9	800	61.26	235
Rochdale (Naden Dean) ... <i>old g.</i>	J. S. Diggle, Esq., C.E.	5	1	7	948	42.57	...
„ ( „ „ ) ... <i>new g.</i>	„ „ „	5	1	4	948	46.34	...
† Ramsbottom (Killgate Brook) M	„ „ „	5	1	0	978	50.62	...
† „ (Cheesden Barn) M	„ „ „	5	1	0	997	49.46	...
† „ (Shuttleworth Moss) M	„ „ „	5	0	11	1076	49.06	...
„ (Gt. Lodge, Higher Hill) M	„ „ „	5	1	0	1400	46.67	...
Edenfield (Scout Moor Res.) No. 2	J. Woodhead Smith, Esq., C.E.	8	1	0	1330	56.15	211
† Rochdale (Spring Mill Whitworth)	W. Tomlinson, Esq. ...	8	1	7	720	61.86	224
„ (Cowm, „ „ )	„ „ „	8	1	7	760	65.76	208
† Entwistle .....	Lewis Mitchell, Esq., CE	5	1	0	700	57.00	236
Littleborough (Hollingworth Lake)	Rochdale Canal Co.*	8	1	5	600	43.26	...
„ (Windy Bank) ...	„ „ „	8	2	0	605	43.37	...
„ (Canal Summit) ...	„ „ „	8	2	0	700	37.27	...
„ (Chelburn) .....	„ „ „	8	2	0	800	42.62	...
„ (Byron Edge Drain)	„ „ „	8	1	5	1250	47.62	...
„ (Lenches) .....	„ „ „	8	2	0	806	42.48	...
Walsden (Calf Lee) .....	„ „ „	10	1	6	960	43.52	...
„ (Warland Drain) .....	„ „ „	8	1	5	1250	43.17	...
„ (Whiteholme Drain) ...	„ „ „	8	1	5	1250	43.93	...
„ (Rishworth Drain) .....	„ „ „	8	1	5	1300	42.36	...
† Bacup (Beech House) .....	A. E. Sutcliffe, Esq. ...	5	1	0	...	56.53	214
† Haslingden (Holden Wood) No. 1	J. Woodhead Smith, Esq., C.E.	8	1	0	670	60.80	213
„ ( „ „ „ ) No. 2	„ „ „	8	1	0	670	57.28	213
† „ (Calf Hey) ..... No. 1	„ „ „	8	1	0	800	58.61	213
„ ( „ „ „ ) ..... No. 2	„ „ „	8	1	0	800	51.81	213
† „ (Springfield Lodge) ..	John Stott, Esq. ....	5	1	0	800	55.29	214
Rawtenstall Cemetery .....	J. Johnson, Esq., C.E.	8	1	0	572	56.95	199
† „ (Cloughbottom Res.) No. 1	J. Woodhead Smith, Esq., C.E.	8	1	0	1025	51.87	224
„ ( „ „ „ „ ) No. 2	„ „ „	8	1	0	1025	48.27	224
† „ (Hapton Reservoir) No. 1	„ „ „	8	1	0	930	58.02	242
„ ( „ „ „ „ ) No. 2	„ „ „	8	1	0	930	58.33	242
4.—UPPER MERSEY.							
† Heaton Mersey [Stockport] .....	W. B. Leigh, Esq. ....	5	3	11	218	31.89	195
† Withington (Chorlton-c-Hardy Sew. Wks.)	G. F. Walter, Esq. ...	8	4	0	76	34.09	231
† „ ( „ „ „ „ ) .....	J. H. Casartelli, Esq. ....	5	2	0	75	33.77	199
„ (Lady Barn Ho. School)	Miss M. S. Beard .....	5	0	6	122	37.32	181
Denton Reservoir .....	G. H. Hill, Esq., C.E.	12	2	0	324	32.29	...
Gorton .....	„ „ „	12	2	0	263	34.02	...
Ashton-under-Lyne (Henrietta St. Yard)	F. J. Dixon, Esq., C.E.	7	1	0	394	40.54	226
„ „ „ (Waterhouses) ...	Great Central Rly. Co.	9	3	6	345	35.89	205
† Lower Swineshaw Reservoir .....	F. J. Dixon, Esq., C.E.	7	1	0	886	51.85	177

\* Returns supplied by C. R. Dykes, Esq.

## DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with 01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
CENTRAL LANCASHIRE.							
1.—RIBBLE & C.							
† Rivington (Higher Hill) .....	J. Parry, Esq., C.E. ....	8	1	4	733 $\nabla$	41.35	...
Haslingden (Mitchells House Res.) .....	C. Harrison, Esq. ....	5	1	6	990	52.03	198
D Darwen (Sunnyhurst Hey) .....	R. W. S. Saville, Esq. ....	8	1	8	915 $\nabla$	51.92	229
D „ (Earnsdale Reservoir) ...	„ „ „	8	1	8	705 $\nabla$	51.74	229
D „ (Sewage Works) .....	„ „ „	5	1	6	460 $\nabla$	50.52	222
D§ „ (Bold Venture Park) ...	Dr. F. G. Haworth ...	8	2	4	722	60.55	232
„ (Hoddlesden) ..... No.1	W. Stubbs, Esq., C.E. ....	8	4	0	680	55.22	236
„ ( „ ) ..... No.2	„ „ „	8	1	0	675	55.31	236
† „ (Daisy Green) ..... No.1	„ „ „	8	1	0	969	52.62	236
„ ( „ ) ..... No.2	„ „ „	8	1	0	969	52.80	236
„ (Pickup Bank) ..... No.1	„ „ „	8	1	0	720	52.57	236
„ ( „ ) ..... No.2	„ „ „	8	1	0	720	53.13	236
D Preston (Walton-le-Dale W.W.) ..	T. W. Elliott, Esq. ....	5	0	10	316	41.04	246
† Blackburn (Guide Reservoir) ...	W. Stubbs, Esq., C.E. ....	8	1	0	650	48.96	220
† „ (Witton) .....	„ „ „	8	2	6	315 $\nabla$	49.88	212
„ (Store Yard) .....	„ „ „	8	30	0	373 $\nabla$	39.60	179
„ (Water Works Office) .....	„ „ „	8	60	0	436 $\nabla$	34.27	190
† „ (Corporation Park) ..	„ „ „	8	0	6	584 $\nabla$	50.39	216
† „ (Pumping Station) ...	„ „ „	8	6	0	600 $\nabla$	48.59	215
D Accrington (St. James's Vicarage) ..	Rev. A. Spencer .....	8	1	6	475 $\nabla$	48.46	219
„ (Milnshaw Park) .....	Accrington Corporation	5	1	6	464 $\nabla$	44.18	190
„ (Victoria Hospital) ...	Mr. L. T. Whipp .....	5	1	2	540 $\nabla$	49.08	201
D Preston (Corporation Offices) ...	T. Cookson, Esq. ....	8	18	7	148 $\nabla$	38.71	212
Blackburn (Samlesbury Sew Wks)	W. Stubbs, Esq., C.E. ....	8	...		240	39.01	222
† Causeway Side (Burnley W.W.) ..	W. Williamson, Esq. ....	8	2	0	1116 $\nabla$	47.16	...
† Sheddin ( „ „ ) .....	„ „ „	8	2	0	960 $\nabla$	48.92	...
† Cant Clough, S. Side ( „ „ ) ..	„ „ „	8	2	0	900 $\nabla$	48.74	235
† „ „ N. Side ( „ „ ) ..	„ „ „	8	2	0	900 $\nabla$	44.96	234
Rams Clough Head ( „ „ ) ..	„ „ „	8	2	0	1260 $\nabla$	45.86	...
Huncoat (Burnley Road Res.) ..	C. Harrison, Esq. ....	9	1	6	620 $\nabla$	47.88	216
D§ Burnley (Queen's Park) .....	Dr. Thomas Holt .....	8	1	0	459 $\nabla$	48.04	209
„ (Yorkshire Street) .....	W. Williamson, Esq. ....	8	30	0	420 $\nabla$	40.52	225
† „ (Swinden) ..... Upper g.	„ „ „	8	12	0	820 $\nabla$	48.60	235
† „ ( „ ) ..... Lower g.	„ „ „	8	2	0	745 $\nabla$	48.32	235
† „ (Extwistle Moor Top) ..	„ „ „	8	2	0	1310 $\nabla$	49.31	...
D „ (Gawthorpe Hall) .....	Alfred Ford, Esq. ....	8	0	9	316 $\nabla$	49.43	229
Alston Reservoir .....	T. Cookson, Esq. ....	8	1	2	320 $\nabla$	49.45	...
§ Stonyhurst College .....	Rev. W. Sidgreaves, S.J. ....	8	1	10	377 $\nabla$	53.27	220
D§ „ „ „ ..... (R)	„ „ „	11	1	10	377 $\nabla$	53.29	220
§ „ „ „ ..... (M)	„ „ „	11	1	0	376 $\nabla$	52.47	...
Knowle Green (Preston W.W.) M	T. Cookson, Esq. ....	8	1	2	400 $\nabla$	48.70	...
Loud Scales ( „ „ ) M	„ „ „	8	1	2	400 $\nabla$	52.10	...
Spade Mill ( „ „ ) M	„ „ „	8	1	2	400 $\nabla$	48.16	...
Jeffrey Hill ( „ „ ) M	„ „ „	8	1	2	900 $\nabla$	52.66	...
D Colne .....	T. H. Hartley, Esq. ....	8	2	11	619 $\nabla$	49.23	217
Barrowford Reservoir .....	Leeds & L'pool Canal Co.	8	1	0	473	43.18	...

## DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
CENTRAL LANCASHIRE-(con.)							
1.—RIBBLE & C—(con.)							
Foulridge (Upper Reservoir) ...	Leeds & L'pool Canal Co.	8	1	0	582	43·96	...
Clitheroe (Downham Hall) .....	R. C. Assheton, Esq.	10	1	6	464	44·06	...
Chatburn (Middlewood) .....	W. K. Wilkinson, Esq.	5	1	3	363	45·92	...
2.—RIBBLE—Douglas.							
d Upholland Grammar School .....	C. H. Cox, Esq. ....	5	1	0	310	38·44	226
d Wigan Waterworks .....	W. Bolton, Esq. ....	8	1	6	225	38·64	229
Horwich (Wallsuches) .....	C. E. Barr, Esq. ....	5	1	0	655	39·37	...
d† „ (Lower Rivington) ...	J. Parry, Esq., C.E....	8	1	0	440	42·57	219
† „ (Lower Knoll) .....	„ „ „ „	8	1	4	742	45·87	...
† Rivington (Brown Hill) .....	„ „ „ „	8	1	4	843	45·14	...
d† „ (Stoneshouse) ...No. 1	„ „ „ „	8	1	4	623	46·14	230
† „ ( „ ) ...No. 2	„ „ „ „	8	1	4	623	45·97	...
† „ (Hurst Hill).....	„ „ „ „	8	1	10	1029	47·42	...
† „ (Great Hill).....	„ „ „ „	8	1	8	1240	57·71	...
† „ (Coppice Stile).....	„ „ „ „	8	1	8	879	43·60	...
† „ (Gamekeeper's) .....	„ „ „ „	8	0	8	850	52·27	...
d Rufford .....	H. Haskell, Esq. ....	5	1	0	41	37·97	185
§ Leyland (Worden Hall) .....	H. Nowell Farrington Esq.	5	1	0	125	38·62	216
Bamber Bridge (Cuerden Hall) ..	R. A. Tatton, Esq. ....	6	1	0	230	39·82	195
3.—COAST STREAMS.							
Southport (Birkdale)..... M	J. Baxendell, Esq. ....	5	1	0	27	36·16	...
d† „ (Hesketh Park) .....	„ „ „ „	5	1	0	38	34·92	208
d† „ ( „ „ ) M.O.g. „ „ „ „	„ „ „ „	8	1	0	38	35·04	213
d† „ ( „ „ „ ) (R) „ „ „ „	„ „ „ „	11	1	5	39	34·54	212
† „ (Lord Street Station) ..	Great Central Rly. Co. ...	9	3	6	21	32·13	194
4.—OUSE—Aire.							
Worthdale (Watershed Res.) ..	W. Fowlds, Esq., C.E.	5	1	0	1115	58·21	...
Foulridge (Canal Office) .....	Leeds & L'pool Canal Co.	8	1	0	497	48·99	...
„ (Cragg Nook Hill) ..	„ „ „ „	8	1	0	690	43·89	...
NORTH LANCASHIRE.							
1.—DUDDON & C.							
d Barrow-in-Furness .....	W. Fergusson, Esq. ...	11	1	6	36	36·46	191
d Ulverston (Urswick School Ho.) ..	J. Dobson, Esq. ....	5	1	3	140	45·19	216
Lindal (Moor Mines).....	Messrs. Harrison, Ainslie & Co.	5	7	0	...	50·42	...
d Broughton-in-Furness .....	C. P. Chambers, Esq. ..	5	1	3	101	52·17	217
d Duddon Valley (Seathwaite Vic.) ..	Rev. J. B. Ditchfield ...	5	1	0	330	82·09	230
2.—LEVEN & C.							
d Cartmel (Flookburgh Lodge) ..	J. J. Myres, Esq., C.E.	5	1	0	75	43·34	207
d „ (Carke).....	W. R. Nash, Esq. ....	5	1	0	76	41·92	205
d „ (Holker) .....	Lord Richard Cavendish	5	0	9	85	43·49	208
d Ulverston (Poaka Beck) ..	W. Fergusson, Esq. ...	11	1	6	512	47·01	224
d Cartmel (Aynsome) .....	J. Stewart Remington Esq.	8	2	0	137	50·33	224
§ Ulverston (Graythwaite) .....	Meteorological Office ...	8	1	0	185	58·28	219

## DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1910	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
<b>NORTH LANCASHIRE—(con.)</b>							
<b>2.—LEVEN &amp; C—(con.)</b>							
d Finsthwaite Vicarage .....	Rev. S. Inman .....	8	1	2	250	57·69	213
d Blawith Vicarage .....	Rev. J. Ashburner.....	5	0	10	185	60·07	215
d Coniston (Water Park).....	Miss C. Marshall .....	5	1	0	180	63·99	209
d Hawkshead (Tower Bank, Sawrey)	Major W. Alcock-Beck .....	5	1	0	342 †	66·69	225
Monk Coniston Park .....	Miss C. Marshall .....	5	1	2	305 †	84·37	186
Hawkshead (Esthwaite Mount)..	Miss Headlam.....	5	1	0	246 †	71·09	...
„ (Black Fell) .....	Miss C. Marshall .....	5	1	6	1055	80·08	...
d Skelwith Fold [Ambleside] .....	„ „ „ .....	5	1	0	333	84·53	232
„ „ [ „ ] ...M	„ „ „ .....	5	1	0	333	83·43	...
<b>3.—KENT &amp; C.</b>							
d Heysham House.....	Miss Tomlinson .....	5	1	6	80	43·89	227
d§ Morecambe .....	Mr. T. B. Lamb.....	8	1	0	24 †	44·67	202
d Bolton-le-Sands Vicarage.....	Rev. A. R. Tomlinson.	5	1	2	70 †	40·63	221
d Carnforth (Over Kellet) .....	W. Farrer, Esq. ....	8	1	0	175	39·65	214
d Yealand Conyers (Beechfield) ...	W. E. Roper, Esq.....	5	1	0	250	40·17	202
„ „ .....	J. Rawlinson Ford, Esq.	5	1	0	278 †	41·39	211
d Grange-over-Sands (Eggerslack)	Miss S. M. Arkwright..	5	2	3	140 B	46·92	192
„ „ „ (Merlewood).	E. C. Miller, Esq. ....	5	0	9	280 B	42·99	198
d Cartmel Fell (The Schoolhouse)..	R. J. Cragghill, Esq...	5	5	0	220 †	55·99	214
<b>4.—LUNE.</b>							
d Hampson-in-Ellel .....	W. G. Welch, Esq. ...	5	1	6	145 †	41·11	214
d Lancaster (Bailrigg) ..	H. L. Storey, Esq.....	5	1	3	200	42·33	215
† Quernmore (Brow Top).....	A. G. Bradshaw, Esq..	8	1	0	552 †	46·37	200
d Lancaster (Strathspey) .....	A. B. S. Welch, Esq...	5	1	0	85	39·13	202
„ (Blea Tarn Reservoir).	A. G. Bradshaw, Esq...	8	1	0	330	38·13	211
d§ „ (Greg Observatory) ...	Neville Holden, Esq....	8	1	0	312	41·19	233
„ (Robert Street).....	A. G. Bradshaw, Esq..	8	1	0	62 †	39·87	209
† Caton Vicarage .....	Rev. W. J. Locke .....	5	1	0	160 †	42·00	...
d „ Green .....	F. Storey, Esq. ....	5	1	0	250	42·61	223
d† Wray Vicarage .....	Rev. C. L. Reynolds...	5	1	0	165 †	45·90	221
Melling (Hornby Castle) .....	G. S. Beckett, Esq. ...	8	1	8	100	47·79	190
d Leck Vicarage .....	Rev. J. Turner .....	5	1	1	400	40·09	191
<b>5.—WYRE &amp; C.</b>							
d St. Anne's-on-the-Sea .....	Mr. W. E. Procter .....	5	1	0	25 †	33·42	213
† Weeton Reservoir .....	J. Cook, Esq., C.E. ...	5	1	0	108 †	35·53	...
d Barton (Anderton Fold) .....	W. H. Mason, Esq. ...	5	0	6	90 †	41·56	189
d† Blackpool (Met. Observatory) ...	E. W. Rees Jones, Esq. MD	5	1	0	67 †	33·26	217
d Poulton-le-Fylde (Singleton Pk.)	T. H. Miller, Esq. ....	8	0	11	50 †	38·28	225
d† St. Michael's-on-Wyre School...	J. Moss, Esq. ....	5	1	0	27 †	38·15	210
d† „ „ „ Vicarage	Ven Archdeacon Hornby	5	1	0	26 †	37·94	219
d§ Fleetwood .....	(R) E. Frobisher, Esq.....	8	1	8	29 †	32·82	205
d† Garstang (Bruna Hill) .....	Mrs. Wilson .....	5	0	6	90 †	44·13	237
† „ (Holme Ho., Bleasdale)	A. Wilson, Esq.....	5	1	0	650 †	56·67	...
„ (Fair Snape Fell) .....	„ „ „ .....	5	1	0	1630 †	79·62	...
„ (Calder Intake).....	J. Cook, Esq., C.E. ...	5	1	0	632 †	47·72	...
d† „ (Barnacre Reservoir)....	„ „ „ .....	5	1	0	616 †	47·39	219

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
NORTH LANCASHIRE—( <i>con.</i> )						
5.—WYRE & C—( <i>con.</i> )						
† Garstang (Grizedale Reservoir)..	J. Cook, Esq., C.E. ...	5	1 0	517 7	47.00	219
† „ ( „ Intake)* ...	„ „ „ ...	5	1 0	644 7	46.75	...
Pilling (Smallwood Hey) .....M	Mr. J. H. Curwen .....M	5	0 9	12 7	34.12	...
† Wyresdale (Abbeystead Res.) ...	A. G. Bradshaw, Esq...M	8	1 0	366 7	44.06	175
† „ ( „ Gardens) ...	Mr. T. Wyton .....M	8	0 6	420	56.55	214
Quernmore (Old Gauge Basin) M	A. G. Bradshaw, Esq...M	8	1 0	963 7	48.34	...
Wyresdale (Wardstone) .....M	„ „ „ ...M	8	1 0	1440 7	65.21	...

\* Formerly called Stake House.

A map of this Division, showing the sub-divisions, will be found in Part I.

## DIVISION IX.—YORKSHIRE.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain 1910	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>WEST RIDING.</b>						
<b>1.—LUNE.</b>						
D High Bentham .....	Mr. Bryan Holmes .....	5	1	0	412 T	42·32 208
Ingleton (Kingsdale Head) .....	Mr. L. Pye .....	5	0	10	994	76·17 ...
D Sedbergh (Dent Vicarage) .....	Mr. J. Mason .....	5	1	0	484 T	83·85 225
D „ (Akay) .....	C. E. Taylor, Esq. ....	5	1	0	400 T	59·03 213
D „ (Cemetery) .....	Mr. J. Anderson .....	5	1	0	374 T	57·91 227
„ (Thorns Hall) .....	the late Miss Sedgwick .....	5	1	0	400 T	52·18 214
D „ (Croasdale Beck) .....	W. Atkinson, Esq. ....	5	1	0	623 T	60·76 178
„ (Howgill School) .....	W. Woodhead, Esq. ....	5	1	0	550 T	49·32 ...
<b>2. RIBBLE.</b>						
D Bolton-by-Bowland (Bolton Hall) .....	Mrs. Wright .....	8	0	6	300 T	49·33 185
† Slaidburn (Knowlmer Manor) .....	W. Peel, Esq. ....	5	1	0	417 T	60·82 ...
„ (Hareden Brook) ... M	T. Cookson, Esq. ....	8	1	2	540	79·70 ...
† „ (Langden Brook) ... M	„ „ „ .....	8	1	2	556	80·00 ...
† „ (Whiteholme) .....	W. K. Wilkinson, Esq. ....	5	1	3	475 T	47·55? ...
„ (Dunsop Houses) .....	W. Stubbs, Esq., C.E..	8	1	0	450 T	65·40 204
„ (Middle Knoll)..... M	„ „ „ .....	8	2	6	1298 T	61·30 ...
„ (Brennand) .....	„ „ „ .....	8	1	0	820 T	77·26 211
„ (Whitendale) .....	„ „ „ .....	8	1	0	830 T	77·95 208
„ (Cabin Hill)..... M	„ „ „ .....	8	3	1	1559 T	73·80 ...
„ (Baxton Fell) ..... M	„ „ „ .....	8	2	6	1540 T	68·40 ...
D† Settle (The Terrace) .....	J. W. Shepherd, Esq..	8	1	2	531 T	45·90 220
D† „ (Giggleswick School).....	C. F. Mott, Esq. ....	8	1	0	500	46·69 208
<b>4.—UPPER MERSEY.</b>						
D Mossley (Manor House Yard) ...	F. J. Dixon, Esq., C.E.	5	1	0	636	46·12 202
Greenfield (Upperwood Moor) ...	„ „ „ .....	5	1	0	1518 T	51·87 ...
„ (Chew Mount) .....	„ „ „ .....	5	1	0	1600	56·36 ...
D „ (Yeoman Hey) .....	„ „ „ .....	5	1	0	784	54·52 175
„ (Birchen Clough).....	„ „ „ .....	5	1	0	1017 T	62·12 ...
Saddleworth Station .....	E. Prebble, Esq., C.E..	5	4	2	630 T	42·70 ...
Strinesdale [Oldham] .....	C. J. Batley, Esq., C.E.	5	4	0	815 T	42·31 229
D Standedge (Castleshaw, Broadhead)	„ „ „ .....	8	4	6	876 T	45·08 229
† „ ( „ Cudworth) .....	„ „ „ .....	5	4	6	1410 T	33·86? 229
„ (Redbrook Reservoir) ..	E. Prebble, Esq., C.E..	8	1	6	1150	51·26 ...
† Denshaw (Ox Hey) .....	C. J. Batley, Esq., C.E.	8	4	6	1030 T	45·87 218
D† „ (New Year's Bridge)...	„ „ „ .....	8	4	0	1012 T	47·87 218
† „ (Ready Con Dean).....	„ „ „ .....	8	4	0	1414 T	44·57 218
<b>5.—TRENT—Derwent.</b>						
Derwent Dale (Low Seat) No. 21	E. Sandeman, Esq., C.E.	5	1	0	1565	41·09 ...
„ „ (Howden Ho.) 19	„ „ „ .....	8	1	0	775 T	49·87 224
„ „ (Row Top) No. 20	„ „ „ .....	5	1	0	1260	51·60 ...
„ „ (Sandy Lee) No. 7	„ „ „ .....	5	1	0	1340	46·67 ...
„ „ (Cranberry Clough) 6	„ „ „ .....	8	1	0	960	56·69 ...
„ „ (Crowstones) No. 3	„ „ „ .....	5	1	0	1660	48·52 ...
„ „ (Featherbed Moss) 1	„ „ „ .....	5	1	0	1670	51·81 ...
<b>6.—TRENT—Left Bank Tributaries.</b>						
D Tickhill (Sandbeck Park) .....	Mr. G. Summers .....	8	1	0	150 T	24·73 182

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1910	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
WEST RIDING—(con.)							
6.—TRENT—Left Bank Tributaries—(con.)							
D Tickhill .....	G. G. Phillips, Esq. ....	8	1	0	61 $\frac{1}{2}$	23·96	167
D Doncaster (Wadworth Hall).....	Rev. J. C. Ross .....	8	1	0	190 $\frac{1}{2}$	26·64	207
7.—OUSE—Don.							
D Dinnington Hall .....	Mr. C. Hope .....	5	0	6	392 $\frac{1}{2}$	26·39	194
D Sheffield (Fulwood House) .....	J. Dixon, Esq. ....	5	1	0	670 $\frac{1}{2}$	37·78	201
D „ (Stumperlow Hall) ..	H. J. Dixon, Esq.....	5	1	0	700 $\frac{1}{2}$	38·81	215
D „ (Redmires Res.) ... (R)	L.S.M. Marsh, Esq., C.E.	10	5	0	1110 $\frac{1}{2}$	43·68	230
D „ „ „ ) weekly	„ „ „	8	4	0	1110 $\frac{1}{2}$	42·91	...
D „ (Rivelin).....	„ „ „	10	4	0	564 $\frac{1}{2}$	37·98	222
D „ „ „ ) weekly	„ „ „	8	4	0	564 $\frac{1}{2}$	37·99	...
D „ (Crookes)..... (R)	„ „ „	10	2	0	629 $\frac{1}{2}$	31·66	200
D „ „ „ ) weekly	„ „ „	8	2	0	629 $\frac{1}{2}$	31·54	...
D† „ (Weston Park) .....	E. Howarth, Esq. ....	8	1	0	430 $\frac{1}{2}$	30·98	190
D „ (Victoria Station) .....	Great Central Rly. Co..	9	3	6	188 $\frac{1}{2}$	27·05	164
D „ (Dale Dyke Res.) ... (R)	L.S.M. Marsh, Esq., C.E.	10	3	0	715 $\frac{1}{2}$	41·79	218
D „ „ „ „ ) weekly	„ „ „	8	3	0	715 $\frac{1}{2}$	41·27	...
D Rotherham (Ulley Reservoir) ...	E. B. Martin, Esq., C.E.	5	1	0	184 $\frac{1}{2}$	25·37	142
D Sheffield (Tinsley Locks) .....	Great Central Rly. Co..	9	...	...	117 $\frac{1}{2}$	24·31	169
D Rotherham (Sitwell Vale).....	Mr. G. Howard .....	5	1	0	300 $\frac{1}{2}$	31·55	205
D „ (Moorgate) .....	C. E. Chrimes, Esq. ...	8	1	0	262	27·91	178
D „ (Thrybergh) .....	F. Oscar Kirby, Esq. C.E.	8	1	0	184 $\frac{1}{2}$	26·36	196
D Chapeltown (Potter Hill).....	Mr. D. Bell.....	8	5	0	581 $\frac{1}{2}$	29·50	193
D Doncaster (Firsby Reservoir) ...	F. Oscar Kirby, Esq. C.E.	8	1	4	189 $\frac{1}{2}$	26·24	187
D Wentworth Woodhouse .....	Mr. A. Third .....	5	0	10	360 $\frac{1}{2}$	29·78	167
D Swinton (Council Offices) .....	Horace Birks, Esq. ...	8	1	0	126 $\frac{1}{2}$	25·60	150
D Mexborough .....	G. Fenwick Carter Esq. C.E.	5	1	6	76 $\frac{1}{2}$	21·73	164
D Wortley .....	Great Central Rly. Co..	9	3	6	548 $\frac{1}{2}$	29·84	196
D Elsecar .....	„ „ „	9	3	6	181 $\frac{1}{2}$	25·69	164
D Langsett Moor (Pike Lowe) ... C	J. H. Taylor, Esq., C.E.	5	1	0	1358 $\frac{1}{2}$	52·53	...
D „ „ (Range Moor) D	„ „ „	5	1	0	1040 $\frac{1}{2}$	50·45	...
D „ „ (Catcleugh) ... M	L.S.M. Marsh, Esq., C.E.	8	1	6	1516 $\frac{1}{2}$	48·40	...
D „ „ (Mickleden) ... M	„ „ „	5	1	6	1217 $\frac{1}{2}$	50·41	...
D „ „ (Upper Midhope) ..	„ „ „	8	1	6	925 $\frac{1}{2}$	44·35	210
D „ „ (Midhope) ..... A	J. H. Taylor, Esq., C.E.	5	1	0	830 $\frac{1}{2}$	44·77	215
D Wortley (Service Reservoir).....	„ „ „	5	1	0	700	33·08	210
D Langsett (Underbank Res.) ... M	L.S.M. Marsh, Esq., C.E.	8	1	6	604 $\frac{1}{2}$	36·95	...
D „ (Brockholes) ..... M	„ „ „	5	1	6	934 $\frac{1}{2}$	35·66	...
D „ (Sheep House) ..... M	„ „ „	5	1	6	974 $\frac{1}{2}$	35·62	...
D† „ (Houch Road) ... No. 1	„ „ „	8	4	3	960 $\frac{1}{2}$	49·23	210
D† „ (Bridge Lane) ... No. 2	„ „ „	8	4	9	761 $\frac{1}{2}$	44·27	211
D „ Moor (Fiddlers Green) M	„ „ „	8	1	6	1493 $\frac{1}{2}$	52·55	...
D „ „ (Border Hill) ... M	„ „ „	5	1	6	1148 $\frac{1}{2}$	53·99	...
D „ „ (Swinden Lodge) ..	„ „ „	8	1	6	1037 $\frac{1}{2}$	47·39	228
D Wath-upon-Deerne (Chapel St.)	Dr. F. J. Burman .....	8	2	2	188 $\frac{1}{2}$	25·73	184
D Bolton-upon-Deerne .....	T. Washington, Esq....	5	1	0	130 $\frac{1}{2}$	25·49	177
D Worsborough .....	Great Central Rly. Co..	9	3	6	225 $\frac{1}{2}$	28·31	205
D Stainborough (Wentworth Castle)	W. Fisher, Esq.....	8	2	6	520 $\frac{1}{2}$	29·35	193

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
WEST RIDING—(con.)							
7.—OUSE—Don—(con.)							
Doncaster (Hexthorpe Hall) ...	H. Morris, Esq. ....	5	1	0	25	25·97	...
" " (Pumping Station) ...	Great Central Rly. Co..	9	3	6	32 T	23·19	167
D " " (Up. Windleden) M	F. Oscar Kirby, Esq. C.E.	8	1	2	30 A	27·13	184
Dunford Br. (Dearden Res.)...M	H. Dearden, Esq., C.E.	12	2	2	1100	52·18	...
" " Station ...	" " " " " "	12	1	6	1244 T	53·03	...
" " Reservoir ...	Great Central Rly. Co..	9	3	6	954 T	51·55	240
D " " " "	H. Dearden, Esq., C.E.	12	2	0	1111 T	59·95	228
Penistone ...	Great Central Rly. Co..	9	3	6	717 T	31·89?	181
" (Hazlehead) ...	" " " " " "	9	3	9	868 T	45·80	201
" (Ingbirchworth Res.)..	J. H. Taylor, Esq. C.E.	8	1	3	853 A	41·75	240
Barnsley (Jordan Hill) ...	" " " " " "	5	1	0	460 T	28·19	161
" " " " " "	Great Central Rly. Co..	9	3	6	317 T	27·32	169
Cawthorne ...	Rev. C. T. Pratt.....	5	1	6	340 A	33·22	206
Cudworth (Lund Lane Sew. Wks.)	J. H. Taylor, Esq., C.E.	5	1	0	150 A	26·86	177
Doncaster (Wyndthorpe) ...	Hon. Mrs. Godfrey Chetwynd	5	0	11	13	23·01	...
D Kirk Bramwith ...	H. A. Brundell, Esq. C.E.	5	1	0	17 A	26·37	210
D Hemsworth Hall ...	Mr. T. Bendall ...	5	1	0	250 T	24·51	157
D Ackworth (Hillthorpe) ...	Mrs. F. Hatchard ...	5	1	5	175 T	23·44	188
D " (Nostell Priory) ...	Mr. J. Easter ...	5	4	0	...	26·75	202
Goole (Swinefleet) ...	Mr. G. Harrison ...	5	5	6	10 ?	30·76	...
D " " " " " "	A. B. Hobson, Esq. ...	5	1	0	18 A	27·01	186
D " " " " " "	W. E. Grayburn, Esq.	5	2	0	18 A	25·10	147
8.—OUSE—Aire—Calder.							
Holmbridge (Yateholme Farm)...	J. C. Barrowclough Esq. C.E.	7	1	0	861 A	64·30	...
" (Holme Styas Res.)...	Mr. B. T. Woodcock ...	7	2	0	830 T	47·40	...
" (Boshaw Whams Res.)	" " " " " "	7	2	0	930 T	54·10	...
" (Bilberry Reservoir)..	" " " " " "	7	2	0	820 T	63·60	...
Meltham (Harden Moss) ...	J. W. Schofield, Esq....	8	1	2	1212 T	51·51	...
" " " " " " new g.	" " " " " "	8	1	0	1212 T	54·38	...
Wessenden Head ...	" " " " " "	8	1	0	1270 T	47·79	...
" (Hollin Bank Moss)...	" " " " " "	8	1	0	1360 T	67·76	...
" (Great Butterley).....	" " " " " "	8	1	0	1110 T	51·72	...
" (Bobus).....	" " " " " "	8	1	0	1200 T	48·58	...
Meltham (Brow Grains) ...	" " " " " "	8	1	0	900 T	48·91	...
" (Royd Edge) <i>Glaisher g.</i>	C. L. Brook, Esq. ....	8	1	0	585 T	57·04	...
" " " " " " <i>M. O. g.</i>	" " " " " "	8	1	0	585 T	54·18	...
D " (Harewood Lodge).....	" " " " " "	8	1	0	514 L	48·55	218
" Grange ...	J. W. Schofield, Esq....	8	1	2	850 T	44·36	...
Marsden (Deer Hill) ..... <i>old g.</i>	" " " " " "	8	1	0	1149 T	47·47	...
" " " " " " <i>new g.</i>	" " " " " "	8	1	0	1149 T	50·51	...
Wakefield (Woolley Park Gardns.)	Mr. T. Wells ...	5	1	0	400	29·10	165
D Slaithwaite (Blackmoorfoot).....	J. W. Schofield, Esq....	8	1	0	800 T	50·52	240
D " (Inglewood) ...	J. Woodhead, Esq. ...	5	1	0	546 A	48·03	225
Huddersfield (Bank Field, Golcar)	J. R. Sykes, Esq. ....	5	1	0	400 T	42·45	192
D " (Cemetery) ...	Mr. J. Firth ...	8	1	0	410 A	37·37	219
D " (Dalton) ...	J. W. Robson, Esq. ....	8	1	0	350 T	32·95	205



## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height above Ground.		Height above Sea Level	1910	
		in.	ft	in.	feet.	inches.	
WEST RIDING—(con.)							
8.—OUSE—Aire—Calder—(con.)							
D† Rishworth Moor (Gt. Walden Edge)	C. Clemesha Smith Esq. CE	5	0	10	1135 T	51.98	236
D „ (Stott Hall) .....	„ „ „	5	1	0	935 T	44.32	234
D† „ (Ringstone Res.) .....	„ „ „	5	1	0	990 T	42.93	219
„ Moor (Greystones) ...	„ „ „	5	1	0	1175 T	52.63	...
Soyland Moor (Summit) .....	„ „ „	5	1	0	1290 T	46.48	...
D „ „ (Baitings Gate) ...	„ „ „	5	1	0	935 T	53.31	242
„ „ (Manshead) .....	„ „ „	5	1	0	1240	50.46	...
Horbury (Highfields) .....	J. H. Green, Esq. ....	5	1	0	226 T	29.47	...
D Mirfield (Cote Wall) .....	J. Watson-Kaye, Esq..	8	1	2	200	36.02	194
D§ Wakefield Prison .....	Mr. W. C. Bollen .....	5	1	0	96 T	26.21	168
D „ .....	Dr. H. Maclean Wilson	8	1	0	174 T	25.58	187
D† „ (Field Head).....	C. Clemesha Smith Esq. CE	5	1	0	250 T	25.06	170
D† „ (Stanley Grange) .....	H. S. Haworth, Esq. ...	5	1	0	235 T	25.68	209
Elland.....	P. H. Whitwam, Esq..	8	1	0	307 T	30.37	...
Batley (Staincliffe Reservoir) ...	J. C. Barrowclough Esq. CE	7	1	0	492 T	25.25?	...
D „ (Woodwell Dépôt) .....	O. J. Kirby, Esq., C.E.	8	1	0	301 T	30.26	182
D† Ardsley Reservoir .....	C. Clemesha Smith Esq. CE	5	1	2	395 T	26.44	187
D „ (Jaw Hill).....	„ „ „	5	1	0	315 T	25.38	159
Sowerby Bridge (Brockwell Triangle)	W. Cyril Empson, Esq.	8	1	0	500 T	43.62	...
D „ „ (Haugh End) No. 4	J. S. Rawson, Esq. ...	5	0	8	450 T	42.04	221
Todmorden W.W. (Ramsden Res.)	W. Tomlinson, Esq. ...	8	1	0	980 T	55.71	206
D Fielden Hospital [ „ ] .....	Mr. F. Rogers .....	5	1	0	650 T	46.59	204
D Sourhall Hospital [ „ ] .....	„ „ .....	5	1	0	1020 T	60.61	215
D Halifax (Salterhebble) .....	R. Lyon, Esq. ....	11	4	0	255 T	31.79	193
D „ (Hall Ings, S. Owram)...	Rev. G. E. Aspinall ...	5	0	7	750 T	27.41	213
D „ (Thorpe) .....	J. S. Rawson, Esq. ...	5	0	8	345 T	45.92	216
D† „ (Public Library) .....	E. Green, Esq. ....	8	1	0	625 T	36.62	213
„ (Albert).....	R. J. Hartley, Esq., C.E.	5	1	0	795 T	35.63	...
„ (Gibbet) .....	„ „ „	5	6	0	568 T	37.37	...
„ (Ramsden Wood).....	„ „ „	8	1	2	816 T	38.01	...
Gomersall (Castle Hill).....	A. J. Pyrah, Esq. ....	5	1	0	480	29.22	191
Hebden Bridge (Falling Royd)...	A. R. Crossley, Esq. ...	4	1	0	479 T	50.19	229
D „ „ (Summerfield)...	J. Hoyle, Esq. ....	5	1	0	800 T	45.89	221
Halifax (Castle Carr Lodge).....	R. J. Hartley, Esq., C.E.	...	...	...	1060 T	44.96	...
„ (Midgley Moor) .....	M „ „ „	7	0	6	1350 T	47.86	...
„ (Warley Moor).....	M „ „ „	7	0	6	1325 T	46.35	...
„ (Ogden) .....	M „ „ „	8	1	3	990 T	44.80	...
„ (Ovenden Moor) .....	„ „ „	...	...	...	1375	50.13	...
„ (Widdop) .....	„ „ „	...	...	...	1050	47.58	...
„ (Walshaw Dean Lodge)	„ „ „	...	...	...	1040	56.63	...
„ ( „ „ ).....	M „ „ „	8	0	3	1380 T	51.26	...
9.—OUSE—Aire.							
D Whitley Bridge (Roall Pump Stat.)	J. E. Pickard, Esq., C.E.	8	0	10	44 T	23.53	159
D Pudsey (Tong Hall) .....	J. H. Tempest, Esq. ...	...	...	...	600 ?	31.94	193
„ (Fulneck) .....	Miss E. C. Lawford ...	5	1	0	490	30.19	...
„ (Glenera) .....	Dr. F. H. Squire .....	5	1	0	521 T	28.20	...

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with $\cdot 01$ or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
WEST RIDING—(con.)							
9.—OUSE—Aire—(con.)							
d§ Garforth (Manor Farm) .....	Prof. R. S. Seton .....	8	1	2	194 $\pi$	27.49	202
Bradford (Grange Road, Horton)	Mr. A. E. Chilton .....	5	5	0	450 $\pi$	35.04	222
„ (Queensbury) .....	R. J. Foster, Esq. ....	8	2	2	1050	36.49	198
„ (Brayshaw Reservoir) ..	J. Watson, Esq., C.E..	5	1	0	982 $\pi$	38.15	180
D „ (Lister Park) .....	Mr. H. Lander .....	8	1	0	440 $\pi$	36.93	191
„ (Thornton Moor Filters)	J. Watson, Esq., C.E..	5	1	0	1218 $\pi$	46.97	269
„ (Stubden Res.) ..old g	„ „ „ ..	8	1	0	1075 $\pi$	54.39	233
„ ( „ „ ) new g.	„ „ „ ..	8	1	0	1075 $\pi$	51.50	233
„ ( „ „ ) .....	„ „ „ ..	5	1	0	1071 $\pi$	50.11	233
„ (Nan Scar, Oxenhope) M	„ „ „ ..	5	1	0	1101 $\pi$	53.54	...
„ (Stairs Top, „ ) M	„ „ „ ..	5	1	0	1401 $\pi$	50.72	...
„ (Leeming Reservoir) M	„ „ „ ..	5	1	0	850 $\pi$	46.43	223
„ (Doe Park Res.) ..old g.	„ „ „ ..	8	1	0	810 $\pi$	47.03	220
„ ( „ „ „ ) new g.	„ „ „ ..	5	1	0	811 $\pi$	40.72	220
„ (Leeshaw Res.) .....	„ „ „ ..	5	1	0	875 $\pi$	57.44	...
„ (Chellow Dean Res.)	„ „ „ ..	5	1	0	645 $\pi$	38.66	209
„ ( „ Heights Res.)	„ „ „ ..	5	1	0	848	38.66	226
„ (Hewenden Res.) ..old g.	„ „ „ ..	5	1	0	700 $\pi$	45.24	209
„ ( „ „ „ ) new g.	„ „ „ ..	5	1	0	701 $\pi$	41.28	205
„ (Heaton Res.) ..old g.	„ „ „ ..	8	1	0	530 $\pi$	35.06	208
„ ( „ „ „ ) ..new g.	„ „ „ ..	5	1	0	531 $\pi$	33.44	207
Leeds (Wortley Res.) .....	C.G. Henzell, Esq., C.E.	8	0	9	307 $\pi$	27.75	201
„ (Knostrop) .....	„ „ „ ..	8	0	9	72 $\pi$	25.48	177
D „ (Holbeck) .....	Messrs. J. Rhodes & Co.	10	32	0	127 $\pi$	23.93	159
D „ ( „ W. Works Depot)	C.G. Henzell, Esq., C.E.	8	0	9	93 $\pi$	27.84	192
D „ (Museum) .....	H. Crowther, Esq. ....	10	46	0	177 $\pi$	26.86	184
„ (Woodhouse Moor) .....	C.G. Henzell, Esq., C.E.	8	0	9	307 $\pi$	28.81	199
„ (Weetwood Reservoir) No.1	„ „ „ ..	8	0	9	328 $\pi$	30.89	185
„ ( „ „ „ ) No.2	„ „ „ ..	8	0	9	328 $\pi$	28.72	185
„ ( „ „ „ ) Lodge .....	F. P. Reay, Esq. ....	5	0	9	200 $\pi$	26.76	155
D „ (Allerton Hill) .....	T.E. Fenwick, Esq., C.E.	5	0	7	418 $\pi$	28.97	204
Shipley (Cragg End) .....	Leeds & L'pool Canal Co.	8	1	0	304	32.25	...
D „ (West Point) .....	M. Paterson, Esq., C.E.	5	1	0	382 $\pi$	35.58	204
D Oakworth (Oldfield Filters) .....	W. Fowlds, Esq., C.E.	5	1	0	1008 $\pi$	48.38	225
Bingley (Gilstead Filters) .....	J. Watson, Esq., C.E..	5	1	0	572 $\pi$	30.06	186
D Adel (Lawns Wood) .....	Mr. S. R. Dyson .....	5	1	0	475 $\pi$	32.57	197
D Keighley (The Knowle) .....	P. Clough, Esq. ....	5	1	0	385 $\pi$	40.32	207
D „ (Long Lee) .....	C. Croft, Esq. ....	8	1	0	755 $\pi$	36.95	211
Bingley (Sunnydale) .....	J. Watson, Esq., C.E..	5	1	0	825	34.96	212
„ (East Morton) .....	Keighley News .....	...	...	...	...	32.81	...
D Silsden (Bolton Road) .....	Mr. A. Elder .....	5	1	0	432 $\pi$	34.96	195
„ (Gill Grange) .....	J. Watson, Esq., C.E..	5	1	0	883	31.99?	...
„ Reservoir .....	„ „ „ ..	5	1	0	560 $\pi$	33.10	177
† Skipton (Craven Herald Office) ..	E. Townsend, Esq. ....	8	2	4	360	34.37	197
„ (Sewage Works) .....	A. E. W. Aldridge, Esq.	8	0	9	315 $\pi$	32.87	...
D† „ (Town Hall) .....	„ „ „ ..	8	0	9	370 $\pi$	35.39	161
„ (Hawthorne Cottage) ...	Leeds & L'pool Canal Co.	8	1	0	380	32.12	...

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
WEST RIDING—(con.)							
9.—OUSE—Aire—(con.)							
Gargrave (Banks Hill Bank Newton)	Leeds & L'pool Canal Co.	8	1	0	545	39.28	...
„ (Ray Bridge Hill) .....	„ „ „	8	0	10	459	32.47	...
Skipton (Embsay Moor) .....	A. E. W. Aldridge, Esq.	8	1	3	610	34.12	...
Gargrave (Great Scarnber Hill) ..	Leeds & L'pool Canal Co.	8	0	9	676	34.50	...
Winterburn (Long Hill) .....	„ „ „	8	0	9	705	36.10	...
„ (Brown Hill) .....	„ „ „	8	1	0	961	43.70	...
d Malham Tarn .....	Mr. T. Coulthard	8	1	0	1296	61.43	216
10.—OUSE—Wharfe.							
d Aberford (Lotherton Hall) .....	Mrs. Trench Gascoigne	8	1	0	200	25.53	170
d Saxton Vicarage .....	Rev. C. D. Ash	5	2	6	95	27.94	213
Adel (Eccup, South) .....	C. G. Henzell, Esq., C.E.	8	0	9	390	30.55	194
„ ( „ East) .....	„ „ „	8	0	9	375	31.10	195
Harewood (Arthington) .....	„ „ „	8	0	9	139	35.94	176
d „ House .....	Countess of Harewood.	5	0	10	300	30.95	199
d Otley (Sewage Works) ..	C. F. Hodgson, Esq. ...	5	0	9	169	25.96	158
d Ilkley (Silverwell Cottage) .....	Mr. T. C. Gill .....	5	1	0	904	41.78	206
d „ (Glen Rosa) .....	F. A. Aykroyd, Esq. ...	8	1	1	450	39.26	212
d „ (St. James' Road) .....	A. Wilson, Esq. ....	5	1	0	325	38.55	209
d „ (Brook Street) .....	G. W. Worfolk, Esq. ...	5	20	0	312	37.15	178
Leathley (Lindley Wood, S.) ...	C. G. Henzell, Esq., C.E.	8	0	9	312	32.89	209
„ ( „ „ N.) ...	„ „ „	8	0	9	320	32.77	209
d Ilkley (March Gill Reservoir) ...	C. F. Hodgson, Esq. ...	5	0	9	665	37.88	190
d† York (Mount Villas) .....	Mrs. Rowntree .....	5	1	0	70	23.25	197
d† „ (Cherry Hill) .....	Mrs. H. Richardson ...	5	1	6	50	24.55	179
† „ (Museum Gardens) .....	Meteorological Office ...	9	1	0	57	24.64	191
d „ (The Retreat) .....	Dr. H. J. Mackenzie ...	5	1	0	74	24.30	188
Skipton (Counter Hill) .....	M J. Watson, Esq., C.E. ...	5	1	0	951	32.03	...
„ (Chelker Reservoir) ...	„ „ „	5	1	0	730	34.00	...
Fewston (Timble Ings) .....	C. G. Henzell, Esq., C.E.	8	0	9	912	36.77	213
„ ( „ ) .....	„ „ „	8	0	9	720	33.57	184
„ (Swinsty, E.) .....	„ „ „	8	0	9	460	37.35	219
„ ( „ W.) .....	„ „ „	8	0	9	425	38.02	219
„ South .....	„ „ „	8	0	9	525	40.13	221
„ North .....	„ „ „	8	0	9	525	38.32	221
„ (Blubberhouses) .....	„ „ „	8	0	9	575	37.84	197
Bolton Abbey Estate Office .....	A. Downs, Esq. ....	5	1	2	350	39.32	204
Barden Reservoir .....	old g. J. Watson, Esq., C.E. ...	8	1	0	746	45.12	237
„ „ .....	new g. „ „ „	5	1	0	746	41.46	237
„ „ Upper .....	„ „ „	5	1	0	1250	39.51	222
Burnsall (Thorpe Fell) .....	M „ „ „	5	1	0	1661	41.86	...
„ (Sandbed Beck) .....	M „ „ „	5	1	0	676	43.90	...
d „ Rectory .....	Rev. W. J. Stavert ...	8	4	7	503	44.77	213
Grimwith Reservoir .....	old g. J. Watson, Esq., C.E. ...	8	1	0	890	46.30	216
„ „ .....	new g. „ „ „	5	1	0	893	44.24	216
d Grassington (Chapel Ho., Kilnsey)	G. E. Clayton, Esq. ...	5	3	0	670	51.81	204
d Arncliffe Vicarage .....	Rev. W. A. Shuffrey ...	8	2	6	732	69.33	219
Wharfedale (Oughtershaw Hall)	Miss Woodd .....	8	1	6	1175	60.23	...

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
WEST RIDING—(con.)							
11.—OUSE—Nidd.							
Spofforth (Sewage Works) .....	F. Bagshaw, Esq., C.E.	8	1	0	184 $\nabla$	30·12	...
D Wetherby (Ribston Hall) .....	Mr. J. McClelland .....	5	1	2	130 $\nabla$	30·82	210
Harrogate (Ten Acres Reservoir)	F. Bagshaw, Esq., C.E.	8	1	6	620 $\nabla$	30·49	174
D " (Scargill Reservoir)...	" " "	8	1	0	646 $\nabla$	35·19	207
" (Beaver Dyke Res.)...	" " "	8	0	11	575 $\nabla$	33·77	201
D§ " (Harlow Moor Obsy.)	C. E. Rivers, Esq., C.E.	5	1	0	480 $\nabla$	34·08	201
" ( " Hill Res.) No.1	F. Bagshaw, Esq., C.E.	8	1	0	589 $\nabla$	31·94	181
" (Irongate Bridge Res.)	" " "	8	1	6	455 $\nabla$	34·73	180
D " (The Stray) .....	Mr. G. W. Gledhill ...	5	1	0	380	31·38	198
D " (Park Parade) .....	" " "	5	1	0	400	32·01	198
D Goldsborough Hall .....	Mr. R. "Goodall" .....	5	1	0	118 $\nabla$	29·34	200
Knaresborough (Water Tower)...	F. Bagshaw, Esq., C.E.	8	1	0	240 $\nabla$	29·35	202
Harrogate (Bilton Sewage Works)	" " "	5	1	0	208 $\nabla$	30·86	...
D Nun Monkton (Priory) .....	H. Horsfield, Esq. ....	5	0	6	45	26·51	181
D Birstwith (Swarcliffe) .....	Capt. C. S. Greenwood.	5	1	0	510 $\nabla$	37·83	176
D " (The Moss) .....	C. S. Dixon, Esq. ....	5	1	0	230	33·70	165
D Ouseburn (Thorpe Underwood Hall)	F. W. Slingsby, Esq....	5	1	1	60 $\nabla$	25·91	174
D Pateley Bridge (Castle Stead) ...	Mr. C. May .....	5	1	0	410	41·78	190
Ramsgill (Raygill House) .....	J. Watson, Esq., C.E..	5	1	0	925 $\nabla$	51·27	157
" .....	" " "	5	1	0	450 $\nabla$	33·71	...
Nidderdale (High Riggs) .....	" " "	5	1	0	1010 $\nabla$	46·83	190
" (East Gill Head) .....	" " "	5	1	0	1710 $\nabla$	60·43	...
" (Rain Stang) .....	" " "	5	1	0	1470 $\nabla$	46·02	...
" (Lodge) .....	" " "	5	1	0	1150 $\nabla$	48·82	221
" (New Houses) .....	" " "	5	1	0	755 $\nabla$	44·62	180
12.—OUSE—Ure.							
Pateley Moor (Smaden Head) ...	C.G. Henzell, Esq., C.E.	8	0	9	784 $\nabla$	35·34	197
Dallow Moor (High Skeldon) ...	" " "	5	0	9	674 $\nabla$	35·38	219
† " " (Harper Hill) .....	" " "	5	0	9	858 $\nabla$	37·85	202
D Ripon (Studley Royal Gardens).	O. H. Wade, Esq. ....	5	1	6	250	32·03	202
D " (The Red House) .....	F. D. Wise, Esq. ....	5	1	0	120	30·90	151
† Kirkby Malzeard (Drovers' Inn) ..	C.G. Henzell, Esq., C.E.	5	0	9	576 $\nabla$	41·72	207
† " " (Hawset) .....	" " "	8	0	9	820 $\nabla$	37·62	204
" " (Hambleton Hill)	" " "	8	0	9	1106 $\nabla$	41·92	...
† " " (Bagwith Brae).	" " "	5	0	9	703 $\nabla$	37·31	206
" " (Stone & Ears Wham)	" " "	8	0	9	1118 $\nabla$	43·06	...
D Ripon (High Bank, Mickley) ...	Miss Harrison .....	5	1	6	225 $\nabla$	33·02	173
EAST RIDING.							
1.—OUSE—Left Bank Tributaries.							
§ Deighton Grove [York] .....	Miss M. L. Whitehead.	5	1	0	40 $\nabla$	25·14	209
D Heslington [ " ] .....	Hon. L. de Yarburch-Bateson	8	0	7	35	26·72	203
Dunnington Hall [ " ] .....	Miss Hildyard .....	8	1	2	110	25·00	206
2.—OUSE—Derwent.							
D Birdsall Gardens .....	Mr. J. Anderson .....	5	1	3	308	34·29	233

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>EAST RIDING—(con.)</b>						
<b>2.—OUSE—Derwent—(con.)</b>						
D Malton (The Leat House).....	W. R. Innes Hopkins Esq.	5	0	10	60	28.35 186
D Rillington (Scampston Hall) ...	Mr. F. C. Puddle .....	5	1	6	102 $\frac{1}{2}$	27.76 184
Hunmanby (Holly Bank).....	Miss Suter .....	5	1	2	...	26.19 ...
<b>3.—HUMBER—Left Bank Tributaries.</b>						
§ Patrington (Spurn Head) .....	Meteorological Office ...	8	1	0	27	20.61 174
D " .....	W. B. Pugh, Esq. ....	5	2	6	46 $\frac{1}{2}$	24.84 150
D Hull (Pearson Park).....	H. B. Witty, Esq. ....	5	0	10	6	25.63 207
D " (Springhead).....	C. B. Newton, Esq., C.E.	5	1	0	16 $\frac{1}{2}$	25.82 239
D Cottingham (Water Works).....	" " " "	5	1	1	26 $\frac{1}{2}$	23.36 183
D Beverley (East Riding Asylum).	Dr. M. A. Archdale ...	5	1	0	175 $\frac{1}{2}$	27.53 211
" (New Walk) .....	W. Evans, Esq., C.E. ...	5	3	0	38	27.32 200
" (Hull Bridge).....	" " " "	5	2	6	11 $\frac{1}{2}$	26.59 202
D Market Weighton (Dalton Hall)	Mr. W. Jackson.....	5	1	6	150 $\frac{1}{2}$	30.07 161
Brandesburton (Hempholm Lock)	W. Evans, Esq., C.E. ...	5	2	6	11 $\frac{1}{2}$	25.59 200
§ Driffield (York Road) .....	W. E. Lovel, Esq. ...	5	1	0	76 $\frac{1}{2}$	29.43 176
" (Highfield) .....	J. E. Jones, Esq. ....	5	1	0	80	27.69 ...
Wetwang .....	Rev. E. M. Cole .....	5	1	0	235 $\frac{1}{2}$	28.64 182
D Thixendale .....	Rev. W. H. Fox .....	10	0	10	425 $\frac{1}{2}$	30.88 210
D Lowthorpe (The Elms) .....	F. K. Hawes, Esq. ....	5	1	0	63 $\frac{1}{2}$	26.71 211
<b>4.—EAST COAST STREAMS.</b>						
Hornsea (Elim Lodge) .....	Mr. Guy Walker .....	8	1	6	30 $\frac{1}{2}$	27.03 167
D Bridlington .....	S. R. Crofts, Esq. ....	5	1	0	59	26.42 201
D " (Grammar School) ...	B. A. Farrow, Esq. ...	8	1	0	57 $\frac{1}{2}$	23.80? 152
D Filey (Deepdene) .....	A. V. Machin, Esq. ...	5	0	8	44 $\frac{1}{2}$	29.04 214
<b>NORTH RIDING.</b>						
<b>1.—OUSE—Ure.</b>						
Masham Moor (Benjy Guide).....	C. G. Henzell, Esq., C.E.	5	0	9	1411 $\frac{1}{2}$	40.45 ...
† " " (Somerside) .....	" " "	5	0	9	928 $\frac{1}{2}$	39.87 208
" " (Autherlands) ...	" " "	5	0	9	1237 $\frac{1}{2}$	41.48 ...
† " " (High Sour Mire) .....	" " "	5	0	9	884 $\frac{1}{2}$	32.55 198
" " (Spruce Gill).....	" " "	5	0	9	1187 $\frac{1}{2}$	44.61 ...
" " (Leighton Res.)...	" " "	5	0	9	634 $\frac{1}{2}$	37.87 198
" " (Thorney Grane)...	" " "	5	0	9	1175 $\frac{1}{2}$	44.35 ...
" " (Bracken Hill) ...	" " "	5	0	9	1450 $\frac{1}{2}$	42.83 ...
" " (Towler Hill)....	" " "	8	0	9	820 $\frac{1}{2}$	38.47 202
" " (Spruce Gill, East)	" " "	5	0	9	915 $\frac{1}{2}$	38.85 ...
" " ( " " North)	" " "	5	0	9	883 $\frac{1}{2}$	38.97 ...
† " " (Breary Bank) ...	" " "	5	0	9	600 $\frac{1}{2}$	38.82 200
" " (Healey).....	" " "	5	0	9	542 $\frac{1}{2}$	34.86 190
† " " (Low Houses).....	" " "	5	0	9	693 $\frac{1}{2}$	39.42 153
" " (Black Brunt) ...	" " "	5	0	9	1160 $\frac{1}{2}$	40.79 ...
" " (Brown Beck) ...	" " "	5	0	9	1150 $\frac{1}{2}$	40.40 ...
D " " (Roundhills Res.)...	F. Bagshaw, Esq., C.E.	8	1	0	743 $\frac{1}{2}$	36.04 186
" " ( " Farm) .....	" " "	8	1	0	975	39.99 181

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>NORTH RIDING—(con.)</b>						
<b>1.—OUSE—Ure—(con.)</b>						
Middleham Rectory .....	Rev. H. G. Topham ...	5	1	0	430	32·88 157
d Leyburn (Bolton Hall) .....	Mr. F. Scrivener .....	8	1	0	420 T	34·90 189
<b>2.—OUSE—Swale.</b>						
d Thirsk (Dalton Parsonage) .....	Rev. G. H. Chilman ...	5	1	0	87 T	25·09 190
„ (The Old House, Sowerby) .....	W. Brown, Esq. ....	5	1	0	115 T	25·55 ...
„ (Brynkehlhow) .....	A. B. Hall, Esq. ....	8	1	0	115 T	25·90 189
d „ (The Hall) .....	Reginald Bell, Esq. ...	5	1	10	121 T	25·14 191
d „ (Sutton-under-Whitstonecliffe) .....	F. R. Hansell, Esq. ...	5	1	0	246 T	26·32 182
„ (Mount St. John) <i>Snow g.</i> .....	A. J. Walker, Esq. ...	5	1	7	535 T	26·00 ...
d „ { „ „ „ } „ „ „ .....	„ „ „ .....	5	1	0	523 T	25·87 195
„ { „ „ „ } <i>Cary g.</i> .....	„ „ „ .....	5	1	0	523 T	24·33 ...
d „ { „ „ „ } .....	„ „ „ .....	5	1	10	542 T	26·73 205
„ { „ „ „ } .....	M „ „ „ .....	5	1	10	542 T	25·56 ...
„ (Boltby) .....	„ „ „ .....	5	0	7	495 T	27·41 ...
„ { „ „ „ } No.1M .....	„ „ „ .....	5	4	7	773 T	23·43 ...
„ { „ „ „ } No.2M .....	„ „ „ .....	5	1	4	772 T	28·62 ...
„ (Newbuilding) .....	G. S. Thompson, Esq. .	8	1	3	600	28·46 174
d Bedale (Burneston) .....	Rev. Canon J. T. Hartley	5	1	0	110 T	25·30 180
„ (Thorpe Perrow) .....	Mr. C. W. Tilly .....	8	1	6	140	29·42 209
d „ (Park House) .....	Miss M. Greenwood ...	5	1	1	180	27·66 211
„ (Newton House) .....	Mr. W. Paylor .....	5	2	6	125	26·27 ...
d Northallerton (Thornton-le-Moor) .....	Col. R. W. Peckitt ...	5	1	0	136 T	26·61 197
Muker (Gunnarside Lodge) .....	W. M. Christy, Esq. ....	5	1	0	900 T	49·82 ...
d Northallerton (Osmotherley) .....	T. Yeoman, Esq. ....	8	0	8	660	28·89 177
d§ Rounton Grange .....	Mr. J. Hanagan .....	8	1	0	249	24·52 200
d Richmond (Sedbury Park) .....	G. Gilpin Brown, Esq. .	5	1	0	450	29·69 192
d „ (Gilling West) .....	G. Roper, Esq. ....	5	1	3	303 T	31·50 155
Middleton Tyas .....	J. F. B. Baker, Esq. ...	5	0	10	380 T	25·85 ...
<b>3.—OUSE—Left Bank Tributaries.</b>						
d Haxby (Moorlands) .....	(R) E. G. Tew, Esq. ....	...	0	8	58 T	24·59 156
Alne .....	R. Godfrey, Esq., C.E.	5	0	10	80	26·30 157
Easingwold (Sutton Hall) .....	Mrs. Grey .....	5	1	0	125	26·71 ...
<b>4.—OUSE—Derwent.</b>						
Terrington Hall .....	Mr. T. Suffield .....	5	1	5	300 T	25·68 244
d New Malton .....	M. B. Slater, Esq. ....	10	0	10	139 T	27·63 182
d§ Hovingham Hall .....	Sir W. H. A. Worsley, Bt.	5	0	6	120 T	33·07 183
d§ Ampleforth Abbey .....	Rev. T. I. Barton, o.s.B.	7	1	0	350	29·50 151
d Thornton-le-Dale .....	Miss E. M. Priestman. .	5	1	0	150 T	30·34 216
d Pickering .....	Dr. J. L. Kirk .....	5	1	0	90	29·09 202
d Seamer (Irtton Pumping Station) .....	W. Millhouse, Esq. C.E.	8	1	0	94 T	31·15 197
d Scarborough (Osgodby) .....	„ „ .....	8	1	0	166 T	29·13 160
<b>5.—ESK &amp; C.</b>						
Scarborough (South Cliff) .....	Major R. E. Stuart ...	5	1	0	200 B	28·47 178
§ „ .....	W. W. Larkin, Esq. ....	5	1	0	101	26·30 191
„ (Manor Road) .....	H. W. Smith, Esq., C.E.	5	1	0	170 T	29·54 225
d „ (May Lodge) .....	Mrs. Kitson .....	5	0	4	150	31·09 207
d „ (Scalby) .....	Mrs. J. W. Rowntree...	5	0	11	300 B	35·05 192

## DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
<b>NORTH RIDING—(con.)</b>						
<b>5.—ESK &amp; C—(con.)</b>						
Fylingdales Vicarage .....	Rev. R. Jermyn Cooper	6	0 10	125	25·67	...
D Sleights (Brook Park) .....	E. Isle Hubbard, Esq...	5	1 0	80 T	28·26	195
D Whitby (Park Hall, Aislaby) ..	Rev. J. H. Richardson..	5	1 0	500	32·14	235
D§ „ (Crescent Avenue) .....	T. Newbitt, Esq.....	8	5 10	125	22·37	179
D „ (Mulgrave Castle) .....	Mr. J. Corbett .....	5	1 0	410 T	27·62	210
D Guisborough (Lockwood Beck Res)	W. P'Anson, Esq., C.E.	8	1 0	632 T	33·22	215
„ „ „ „ „ M	„ „ „ „	8	1 0	632 T	32·76	...
D Saltburn-by-the-Sea (Skelton Castle)	Mr. J. R. Batty.....	5	0 9	272 T	27·84	246
D „ „ „ „ „	W. Marston, Esq. ....	8	4 6	200	19·56	171
<b>6.—TEES.</b>						
D Ingleby Manor .....	Lord De L'Isle .....	5	0 11	460 T	33·67	200
„ Greenhow Vicarage .....	Rev. M. A. Horsfall ...	5	...	480	31·18	222
D „ „ (The School House) .....	P. Huntington, Esq....	5	1 0	448 T	32·68	224
D Croft (Dalton-on-Tees).....	Mr. W. Wrather .....	8	2 0	170 P	24·36	163
East Layton Hall .....	Mrs. Proud .....	11	1 0	575 T	29·09	...
D Stanwick Park [Darlington] .....	Mr. W. Higgle .....	5	1 1	300 T	28·70	178
D Forcett Park [ „ „ ] .....	Capt. P. M. French ...	11	1 0	351 T	31·94	185
D Great Ayton (Easby Hall) .....	J. J. Emerson Esq., LL.D.	5	1 0	355	31·42	208
D Kildale Hall .....	R. B. Turton, Esq. ....	5	1 2	600 T	36·51	204
D Stokesley (Seamer).....	J. Pounder, Esq. ....	5	1 4	250	24·24	150
D Middlesbrough (Ormesby) .....	W. Stewart Tailor Esq	5	1 0	100 T	24·10	171
D „ (Linthorpe) .....	Mrs. C. L. Bell .....	8	1 0	48 T	20·65	178
D „ (Albert Park) .....	J. M. Parnaby, Esq. ...	8	1 0	30	20·18	163
Baldersdale (Blackton Reservoir)	Hugh Wilson, Esq. ....	5	1 0	935 T	41·80	...
„ „ (Balderhead) ... M	„ „ „ „	5	1 0	1360	41·20	...
D† „ „ (Hury Reservoir) ..	„ „ „ „	5	1 0	866 T	37·91	190
Lunedale (Lunehead)..... M	„ „ „ „	5	1 0	1450	52·70	...
„ „ (Selset) .....	„ „ „ „	5	1 0	924 T	41·05	...
D† „ „ (Grassholme Reservoir)	„ „ „ „	5	1 0	936 T	41·54	186
D† Mickleton .....	No. 1 Dr. H. R. Mill .....	8	1 0	850	28·08	170
„ „ „ „ „ No. 2	„ „ „ „	8	1 0	860 P	31·90	...
† „ „ (Lime Kiln Pasture) M	„ „ „ „	8	1 0	1175 T	32·00	...

A map of this Division, showing the sub-divisions, will be found in Part. I.

## DIVISION X.—NORTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
DURHAM.							
1.—TEES & C.							
D Darlington (Hurworth Grange)..	late Mrs. J. E. Backhouse	5	1	0	161 $\nabla$	25.83	185
D „ (Public Park).....	Mr. J. Morrison .....	5	1	0	150 ?	28.93	193
D „ (Cleveland Parade)..	W. W. Willmott, Esq.	5	1	3	160 $\nabla$	24.96	188
D „ (Hummersknott) ...	Mr. J. Short .....	5	1	0	200	25.01	...
D† Barnard Castle (County School)..	R. Hitchcock, Esq. ...	5	1	6	540 $\nabla$	31.60	189
Gainford .....	Walter Scott, Esq. ...	5	1	0	260 $\nabla$	25.27	...
Stockton (Rimswell) .....	Miss A. E. Anderson ...	8	1	0	100 $\nabla$	20.17	169
D „ (Ropner Park) .....	M. H. Sykes, Esq. ....	5	1	9	61 $\nabla$	19.44	171
D „ (Londonderry Road) ...	W. B. Heberden, Esq. ...	8	4	1	46 $\nabla$	19.91	165
D Hurworth Burn (Crookfoot Res.)	T. Bower, Esq., C.E. ...	10	1	6	293 $\nabla$	23.79	214
West Hartlepool (Lynn Street)..	Mr. H. Lamb .....	5	6	0	84	16.77	179
D „ „ (Water Works)	T. Bower, Esq., C.E. ...	10	1	0	35 $\nabla$	21.73	158
D „ „ (Bradgate) .....	G. H. Baines, Esq. ....	8	1	3	100 $\nabla$	29.24	205
D Hurworth Burn .....	T. Bower, Esq., C.E. ...	10	1	0	357 $\nabla$	25.19	212
D Hartlepool (Hart Reservoir) .....	A. B. „ „ „ „ „ „	10	1	0	172 $\nabla$	22.50	191
Seaham (Dalton Pumping Sta.)..	A. B. E. Blackburn, Esq.	8	1	0	345 $\nabla$	24.87	213
D§ „ Harbour .....	Mr. G. H. Aird .....	8	1	6	141	23.94	197
2.—WEAR.							
D Wolsingham (Dryderdale) .....	late Mrs. J. E. Backhouse	5	1	0	580 ?	34.95	178
D Willington Rectory .....	Rev. T. Urmsen .....	5	1	0	285 $\nabla$	28.75	175
D Wolsingham (Martagon House)..	Miss F. E. Stobbs .....	5	1	0	464	36.56	188
D Stanhope (Parson Byer's Quarry)	Messrs. Bell Bros., Ltd.	5	6	8	846 $\nabla$	33.23	169
D Wearhead Station .....	Mr. R. Rust .....	5	0	6	1104	53.89	167
§ Durham Observatory .....	Meteorological Office ...	12	4	0	352	24.86	188
§ Ushaw (St. Cuthbert's College)..	Rev. Dr. C. Gelderd ...	5	0	9	600 $\nabla$	30.36	209
Pittington (Elemore Hall) .....	Miss Baker Baker .....	8	0	6	323 $\nabla$	27.39	...
D Weardale W.W. (Tunstall Res.)	R. Askwith, Esq., C.E.	8	1	2	724 $\nabla$	35.36	162
„ „ (Waskerley 6)	„ „ „ „ „	8	4	2	1229 $\nabla$	29.85	...
„ „ ( „ 3)	„ „ „ „ „	8	4	6	1433 $\nabla$	32.39	...
„ „ ( „ 4)	„ „ „ „ „	8	4	7	1321 $\nabla$	29.32	...
„ „ ( „ 5)	„ „ „ „ „	8	4	2	1244 $\nabla$	31.05	...
D „ „ ( „ 2)	„ „ „ „ „	8	0	11	1179 $\nabla$	35.49	212
„ „ ( „ 1)	„ „ „ „ „	8	4	4	1317 $\nabla$	30.77	...
Fence Houses (Chilton Moor) ...	V. W. Corbett, Esq. ...	5	1	4	186 $\nabla$	25.15	...
Chester-le-Street (Biddick Hall)	Mr. A. Bentley .....	5	1	0	150 $\nabla$	26.75	179
Ryhope Pumping Station .....	A. B. E. Blackburn, Esq.	8	1	1	228 $\nabla$	25.11	194
D† Sunderland (W. Hendon Ho.) No. 5	T. W. Backhouse, Esq.	5	1	0	130 $\nabla$	24.93	203
† „ „ „ „ „ No. 6	„ „ „ „ „	5	1	0	130 $\nabla$	24.95	...
D „ (Mowbray Park) .....	H. Renney, Esq., M.D.	5	1	0	105	23.55	168
„ (Claxheugh Grove) ...	J. P. Cornett, Esq. ....	5	2	6	90	26.22	...
D „ (The Cedars) .....	W. F. Vint, Esq. ....	5	0	6	115 $\nabla$	25.22	186
„ (Southwick Cemetery)	Mr. J. R. Hodgson .....	8	1	0	171 $\nabla$	26.06	182
3.—TYNE, LOWER.							
D Weardale W. W. (Smiddy Shaw)	R. Askwith, Esq., C.E.	8	1	3	1128 $\nabla$	32.33	201
D Consett Park Farm .....	J. D. Brown, Esq. ....	5	4	3	641 $\nabla$	30.02	184





## DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with $\cdot 01$ or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
NORTHUMBERLAND—(con.)							
5.—COQUET & C—(con.)							
† Morpeth .....	T. Matheson, Esq. ....	8	1	6	100	25·29	...
D† „ (Bothalhaugh Garden) ..	Hon. & Rev. W. C. Ellis	5	1	10	35	27·37	220
† „ ( „ „ „ ) M	„ „ „ „	5	1	10	35	26·57	...
D† „ ( „ „ „ )	„ „ „ „	5	1	10	137	27·27	220
† „ ( „ „ „ ) M	„ „ „ „	5	1	10	135	28·09	...
D§ „ (Cockle Park) ..	T. E. W. Dobson, Esq.	8	1	0	325 $\overline{\pi}$	26·83	224
D Font Res. (Tynemouth W. W.).	Duncan Munro, Esq. ....	10	1	0	614 $\overline{\pi}$	27·09	215
D† Acklington (Broomhill Colliery)	S. Pedelty, Esq. ....	5	7	0	94	26·12	210
Rothbury (Brinkburn Priory) ...	Mrs. Hugh Fenwick ...	8	1	2	257 $\overline{\pi}$	30·78	...
D§ „ (Cragside) .....	Mr. W. Bertram .....	8	1	0	405 $\overline{\pi}$	31·10	182
§ Alnwick Castle .....	Meteorological Office ...	5	0	4	178	30·56	198
D Howick Hall .....	Earl Grey, G.C.M.G. ....	8	0	10	121 $\overline{\pi}$	28·31	190
Bamburgh .....	T. W. Little, Esq. ....	5	1	0	75 $\overline{\pi}$	22·99	...
Beal (Barmoor Castle) .....	Dr. T. Hodgkin .....	8	3	6	400	30·12	160
6.—TWEED.							
D Glanton (Glanton Pyke Gardens)	Mr. J. Henderson .....	8	4	2	521 $\overline{\pi}$	29·49	196
Ilderton (Lilburn Tower) .....	A. B. Collingwood, Esq.	10	6	0	300 $\overline{\pi}$	26·05	...
D „ ( „ „ Cottage) .....	N. D. Cowans, Esq. ...	5	1	0	340 $\overline{\pi}$	27·40	194
Wooler (St. Ninians) .....	Dr. R. Walker .....	8	0	10	176 $\overline{\pi}$	29·56	...
„ (Victoria House) .....	Miss Dodds .....	5	1	0	176	25·13	...
„ (Thirlings) .....	Col. J. M. W. Anderson	5	1	6	200	27·95	...
D „ (Doddington Vicarage) ..	Rev. J. G. Shotton .....	8	0	6	140 $\overline{\pi}$	27·70	179
D Pawston [Coldstream] .....	B. P. Selby, Esq. ....	8	1	0	328 $\overline{\pi}$	33·20	200
D Berwick-on-Tweed (Church St.)	Lt.-Col. A. W. Pennyman	5	1	0	95	25·98	183
CUMBERLAND.							
1.—EDEN & SOLWAY.							
Ullswater (Hallsteads) .....	Miss C. Marshall .....	5	2	0	497 $\overline{\pi}$	62·19	192
Hutton John .....	Rt. Hon. The Speaker, MP	5	0	11	700 $\overline{\pi}$	52·94	211
D Penrith (Brunswick Rd. School)	R. J. Pollard, Esq. ....	5	1	0	450	31·47	185
„ (Lowther Street) .....	H. Lester, Esq. ....	5	1	0	575 $\overline{\pi}$	37·50	194
„ (Fir Bank, Fell Lane) ..	T. Lester, Esq. ....	5	1	0	575 $\overline{\pi}$	36·12	193
§ „ (Newton Rigg) .....	W. T. Lawrence, Esq. ..	8	1	0	559	39·72	214
„ (Greystoke) .....	H. Walker, Esq. ....	5	1	3	650 $\overline{\pi}$	47·02	...
D „ ( „ „ Belle Vue) ..	Miss E. A. Rowe .....	5	4	0	680 $\overline{\pi}$	38·66	199
„ (Ennim) .....	Mrs. Hamlet Riley ...	8	0	6	660	42·34	198
„ (Inglewood) .....	H. F. Thompson, Esq. ..	5	1	0	550 $\overline{\pi}$	38·04	175
Uldale (Chapel House Reservoir)	T. Strong, Esq. ....	8	1	0	600 $\overline{\pi}$	52·15	205
D Penrith (Nunwick Hall) .....	Mrs. Heywood Thompson	5	1	0	298 $\overline{\pi}$	34·97	192
§ Aspatria (Agricultural College) ..	J. Smith Hill, Esq. ...	8	1	0	251	38·23	214
„ (Brayton Hall) .....	Sir Wilfrid Lawson Bart.	8	0	8	200	39·33	203
Wigton (Winscombe) .....	R. M. Lidbetter, Esq. ...	5	0	10	150	29·17	...
D „ (Brookfield) .....	J. Ransom Marsh, Esq.	5	1	6	124 $\overline{\pi}$	35·21	189
D Wreay Vicarage .....	Rev. Canon A. R. Hall	5	2	0	310 $\overline{\pi}$	33·04	203
D Geltsdale .....	H. C. Marks, Esq., C.E.	5	1	2	778 $\overline{\pi}$	39·06	239
D Carlisle (Spital Cemetery) .....	J. T. Charlton, Esq. ...	8	4	0	118	29·64	199

## DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>CUMBERLAND—(con.)</b>						
<b>1.—EDEN &amp; SOLWAY—(con.)</b>						
Carlisle (Rickerby) .....	Mr. T. Stoddart .....	8	1	2	52 T	28.88
„ (Stanwix) .....	Sir Benjamin Scott .....	8	1	6	100 T	30.58
D „ (Newby Grange) .....	T. H. Hodgson, Esq. ....	5	0	8	64 T	29.41
D „ (Brunstock) .....	M. T. Scott, Esq. ....	5	1	6	86 T	31.32
§ „ (Scauby Hall) .....	Royal Meteorological Soc	5	1	0	112	36.37
D Brampton (Denton House) .....	Miss B. Gardhouse .....	5	1	5	541 T	33.11
D Penton (Warwickland School) ..	W. Roden, Esq. ....	5	1	0	250 B	41.87
<b>2.—DERWENT.</b>						
Sprinkling Tarn .....	Dr. H. R. Mill .....	4	0	6	1985	116.10
Styehead Tarn .....	M „ „ „ .....	4	0	6	1472 T	126.70
The Stye B .....	M „ „ „ .....	4	1	0	1077 T	187.50?
„ C .....	M „ „ „ .....	4	1	0	1077 T	184.90?
„ D .....	M „ „ „ .....	4	1	0	1077 T	144.40
Borrowdale (Seathwaite) .....	M „ „ „ .....	4	0	6	422 T	134.89
„ ( „ ) weekly .....	M „ „ „ .....	5	1	0	422 T	133.71
D § „ ( „ ) .....	Royal Meteorological Soc	5	1	0	423 T	134.24
„ ( „ ) .....	Miss C. Marshall .....	5	1	0	423	122.67
Ullscarf .....	M G. H. Hill, Esq., C.E..	7	1	8	2100 T	115.50
Helvellyn (Birkside) .....	M „ „ „ .....	7	1	3	1900 T	99.80
Wythburn .....	„ „ „ „ .....	7	1	4	580 T	88.20
D Borrowdale (Grange) .....	Mr. J. Threlkeld .....	5	0	9	271 T	87.96
Armboth Fells (The Pewitts) .....	G. H. Hill, Esq., C.E..	7	1	6	1650 T	86.30
Helvellyn (Whiteside) .....	„ „ „ „ .....	7	1	6	2100 T	86.30
Thirlmere (Dale Head Hall) ..	„ „ „ „ .....	7	1	5	620 T	79.30
D Keswick (Deer Close) .....	Miss C. Marshall .....	7	1	9	300 T	65.77
D „ (Derwent Island) old g. „ „ „ .....	„ „ „ „ .....	5	0	7	280	64.34
D „ ( „ „ ) new g. „ „ „ .....	„ „ „ „ .....	5	0	6	290	59.34
D „ (The Bank) .....	Mr. R. W. Mayson .....	5	1	6	265 T	60.53
D § „ (Shu-le-crow) .....	A. Mitchell Dawson, Esq.	5	0	7	296 T	61.95
D „ (Crosthwaite School) .....	H. Swinburn, Esq. ....	5	1	0	254 T	59.44
D Ullock .....	J. H. Walker, Esq. ....	5	1	0	313 T	49.87
D Cockermouth (Whinfell Hall) ..	Mrs. F. M. Peile .....	5	0	1	255 T	58.41
D „ (Shatton Hall) .....	Miss Irwin .....	5	1	0	300 T	41.50
D Threlkeld (Blencathra Sanatorm.)	Dr. W. Goodchild .....	5	1	0	885 T	62.98
Camerton Vicarage .....	Rev. E. C. Bennett .....	5	1	0	200 T	36.13
D Bassenthwaite (Mirehouse) .....	Miss Spedding .....	5	1	1	300	54.21
„ (Higham) .....	Joseph Fisher, Esq. ....	5	0	9	500	48.48
D „ (Bassenfell) .....	Mrs. S. G. Rathbone .....	8	1	0	384	49.25
D Cockermouth (Broughton Grange)	G. S. Wilson, Esq. ....	5	1	3	209 T	41.17
D Bassenthwaite (Armathwaite Hall)	T. M. Hartley, Esq. ....	5	1	0	305 T	42.80
<b>3.—WEST COAST STREAMS.</b>						
Ravenglass (The Grove) .....	Miss C. Marshall .....	5	1	2	84 T	42.40
§ Eskdale Green (Gatehouse) .....	„ „ „ „ .....	5	0	10	215 T	58.93
D Beckfoot .....	the late Rev. T. W. Fair	5	1	0	180 T	72.98
D Seascale (Whinthwaite) .....	Dr. R. Hellon .....	5	1	0	52 T	41.18
D Gosforth (Bolton Hall) .....	Col. J. R. Bain .....	5	1	8	135 T	48.71

## DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
3.—WEST COAST STREAMS—(con.)							
D Gosforth (Ellerslie) .....	W. H. Kitchin, Esq....	5	1	0	185 $\frac{1}{2}$	48.53	205
Netherwasdale Vicarage .....	Rev. J. Hodgson.....	5	1	0	182 $\frac{1}{2}$	61.94	185
Braystones .....	H. H. Watson, Esq. ...	10	3	6	36 $\frac{1}{2}$	38.73	...
D Calder Abbey.....	late T. H. Rymer, Esq.	8	1	3	230 $\frac{1}{2}$	47.24	220
D Egremont (The Grange) .....	J. Sherwen, Esq. ....	5	1	0	351 $\frac{1}{2}$	55.64	231
D „ (Ringingstone).....	Harold Adair, Esq. ...	5	1	0	260 $\frac{1}{2}$	48.27	202
D St. Bees (The Priory) .....	Rev. R. H. Snape .....	5	1	1	10 $\frac{1}{2}$	45.38	229
D Cleator Moor Water Works .....	R. Robertson, Esq., C.E.	5	0	6	395 $\frac{1}{2}$	62.61	181
D Whitehaven (Scragill Reservoir) .....	E. E. Stiven, Esq., C.E.	8	1	0	188 $\frac{1}{2}$	43.69	221
D „ (Irish Street) .....	Dr. Eldon Pratt.....	5	1	1	21 $\frac{1}{2}$	46.20	204
Distington (Gillgarra) .....	Mr. A. Kydd .....	5	4	9	470 $\frac{1}{2}$	41.86	189
D Workington (Winscales) .....	J. A. Trench, Esq.....	5	1	6	440 $\frac{1}{2}$	38.47	197
4.—DUDDON & C.							
D Millom (Leyfield) .....	late C. Vaughan, Esq. CE	5	1	2	81 $\frac{1}{2}$	45.45	231
5.—SOUTH TYNE.							
D Alston (Lowbyer Manor House) .....	J. R. Walton, Esq. ...	5	1	0	920	42.94	208
WESTMORLAND.							
1.—EDEN.							
D Ravenstonedale (The Chantry)...	J. R. Highmoor, Esq. ...	5	1	11	900	48.78	219
D Kirkby Stephen (Redman House) .....	Mrs. T. Mason .....	5	1	0	574 $\frac{1}{2}$	44.13	195
Hayes Water (High Street) No. 3 .....	Baldwin Latham Esq., CE	5	1	0	2600 $\frac{1}{2}$	81.75	...
„ „ „ „ „ No. 1 .....	„ „ „ „ „	5	1	0	1750 $\frac{1}{2}$	104.70	...
„ „ „ „ „ No. 2 .....	„ „ „ „ „	5	1	0	2000 $\frac{1}{2}$	73.80	...
Shap Vicarage .....	Rev. W. H. Crompton.	5	1	0	863 $\frac{1}{2}$	49.70	184
Grizedale (Ruthwaite Lodge) ...	Miss C. Marshall .....	8	1	6	1750	98.89	...
Patterdale Hall .....	„ „ „ „ „	5	1	3	490 $\frac{1}{2}$	93.19	203
„ (Greenside Mine).....	W. H. Borlase, Esq. ...	7	1	6	1000 $\frac{1}{2}$	102.47	...
D Appleby (Castle Bank) .....	C. R. Rivington, Esq...	5	1	2	440 $\frac{1}{2}$	37.15	207
Ullswater (Sharrow Bay) .....	Mr. G. Robinson .....	5	0	7	600	53.66	...
D Great Strickland (Greencroft) ...	Mrs. Whiteside .....	5	2	0	648 $\frac{1}{2}$	40.51	196
D Morland [Penrith].....	Miss M. F. Markham...	5	1	0	456 $\frac{1}{2}$	39.30	208
Lowther Castle [Penrith] .....	Mr. F. Clarke .....	8	4	0	760 $\frac{1}{2}$	32.09	200
Temple Sowerby .....	Mrs. Burton .....	5	2	0	349	31.60	...
2.—LEVEN.							
D Bowness (Lindeth Howe) .....	F. G. Senior, Esq.....	5	1	0	250 $\frac{1}{2}$	61.25	216
D „ (Fallbarrow) .....	Miss E. F. Rawson ...	8	1	0	155 $\frac{1}{2}$	60.99	199
Windermere .....	Miss C. Marshall .....	5	1	0	290 $\frac{1}{2}$	60.92	220
D „ (Fellside) .....	T. D. Lingard, Esq. ...	5	0	6	310 $\frac{1}{2}$	60.39	175
D „ (Holebird).....	W. G. Groves, Esq. ...	5	1	0	483 $\frac{1}{2}$	68.14	229
D „ (Brockhole) .....	W. Gaddum, Esq.....	5	1	6	145	67.65	221
D Ambleside (Wansfell) .....	Miss C. Marshall .....	5	1	0	...	77.50	223
D „ (Skelwith Bridge) ...	A. J. Adams, Esq.....	5	1	9	190 $\frac{1}{2}$	92.07	205
Little Langdale (Fell Foot) ...	Miss C. Marshall .....	5	2	2	380	116.38	...
D Ambleside (White Craggs) .....	C. H. Hough, Esq.....	5	2	4	252	73.00	221
D „ (Gale House) .....	G. A. Johnston, Esq. M.D.	5	1	0	180 $\frac{1}{2}$	79.35	227
„ (Golf Club) .....	R. Milligan, Esq. ....	5	1	0	518	83.91	...

DIVISION X.—NORTHERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
WESTMORLAND—(con.)							
2.—LEVEN—(con.)							
Ambleside (Lesketh How).....	Mrs. Benson .....	5	2	6	175 T	81·98	244
Elterwater Hall .....	Miss C. Marshall .....	5	1	1	200	92·56	221
Rydal (The Stepping Stones) ...	Gordon Wordsworth Esq	5	1	0	190	80·86	235
"    "							

A map of this Division, showing the sub-divisions, will be found in Part I.

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
MONMOUTH.							
2.—EBBW.							
D Newport (Tredegar Park).....	Mr. J. Bone .....	5	0	10	...	45.39	173
D Rogerstone (Rhiwderin) .....	L. Forestier-Walker Esq...	5	1	3	259	45.71	242
D Abertillery (Cwmtilery) .....	W. Y. Hobkirk, Esq...	5	1	0	970 T	79.65	213
Tredegar (The Willows) .....	Mrs. Whitehead.....	8	1	0	1024 T	72.24	...
D Ebbw Vale (Iron Works) .....	F. Mills, Esq.....	8	1	0	902 T	72.33	206
D Nant-y-bwch (Shon Sheffrey's Well)	D. W. Davies, Esq. ...	5	1	5	1204	69.64	235
3.—USK & C.							
D Portskewett (Sudbrook) .....	W.K. Laurence, Esq. CE	8	0	10	22 T	38.52	190
Caerleon (Llanwern House) .....	D.A. Thomas, Esq., M.P.	8	1	0	190 T	35.01	152
D§ Newport (Friar Street Yard) ...	Newport Corporation...	5	6	0	32	44.21	215
D§ „ (Ynis-y-fro) .....	„ „ .....	5	1	0	130 T	46.52	217
D§ „ (Pant-y-reos Res.).....	„ „ .....	5	1	0	435	59.04	222
„ (W.W., Llanvaches)...	„ „ .....	5	0	10	456 T	41.59	221
„ (Nantpridd, Wentwood)	„ „ .....	5	1	0	500 T	44.75	209
Chepstow (Shirenewton Hall) ...	Mr. H. Young.....	8	1	0	520	45.24	256
D „ (Itton Court) .....	E. Curre, Esq. ....	5	1	0	390	41.26	208
D Llanfrechfa Grange .....	F. J. Mitchell Esq. ...	5	4	0	326 T	51.47	216
D Tredunnoch Rectory .....	Rev. C. T. Salusbury...	5	2	3	170 T	40.17	162
D§ Newport W.W. (Newchurch) ...	Newport Corporation ..	5	1	0	550 T	48.35	210
Abersychan (The Hawthorns)...	J. W. Mulligan, Esq, MD	5	1	0	755 T	66.41	224
§ „ (Glansychan).....	Meteorological Office...	3	2	0	698	66.89	204
Blaenavon .....	Cardiff Nat. Society ...	...	...	...	1200	67.78	174
Abergavenny (Larchfield) .....	Dr. J. Glendinning ...	5	1	0	240 T	50.28	205
D† „ (The Chain).....	W. Baker Gabb, Esq...	5	1	3	300	53.64	209
D§ „ (Linda Villa) .....	A. V. Whitehead, Esq...	5	1	6	180	56.39	236
D† Grwyne Fawr (Coed Dias) .....	W. Baker Gabb, Esq...	5	1	0	1000 ?	64.37	245
D† „ „ (Ffwydd Fwthog)	Baldwin Latham, Esq CE	5	0	8	1380 T	57.92	273
4.—WYE.							
D Chepstow (Piercefield Park).....	H. Clay, Esq.....	5	1	6	310	37.44	195
D Monmouth (The Hendre) .....	Mr. T. Coomber ..	8	1	0	176 T	36.02	202
D „ (Pentwyn) .....	Rev. Canon J. Harding	5	1	0	191 B	39.53	194
D Llantilio Court .....	Sir H. Mather-Jackson Bt	5	0	11	207	41.98	162
D Pandy (Trewyn).....	P. B. Barneby, Esq. ...	8	1	0	444 T	51.05	177
D† Llanthony Abbey .....	Baldwin Latham, Esq CE	5	1	0	792 T	64.95	236
GLAMORGAN.							
1.—LOUGHOR.							
D Gorseinon (Penllergaer).....	Sir J. T. D. Llewelyn, Bt	5	3	0	240 T	56.32	253
D Felindre (Lower Lliw Reservoir)	R. H. Wyrill, Esq., C.E.	8	1	3	426 T	55.74	237
D „ (Upper „ „) .....	„ „ „	8	1	0	610	63.29	250
2.—GOWER PENINSULA.							
Penmaen (Cefn Mor).....	R. A. Bostock, Esq. ...	5	1	5	300	46.45	236
D Oystermouth (Newton) .....	Rev. Secretan Jones ...	5	0	9	279 T	47.97	227
D Mumbles (Bristol Ch. Yacht Club)	A. Denyer, Esq.....	5	1	0	20	48.14	214
Swansea (Killay House) .....	M. B. Williams, Esq...	5	0	6	265 T	50.39	214

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
GLAMORGAN—(con.)							
3.—TAWE.							
D Swansea Harbour .....	A.O. Shenck, Esq., C.E.	12	14	9	46	56·33	234
§ „ .....	Meteorological Office...	8	1	0	24	48·36	232
D „ (The Knoll) .....	E. H. Perkins, Esq. ...	8	1	0	150 T	50·51	242
D „ ( „ „ ) .....	„ „ „ „ „ „ .....	5	1	0	150 T	50·93	242
D Ystalyfera (Wern School) .....	J. Williams, Esq. ....	5	1	3	240 T	71·38	237
4.—NEATH.							
D Briton Ferry (Brynsiriol) .....	H. A. Clarke, Esq. ...	5	1	0	33 T	48·94	191
D Neath .....	Edwin C. Pole, Esq. ...	5	1	0	204 T	60·90	230
„ (Ynis-y-gerw) .....	J. G. Moore-Gwyn, Esq.	5	2	0	90 ?	50·73	...
5.—OGMORE & C.							
Cowbridge (Fonmon Castle).....	O. H. Jones, Esq. ....	8	1	2	130	41·82	207
D Barry W. W. (Biglis) .....	T.E. Franklin, Esq. C.E.	5	1	0	20 T	43·55	201
„ „ (Merthyr Dyfan Res.) .....	„ „ „ „ „ „ .....	5	1	0	300 T	46·04	...
„ „ (Pencoedtre Res.)....	„ „ „ „ „ „ .....	5	1	0	200 T	42·29	...
„ „ (Dinas Powis Res.)....	„ „ „ „ „ „ .....	5	1	0	165 T	42·07	...
D Lower Penarth .....	E. I. Evans, Esq., C.E.	5	1	0	67 T	43·08	257
D Penarth .....	„ „ „ „ „ „ .....	5	5	0	160 T	43·44	225
Cardiff (Cogan Pill, Llandough). ..	C.H. Priestley, Esq., CE	5	1	0	121 T	48·11	200
D „ (Ely Pumping Station)...	„ „ „ „ „ „ .....	5	1	0	53 T	50·56	217
§ Porthcawl .....	Roy. Meteorological Soc.	8	1	0	44 T	38·98	227
Cowbridge (Ash Hall) .....	E. Tudor Owen, Esq. ...	8	3	0	315 T	52·94	201
Bridgend (Braeside) .....	E. Charles Pole, Esq. ...	5	1	0	87 T	51·25	239
D Llantrisant (Talgarn) .....	G. L. Clark, Esq. ....	5	4	3	250	71·11	228
D § Port Talbot (Twyn-yr-hydd, Margam)	G. Lipscomb, Esq. ....	5	1	0	180 T	45·66	224
D Glyncoerrwg Colliery .....	Mr. C. Stephens .....	5	4	6	823 B	87·68	204
6.—TAFF.							
Cardiff (Trade Street Depot) ...	C.H. Priestley, Esq. C.E.	5	1	0	45	47·46	224
D „ (Park Place) .....	Dr. C. T. Vachell .....	5	1	0	42 T	47·41	253
D Llandaff (Howell's School) .....	Miss A. G. Winny .....	5	1	4	86 T	52·56	222
„ (West Hill) .....	J. E. Gladstone, Esq. ...	5	1	0	110 T	50·21	210
Pontypridd (Maesderwen, Graig) ..	T. Bowen, Esq. ....	5	10	0	425 T	61·49	198
„ (Old Town Reservoir) .....	Cardiff Nat. Society ...	5	1	0	300	55·61	...
D Porth (Cemetery Road) .....	D. Hawkins, Esq. ....	5	1	0	500 T	74·13	194
D † Ystradyfodwg (Tyntyla Hospital) ..	J. D. Jenkins, Esq., M.D.	5	1	0	590 T	74·48	192
D Treharris Service Reservoir .....	T. F. Harvey, Esq., C.E.	5	1	0	865	59·53	221
Rhondda (Ferndale) .....	G. Childs, Esq. ....	5	1	0	830 T	82·83	...
D † Mountain Ash (Maesydderwen) ..	M. Morgan, Esq. ....	5	1	0	483 T	66·51	232
D † „ „ (Darranlas Res.) ..	W. G. Thomas, Esq. ...	5	0	11	540	71·05	234
„ „ (Clydach Res.) ...	„ „ „ „ „ „ .....	5	1	0	930 T	79·71	224
D † Treherbert (Bute Colliery) .....	Lord Merthyr, K.C.V.O.	5	1	0	670	91·52	237
D † „ (Tyn-y-waun) .....	O. Thomas, Esq. ....	5	1	0	801	96·97	240
„ „ „ „ „ „ .....	„ „ „ „ „ „ .....	5	1	0	801	97·71	...
D Cwmaman Colliery .....	W. J. Heppell, Esq. ...	5	2	2	930 T	69·60	241
† Rhondda (Pont Lluest Wen Res.) ..	Cardiff Nat. Society ...	5	1	0	1225	71·14	214
D † Aberdare (The Mardy) .....	Lord Merthyr, K.C.V.O.	5	1	0	431	74·36	218
D „ (Abernant House) ...	„ „ „ „ „ „ .....	5	1	0	431	71·52	200
D Merthyr Tydfil (Mardy Hospital) ..	T. F. Harvey, Esq., C.E.	5	1	0	640	66·54	232

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
GLAMORGAN—(con.)							
6.—TAFF—(con.)							
D Merthyr Tydfil (Penbryn Filters)	T. F. Harvey, Esq., C.E.	5	1	0	936	66·34	244
" " " " " " )M	" " " " " " " "	5	1	0	936	63·79	...
D Dowlais (Gwernllwyn) .....	R. C. Harrison, Esq....	5	1	6	1071 $\nabla$	67·31	222
7.—RHYMNEY.							
Cardiff (Roath Park) .....	Cardiff Nat. Society ...	5	1	0	49	52·11	234
D† " (Penylan) .....	E. Walford, Esq., M.D.	5	1	0	204	47·20	235
" (New Filters, Heath) ...	C.H.Priestley, Esq.C.E.	5	1	0	132	49·04	219
" (Llanishen Reservoir) ...	" " "	5	1	0	155	45·06	214
D " (Lisvane Reservoir) .....	" " "	5	1	0	150	40·54	214
Caerphilly (Ystrad Mynach) ...	Lt.-Col. M. Lindsay ...	5	0	5	315 $\nabla$	58·92	...
CARMARTHEN.							
1.—TEIFI.							
D Llanybyther (W. Wales Sanatorium)	Dr. Basil Adams.....	5	1	0	850	63·95	273
2.—TOWY & C.							
Llanddarog (Lletherllestry) .....	H. L. Puxley, Esq. ...	4	1	0	250 $\nabla$	56·97	239
D Carmarthen (The Friary).....	L.M.Bowen-Jones, Esq.	5	1	5	62 $\nabla$	52·11	257
† Llandilo (Golden Grove Gardens)	Mr. F. Surman .....	6	1	6	125 $\nabla$	62·67	224
D† " (Cae-glas) .....	Mrs. Thomas .....	5	3	0	170 $\nabla$	55·28	249
† " (Dynevor Castle) .....	the late Lord Dynevov..	8	1	0	202 $\nabla$	60·03	251
D Llanwrda (Dolaucothy).....	Gen. Sir J. Hills-Johnes	5	2	6	498 $\nabla$	64·05	247
3.—LOUGHOR & C.							
D Llanelly (Old Market Yard) ...	G. Watkeys, Esq., C.E.	5	10	0	35 $\nabla$	49·21	248
D " (Cwmlledi W.W.).....	" " "	5	3	0	240 $\nabla$	54·99	249
PEMBROKE.							
1.—TEIFI.							
D Castle Malgwyn [Llechryd] ...	Mr. H. Baldwin.....	5	1	0	...	51·50	217
2.—NEVERN & C.							
D Newport (Llwyngwair).....	G. B. Bowen, Esq.....	8	1	1	40 $\nabla$	50·60	189
3.—WEST COAST STREAMS.							
D St. Davids .....	D. P. Williams, Esq....	5	1	0	216	38·69	210
4.—CLEDDAU & C.							
Pembroke (Stackpole Court).....	Mr. W. B. Fisher ...	6	1	6	60 $\nabla$	41·89	226
Tenby (Bryn Hyfryd) .....	J. T. C. Burgess, Esq.	5	1	6	40	44·22	...
§ St. Ann's Head .....	Meteorological Office ...	8	0	8	150	38·91	231
D Pembroke Dock .....	D. J. Morgan, Esq. ...	8	1	0	101 $\nabla$	40·48	210
D " " (County School)	G. H. West, Esq. ....	5	1	0	85	45·52	248
D Saundersfoot (Hean Castle) .....	Herbert C. Lewis, Esq.	5	1	11	206 $\nabla$	35·84	209
Haverfordwest (Picton Castle)...	Sir C. E. G. Philipps, Bt.	5	0	10	138	48·58	227
D " (Portfield) .....	J. W. Phillips, Esq. ...	5	1	0	220 $\nabla$	42·89	236
D§ " .....	" " " " " " " "	5	1	0	90 $\nabla$	45·61	226
D Whitland (Trewern) .....	G. Protheroe-Beynon Esq	5	3	0	30	52·97	226
D Treffgarne Hall .....	Col. R. O. Lloyd, R.E.	5	1	1	286 $\nabla$	46·81	222
D Fishguard (Langton, Dwrbach)...	J. C. Yorke, Esq. ....	5	1	0	320	49·19	235



# DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
<b>CARDIGAN.</b>						
<b>2.—YSTWYTH &amp; C.</b>						
D Lampeter (Llanlear) .....	Miss Lewes .....	5	1 1	226	50·37	239
D Strata Florida (Hafod) .....	T.J. Waddingham, Esq	5	1 0	580 T	70·58	238
§ Aberystwyth (N. Parade) .....	A. Thomas, Esq. ....	8	2 6	20	42·26	221
D „ (Gogerddan) .....	Mr. W. Penwill .....	5	1 1	83 B	54·51	233
<b>3.—TEIFI.</b>						
D Lampeter (Falcondale) .....	Mr. W. Taylor .....	5	1 10	498	58·67	233
<b>4.—TOWY.</b>						
D Nantneuadd [Abergwesyn] .....	Mr. W. Roberts .....	5	1 0	1290	80·65	211
Tregaron (Maes-y-bettws) ... M	Dr. H. R. Mill .....	5	1 0	910	78·40	...
Strata Florida (Towy-fechan) M	„ „ „ .....	5	1 0	1330	86·33	...
<b>5.—WYE.</b>						
† Birmingham W.W. (Bwlchyrhendre) M	E. Antony Lees, Esq... ..	5	1 0	1585	70·33?	...
„ „ (Claerddu) .....	„ „ „ „ .....	5	1 0	1500	87·22	...
„ „ (Gwngu) .....	„ „ „ „ .....	5	1 0	1650	88·17	...
D „ „ (Abergwngu) ...	„ „ „ „ .....	5	1 0	1200	80·70	218
Plynlimon .....	Dr. H. R. Mill .....	5	1 0	1740	102·50	...
<b>BRECON.</b>						
<b>3.—NEATH.</b>						
† Pont Neath Vaughan [Glyn Neath]	W. N. Hogben, Esq. ...	5	1 5	297 A	68·72	229
<b>4.—TAFF.</b>						
D Nanthir Reservoir [Aberdare] ..	O. Williams, Esq., C.E.	5	1 0	860 A	70·24	254
„ „ [ „ „ ] M	„ „ „ „ „ .....	5	1 0	860 A	70·58	...
D † Cardiff W.W. (Llwynon Res.) ...	C.H. Priestley, Esq. C.E.	5	1 0	860	66·03	251
D „ „ (Pont-ar-daf) ...	„ „ „ „ .....	5	1 0	850	74·95	247
„ „ (Garw-nant) .....	„ „ „ „ .....	5	1 0	...	76·30	...
„ „ (Nant Gwineu) ...	„ „ „ „ .....	5	1 0	...	63·01	...
„ „ (Nant-y-gou-garn) ..	„ „ „ „ .....	5	1 0	...	82·47	...
D † Taff Fechan (Pentwyn Res.) ..	T. F. Harvey, Esq., C.E.	5	1 0	1120	76·88	248
„ „ ( „ „ ) ... M	„ „ „ „ „ .....	5	1 0	1120	76·11	...
Cardiff W.W. (Nant Goch) .....	C.H. Priestley, Esq. C.E.	5	1 0	...	66·42	...
„ „ (Nant Ddu) .....	„ „ „ „ .....	5	1 0	...	75·73	...
† „ „ (Pentwyn Uchaf, No 5)	„ „ „ „ .....	5	1 0	1143 A	70·26	...
† „ „ (Storey Arms, No. 4)	„ „ „ „ .....	5	1 0	1430	75·32	...
„ „ (Tyle Brith, No. 1) ...	„ „ „ „ .....	5	1 0	2350 T	86·23	...
† „ „ (Cantref Res., No. 2)	„ „ „ „ .....	5	1 0	1120	82·98	245
D † „ „ (Beacons Res., No. 6)	„ „ „ „ .....	5	1 0	1340 A	91·75	244
„ „ (Nant Penig, No. 3) ..	„ „ „ „ .....	5	1 0	2000	97·60	...
D † Taff Fechan (Neuadd Res.) No. 1	T. F. Harvey, Esq., C.E.	5	1 0	1462	83·33	252
† „ „ ( „ „ ) No. 1 M	„ „ „ „ .....	5	1 0	1462	81·56	...
D † „ „ ( „ „ ) No. 4	„ „ „ „ .....	5	1 0	1487	93·65	252
D † „ „ ( „ „ ) No. 4A	„ „ „ „ .....	5	1 0	1487	92·64	252
† „ „ ( „ „ ) No. 2 M	„ „ „ „ .....	5	1 0	1993	84·72	...
† „ „ ( „ „ ) No. 5 M	„ „ „ „ .....	5	1 0	1515	64·56	...
† „ „ ( „ „ ) No. 10	„ „ „ „ .....	5	1 0	1700	87·70	...
D † „ „ ( „ „ ) No. 11	„ „ „ „ .....	5	1 0	1524	78·14	252

## DIVISION XI.—MONMOUTH, WALES AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
BRECON—(con.)							
4.—TAFF—(con.)							
†Taff Fechan (Neuadd Res.) No. 7M	T. F. Harvey, Esq., C.E.	5	1	0	2017	91·51	...
† " " ( " " ) No. 8M	" " " "	5	1	0	1723	97·29	...
† " " ( " " ) No. 3M	" " " "	5	1	0	1843	72·49	...
" " ( " " ) No. 3AM	" " " "	5	1	0	1843	75·76	...
† " " ( " " ) No. 9M	" " " "	5	1	0	1997	69·51	...
† " " ( " " ) No. 6M	" " " "	5	1	0	2099	104·06	...
6.—EBBW.							
d†Ebbw Vale W.W. (Filters) No. 1	T. J. Thomas, Esq., C.E.	5	1	0	1413	76·21	233
† " " " " West g. No. 3	" " " "	5	1	0	1468	76·03	234
† " " " " N. W. g. No. 2	" " " "	5	1	0	1471	75·58	234
† " " " " (Carno, S.)...	" " " "	5	1	0	1236	69·63	230
† " " " " ( " E.)...	" " " "	5	1	0	1391	70·17	231
† " " " " ( " W.)...	" " " "	5	1	0	1412	74·72	232
† " " " " ( " N.)...	" " " "	5	1	0	1533	59·04	229
7.—USK.							
Crickhowell (Glanusk Park).....	Lord Glanusk.....	5	1	0	290	58·23	188
d† " (Gwernvale) .....	E. Pirie Gordon, Esq....	5	1	0	393	52·37	208
" (Penmyarth) .....	S. H. Cowper Coles, Esq	5	1	0	330	54·30	220
d Swansea W.W. (Bwlch) .....	R. H. Wyrill, Esq., C.E.	8	1	0	1246	170·44?	246
" " (Gihirych) .....	" " " "	...	1	0	...	77·44	...
d " " (Cray Res.) No. 1	" " " "	5	1	0	1030	78·65	241
" " ( " " ) No. 2	" " " "	5	1	0	1015	90·78	...
†Talybont (Cui) .....	H. Jones Williams, Esq.	5	1	0	490	59·35	...
d†Brecon (New Inn) .....	Mr. W. Williams .....	5	1	0	810	70·80	178
†Cray Station .....	Mr. J. Jones .....	5	1	0	930	77·00	...
†Crickhowell (Cwmdu) .....	Mr. J. P. Edwards.....	5	1	0	430	49·20	...
† " (Ffordlas Farm) M	Mr. S. A. Gore .....	5	1	0	1170	51·50	...
†Llanfrynach (Tymawr).....	Miss D. de Winton ...	5	1	0	450	54·07	215
†Crickhowell (Tal-y-maes).....	Dr. H. R. Mill .....	5	1	0	1250	62·50	...
d†Trecastle (Blaenau-hydfer) ...	M " " " .....	5	1	0	1070	79·05	195
d Brecon (The Laurels) .....	C. J. E. Large, Esq. ...	5	1	0	492	53·10	261
†Black Mountains (Waun Fach)..	Rev. R. P. Dansey .....	5	1	0	2650	73·41	...
† " " (Pen-y-Manllwyn)	Baldwin Latham, Esq. CE	5	1	0	2512	56·35	...
† " " (Taren-yr-Esgob) ..	" " " " " "	5	1	0	2039	54·23	...
d†Trecastle (Lliwel Vicarage) .....	Rev. P. W. Green .....	5	1	0	740	63·47	190
d†Llanfihangel Nant-Bran (Cwmeynog)	Dr. H. R. Mill .....	5	1	0	790	58·61	180
†Merthyr-Cynog .....	M Mr. W. Davies .....	5	1	0	1050	46·50	...
†Upper Chapel (Tymawr) .....	Mrs. Probert .....	5	1	0	945	57·50	...
8.—WYE.							
†Cathedine Rectory .....	Rev. J. S. Jones.....	5	1	0	660	43·47	...
d Talgarth (Dan-y-garth) .....	F. J. Morgan, Esq.....	5	4	0	404	42·66	185
d§Gwernyfed Park [Glasbury] ...	Mr. J. Slade .....	5	1	0	375	40·59	224
d Hay (Waunderwen) .....	Col R. D. Garnons-Williams	5	1	4	400	45·38	203
Llanwrtyd Wells (Llandulas) M	Mr. W. Price .....	5	1	0	790	65·90	...
d†Llangammarch Wells .....	Dr. W. Black Jones ...	8	1	0	551	58·80	240
Builth Wells W.W. (Llangynog)	H. R. Fry, Esq.....	5	1	0	1100	59·99	...

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
<b>BRECON—(con.)</b>						
<b>8.—WYE—(con.)</b>						
D Builth Wells (Tyn-y-berllan) ...	Dr. W. W. Baldock Fry	5	1 0	430 †	50·60	220
† Llangammarch Wells (Beulah) M	Mr. S. Allen	5	1 0	650	61·78	...
Abergwesyn (Trallwn) .....	Dr. H. R. Mill	5	1 0	1000 ?	89·85	...
Pen-graig [Newbridge] .....	M	5	1 0	960	65·10	...
Llysdinam [ „ „ ] .....	C Venables Llewelyn Esq	5	1 3	646 †	54·16	260
† Birmingham W. W. (Nant-y-car) M	E. Antony Lees, Esq...	5	1 0	1545	90·83	...
† „ „ (Esgair Garthen) M	„ „ „	5	1 0	1600	80·74	...
D „ „ (Elan Village) ...	„ „ „	5	1 0	...	68·73	219
<b>RADNOR.</b>						
<b>1.—WYE.</b>						
Welfield [Builth] .....	E. A. Thomas, Esq. ...	5	2 10	740	50·87	...
New Radnor (Glaswrm) .....	M Mr. G. Bufton	5	1 0	980	52·00	...
Builth Road (St. John's Vicarage)	Rev. J. L. Bryans	5	0 11	550 †	49·34	232
D § Llandrindod Wells (Kimberley) ..	W. B. de Winton Esq. CIE	5	1 0	699	45·80	242
D New Radnor (Ednol) ...	Mr. J. Jones	5	1 0	950	57·93	228
Radnor Forest (Great Rhos) .....	H. Langston, Esq. ....	5	1 6	2150 †	56·59?	...
D † Birmingham W. W. (Tyrmynydd)	E. Antony Lees, Esq...	5	1 0	832 †	74·06	252
D † „ „ (Nantgwillt) ..	„ „ „	5	1 0	845	80·73	253
D † „ „ (Dwfnant) ..	„ „ „	5	1 0	...	80·90	...
† „ „ (Esgair Gader) M	„ „ „	5	1 0	1500	75·67	...
D † „ „ (Claerwen) ...	„ „ „	5	1 0	1250	77·30	227
D † „ „ (Tynant) ...	„ „ „	5	1 0	1250	82·54	245
D † Rhayader (Greenfields) .....	Major N. H. Matthews	5	1 0	740	64·28	242
† „ „ Vicarage .....	Rev. L. H. Evans	5	1 0	720 †	62·37	213
† Birmingham WW (Cerrigllwydion) M	E. Antony Lees, Esq...	5	1 0	1700	87·24	...
† „ „ (Pen-y gareg) ..	„ „ „	5	1 0	1500	66·94	...
† „ „ (Calettwr) .. M	„ „ „	5	1 0	1500	81·86	...
† „ „ (Figin) .....	M „ „ „	5	1 0	1700	76·03?	...
„ „ (Aberhenllan) M	„ „ „	5	1 0	1250	68·85	...
Llanbister (Llananno) .....	Dr. H. R. Mill	5	1 0	900	55·70	...
<b>MONTGOMERY.</b>						
<b>1.—DOVEY.</b>						
Machynlleth (Plas) .....	W. E. Whitehouse, Esq.	...	...	...	65·94	232
<b>3.—WYE.</b>						
D Llangurig (Dernol) .....	Dr. H. R. Mill	5	1 0	850	73·34?	226
„ „ (Esgair Clochfan) ...	„ „ „	5	1 2	1330	54·20	...
„ „ -on-the-Hill .....	„ „ „	5	1 2	1330	55·90	...
<b>4.—SEVERN—Right Bank Tributaries.</b>						
Llangurig (Ystrad-olwyn-fawr) M	Dr. H. R. Mill	8	1 0	950	53·70	...
„ „ „ „ „ M	„ „ „	5	1 0	950	49·10	...
Llandinam (Plas Dinam) .....	Mr. D. Bowen	5	4 0	504 †	48·04	225
D Newtown (Dolfor) .....	W. B. Pugh, Esq. ....	5	2 6	1027	33·85?	165
„ „ School .....	Lance Webb, Esq. ....	6	0 6	432 †	39·93	164

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with "01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
MONTGOMERY—(con.)							
5.—SEVERN—Left Bank Tributaries.							
Newtown (Gregynog).....	Lord Joicey.....	5	1	0	660 T	43·74	232
Welshpool (Llwynderw) .. ..	W. E. Whitehouse, Esq.	8	1	0	243	32·84	225
" " (County School) .....	" " "	5	1	0	263 T	32·89	216
" " (Fron Llwyd) .....	" " "	5	1	0	540	39·17	230
Garthbibio (Bwlch Tomlyd) ...	Dr. H. R. Mill .....	5	1	0	1370 T	85·10	...
Meifod (Coed-y-Maen) .....	W. E. Whitehouse, Esq.	5	1	7	280	41·19	206
" Lake Vyrnwy .....	E. D. Marten, Esq. C.E.	5	0	7	770 T	60·80	219
" " (Bryn Gwyn) .....	J. Parry, Esq., C.E. ...	8	1	0	1311 T	61·42	...
" " (Bank Cynon Isaf) .....	" " "	8	1	0	750 T	61·34	212
" " (Ty Uchaf) .....	" " "	8	1	0	860 T	61·64	...
" " (Heol-y-ffridd) No.1 .....	" " "	8	1	0	912 T	84·47	...
" " ( " " " ) No.2 .....	" " "	8	1	0	912 T	77·09	...
" " (Tyn-y-ffridd) ...	" " "	8	1	0	1010 T	61·91	...
" " (Lluestwen).....	" " "	8	1	0	1667 T	68·96	...
" " (Llwynrhiw) .....	" " "	8	1	0	1428 T	85·89	...
" " (Craig-y-Gribbin) ..	" " "	8	1	0	1100 T	65·42	...
" " (Eunant Bridge)...	" " "	8	1	0	830 T	79·50	...
" " (Carreg Goch).....	" " "	8	1	0	1750 T	82·51	...
" " (Fawnog).....	" " "	8	1	0	1315 T	64·61	...
FLINT.							
1.—DEE.							
Overton (Fairleigh) .....	B. J. E. Wright, Esq. ...	5	1	8	220 ?	27·56	194
Cilcain .....	W. Simmons, Esq. ....	5	1	0	790 T	38·93	213
Hawarden .....	Great Central Rly. Co..	9	3	6	35	30·82	206
Northop (Soughton Hall) .....	Sir John E. Bankes ...	5	1	0	418	38·12	199
" " (Highfield) .....	Rev. Canon A. Atkinson	5	1	0	400	32·99	194
" Hawarden Bridge .....	J. E. Griffiths, Esq. ...	9	1	0	15	22·40?	219
" Bagillt (Dee Bank Lead Works)	Messrs. Walkers, Parker & Co.	5	1	0	20	35·89	...
2.—CLWYD.							
" Bodfari (Nantlys) .....	D. F. Pennant, Esq. ...	5	1	6	173 T	33·52	205
" " (Henblas) .....	Mrs. Scott Bankes .....	5	1	0	283 T	35·35	222
" " (Cae Gwyn) .....	Mrs. Morgan .....	5	0	5	550 T	34·97	257
" St. Asaph (St. Beuno's College)	St. Beuno's College ...	5	0	8	490 T	33·91	...
" " " " " " " " " " " "	" " " " " " " " " " " "	8	1	0	480 T	33·00	223
" Rhyl (Sewage Works) .....	A. Eyton Lloyd, Esq. ...	8	1	0	31 T	28·79	211
" Prestatyn (Edlestone House) ...	T. J. Scott, Esq. ....	5	0	6	30	29·42	172
DENBIGH.							
1.—DEE							
Glynceiriog.....	F. E. Rooper, Esq. ....	5	1	6	750 T	53·40	229
" Cerrig-y-Druoidion (Garthmeilio)	Col. S. Parr Lynes.....	5	1	0	950	47·51?	200
" " " " (Bwlch-y-beudy)	Col. C. S. Mainwaring..	8	1	0	1050 T	53·62	214
" Wrexham (Ty Mawr Reservoir).	F. Storr, Esq., C.E. ...	5	0	9	805	43·72	198
" " (Pack Saddle Res.) ...	" " "	5	0	9	370 T	36·41	212
" " (Cae Llwyd Res.) ...	" " "	8	0	9	918 T	46·52	199
" " " " " " " " " " " "	" " "	5	0	9	918 T	44·55	199



## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
MERIONETH—(con.)							
5. — DOVEY.							
nd§Aberdovey .....	Aberdovey U.D.C.....	5	1	0	15	41·76	226
CARNARVON.							
2.—CONWAY & C.							
Snowdon (Pen-y-Gwryd)..No. 13	A. Lockwood, Esq.....	5	2	0	910 T	142·37	...
nd†Bettws-y-Coed (Tyn-y-bryn) ...	Dr. Hugh W. Fox.....	8	2	6	153 T	58·72	232
nd†Lake Cowlyd (Llethyr Gwyn) C	T.B.Farrington Esq.CE	5	1	0	1700	94·40	244
nd† „ „ (Gors-y-Llithrig)D	„ „ „	5	1	0	1900	97·19	244
nd† „ „ (Ffrith Fawr) ... B	„ „ „	5	1	0	1700	94·74	244
nd† „ „ ( „ Carreg Wen)A	„ „ „	5	1	0	1168	101·12	244
nd Dolgarog (Bodgethin) .....	J. R. Gethin Jones, Esq.	5	1	0	20 T	52·51	200
Llanbedr-y-Cennin (Plasdulyn).	W. T. Ward, Esq. ...	8	1	0	509 T	67·31	...
„ „ „ (Llyndulyn)	„ „ „	8	1	6	1632 T	105·81	...
nd Tal-y-Cafn (Caer Rhun) .....	Col. Thomas Gee .....	8	3	0	75 T	52·50	193
Deganwy (Y Berlfa).....(R)	WilloughbyGardner Esq	8	1	0	30 T	37·29	...
nd†Llandudno .....	W. Little, Esq. ....	5	1	0	72 T	36·65	223
3.—MENAI STRAITS.							
Nantlle (Dorothea Quarries).....	W. J. Griffith, Esq. ...	8	2	0	450	67·63	...
†Llandwrog (Glynllivon Park) ...	Hon. F. G. Wynn.....	5	1	0	100 T	47·57	...
† „ „ ( „ Nursery)	„ „ „	5	1	0	180 T	53·33	216
† „ „ ( „ Garden).	„ „ „	5	1	0	100 T	48·97	212
† „ „ ( „ Fort) ...	„ „ „	5	1	0	180 T	45·55	220
Carnarvon (Belan Fort).....	„ „ „	5	1	0	12 T	39·15	...
nd Bethesda (St. Ann's Vicarage) ..	Rev. W. Morgan .....	5	1	6	500	69·78	232
§ „ „ (Penrhyn Quarries) ...	W. J. Griffith, Esq. ...	8	1	0	528 T	75·05	202
nd Bangor (Penrhyn Castle Gdns.)..	Mr. W. Speed .....	5	1	0	150 T	44·85	226
nd Llanfairfechan .....	Mr. W. Timmins .....	5	1	0	144	42·51	189
Penmaenmawr (Mountain Res.)..	R. J. Hughes, Esq. ...	5	1	6	1200 T	56·18	...
nd „ „ (Council Offices).	„ „ „	5	1	6	100 T	45·44	204
4.— ERCH & C.							
nd Abersoch.....	W H Winterbotham Esq	8	1	0	100 T	51·10	211
nd†Criccieth (Cefn-Maen) .....	Mr. F. Murchie .....	8	1	0	220 T	52·33	180
Pwllheli (Bodfean Hall) .....	Hon. F. G. Wynn .....	5	1	0	100 T	50·64	...
5. —GLASLYN.							
†Portmadoc (Wern Gardens) .....	R. M. Greaves, Esq. ...	5	1	0	90 ?	54·78	...
Snowdon (Wenallt) .....	No. 6 A. Lockwood, Esq.....	5	1	2	1050 T	155·73	...
nd „ „ (Cwm Dyli).....No. 11	„ „ „	5	4	0	310 T	101·03	228
nd „ „ (Old Road) .....	No. 14 „ „ „	5	0	10	325 T	124·78	222
„ „ (Lliwedd) .....	No. 2 „ „ „	5	1	3	1485 T	158·79	...
„ „ (Delta) .....	No. 7 „ „ „	5	1	0	1435 T	169·15	...
„ „ (Glaslyn) .....	No. 3 „ „ „	5	0	8	2050 T	145·94	...
„ „ (Lluchfa) .....	No. 4 „ „ „	5	0	10	2500 T	178·53	...
„ „ (Teyrn) .....	No. 1 „ „ „	5	1	0	1080 T	154·98	...
„ „ (Llyn Llydaw Copper Mill) No. 9	„ „ „	5	1	0	1480 B	187·06	...

## DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
<b>CARNARVON—(con.)</b>						
<b>5.—GLASLYN—(con.)</b>						
Snowdon (Crib Goch) ..... No. 8	A. Lockwood, Esq. ....	5	1 3	2340 T	186.29	...
„ (Llyn Llydaw, N.) No. 5	„ „ „ .....	5	1 0	1470 T	139.49	...
„ (Pen-y-Pass) ... No. 12	„ „ „ .....	5	0 10	1170 T	131.62	...
<b>ANGLESEY.</b>						
Llanddwyn Island .....	Hon. F. G. Wynn .....	5	1 0	40 T	35.92	...
D† Llangadwaladr (Bodorgan) .....	Mr. W. Pilgrim .....	5	1 0	100 ?	43.59	208
D Llangefni .....	Lord Boston .....	8	0 9	132	45.80	205
D Llangwlog (Trescawen) .....	J. H. Pritchard-Rayner, Esq. ....	5	1 0	239 T	47.37	211
† Holyhead (Sailors' Home) .....	Meteorological Office ...	8	1 0	48	40.18	...
D Bodedern (Pressaddfed) .....	Major W. A. Fox-Pitt. ....	5	0 11	150 T	43.31	193
Llantrisant Rectory .....	Rev. Daniel Morgan ...	5	1 6	300	41.55	222
D§ Llanerchymedd Llwydiarth Esgob	T. Prichard, Esq. ....	5	1 0	175 L	41.49	240
D Llaneugrad (Parciau) .....	W. E. Sotheby, Esq. ....	8	1 0	415 B	48.21	220
D Lligwy .....	Lord Boston .....	5	1 0	170	39.30	205
D Amlwch (Mona & Parys Mines) ..	T. F. Evans, Esq. ....	5	1 2	170	42.46	223
<b>ISLE OF MAN.</b>						
Castletown (Langness) .....	Bd. of Northern Lights	8	1 0	75	31.38	...
„ (Derbyhaven) .....	F. Cottle, Esq. ....	5	0 10	10	44.15	...
Santon Vicarage .....	„ „ .....	5	0 10	250	38.79	...
§ Douglas (Borough Cemetery) ...	„ „ .....	8	1 0	284 T	44.45	224
„ (Clypse, Onchan) .....	„ „ .....	8	1 0	450	49.72	...
„ (Baldwin) .....	„ „ .....	8	1 0	120	52.71	...
Ramsey .....	„ „ .....	8	1 3	18	47.49	204
Point of Ayre .....	Bd. of Northern Lights	3	4 6	116	33.14	...
<b>ISLES OF SCILLY.</b>						
§ St. Mary's .....	Meteorological Office ...	8	1 6	20 L	36.62	227
Tresco Abbey .....	T. A. Dorrien-Smith, Esq. ....	11	3 0	40	35.45	222
<b>CHANNEL ISLANDS.</b>						
D JERSEY (St. Helier, St. Louis Obsy.)	Rev. Louis Fougerat, S.J. ....	8	5 0	180	41.86	216
§ „ St. Aubins .....	Meteorological Office ...	8	1 9	36	44.42	230
„ „ (Belle Vue) ...	Miss M. M. Sumner ...	5	0 6	220	47.27	204
D GUERNSEY (S. Martins, Les Blanchés)	B. T. Rowswell, Esq. ....	5	1 0	310 T	45.54	243
D „ ( „ Hautnez) ..	A. H. P. Davey, Esq. C.E. ....	5	0 8	343 T	42.08	225
„ (St. Peter-in-the-Wood, Les Hêches)	F. Lilley, Esq. ....	...	3 0	350	41.24	224
D „ (Villiaze) .....	A. H. P. Davey, Esq. C.E. ....	5	0 6	337 T	43.06	222
D „ (St. Peter Port, St. Martin's Rd.)	A. Collenette, Esq. ....	5	1 0	295 L	46.24	231
„ { „ „ Rohais) .....	„ „ „ .....	...	...	145	45.72	221
D§ „ { „ „ Villa Carey) ...	Dr. F. E. Carey ...	8	1 6	180 B	44.33	214
D „ { „ „ Market Street) ..	B. T. Rowswell, Esq. ....	5	5 0	102 T	43.77	209
D „ (Fort Doyle) .....	E. O. Catford, Esq. ....	5	1 0	25	40.85	200
D SARK (Vallée du Creux) .....	B. T. Rowswell, Esq. ....	5	1 0	320	39.04	203

A map of this Division, showing the sub-divisions, will be found in Part I.

## SCOTLAND.

## DIVISION XII.—SOUTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days : th or more recorded
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>WIGTOWN.</b>						
Mull of Galloway .....	Bd. of Northern Lights	...	...	...	327	32·33
Whithorn .....	Dr. J. F. Smith	5	0	9	207	47·40
„ (Cutroach) .....	J. G. Martin, Esq.	5	0	6	120	40·59
§Port William (Blairbuie) .....	Hugh McMaster, Esq.	5	2	6	150	40·75
Garliestown (Galloway House)...	Mr. J. Day	5	4	6	20	43·44
§Logan House .....	Scot. Meteorological Soc.	7	0	8	80	39·43
Stoneykirk (Ardwell House).....	Sir M. McT. Stewart, Bt.	8	3	9	107	41·10
Lochnaw Castle ..	Scot. Meteorological Soc.	...	...	...	300	46·81
Loch Ryan Lighthouse .....	Bd. of Northern Lights	...	...	...	46	47·12
Corsewall .....	„ „ „	...	3	4	112	41·18
<b>KIRKCUDBRIGHT.</b>						
§Kirkcudbright (Balmae) .....	The Countess of Selkirk	5	0	8	150	39·33
„ (St. Mary's Isle) .....	Mr. J. Jeffrey	5	1	0	0	48·69
Auchencairn (Torr House) .....	W. Ovens, Esq.	5	0	8	50	51·75
§Gatehouse (Cally) .....	Scot. Meteorological Soc.	5	1	0	120	49·60
Dalbeattie (Kirkennan).....	Wellwood Maxwell, Esq.	5	0	9	30	51·52
„ (Little Richorn) .....	Mr. W. Kerr	5	0	9	54	50·90
D Creetown (Cassencary) .....	JA Henryson-Caird, Esq.	5	0	8	50	46·91
§Kirkbean (Arbigland) .....	Scot. Meteorological Soc.	...	...	...	50	40·95
§Palnure (Bargaly) .....	„ „ „	...	...	...	...	54·33
D Kirkpatrick Durham (Glenlair)..	Major W. Maxwell	5	0	6	250	56·84
D§Cargen [Dumfries] .....	R. F. Dudgeon, Esq.	5	0	4	80	56·21
D§Lochrutton (Dumfries W.W.)...	Nigel B. Wilson, Esq.	5	1	0	273	51·08
D Lincluden House [Dumfries] ..	Miss Young	5	1	0	60	45·09
D§Jardington [Dumfries].....	J. Rutherford, Esq.	5	1	0	70	43·94
Glenhead of Trool.....	J. McMillan, Esq.	5	0	11	320	74·40
D Dalry (Glendaroch) .....	Miss M. Barbour	5	0	11	192	61·92
D „ (Clenerie) .....	Mr. G. Geddes	8	0	10	850	62·21
D „ (The Old Garroch) .....	T. R. Bruce, Esq.	8	0	9	448	70·49



## DIVISION XII.—SOUTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
KIRKCUDBRIGHT—(con.)						
Dalry (The Old Garroch) .....	T. R. Bruce, Esq. ....	5	1 0	448 $\nabla$	68·49	...
D Carsphairn (Shiel) .....	Mr. S. Wilson .....	5	1 0	850 $\nabla$	80·26	232
D „ (Knockgray) .....	Miss Clark Kennedy ...	8	0 11	641 $\nabla$	63·77	206
DUMFRIES.						
D§ Ruthwell (Comlongan) .....	Mr. W. H. Whellens...	5	1 0	68 $\nabla$	41·07	204
§ Dumfries (Crichton Roy. Inst.)..	Scot. Meteorological Soc.	...	...	155	43·82	190
D§ Hoddum Castle .....	„ „ „	5	1 4	150	41·34	196
D Dalton (Kirkwood) .....	Arthur J. Steel, Esq....	5	0 8	245 $\nabla$	46·15	199
D Lockerbie (Castle Milk) .....	Mr. J. T. Jeffrey .....	5	1 6	199 $\nabla$	43·44	170
D Canonbie (Watch Hill House) ...	Lt.-Col. H. J. Johnston	5	0 9	230 $\nabla$	43·90	189
„ (Byreburnfoot) .....	Mr. David Crabbe .....	3	0 9	160	43·25	...
D§ „ (Irvine House) .....	J. H. Milne Home, Esq.	5	0 6	200	47·95	203
D Lochmaben (Esthwaite) .....	W. J. Halliday, Esq....	5	1 0	166 $\nabla$	43·91	199
Langholm (Westwater) .....	J. M. Elliot, Esq. ....	3	1 0	450 $\nabla$	57·83	...
D „ (Drove Road) .....	Mrs. Jackson .....	5	0 9	270	55·96	189
D§ Moniaive (Glencrosh) .....	Miss McMillan .....	5	1 2	350	57·11	211
D „ (Maxwelton House) ...	Rev. Sir E. Laurie, Bt.	5	1 6	400 $\nabla$	55·64	229
D „ (Jarbruck) .....	Cecil E. Laurie, Esq....	8	1 2	350 $\nabla$	62·27	217
D Langholm (Ewes, Burnfoot) ...	J. C. Little, Esq. ....	5	0 6	541 $\nabla$	51·27	214
„ „ ( „ School) .....	Mr. J. C. Lyall .....	5	1 0	445 $\nabla$	54·30	...
§ Eskdale Muir Observatory .....	Meteorological Office ...	8	0 8	778	60·38	219
D§ Durrisdeer (Drumlanrig Gardens)	Mr. D. Inglis .....	5	0 9	187	52·97	209
Beattock (Kinnelhead) .....	J. Bartholomew, Esq....	5	0 6	820 $\nabla$	62·31	...
Moffat (Craigielands) .....	Mr. L. Fraser .....	5	1 0	360 $\nabla$	55·95	...
D „ (Auchen Castle) .....	Mr. J. Macgregor .....	5	0 6	500 $\nabla$	57·41	209
D „ (Hope Lodge) .....	Miss Anstruther .....	5	1 0	450	48·43	208
D „ (Eriestane) .....	Mrs. J. J. Welsh .....	5	1 0	600 $\nabla$	54·13	183
ROXBURGH.						
Teviothead (Skelfhill) .....	Miss Grieve .....	3	1 2	950 $\nabla$	52·00	...
§ Hawick (Wolfelee) .....	Scot. Meteorological Soc.	5	0 10	587	34·99	...
D „ (Branxholme) .....	J. G. Winning, Esq....	5	0 6	457 $\nabla$	33·45	209
D Jedburgh (Ploughlands) .....	J. Scott, Esq. ....	5	1 0	301 $\nabla$	25·31	213
D „ (Ancrum Bridge) .....	A. Finlayson, Esq....	5	2 0	229	31·40	201
§ St. Boswells (Monksford) .....	A. Mitchell, Esq. ....	5	0 11	320	25·32	...
D „ „ (Fens) .....	J. J. Fairbairn, Esq....	5	1 6	260	28·58	179
Kelso (Springwood Nurseries) ...	Messrs. Laing & Mather	5	1 0	200	27·01	227
„ „ ( „ Park) .....	Mr. W. Chaplin .....	5	1 3	130 $\nabla$	26·11	180
D Melrose (Asylum) .....	Mr. A. C. Pattman ...	5	0 6	480 $\nabla$	35·45	222
D „ „ ( „ ) .....	„ „ „	5	1 0	480 $\nabla$	34·42	222
§ „ „ (Drygrange) .....	Scot. Meteorological Soc.	...	...	450 ?	27·28	...
Smailholm (Sandyknowe) .....	Mr. J. E. Templeton ...	5	1 2	500	23·55?	...
D Chapel-on-Leader [Earlston] ...	Mr. T. J. Fleming .....	5	0 9	500	33·00	173

## DIVISION XIII.—SOUTH EASTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\geq 0.1$ or more recorded.	
		Diameter	Height Above Ground	Height Above Sea Level	1910		
		in.	ft.	in.	feet.	inches.	
SELKIRK.							
Meggat Head (Edinburgh W.W.) No. 1	Messrs. Leslie & Reid, C.E.	5	1	3	1496 $\pi$	54.82	...
D " Water (Cramilt Lodge) ...	Mr. A. Sim. ....	5	0	4	1005 $\pi$	51.19	232
D Selkirk (Whitmuir Hall) .....	C. W. Dunlop, Esq. ...	5	1	0	850	32.35	180
D " (Philiphaugh) .....	Mr. J. Hunter. ....	12	4	6	460	25.98	183
D " (The Hangingshaw) ...	Miss Johnstone of Alva	6	0	6	670 $\uparrow$	36.50	173
D Galashiels (Abbotsford Rd.) .....	Dr. J. W. Somerville...	5	0	8	416 $\uparrow$	33.37	204
" (The Peel, Clovenfords)	W. R. Ovens, Esq. ....	6	1	6	500	38.93	...
" (Stantling Craigs) ...	Mr. J. Murray .....	12	1	3	800	39.05	...
PEEBLES.							
Ravenscraig (Edinburgh W.W.) No. 3	Messrs. Leslie & Reid, C.E.	5	1	3	2258 $\pi$	67.98	...
Gameshope Loch ( " " ) No. 4	" " "	5	1	3	1860 $\pi$	69.32	...
Donald's Cleuch Head ( " " ) No. 11	" " "	5	1	3	...	65.32	...
Loch Craig Head ( " " ) No. 2	" " "	5	1	3	2627 $\pi$	59.32?	...
Gameshope Farm ( " " ) No. 5a	" " "	5	1	3	1538 $\pi$	77.68	...
" " " ( " " ) No. 5	" " "	8	1	3	1538 $\pi$	71.85	...
Talla Linns Foot ( " " ) No. 6a	" " "	5	1	3	966 $\pi$	68.91	...
" " " ( " " ) No. 6	" " "	8	1	3	966 $\pi$	67.60	...
Quarter Hill ( " " ) No. 7a	" " "	5	1	3	1196 $\pi$	51.46	...
" " " ( " " ) No. 7	" " "	8	1	3	1196 $\pi$	52.38	...
Victoria Lodge ( " " ) No. 8	" " "	5	1	3	904 $\pi$	48.69	...
" " " ( " " ) No. 8a M	" " "	8	1	3	904 $\pi$	49.15	...
D Stobo (Dawyck Gardens) .....	Mr. J. Simpson .....	5	1	1	600 $\uparrow$	44.21	206
§ " Castle .....	Scot. Meteorological Soc.	3	1	0	600	39.22	...
Peebles (Swinton Bank) .....	C. A. Ainslie, Esq. ...	5	0	5	600 $\pi$	39.11	...
D " " " ( " " ) (R)	" " "	8	4	6	600 $\pi$	38.96	198
Innerleithen (Leithen Lodge) ...	Mr. D. Clark .....	11	0	0	700 $\uparrow$	44.71	...
D § Castlecraig [Dolphinton] .....	Scot. Meteorological Soc.	...	...	...	820	38.93	212
D West Linton Rectory <i>Snowdon</i>	Rev. J. S. Begg .....	5	1	0	800 $\uparrow$	36.50	225
D " " (Rutherford House)	Ewen Cameron, Esq. ...	5	3	9	970 $\pi$	39.40	233
Eddlestone (Portmore Reservoir)	Messrs. Leslie & Reid, C.E.	11	0	6	1000	38.81	199
§ N. Esk Reservoir [Penicuik] ...	Mr. W. Tod .....	11	0	6	1150 $\pi$	41.35	...
BERWICK.							
D Earlston (Cowdenknowes) .....	Mr. J. Robertson .....	5	0	10	360 $\pi$	31.63	203
Coldstream (Lochton) .....	J. Aitchison, Esq. ....	5	1	0	151 $\pi$	24.25	...
D " (The Hirsell) .....	Mr. P. McAndrew .....	5	1	0	94 $\pi$	22.86	169
D § Marchmont House .....	Mr. J. A. Wood. ....	5	1	0	498 $\uparrow$	28.86	193
D Duns Castle .....	Mr. P. Smith .....	5	1	0	500	27.80	195
" (Manderston) .....	Mr. F. J. Marshall. ....	8	1	6	356 $\pi$	32.29	...
West Foulden .....	J. Hewat Craw, Esq. ...	5	1	0	250 $\uparrow$	25.13	...
St. Abb's Head .....	Bd. of Northern Lights	8	4	3	224	23.26	...

## DIVISION XIII.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
HADDINGTON.							
Garvald (Donolly Reservoir) ...	W. Ross Young, Esq., CE	11	1	6	560 $\overline{\text{N}}$	39·44	...
d Drummore [Musselburgh] .....	Mr. J. Robson.....	5	1	0	75 $\overline{\text{T}}$	25·11	190
d Whittinghame Gardens .....	late Mr. J. Garrett.....	5	1	0	348 $\overline{\text{B}}$	28·78	183
Garvald (Thorster Reservoir).....	W. Ross Young Esq. C.E.	12	1	6	...	33·64	...
§ Haddington (District Asylum)...	Scot. Meteorological Soc.	5	0	9	240	25·34	...
§ Prestonkirk (Beil) .....	" " "	5	1	6	180	26·45	...
§ Prestonkirk (Smeaton) .....	Scot. Meteorological Soc.	7	7	10	100	25·76	...
d Gosford House Gardens.....	Mr. W. Galloway .....	5	1	0	24	28·16	186
d § Aberlady Manse.....	Rev. J. Hart .....	5	0	11	15	25·60	161
d North Berwick Reservoir ... ..	W. Ross Young, Esq., CE	5	1	6	150 $\overline{\text{T}}$	25·34	160
" " (Fidra) .....	Bd. of Northern Lights	3	3	0	113	24·50	...
MIDLOTHIAN.							
Moorfoot Hills (Bowbate) .....	Messrs. Leslie & Reid, C.E.	11	0	6	2042	48·22	...
" " (Gladhouse Res.) .....	" " "	5	0	6	900	38·52	221
" " (Rosebery) .....	" " "	4	0	6	750	35·55	206
Pentland Hills (Crosswood) .....	" " "	5	1	0	950	38·23	...
Moorfoot Hills (Edgelaw).....	" " "	4	0	6	654	38·02	206
Pentland Hills (Harperrig) .....	" " "	5	0	6	900	41·03	...
" " (Harehill) .....	" " "	11	1	5	1470	38·85?	...
" " (Loganlea) .....	" " "	8	1	4	850	36·37	...
§ West Calder (Addiewell) .....	Scot. Meteorological Soc.	5	0	6	600	35·20	...
d § Balerno (Cockburn Hill) .....	R. Cross, Esq.....	5	1	0	767 $\overline{\text{T}}$	39·36	198
Pentland Hills (Glencorse Res.)..	Messrs. Leslie & Reid, C.E.	5	1	3	787	37·78	219
" " (Harlaw) .....	" " "	5	0	6	800	35·47	...
" " (Harbour Hill) ...	" " "	11	0	6	1112	40·85	...
" " (Clubbiedean Res.) .....	" " "	11	0	6	750	36·37	...
" " (Swanston) .....	" " "	11	0	6	550	31·49	...
Liberton (Alnwick Hill) .....	" " "	11	0	6	400	32·59	193
§ Dalkeith Gardens .....	Mr. J. Whytock.....	5	1	0	144	25·11	...
d † Edinburgh (R. Obs., Blackford Hill)	T. Heath, Esq. ....	8	1	0	442 $\overline{\text{N}}$	27·52	179
d Musselburgh (Levenhall) .....	J. W. Wood, Esq. ....	5	1	0	15 $\overline{\text{N}}$	26·14	193
d † Edinburgh (Univ. Engin. Lab.)..	Prof. T. Hudson Beare.	5	1	0	227 $\overline{\text{N}}$	29·64	203
† " ( " " " ) M	" " "	5	1	0	227 $\overline{\text{N}}$	28·43	...
d " (City Observatory)...	W. Peck, Esq. ....	8	1	0	349	26·45	171
† " (Charlotte Square)...	Messrs. Leslie & Reid, CE	11	1	6	190 $\overline{\text{T}}$	26·48	...
† " ( " " " )...	" " "	12	63	0	300	20·60	...
§ Leith .....	Meteorological Office ...	8	1	8	37	25·79	193
§ " (Navigation School).....	Scot. Meteorological Soc.	5	0	5	76	28·99	...
d Davidson's Mains (Broomfield)...	Mr. C. Comfort .....	5	0	10	42 $\overline{\text{L}}$	24·48	165
LINLITHGOW.							
Bathgate (Boghead House) .....	Scot. Meteorological Soc.	5	2	0	500	38·34	...
§ Uphall.....	" " "	5	0	10	380	32·13	...

DIVISION XIII.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground	Height Above SeaLevel	1910		
		in.	ft.	in.	feet.	inches.	
LINLITHGOW—(con.)							
Carribber Reservoir .....	M John Louden, Esq. ...	5	0	7	425 f	33·48	...
D Craigie Hall [Cramond Bridge]...	Mr. J. Sutherland .....	8	0	8	...	27·64	171
D Linlithgow Academy.....	J. Beveridge, Esq.....	5	1	0	170 f	34·54	197

#### DIVISION XIV.—SOUTH WESTERN COUNTIES.

## LANARK.

Station	Observer	Feet	Bar	Therm	Wind	Remarks
§ Leadhills.....	Scot.Meteorological Soc.	5	1	1	1300	67·20 ...
Lamington (Cowgill Reservoir)...	J. Chisholm, Esq., C.E.	5	1	0	970 T	48·54 ...
§ ".....	Scot.Meteorological Soc.	5	1	4	800	42·83 ...
D Biggar.....	J. Eunson, Esq.....	8	1	0	691 T	35·02 206
D " (Cambus Wallace).....	T. W. M. Watson, Esq.	6	0	6	748 T	35·45 151
" (Shieldhill).....	Miss Dunlop.....	5	1	2	850 T	30·97 ...
D " ( " ).....	" " ".....	5	on roof		850 T	29·51 223
D Strathaven (Dungavel).....	Wilfrid Taylor, Esq....	5	1	0	800 T	52·02 222
§ " (Kype Reservoir) ...	W. H. Purdie, Esq. ...	11	3	0	941	42·20 ...
" (East Overton House).....	H. Lee Dykes, Esq. ...	5	1	0	700 T	47·87 ...
Lanark (Rhyber Lodge).....	R. Swann, Esq. ....	6	3	0	650	31·40 ...
D Cleghorn.....	Mrs. Elliott Lockhart...	5	0	6	720 T	36·92 181
D Carluke (Mauldslie Castle).....	Mr. D. Bryson.....	5	1	0	140	35·73 171
Hamilton Water Works.....	W. H. Purdie, Esq. ...	7	1	0	436 T	39·70 ...
D " (Laignestone Hall).....	Rev. T. M. B. Paterson	5	1	9	260 T	38·95 193
D Motherwell (Dalzell Gardens) ...	Mr. W. Mackie.....	6	5	6	170	35·12 179
D § Busby (Thornton Hall).....	A.Henderson Bishop Esq	6	1	0	440	38·03 211
D § Bothwell.....	Dr. J. T. Wilson.....	5	0	9	150 T	34·99 177
Glasgow (Tollcross Park).....	J. Whitton, Esq. ....	5	0	6	85	40·28 ...
" Green.....	" " ".....	5	0	6	35	35·85 ...
" (Bellahouston Park)...	" " ".....	5	0	6	160	35·73 ...
† " (Botanic Gardens).....	" " ".....	5	0	6	110	37·24 ...
" (Alexandra Park).....	" " ".....	5	0	6	141	39·49 ...
" (George Square).....	" " ".....	8	6	0	40	36·45 ...
" (Kelvingrove Park) ...	" " ".....	5	0	6	48	39·23 ...
" (Ruchill Park).....	" " ".....	5	0	6	220	38·49 ...
D § " (Belvedere Hospital)...	Dr. A. Johnston.....	5	1	1	60 T	35·03 191
D § " Observatory..... (B)	Prof. L. Becker.....	11	2	0	182	39·21 194
" (Springburn Park).....	J. Whitton, Esq. ....	5	0	6	361	40·00 ...
Airdrie (Forrestburn Reservoir). ..	J. Frew, Esq. ....	6	0	6	720 T	37·90 ...
".....	J. Chisholm, Esq., C.E.	5	1	0	402 T	35·56 ...
D " (Hillend Reservoir).....	Mr. W. A. Ritchie.....	6	4	6	620 T	34·89 185
§ Roughrigg Res. [Slamannan] ...	J. Chisholm, Esq., C.E.	5	1	0	661 T	36·24 ...

## DIVISION XIV.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
AYR.						
Barrhill (Dochroyle) .....	M Mr. J. Scott .....	6	0 6	548 $\nabla$	41·99	...
§ Colmonell (Knockdolian) .....	Scot. Meteorological Soc.	5	1 0	150	44·37	...
¶ Girvan (Pinmore) ..	Miss Hamilton .....	5	0 5	207 $\nabla$	54·78	236
Barr Manse .....	Rev. G. Dods .....	5	1 0	330	54·29	197
Girvan (Glendoune Gardens) ...	Mr. J. Simons .....	5	1 0	100 $\nabla$	43·06	185
Ailsa Craig .....	Bd. of Northern Lights	3	5 0	...	32·35	155
Loch Finlas .....	J. Young, Esq., C.E. ...	5	1 0	849 $\nabla$	63·07	...
Turnberry (Lighthouse) .....	Bd. of Northern Lights	...	...	...	34·93	...
§ „ (Hotel) .....	Mr. J. Richards .....	5	1 0	97 $\nabla$	27·93	183
¶ Dalrymple (Bow Hill) .....	A. Gillespie, Esq. ....	5	0 8	978	52·49	237
¶ Maybole (Culzean Gardens) .....	Mr. C. Tate .....	9	3 0	200	36·67	182
„ (Knockdon Farm) .....	Mr. W. Muir .....	5	2 0	344	39·69	...
„ „ (Glenhead) ..	„ „ „ .....	8	1 2	500	40·77	...
§ New Cumnock (Ayr Sanatorium)	Scot. Meteorological Soc.	...	...	...	62·12	213
Ayr (Doonside) .....	W. H. Dunlop, Esq. ...	5	1 0	90	41·33	218
¶ „ (Doonholm) .....	J. Kennedy, Esq. ....	5	1 0	90	40·74	199
„ (Glendrishaig) .....	P. Murdoch, Esq. ....	10	4 0	42	35·93	184
¶ Mauchline (Catrine) .....	Messrs. J. Finlay & Co.	6	1 0	301 $\nabla$	39·25	189
Prestwick .....	Mr. G. Mair .....	6	1 6	30 $\nabla$	37·74	...
§ Kilmarnock .....	Scot. Meteorological Soc.	5	1 0	74	40·47	...
¶ „ (Agricultural College)	Prof. R. A. Berry .....	8	1 2	80	37·96	201
„ „ (North Craig Res.) ..	R. Blackwood, Esq. ...	12	1 0	319 $\nabla$	43·30	...
§ Saltcoats .....	Scot. Meteorological Soc.	...	...	...	39·98	...
¶ Kilwinning (Eglinton Castle) ...	Mr. W. Priest .....	5	1 0	50 ?	48·15	209
Stevenston (Greenhead Filters) ...	Gilbert Christie, Esq., CE	5	1 0	186 $\nabla$	49·46	...
¶ Dalry (Blair) .....	Mr. W. Mair .....	5	1 3	155 $\nabla$	52·84	211
¶ „ (Mount Pleasant) .....	Archibald Shanks, Esq.	5	1 1	290 $\nabla$	47·22	223
„ „ (Munnoch Reservoir) .....	Gilbert Christie, Esq., CE	11	1 3	325 $\nabla$	62·34	...
„ „ (Caaf Reservoir) .....	„ „ „ .....	9	1 0	515 $\nabla$	69·42	...
¶ „ W.W. (Filters) .....	Mr. W. Wightman ...	5	1 0	320 $\nabla$	51·13	228
„ „ (Thirdpart) ... M	Mr. R. King .....	5	1 0	560 $\nabla$	57·71	...
„ „ (Camphill Reservoir) .....	James Lee, Esq., C.E. ...	12	1 6	611	61·35	...
Shaws Water Works (Kelly Dam)	D. Macalister, Esq., C.E.	6	1 0	640	65·90	...
„ „ (Knockencorsan)	„ „ „ .....	6	1 0	1040	61·60	...
RENFREW.						
Lochwinnoch (Garthland) .....	H. Macdowall, Esq. ...	5	0 11	150	63·96	...
„ „ (Castlesemple) .....	Mr. C. Jamieson .....	7	26 0	240	49·65	208
Gorbals Dist. W.W. (Ryat Lynn)	J.R. Sutherland, Esq. CE	8	0 5	310	48·95	...
„ „ „ (Waulk Glen)	„ „ „ .....	12	0 5	280	47·40	...
„ „ „ (Middleton) ..	„ „ „ .....	12	0 5	550	55·75	...
„ „ „ (Nether Cairn)	„ „ „ .....	12	0 5	700	59·55	...
Paisley W.W. (Stanely) .....	James Lee, Esq., C.E. ...	12	1 0	190	46·34	...
„ „ (Back Thornleymuir)	„ „ „ .....	12	1 0	646	52·69	...
„ „ (Muirhead) .....	„ „ „ .....	12	1 0	482 $\nabla$	57·42	...
„ „ (Springside) .....	„ „ „ .....	12	1 0	532 $\nabla$	65·26	...

## DIVISION XIV.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1910
		in.	ft.	in.	feet.	inches.	
RENFREW—(con.)							
d Glasgow (Queen's Park) .....	J. Whitton, Esq. ....	8	0	9	144 $\pi$	38.53	189
" (Maxwell Park) .....	" " " " .....	5	0	6	69	37.30	...
Paisley (Crookston House) .....	T. F. Hotchkis, Esq. ....	5	0	5	50	41.85	...
† " (The Coats Observatory) .....	Scot. Meteorological Soc. ....	10	1	8	107	46.86	...
Wemyss Bay (Kelly) .....	J. Clark-Neill, Esq. ....	...	...	...	230	38.51	...
§ Kilmalcolm Waterworks .....	D. S. Carson, Esq. ....	...	...	...	500 ?	76.13	...
Shaws W.W. (Duchall Moor) ...	D. Macalister, Esq., C.E. ....	6	1	0	1150	78.40	...
" " (Creuch Hill) .....	" " " " .....	6	1	0	1350	75.50	...
" " (Largs Road) .....	" " " " .....	5	1	0	910	52.70	...
" " (Green Water) ...	" " " " .....	6	1	0	788 $\pi$	70.90	...
§ Kilmalcolm (St. Oswald's) ... (R)	D. S. Carson, Esq. ....	...	1	0	350	48.40	...
§ Dougliehill Res. (Port Glasgow W.W.)	James Murray, Esq. ....	5	1	6	540 $\pi$	59.37	...
§ Auchendores Res. ( " " " )	" " " " .....	5	1	6	320 $\pi$	50.71	...
Shaws W.W. (Gryfe Reservoir) ..	D. Macalister, Esq., C.E. ....	6	1	0	640 $\pi$	72.30	...
" " (Mansfield) .....	" " " " .....	5	1	0	573 $\pi$	80.62?	232
" " (Compensation Res.) ..	" " " " .....	5	1	0	600	69.03	263
" " (Loch Thom) .....	" " " " .....	5	1	0	643 $\pi$	72.98	262
" " (Shielhill) .....	" " " " .....	6	1	0	962 $\pi$	71.40	...
" " (Darndaff Moor) ....	" " " " .....	6	1	0	850	71.30	...
" " (Spango Burn) ...	" " " " .....	6	0	9	757 $\pi$	69.20	...
" " (Hole Glen) .....	" " " " .....	5	1	0	603	64.59	236
" " (New Yetts Dam) ..	" " " " .....	5	1	0	800	68.38	237
d Port Glasgow (Elmworth) .....	A. F. Gray, Esq. ....	5	1	3	107	61.19	214
d § Greenock (Prospect Hill) .....	D. Macalister, Esq., C.E. ....	5	1	0	233	64.21	220
Bishopton (Ingliston) .....	D. Cross, Esq. ....	5	1	0	195	48.12	...
Langbank (East Bank Gardens) ..	A. Cross, Esq. ....	5	2	6	150	50.10	...

## DIVISION XV.—WEST MIDLAND COUNTIES.

## DUMBARTON.

d § Dumbarton (Leven Shipyard) ...	Messrs W. Denny & Bros. ....	5	1	0	9 $\pi$	48.81	205
d Duntocher (Cochno Filters) .....	T. L. Rae, Esq., C.E. ....	5	1	0	400 $\pi$	48.22	194
Kilpatrick Hills (Greenside Res.)	" " " .....	5	1	0	876 $\pi$	51.30	...
" " (Loch Cochno) ...	" " " .....	5	1	0	909 $\pi$	52.41	...
" " (Jaw Reservoir) ..	" " " .....	5	1	0	912 $\pi$	55.18	...
" " (Burncrooks Res. No. 1)	" " " .....	5	1	0	825 $\pi$	45.56	...
" " ( " " " No. 2)	" " " .....	5	1	0	...	66.61	...
d Renton (Carman Reservoir) .....	Mr. Chas. Brown .....	8	4	0	292	52.83	221
d Cardross (Kilmahew) .....	Claud A. Allan, Esq. ....	5	1	0	130 $\pi$	51.82	186
§ Roseneath (Achnashie) .....	R. S. Campbell, Esq. ....	6	1	0	25	59.55	...
Garelochhead (Aikenshaw) .....	Mr. W. S. Turnbull ...	6	1	0	32	63.30	...
Glen Finlas Reservoir .....	Mr. Daniel Murray ...	5	1	0	750	73.08	...

## STIRLING.

d Torrance (Glenorchard) .....	Miss Bartholomew .....	5	1	6	200	49.34	196
Strathblane (Mugdock Reservoir) ..	J. R. Sutherland, Esq. C.E. ....	8	0	6	320	48.70	...

## DIVISION XV.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with -01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
<b>STIRLING—(con.)</b>						
Strathblane (Craigend Castle) ...	C. Stirling, Esq. ....	5	1	2	533 T	46·68
„ (Craigbarnet).....	Capt. G. H. Miller Stirling	5	0	6	300 T	56·40
D „ (The Manse) .....	Rev. W. B. Moyes.....	5	0	6	235 T	58·13
D Kilsyth (Currymire) .....	James Smith, Esq. ...	5	1	2	200	52·91
Muiravonside Ho. [Linlithgow].	Mr. C. Leeder.....	5	4	8	175	34·66
D Polmont (Vellore).....(R)	W. Brown, Esq.....	8	4	6	320 T	27·93?
D Falkirk (Inglewood, Laurieston)	W. Ballantine, Esq. ...	5	1	3	133 T	38·05
D „ (Westbank) .....	A. Nimmo, Esq.....	5	0	9	75	38·59
D „ (Burgh Buildings) .....	David Ronald, Esq., C.E.	5	1	0	107 T	29·85
„ (Ardenlea) .....	J. Aitken, Esq., F.R.S.	5	1	0	105 T	39·24
„ (Kerse)..... No. 1	C. Brown, Esq. ....	8	1	0	18 T	33·10
„ „ „..... No. 2	„ „ „.....	5	0	10	18 T	32·20
D „ (Cauldhame) .....	David Ronald, Esq., C.E.	5	1	0	73 T	39·52
Little Denny Reservoir .....	C. Massie, Esq. ....	8	1	0	326	43·13
„ „ Filters.....	„ „ „.....	8	1	0	268 T	43·06
Kilsyth (Faughlin Res.) .....	„ „ „.....	8	1	0	707 T	58·01
§ Bannockburn (Auchenbowie) ...	Scot. Meteorological Soc.	6	1	0	280	47·55
Earlsburn Reservoir .....	C. Massie, Esq. ....	8	1	0	1202 T	55·68
Stirling (Touch Reservoir) No. 1	A. H. Goudie, Esq. ...	8	2	6	765	54·25
„ „ „..... No. 2	„ „ „.....	...	...	...	765	54·03
„ (Victoria Place) .....	R. Kidston, Esq., F.R.S.	5	2	10	100	48·71
D § Buchlyvie (The Manse).....	Rev. J. A. Macdonald..	5	1	3	118 T	56·28
Gargunnoch House .....	C. Stirling, Esq.....	5	5	8	85 T	46·53
D Kippen (Arngomery) .....	Mr. P. McCowan .....	5	4	2	150	54·27
D † Bridge of Allan (The Lea) .....	Laurence Pullar, Esq...	5	1	0	110	41·82
Ben Lomond (Hd. of Duchray Val.)	J. R. Sutherland, Esq. C.E.	...	...	...	1800	83·50
Loch Arklet (Corriehichon) .....	„ „ „.....	...	...	...	870	89·10
„ „ (Corriearklet) .....	„ „ „.....	...	...	...	950	89·60
Glengyle .....	„ „ „.....	...	...	...	380	88·80
<b>BUTE.</b>						
Arran (Pladda) .....	Bd. of Northern Lights	...	...	...	130	56·54
„ (Pillar Rock, Holy Island)	„ „ „.....	3	0	3	46	47·46
D „ (Brodict, U.F. Manse) ...	Rev. A. Sutherland ...	5	1	0	150 ?	67·39
D Great Cumbræ (Millport) .....	R. Elmhirst, Esq. ....	5	1	0	15	42·48
D Rothesay (Crichton Road) .....	H. Lauder, Esq.....	5	4	0	97	54·49
D § „ (Glenburn).....	Mr. D. Penney .....	5	1	0	86	53·94
Port Bannatyne (Ettrickdale) ...	Lt.-Col. M. R. Gray Buchanan	5	1	0	190 B	54·39
<b>ARGYLL—(MAINLAND.)</b>						
Mull of Kintyre .....	Bd. of Northern Lights	...	...	...	279 ?	42·85
† Campbeltown (South Park) .....	J. A. Gardiner, Esq. ...	8	0	10	20 L	52·82
† „ (The Rectory).....	Rev. Canon Wakeham..	5	1	0	30 ?	51·11
D † „ (Witchburn) .....	Mr. John Giffen.....	5	1	6	75	49·91
„ (Devaar) .....	Bd. of Northern Lights	...	3	4	120 ?	47·96

## DIVISION XV.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1910	Days with .01 or more recorded.
		Diameter	Height above Ground.		Height above Sea Level		
		in.	ft.	in.	feet.	inches.	
ARGYLL—(MAINLAND)—(con.)							
D Kintyre (KilleanManse, Muasdale)	Rev. D. J. Macdonald..	5	1	0	30 B	40·46	223
D „ (Largie Castle) .....	J.R.M. Macdonald, Esq.	5	1	0	160 T	47·92	215
D „ (Skipness Castle) ... ..	Mr. P. McLean ... ..	5	1	6	27 L	45·57	...
D „ (Glenreasdell Mains) ...	Ronald S. Ker, Esq. ...	5	1	0	149 T	50·28	213
D „ (Bunawe Cottage, Tarbert)	Mr. D. Mellriach .....	5	0	10	150 ?	68·42	222
D „ (Cårse, „ „)	J. Birkmyre, Esq., jun.	6	1	6	20	41·97	234
D Tighnabruaich (Craigandaraich)	J. S. Paton, Esq. ....	12	5	0	50 B	58·29	217
D Dunoon (Castle Gardens) .....	W. Rodger, Esq., C.E.	5	35	0	56 A	69·50	219
D „ (Reservoir) .....	„ „ „	5	3	6	245 A	73·66	217
D „ (Redhurst) .....	Dr. J. Banks .....	5	1	6	60	75·62	217
D Holy Loch (Ardnadam) .....	Rev. J. Cairns Mitchell	5	1	0	66 B	76·68	226
„ Otter Ferry (Ballimore) .....	Mr. W. MacKenzie .....	5	0	6	70 A	53·83	...
D „ „ (School House) .....	Mrs. Stewart .....	5	1	0	37 T	50·72	216
D Loch Eck (Benmore).....	H. J. Younger, Esq. ...	5	1	3	40	89·38	206
D Ardrishaig (Canal Office) .....	L. J. Groves, Esq., C.E.	5	1	0	44	65·13	221
D§ Lochgilphead (Poltalloch).....	Mr. D. S. Melville .....	5	1	2	135	57·06	247
§ Loch Fyne (Castle Lachlan).....	Scot. Meteorological Soc.	...	...	...	...	62·98	...
D „ „ (Furnace) .....	Mr. W. Nicol .....	5	3	0	15 L	71·13	226
„ „ „ ( „ „ Brenchoillie)	A. E. Lewis, Esq. ....	5	1	0	240 ?	77·15	200
D† Lochgoilhead (Nuthill) .....	G. Murray Knox, Esq..	5	1	0	15	75·76	230
D§ Loch Awe (Ford) .....	J. Boyd, Esq. ....	8	1	0	150 T	70·91	245
D§ „ „ (Cruachan) .....	„ „ „	8	1	0	280 T	82·12	237
D† Inveraray (Newtown) .....	Mrs. Little .....	5	1	0	17	68·21	240
D† „ „ Castle Gardens .....	A. E. Lewis, Esq. ....	5	1	0	40	75·49	244
D† „ „ (Stronshira) .....	Rev. P. N. Mackichan..	5	1	0	10	70·34	226
§ Ardkinglas .....	Sir Andrew Noble, Bt..	8	1	6	37 A	80·18	241
D Kilmelfort (Arduaine) .....	J. A. Campbell, Esq....	5	0	10	23 L	55·01	231
D† Glen Aray (Ladyfield) .....	A. E. Lewis, Esq. ....	5	1	0	400 ?	92·70	192
„ Glen Shira (Drimlie) .....	Rev. P. N. Mackichan..	5	1	6	400	81·38	...
D Dalmally .....	Rev. F. MacRae .....	5	1	7	150 T	76·39	224
§ Taynuilt (Barguilean) .....	Scot. Meteorological Soc.	...	...	...	230	70·88	...
D† Oban .....	Dr. E. Baily .....	8	1	0	16	51·80	221
„ Morvern (Ardtornish) .....	G. C. Sellar, Esq. ....	5	1	3	40	73·91	...
D „ „ (Kingairloch) .....	G. Herbert Strutt, Esq.	5	1	0	40 ?	97·20	231
D „ „ (Drimnin) .....	Mrs. Gordon .....	5	1	0	225	61·70	263
„ Duror (The Rectory).....	Rev. E. J. Benwell ...	5	1	0	...	70·81	...
D Ballachulish House .....	F.C. Beresford Drummond Esq	5	1	0	56 A	70·35	233
D „ „ (Glencoe) .....	J. D. Sutherland, Esq.	...	6	0	100	74·97	231
§ Strontian (Laudale) .....	J. A. Fletcher, Esq. ...	4	1	0	15 A	77·28	209
D§ Loch Sunart (Glenborrodale) ...	C. D. Rudd, Esq. ....	5	0	2	60 L	70·92	227
§ Glenleven (Blackwater Ho.) No. 4	Loch Leven Power Co..	8	1	0	1040 ?	76·09	...
D§ „ „ ( „ „ Dam) No. 2	„ „ „ „ „	8	1	0	1072	71·59	235
§ „ „ (Invercann)..... No. 6	„ „ „ „ „	8	1	0	1070	73·12	...
D§ „ „ (Kinlochleven) ..No. 1	„ „ „ „ „	8	1	0	140	83·50	234
„ Ardnamurchan .....	Bd. of Northern Lights	8	4	3	180	48·57	...
D Ardgour .....	Capt. A. J. N. Maclean	5	0	10	65 B	91·68	246
„ Loch Eil (Corran) .....	Bd. of Northern Lights	3	1	6	38	75·09	222



## DIVISION XV.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
ARGYLL—(INSULAR.)							
D Islay (Tighcargaman, Port Ellen)	Peter Reid, Esq.....	5	1	8	24	46.57	229
D „ (Ardbeg) .....	C. E. Hay, Esq.....	5	7	0	46 l	46.21	244
„ (Rhinn) .....	Bd. of Northern Lights	7	3	6	150	38.22	189
„ (Lochindaul).....	„ „ „	3	0	6	52	42.63	...
„ (McArthurs Head) .....	„ „ „	3	0	4	128	64.21?	164
D „ (Eallabus).....	J. Forbes, Esq. ....	5	1	0	68 T	48.29	244
„ (Rhuvaal) .....	Bd. of Northern Lights	3	1	3	147	39.22	187
D Jura (Ardfin).....	Miss Campbell .....	5	1	0	160	54.05	227
„ (Fladda) .....	Bd. of Northern Lights	3	1	0	42	51.31	...
Lismore (Mousedale).....	„ „ „	7	3	10	105	34.53	169
D§ Eriska Island .....	Scot. Meteorological Soc.	5	1	6	30	61.28	224
D† Mull (Iona).....	Rev. A. Macmillan.....	5	1	2	20	45.24	235
† „ (Bunessan).....	M Duncan Cameron, Esq.	5	1	4	50 B	50.73	...
D§ „ (Lochbuie Castle) .....	Mr. E. Lovesey .....	8	1	2	20	86.84	231
D „ (Ulva) .....	F. W. Clark, Esq.....	5	1	0	30 T	61.73	258
† „ (Knock) .....	M Duncan Cameron, Esq.	5	1	4	50	77.57	...
D† „ (Gruline) .....	J. W. Melles, Esq. ...	8	1	0	101 ?	72.13	254
D „ (Quinish) .....	J. N. Forsyth, Esq. ...	5	1	3	35 B	52.21	246
„ Sound of .....	Bd. of Northern Lights	3	1	4	55	50.98	186
D Tiree (Cornaimore) .....	J. Ross, Esq. ....	5	1	0	25 T	47.54	251
Sanda .....	Bd. of Northern Lights	...	...	...	165	45.54	176

## DIVISION XVI.—EAST MIDLAND COUNTIES.

## CLACKMANNAN.

D Alloa House Gardens	Earl of Mar & Kellie, K.T.	5	2	6	40	35.16	178
„ (Mar Street)	A. Mitchell, Esq.	5	0	6	70	33.06	...
„ W.W. (Gartmorn Res.)	Andrew Mackie, Esq. CE	11	1	0	172 T	33.30	...
D Alva House	Miss Johnstone of Alva	5	1	6	180	41.69	182
D Dollar (Dollarbeg)	James Bleloch, Esq.	5	0	9	265 T	38.17	206

## KINROSS.

Blairingone Manse [Dollar]	Rev. J. F. Cameron	5	1	6	300 T	38.99	188
D Loch Leven Sluice	Mr. W. Hay	8	0	9	360 l	34.93	173

## FIFE.

§ Inchkeith	Bd. of Northern Lights	...	...	...	160	25.65	...
D Dunfermline (Broomhall Gardens)	Mr. J. Mitchell	5	1	0	15 T	28.47	177
„ (Fordell House)	Earl of Buckinghamshire	5	1	0	230 T	27.68	...
D „ (Keavil)	J. J. Dalgleish, Esq.	5	0	2	150	26.81	169
D Culross (Westgrange)	„ „ „	5	0	2	116 T	32.33	181
Carnock (Luscar House) ... No. 1	A. Mitchell, Esq.	5	0	10	430 T	33.17	...
„ ( „ „ ) ... No. 2	„ „ „	5	0	10	430 T	32.90	...

## DIVISION XVI.—EAST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with .01 or more recorded.
		Diameter	Height Above Ground.			
		in.	ft.	in.	feet.	inches.
FIFE—(con.)						
Carnock (Craigluscar) .....	W. R. Maxwell, Esq. ...	12	0	4	280 $\pi$	36.78 ...
§ Leslie (Lothrie Reservoir) .....	Scot. Meteorological Soc.	5	0	5	702	37.76 ...
Largo (Carlton) .....	Mr. E. Tate .....	5	2	6	150 $\uparrow$	32.26 182
„ (Roselea) .....	Miss E. V. Baxter .....	5	1	0	...	30.08 ...
D Colinsburgh Manse .....	Rev. Robert Dick .....	5	2	0	130 $\uparrow$	31.01 188
„ (Balchrystie) .....	Mrs. Anstruther .....	5	4	0	130 $\uparrow$	28.60 ...
D „ (Balcarres) .....	Mr. J. M. Paul .....	5	1	0	300 $\uparrow$	31.85 193
D Carnbee (Ovenstone W.W.) .....	A. P. Watson, Esq. ...	5	1	0	168 $\pi$	24.85 162
§ Cupar (Rankeillour) .....	Scot. Meteorological Soc.	...	...	...	...	34.36 ...
§ „ (Clatto Reservoir) .....	„ „ „	...	...	...	500	33.44 ...
D „ (Fife & Kinross Asylum) ..	W. Swinton, Esq. ....	5	1	0	210	33.58 163
§ Crail (Cambo) .....	Scot. Meteorological Soc.	8	1	0	50 $\mathcal{B}$	24.23? ...
D St. Andrews (Waterworks) .....	W. Watson, Esq. ....	5	1	0	217 $\pi$	27.23 168
D „ (Queen's Gardens) ..	Miss Macadam .....	5	1	0	55 $\mathcal{B}$	29.69 198
Kilmany (Mountquhanie House)	Mr. David Dinwoodie...	3	1	0	350 $\mathcal{B}$	31.49 ...
D Tayport (Lighthouse) .....	J. H. Thompson, Esq., CE	5	1	0	27	28.36 170
PERTH.						
Aberfoyle (The Inn) .....	J. R. Sutherland, Esq. CE	8	0	6	60	64.55 ...
Ochertyre [Stirling] .....	Mr. T. Richardson .....	5	1	0	18 $\uparrow$	43.63 ...
§ Dunblane (Kippenross) .....	Scot. Meteorological Soc.	3	1	3	240	40.00 ...
D Doune (Gartincaber) .....	G. Burn Murdoch, Esq.	5	1	0	200 $\uparrow$	45.61 203
D „ .....	Rev. G. S. Mackay .....	5	1	0	125 $\pi$	44.16 205
Dunblane (Lynns Farm) .....	J. A. Stirling, Esq. ....	5	1	0	550	43.34 ...
§ „ (Kippendavie) .....	Scot. Meteorological Soc.	8	2	9	300	49.81 ...
Glendevon (Glenquey Reservoir)	D. Mackenzie, Esq., C.E.	...	...	...	945 $\pi$	58.60 ...
„ (Tormaukin) .....	Mr. W. Phillips .....	5	0	10	770 $\uparrow$	51.96 ...
„ (Glensherup) .....	W. R. Maxwell, Esq. ...	12	0	4	745 $\uparrow$	62.20 ...
Loch Dhu .....	J. R. Sutherland, Esq. CE	8	0	6	325	85.90 ...
Ledard .....	„ „ „	...	...	...	1500	66.30 ...
Loch Drunkie .....	„ „ „	8	0	6	420	60.30 ...
Loch Vennachar .....	„ „ „	8	0	6	275	56.05 ...
Bridge of Turk .....	„ „ „	8	0	6	275	66.75 ...
Doune (Cauldhame) .....	J. Forbes, Esq. ....	5	1	0	830	53.30 188
Loch Katrine (Tunnel Hill Top)	J. R. Sutherland, Esq. CE	8	0	6	830	69.80 ...
Callander (Leny House) .....	J. H. Buchanan, Esq. ...	5	0	6	340 $\uparrow$	62.70 ...
Braco (Nether Cambushinnie) ...	J. W. Stirling, Esq. ...	5	0	10	380 $\uparrow$	46.89 ...
Slateford Burn (Shire End) .....	Messrs. Leslie & Reid, C.E.	8	...	...	930	40.89 ...
„ „ (Whitehill) .....	„ „ „	8	...	...	810	41.45 ...
Upper Farg (Plains) .....	„ „ „	...	...	...	900	37.00 ...
„ „ (Deuglie) .....	„ „ „	5	...	...	710	37.60 ...
„ „ (Heatherieleys) .....	„ „ „	5	...	...	790	39.93 ...
„ „ ( „ Quarry) .....	„ „ „	8	...	...	715	39.14 ...
§ Auchterarder .....	Scot. Meteorological Soc.	...	...	...	...	37.79 ...
§ Abernethy (Ayton House) .....	„ „ „	5	0	11	120	41.49 ...
Bridge of Earn (Ballendrick) ...	R. Richardson, Esq. ...	3	1	0	50	31.60 ...



## DIVISION XVI.—EAST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
FORFAR—(con.)						
§ Glen Prosen (Lednathie) .....	Mr. W. G. Lindsay ...	5	1 0	720	50·22	171
Montrose (Melville Gardens) ..	S. L. Christie, Esq. ...	5	9 0	20 A	25·49	...
§ „ (Sunnyside Asylum)...	Dr. J. G. Havelock ...	5	0 10	200	26·59	...
„ (Kinnaber W.W.).....	S. L. Christie, Esq. ...	5	1 0	38 I	26·87	160
Brechin Stracathro Gardens) ...	Mr. A. Dunlop .....	5	1 0	200 I	31·56	...

## DIVISION XVII.—NORTH EASTERN COUNTIES.

KINCARDINE.

§ Laurencekirk (Johnstone Lodge)	Scot. Meteorological Soc.	5	1	0	400	31.95	...
▷ Fettercairn (The Burn)	Col. C. McInroy, C.B...	5	0	11	250	35.67	180
„	Mr. A. Mackenzie	5	1	0	230 T	36.10	...
„ (Fasque Gardens)	Sir J.R. Gladstone, Bart.	5	1	0	320 T	37.44	161
Strachan (Bridge of Dye)	„ „ „	5	2	6	550 T	43.84	177
▷ Stonehaven (Mains of Cowie)	John Hart, Esq.	5	1	0	80	27.42	199
▷ Crathes (Cross Roads, Durris)	A. Macdonald, Esq.	5	1	0	420 T	37.87	212
Durris House [Drumoak].... (R)	Mr. A. Reid	5	3	6	200 P	34.98	...
▷ Banchory (Invercannie)	W. Dyack, Esq., C.E.	12	0	10	205 T	34.71	184
§ Crathes (Pinewood)	J. Smith, Esq.	5	1	0	145 A	34.39	197
▷ „ (Woodbank Cottage)	Mr. D. Murchison	5	0	6	165 T	34.55	193
Banchory (Hirn)	Mr. W. Caird	5	1	0	287 T	33.03	...
Girdleness	Bd. of Northern Lights	7	4	0	185	25.92	155

ABERDEEN.

† Braemar (Geldie Cottage)...No. 2	W. Dyack, Esq., C.E..	5	1	0	1425	43-87	...
+ „ (Canmore) .....	M. A. M. Shirran, Esq.	8	0	9	1114 T	42-90	...
+ „ (Bank) .....	M. „ „ „	5	1	0	1114 T	40-57	...
+ „ (Derry Lodge) ... No. 6	W. Dyack, Esq., C.E..	5	1	0	1400	42-89	...
Beinn Bhreac .....	No. 7 „ „ „	5	1	0	2700	48-85	...
Ben Muich Dhui (Carn à Mhaim) No. 5	„ „ „	5	1	0	2700	43-85	...
n† Balmoral Castle Gardens .....	Mr. J. M. Troup.....	8	1	0	927 T	37-54	193
§ Abergeldie Castle .....	Scot. Meteorological Soc.	...	...	...	...	35-95	...
Ballater (Irrigation Farm) .....	W. Dyack, Esq., C.E..	5	1	0	675 ?	40-00	...
n† Glen Gairn (Gairn Shiel Lo.) No 14	„ „ „	5	1	0	1100	39-51	228
„ „ (Little Cullardoch) No 12	„ „ „	5	1	0	2000	44-70	...
+ „ „ (Corndavon Lodge) No 13	„ „ „	5	1	0	1500	41-35	...
n† Cromar (Logie Coldstone School)..	J. B. Anderson, Esq....	5	1	0	608 T	34-77	234
n† „ „ „ „ Loanhead)	Mr. A. Farquharson ...	5	1	0	743 T	38-73	232
n§ „ „ (Tillypronie) .....	Mr. J. Lawson .....	5	1	0	1120 T	36-55	225
Upper Don (Delnadamph) No. 15	W. Dyack, Esq., C.E..	5	1	0	1850	47-00	...
n† Aberdeen (Cranford House) .....	D. McHardy, Esq. ...	5	1	0	120 T	31-58	212
n† Strathdon Schoolhouse .....	J. B. Innes, Esq. ....	5	1	0	980 T	40-57	236
n† „ „ (Estate Office) .....	C. Christie, Esq. ....	5	1	2	990 T	40-83	243

## DIVISION XVII.—NORTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1910	
		in.	ft. in.	feet.	inches.	
<b>ABERDEEN—(con.)</b>						
D Alford (Lynturk Manse) .....	Rev. J. B. Duncan.....	5	1 0	600 T	37·50	234
D Monymusk (The Manse) .....	Rev. Dr. Macpherson...	5	1 0	280 T	36·24	230
D Dyce (Parkhill House) .....	Dr. J. E. Crombie .....	5	0 11	200 T	30·07	214
D Inch (Thornhill) .....	J. Bisset, Esq.....	8	1 0	430 T	33·56	228
§ Ellon (Avonbank) .....	T. F. Jamieson, Esq....	5	1 0	55	31·31	...
D § Fyvie Castle .....	Col. C. R. Burn .....	5	0 6	200 ?	36·47	185
Drumblade (Public School) .....	G. Harper, Esq.....	5	1 6	485 T	34·38	225
Huntley (Union Bank).....	Alex. Smith, Esq. ....	5	1 0	450 T	36·06	...
D „ (Cruchie).....	John Joss, Esq. ....	5	4 0	400 T	33·75	217
D New Deer Schoolhouse .....	H. Cowie, Esq. ....	5	1 0	397 T	32·18	218
D Peterhead (Mains of Buthlaw)...	Miss Johnston.....	5	1 6	120	27·65	200
<b>BANFF.</b>						
D Dufftown (Victoria Terrace) ...	Miss Walker .....	5	2 0	579 T	45·28	251
Aberlour .....	J. F. McGowan, Esq....	4	1 0	298	31·20	...
§ Craigellachie .....	Scot. Meteorological Soc.	3	0 1	339 T	32·16	...
D Keith Station .....	Mr. John Lyon .....	5	1 0	364 T	40·61	211
Cullen House .....	Mr. A. Morton .....	5	1 0	100 T	31·95	...
<b>ELGIN OR MORAY.</b>						
Grantown-on-Spey .....	Mr. W. Duncan.....	5	1 1	712 T	38·36	179
Archiestown (Benview).....	Mr. J. Milne .....	5	1 0	750 T	34·89	184
Forres (Balnaferry) .....	W. Fraser, Esq.....	5	1 0	50	28·52	...
Kinloss .....	late J. Mackessack, Esq.	5	1 3	23 T	25·65	...
D § Gordon Castle.....	Mr. C. Webster .....	5	1 0	107 T	30·53	211
Elgin (The Manse).....	Rev. Dr. R. Macpherson	6	1 3	38 T	29·20	...
D Duffus House .....	Mr. W. Ogg .....	5	1 0	55 T	29·29	189
<b>NAIRN.</b>						
D Ardelach (Glenferness).....	Mr. A. Mackenzie .....	8	1 6	750 T	37·08	187
Cawdor .....	J. Birnie, Esq. ....	5	1 0	250 T	31·35	...
D „ Castle..... (R)	Mr. D. Chapman .....	8	4 3	225 T	32·81	172
Nairn (Achareidh).....	H. A. Clarke, Esq.....	8	1 0	59 T	25·73	214
§ „ (Delnies) .....	Meteorological Office...	8	1 9	84	27·54	...

## DIVISION XVIII.—NORTH WESTERN COUNTIES.

## WEST INVERNESS.

D North Ballachulish (Alltshellach)	B. Chinnery-Haldane Esq	5	2 1	80	70·79	235
D Glenleven (Kinlochmore) .....	Brian Bibby, Esq.....	5	1 0	115	94·36	233
„ (Chiaron) .....	No. 3 Loch Leven Power Co..	8	1 0	1200 ?	75·47	...

## DIVISION XVIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
WEST INVERNESS—(con.)							
Glenleven (Cam Bridge) ...No. 5	Loch Leven Power Co..	8	1	0	1260 ?	58·96?	...
d Moidart (Kinlochmoidart).....	J. C. Stewart, Esq.....	5	1	3	13	71·22	238
d§ „ (Roshven) .....	Scot.Meteorological Soc. ....	...	...	...	40	72·99	275
d§Fort William (Atholl Bank).....	W. T. Kilgour, Esq....	5	1	0	171 $\nabla$	69·10	238
Loch Shiel (Glenfinnan) .....	Col. J. A. Macdonald...	5	0	8	50 ?	108·58	...
d Eigg (Kildonan).....	Mrs. Glendinning .....	5	1	0	35	50·12	195
Barra (Barrahead).....	Bd. of Northern Lights	7	3	0	683	28·46	185
§ „ (Castle Bay) .....	Meteorological Office...	...	...	...	38	41·96	...
Spean Bridge (Spean Lodge) ...	Miss W. Davy .....	5	1	5	204	55·32	239
d Arisaig (Point of Rhue) .....	Mr. D. McVarish .....	5	1	0	100 $\nabla$	44·57	206
d „ (Faire-na-Sguir) .....	Miss C. C. Astley .....	5	1	8	500 ?	53·85	227
d „ House .....	Mr. W. Grant .....	5	1	0	30 ?	58·89	237
Loch Morar (Meoble Lodge).....	E. M. Crosfield, Esq....	8	1	3	104 $\uparrow$	91·46	...
Loch Lochy (Invergloy) .....	Major G. J. Bailey.....	5	1	0	200	54·68	220
d§Loch Arkaig (Achnacarry) .....	Charles Mackenzie, Esq.	5	1	0	110	68·86	246
d§ „ „ (Glen Dessary) .....	„ „ „ „ „	5	1	0	300 $\uparrow$	103·34	216
d Loch Nevis (Inverie).....	Mr. J. Huggins ....	5	0	6	10	77·91	245
d Glenelg Manse .....	Rev. A. Mactaggart ...	5	1	0	85 $\nabla$	56·14	279
Skye (Kilmalie, Strathaird).....	Mr. J. MacKinnon.....	5	0	8	0	89·22	...
d „ (Scalpay Island) .....	Mr. D. Gunn .....	5	1	0	4	80·73	250
§ „ (Glendrynoch, L. Harport). ..	Rev. H. Harbord .....	5	1	0	40	69·23	...
d „ (Dunvegan) .....	Miss M. M. Mackenzie..	5	3	0	47 $\nabla$	66·42	247
d§ „ (Lynedale) .....	Scot.Meteorological Soc. ....	...	...	...	100 ?	62·12	241
S. Uist (Ushenish).....	Bd. of Northern Lights	3	1	0	178 ?	45·00	203
N. „ (Monach) .....	„ „ „ „ „	8	5	6	150	48·37	234
d „ „ (Lochmaddy) .....	W.S.Hetherington, Esq.	5	0	9	20	46·05	218
Harris (Island Glass).....	Bd. of Northern Lights	7	4	2	130	44·23	...
d „ (West Tarbert) .....	J. Fraser, Esq. ....	5	1	6	33 $\downarrow$	73·33	238
EAST INVERNESS.							
§Loch Quoich (Loan) .....	W. M. Christy, Esq. ....	5	1	6	650 $\uparrow$	145·45	...
d§ „ „ (Kinlochquoich) ...	Charles Mackenzie, Esq.	5	1	0	560 $\nabla$	109·75	214
d „ „ (Glenquoich) .....	Mr. D. Grant .....	5	1	2	569 $\nabla$	106·13	246
d§Glen Garry (Inchlaggan) .....	Scot.Meteorological Soc. ....	...	...	...	...	68·23	272
Invergarry .....	Mr. G. Robertson .....	5	1	0	130 ?	66·92	...
§Kingussie .....	Scot.Meteorological Soc. ....	5	1	0	828	30·09	...
d§Fort Augustus (St. Benedict's)...	Rev. C. von Dieckhoff..	5	1	0	68 $\nabla$	42·22	216
d Alvey Manse .....	Rev. J. Anderson .....	5	1	0	760 $\uparrow$	31·52	179
Loch Ness (Killin, Whitebridge). ..	British Aluminium Co.	5	1	0	1200	43·51	...
d „ „ (Garthbeg).....	„ „ „ „ „	5	1	0	645 $\uparrow$	37·60	179
„ „ (Foyers).....	„ „ „ „ „	8	1	6	52	37·61	...
„ „ (Aberchalder) .....	„ „ „ „ „	5	1	0	700 $\uparrow$	37·69	...
d Muckerach Lodge [Grantown]...	Mr. J. Fraser .....	5	1	3	750	33·63	212
d Drumnadrochit .....	Mr. Angus Grant .....	5	1	0	138 $\nabla$	37·65	236
d§Inverness (High School) .....	W.G.MacConnachie Esq	5	1	0	98 $\uparrow$	30·93	159



## DIVISION XIX.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
CAITHNESS.							
D§ Berriedale (Langwell) .....	Mr. M. MacKenzie ...	6	1	0	150 T	39.56	163
D§ Wick .....	Meteorological Office...	8	1	9	77	32.47	253
D Watten (Stanstill).....	Miss Davidson .....	5	1	0	127 T	33.78	213
D Thurso (Buckies) .....	J. H. M. Davidson, Esq.	5	0	11	240 P	38.65	251
D§ Reay (Sandside).....	N. McNicol, Esq. ....	8	1	0	120 T	43.12	231
D Castletown (The Clett) .....	Capt. J. Calder .....	5	1	0	73 T	38.34	253
Thurso (Holburn Head) .....	Bd. of Northern Lights	3	0	8	75 P	31.75	169
Dunnet Head .....	„ „ „	3	1	0	246	29.57	185
Stroma .....	„ „ „	...	...	...	104	30.58	209
Pentland Skerries .....	„ „ „	7	3	9	170	29.42	152
ORKNEY.							
Hoy (Cantickhead) .....	Bd. of Northern Lights	3	1	0	115	32.67	201
„ (Graemsay Sound, East=High)	„ „ „	5	0	4	115	36.13	227
„ „ „ (West=Low)	„ „ „	8	4	3	55	28.54	226
§ Pomona (Deerness) .....	Scot. Meteorological Soc.	5	1	0	161	32.89	...
D§ „ (Kirkwall) .....	A. G. Spence, Esq. ...	5	1	0	72	37.47	240
Hellyar Holm.....	Bd. of Northern Lights	3	1	0	60	31.22	193
Shapinsay (Balfour Castle) .....	Mr. W. Liddell .....	5	0	6	50	27.08	...
Auskerry .....	Bd. of Northern Lights	3	2	6	10	31.16	184
Sanday (Start Point).....	„ „ „	3	1	0	80	29.82	...
Westray (Noup Head) .....	„ „ „	3	1	0	260	27.74	196
North Ronaldshay .....	„ „ „	3	0	4	140	30.23	184
SHETLAND.							
Fair Isle, North .....	Bd. of Northern Lights	...	..	..	262	34.15	...
§ Sumburgh Head (Dunrossness) ..	Meteorological Office...	8	1	0	126	38.70	248
Bressay .....	Bd. of Northern Lights	3	1	0	105	40.84	195
D§ Lerwick .....	Capt. G. Allison .....	5	1	0	30	44.13	212
Sule Skerry .....	Bd. of Northern Lights	3	0	6	113	34.99	239
§ Northmavine (Lochend) .....	„ „ „	5	1	10	10	48.61	...
D Fetlar (The Manse) .....	Rev. J. A. Campbell ...	5	1	0	30 L	39.35	235
D§ Unst (Balta Sound, Halligarth) ..	Dr. T. Edmondstone Saxby..	5	1	0	31 T	41.90	260



## I R E L A N D.

## DIVISION XX.—MUNSTER.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1910	Days with '01 or more recorded.
		Diameter	Height above Ground.		Height above Sea Level		
		in.	ft.	in.	feet.	inches.	
<b>CORK.</b>							
D Castletownshend(GlenBarrabane)	Sir E. B. Coghill, Bart.	5	3	0	25 L	48·72	184
Skibbereen (Hollybrook) .....	Capt. C. M. Morgan ...	8	1	2	60 T	49·42	225
D „ Rectory .....	RevCanonHWTownsend	5	1	6	55 A	46·86	236
D Clonakilty (Shannon Vale House)	T. J. Bennett, Esq. ...	5	1	3	135 T	42·24	235
D Ballineen (Kilmeen Rectory) ...	Rev. W. A. Lamb.....	5	1	6	370 T	50·22	234
D Dunmanway (The Rectory) .....	Rev. A. Wilson .....	5	1	6	205 T	54·47	244
D Enniskean (Kilcoleman) .....	J. E. Longfield, Esq....	5	2	6	192 T	45·27	222
D Bandon (Ardnacarrig) .....	G. A. Armstrong, Esq..	5	1	0	126 T	42·59	207
+Roches Point .....	Meteorological Office..	8	1	9	32	40·24	277
D Shanagarry (Kinoith) .....	Miss L. P. Strangman..	5	1	0	75 T	37·01	163
D+Midleton (Ballynacurra) .....	J. H. Bennett, Esq. ...	8	1	0	24 L	39·60	208
+Cork (Corn Market) .....	D. J. O'Mahony, Esq... 12	1	9		19 A	39·54	182
D+ „ (The Palace) .....	Rt. Rev. Bishop of Cork	5	1	0	40 L	41·12	221
D+ „ (University College).....	Prof. C.W.L. Alexander	8	1	0	65 A	40·36	241
D+ „ (Fernhurst Avenue).....	W. Miller, Esq.....	5	1	0	50 B	38·56	225
D „ (Wellington Road) .....	R. C. Sikes, Esq., C.E.	5	2	6	120 T	43·36	225
D+Queenstown (Fota Island) .....	Mr. W. Beswick.....	5	2	1	35	45·88	268
+Glanmire (Lota Lodge).....	A.F. Sharman Crawford,Esq.	5	1	0	200 T	43·93	233
+ „ „ „ ).....	„ „ „ „ „	5	3	0	200 T	44·00	234
D Mallow (Summer Hill) .....	J. F. Williamson, Esq..	5	1	10	261 T	43·83	235
D „ (Longueville) .....	R. E. Longfield, Esq... 5	1	1		310	44·59	250
D Fermoy (Castlehyde) .....	W. W. Becker, Esq. .... 4	4	0		...	51·52	212
D Mitchelstown Castle .....	W. D. Webber, Esq.... 8	3	0		340 A	50·40	235
<b>KERRY.</b>							
D+Darrynane Abbey .....	D. O'Connell, Esq..... 5	1	1		13 A	60·43	288
Kenmare (Derreen) .....	Mr. W. Holbrow ..... 5	1	0		74 L	67·79	245
„ (Dunkerron) .....	Miss L. Palmer ..... 5	1	6		70	65·09	218

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## DIVISION XX.—MUNSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1910	
KERRY—(con.)		in.	ft.	in.	feet.	inches.	
§ Valencia (Glanleam) .....	Meteorological Office ..	8	1	0	12	58.74	247
† Cahirciveen .....	Dr. H. R. Mill .....	8	2	0	45	52.81	268
† Gap of Dunloe (Gearahameen)...	Meteorological Office ...	8	3	0	75	80.60	...
§ Lough Caragh (Lickeen) .....	E. W. Griffin, Esq., M.D.	5	1	0	60	83.30	261
† Killarney (District Asylum) ...		5	0	10	178 †	58.88	269
WATERFORD.							
‡ Lismore Castle .....	J. E. Penrose, Esq. ....	8	2	9	115 †	45.23	193
‡ Knockaderry .....	J. J. Fleming, Esq., C.E.	5	7	7	247 †	39.50	178
„ „ .....	„ „ „ „	5	7	7	247 †	40.52	178
† Waterford (Whitfield Court) ...	Major H. Chavassee.....	5	0	7	67 †	40.32	209
† „ (Brook Lodge).....	C. P. Bolton, Esq., C.E.	5	1	0	104 †	39.60	200
† „ (Tycor Waterworks).....	J. J. Fleming, Esq., C.E.	5	0	7	171 †	39.16	169
„ „ (Grange House) .....	G. D. Croker, Esq. ....	5	1	0	200 †	37.54	220
† „ (St. Andrew's Terrace).....	E. A. White, Esq. ....	5	1	0	28	39.14	202
† „ (Rocklands).....	J. N. White, Esq. ....	5	1	0	100	38.47	205
‡ Portlaw (Mayfield).....	J. Anderson, Esq. ....	5	4	0	70	41.41	222
„ „ (The Gardens, Curraghmore).....	Mr. D. Crombie .....	5	1	0	95	44.59	184
‡ Glenam [Clonmel] .....	Miss Grubb.....	8	1	4	80 †	41.24	230
‡ Sheskin [Carrick-on-Suir] .....	J. Ernest Grubb, Esq. ...	8	1	4	542 †	44.75	226
TIPPERARY.							
‡ Clonmel (Bruce Villa) .....	J. H. Grubb, Esq. ....	5	1	3	110 †	37.09	221
§ Cahir (Bengurragh) .....	Roy. Meteorological Soc.	5	1	0	199 †	42.76	247
„ „ Abbey .....	Mrs. W. Rochfort .....	5	0	6	...	43.83	220
Cashel (Ballinamona) .....	E. W. M. Murphy, Esq.	5	1	0	260 †	38.74	...
‡ Ballina [Killaloe] .....	F. Dudley Fletcher, Esq. C.E.	5	2	0	...	50.50	228
‡ Nenagh (Traverston) .....	Miss Norris.....	5	1	0	...	47.27	267
„ „ (Kilboy) .....	The Lady Dunalley ...	8	1	0	326	50.17	245
‡ „ (Castle Lough) .....	S. G. J. Parker-Hutchinson Esq.	5	1	3	120 †	41.08	234
‡ „ (Highlands) .....	John Mounsey, Esq. ...	5	1	2	400 †	34.72	212
‡ Roscrea (Timoney Park) .....	S. G. J. Parker-Hutchinson Esq.	5	1	0	475 †	40.38	229
LIMERICK.							
§ Foynes (Mount Trenchard) .....	Meteorological Office...	5	1	0	108	44.88	294
Limerick (Glenview).....	Sir A. W. Shaw .....	5	2	2	350 †	35.43	234
§ „ (Mungret College) ...	Rev. W. O'Leary, S.J.	5	1	0	48 †	35.78	222
† „ (George Street) .....	J. Horan, Esq. ....	5	1	0	52 †	37.57	235
„ „ (St. Michael's School).....	Ven Archdeacon Wynne	8	2	0	100 ?	40.60	...
Cappermore (Glenstal Castle).....	Mr. J. Murphy.....	8	1	0	500 ?	46.70	201
CLARE.							
‡ Carrigaholt Castle.....	W. C. V. Burton, Esq.	5	1	0	16 †	42.01	251
† Derravoher [Limerick] .....	Sir A. W. Shaw.....	5	1	0	40 †	36.89	238
‡ Killadysert (Paradise Hill) .....	F. B. Henn, Esq. ....	5	0	11	125 †	47.96	228

DIVISION XX.—MUNSTER—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1910	Days with 0.1 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
CLARE—( <i>con.</i> )						
§ Newmarket-on-Fergus (Carrigoran)	Meteorological Office ...	5	1	0	86 T	41.53
D " " (Fenloe) ..	Maj. S. C. Hickman ...	5	1	2	75	38.94
D Broadford (Hurdlestown) .....	Colonel W. A. Bentley.	5	1	0	167 T	43.39
D § Inagh (Mount Callan) .....	Lt.-Col. F. Tottenham..	5	1	0	480	63.90
D Miltown Malbay (Ballyvasken)...	M. Molohan, Esq. ....	5	1	0	400 T	44.73
D Ennistymon House .....	H. V. Macnamara, Esq.	5	1	0	37 T	48.95
D " Rectory .....	Rev. C. W. McDowell..	5	1	0	131 T	49.12
D Scarriff (Woodpark) .....	R. F. Hibbert, Esq. ...	5	1	0	170 T	46.20

## DIVISION XXI.—LEINSTER.

## WEXFORD.

D Fethard-on-Sea Rectory .....	Rev. W. F. A. Ellison..	5	1	0	40 L	35.39
D † Wexford (Bann-aboo) .....	Col. J. R. Magrath ...	8	4	0	15	41.53
Templeudigan (Ballindoney) ...	Janssen Budgen, Esq...	5	1	0	434 B	43.09
D Enniscorthy (Ballyhyland) .....	Mrs. Moffat.....	5	1	0	365 T	46.86
D " (Summerville) .....	W. Waring, Esq. ....	5	6	10	106 T	37.18
D Oulart (Wells) .....	C. M. Doyne, Esq.....	5	1	0	250 T	41.93
D Enniscorthy (Woodbrook).....	Rev. Canon Blacker ...	5	1	0	300 T	49.09
D Gorey (Courtown House) .....	The Earl of Courtown..	5	3	0	80 T	39.63

## KILKENNY.

D Rockenham [Waterford] .....	A. E. Graves, Esq.....	5	1	0	140 T	38.44
Inistioge (Woodstock) .....	Mr. W. Leath.....	6	1	0	400 T	40.56
§ Kilkenny Castle .....	Meteorological Office...	8	1	0	212	37.43
† " (Lavistown House) ..	Miss Butler.....	5	2	5	170	34.74
D Goresbridge (Barraghcore House)	H. de M. Fleming, Esq.	5	1	0	130 T	37.00
D Castlecomer House.....	R. H. Prior-Wandesforde, Esq	5	0	9	380	43.20

## WICKLOW.

D Shillelagh (Coollattin Gardens)...	Duncan Brough, Esq...	5	0	7	400	45.52
D Rathdrum (Avondale) .....	A. C. Forbes, Esq.....	5	0	3	420 T	44.92
D Rathnew (Clonmannon) .....	Rev. W. H. A. Truell..	5	1	0	27	35.81
D † Laragh (Glendalough) .....	Wyndham H Wynne Esq	5	2	9	460 T	69.02
Roundwood (Vartry Lodge) .....	J. G. O'Sullivan Esq. C.E.	5	1	0	720	50.75
" .....	" " "	5	1	6	800 T	52.74
" (Knockatemple).....	" " "	5	1	6	760 T	51.89
D § Newcastle (Killadreenan) .....	Dr. J. T. Crowe .....	8	1	2	260 T	42.17
Tithewere .....	J. G. O'Sullivan Esq., CE	5	1	6	1000 T	50.50
Annacarter Schoolhouse .....	" " "	5	1	6	750 T	52.21
D Greystones (Knockdolian).....	R. Cathcart Dobbs, Esq.	5	1	2	69 T	40.51
" (Clonsilla) .....	Sir J. W. Moore, M.D.	5	0	8	50 T	38.42

## DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1910	
WICKLOW—(con.)							
d†Bray (Fassaroe) .....	R. M. Barrington, Esq.	10	5	0	250	47.90	206
„ ( „ ) ..... <i>Snowdon</i>	„ „ „	5	1	0	250	46.21	...
CARLOW.							
Bagnalstown (Fenagh House) ...	D. R. P. Beresford, Esq	5	1	0	340	38.79	230
„ ( „ „ ) M	„ „ „	5	1	0	340	36.17	...
d Tullow (Hardymount) .....	Capt. C. L. Connellan...	5	1	3	300 †	35.37	213
Carlow (Browne's Hill).....	Major Browne Clayton.	5	1	0	291 †	39.27	...
d „ (Dublin Street) .....	A. G. Hayward, Esq...	5	1	0	200 ?	41.59	194
Hacketstown Rectory .....	Rev. C. S. S. Ellison ...	5	...		600 †	45.59	222
QUEEN'S COUNTY.							
Sunnyside [Carlow] .....	E. Shackleton, Esq. ...	5	1	0	178 †	35.11	183
d Abbey Leix (Blandsfort) .....	H. Bland, Esq. ....	5	2	6	532 †	43.02	238
d Mountrath (Castletown) .....	Col. W. Dunne, C.B....	5	3	0	452 †	39.42	210
d „ (Ballyfin).....	Mr. J. B. McLaren ...	8	1	0	600 †	47.21	231
§ Mountmellick (Drogheda Square)	Meteorological Office ...	8	1	0	253	38.91	219
KING'S COUNTY.							
d§ Birr Castle .....	No. 1 Dr. O. Boeddicker .....	8	1	0	183	34.43	231
d§ „ „ .....	No. 2 „ „ „	8	1	0	183	33.93	232
d Victoria Lock [Meelick] .....	F. Dudley Fletcher Esq. CE	5	2	0	119	30.74	207
Tullamore (St. Catherine's) .....	Rev. R. S. Craig .....	5	1	0	201 †	36.45	...
Ballycumber (Moorock Lodge)...	H. P. Mulock, Esq. ...	...	...		...	31.50	...
KILDARE.							
d Castledermot .....	Very Rev. M. Walsh...	5	2	8	...	36.97	182
d Monasterevan (Moore Abbey) ...	Mr. C. Pilgrim .....	5	1	0	236 †	36.03	229
d „ (Umeras).....	G. Balkwill, Esq. ....	5	3	6	247 †	35.20	232
d Sallins (Palmerstown) .....	The Countess of Mayo..	5	1	0	321 †	34.81	212
d Straffan House .....	Mr. F. Bedford .....	5	2	0	240 †	35.93	210
d§ Clongowes Wood College .....	Rev. J. J. Nerney, S.J.	8	1	0	238 †	35.24	226
Kilcock (Knockanally) .....	W. C. Coates, Esq.....	5	1	0	290 †	35.60	...
DUBLIN.							
d Glen-na-Smoel (Rathmines W.W.)	F. P. Dixon, Esq., C.E.	5	1	0	514 †	83.11?	259
Carrickmines (Claremont) .....	John Read, Esq. ....	5	0	11	350	37.15	...
d Killiney (Druid Lodge).....	Mrs. Symes .....	5	1	0	250 †	33.47	182
d Foxrock (Hillside).....	G. M. W. Hill, Esq. ...	5	1	0	245 †	42.10	218
d† Blackrock (Charleville).....	Miss C. Pim .....	5	1	0	260 ?	36.77	170
d Dundrum (Manor Mill Lodge)...	G. B. Edmondson, Esq.	5	1	3	192	39.78	222
„ (Lynton) .....	Sir J. W. Moore, M.D.	5	1	0	200 ?	40.28	221
§ Kingstown (People's Park) .....	J. S. Vaughan, Esq. ...	8	1	0	42	31.77	196
d „ (Harbour Yard) .....	R. D. Gray, Esq., C.E..	8	1	0	52 †	33.06	166

## DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with $\geq 0.1$ or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet	inches.	
<b>DUBLIN—(con.)</b>							
Rathmines (Terenure) .....	F. P. Dixon, Esq., C.E.	5	0	6	125 $\frac{1}{2}$	35.77	198
D „ (Leinster Road) .....	E. H. Cannon, Esq. ...	5	0	11	125 $\frac{1}{2}$	38.01	216
D „ (Ormond Road) .....	W.R. Stephens, Esq. C.E.	5	1	0	99 $\frac{1}{2}$	37.27	215
Donnybrook (Belmont Avenue)..	Douglas Waring, Esq..	5	0	9	100 ?	36.84	202
Dublin (Leeson Park) .....	Sir J. W. Moore, M.D.	5	1	4	75 ?	37.69	221
D† „ (Fitz William Square) ...	„ „ „ „	8	1	6	54 $\frac{1}{2}$	35.44	219
D† „ (Trinity College) .....	Prof. W. E. Thrift „	8	1	0	13 $\frac{1}{2}$	33.96	190
D† „ (Phoenix Park) .....	Ordnance Survey Office	8	1	0	155 $\frac{1}{2}$	31.55	208
D „ (Drumcondra Road).....	A. Roycroft, Esq. ....	5	4	9	76	34.59	198
D Drumcondra (St. Patrick's College)	Rev. P. Bertram Foy...	8	0	10	...	30.83	206
D Glasnevin (Roy. Botanic Gardens)	F. W. Moore, Esq. ...	8	1	0	55 $\frac{1}{2}$	34.57	221
D Howth (Balkill Reservoir) .....	Messrs. Kaye-Parry & Ross, CE	8	1	0	304 $\frac{1}{2}$	36.25	203
D Malahide (Seamount) .....	J. G. Jameson, Esq. ...	5	1	0	150 $\frac{1}{2}$	33.64	197
„ (The Green) .....	T. Bateman, Esq. ....	5	1	0	25 $\frac{1}{2}$	32.57	194
D Lambay Island .....	Hon. Cecil Baring .....	5	1	0	20	35.38	195
D† Skerries (Milverton Hall).....	Capt. E. G. Woods.....	5	1	0	190 $\frac{1}{2}$	31.03	194
D† Balbriggan (Ardgillan) ... No. 1	Capt. E. R. Taylor.....	5	1	0	211 $\frac{1}{2}$	34.71	202
† „ „ „ „ „ No. 3 „ „ „ „	„ „ „ „ „	5	1	0	211 $\frac{1}{2}$	34.84	...
<b>MEATH.</b>							
D Dunboyne (Stirling, Clonee).....	Mr. J. Pilkington .....	8	1	0	231 $\frac{1}{2}$	35.46	217
D Summerhill House.....	Lord Langford .....	5	1	0	372 $\frac{1}{2}$	36.90	222
Athboy .....	C. P. Coghill, Esq.....	8	1	3	227	38.77	195
D Navan (Durhamstown).....	Miss M. Roberts.....	5	0	8	...	36.47	204
D Drogheda (Mullacrogan).....	W. B. Hill, Esq. ....	5	1	6	300	33.26	191
D Kells (Headfort).....	The Marquis of Headfort	8	0	6	227	38.55	192
D Moynalty (Westland) .....	W. A. Barnes, Esq. ...	5	1	2	260 $\frac{1}{2}$	41.92	220
D Drumconrath (Aclare House) (R)	Mrs. Singleton .....	10	1	0	119 $\frac{1}{2}$	36.14	212
D „ „ „ „ „ „	„ „ „ „ „	5	1	0	119 $\frac{1}{2}$	35.57	208
<b>WESTMEATH.</b>							
D Athlone .....	F Dudley Fletcher Esq CE	5	2	0	128 $\frac{1}{2}$	33.23	197
D „ (Twyford) .....	J. P. Hodson, Esq.....	5	5	0	188 $\frac{1}{2}$	35.43	230
D Moate (Coolatore) .....	H. A. S. Upton, Esq...	5	1	6	370	37.85	221
D Mullingar (Belvedere) .....	Mr. J. Bayliss .....	5	1	0	367 $\frac{1}{2}$	41.19	202
D „ (Ballynegall) .....	Mr. J. Campbell.....	5	1	3	365	44.89	226
Rathowen (Cromlyn) .....	(R) Gen. J. P. Battersby ...	8	1	6	250 $\frac{1}{2}$	39.81	229
D Castlepollard (Pakenham Hall)...	Mr. G. Bogie .....	5	1	6	300 ?	43.37	220
D Coole (Mayne Rectory) .....	Rev. R. Butler .....	5	1	0	300	39.92	219
<b>LOUTH.</b>							
D Ardee (Lissrenny) ..	T. F. Filgate, Esq.....	8	0	10	75 $\frac{1}{2}$	36.00	203
„ (Mullanstown).....	„ „ „ „	8	1	0	106 $\frac{1}{2}$	31.73	...
Dundalk (Farndreg) .....	J. Barton, Esq., C.E....	5	1	6	90 $\frac{1}{2}$	31.53	...
D „ (Mount Pleasant) ..	Telford Macneill, Esq... 5	5	1	0	60 $\frac{1}{2}$	34.97	224
D Greenore.....	T. Chambers, Esq., C.E. 5	5	1	0	4 $\frac{1}{2}$	32.30	205

## DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level.	1910	
		in.	ft.	in.	feet.	inches.	
LONGFORD.							
d Ballymahon (New Castle).....	Col. W.H.King-Harman	4	2	5	250 $\nabla$	38.31	223
d Cloondrah .....	F Dudley Fletcher Esq CE	5	2	0	130	35.34	255
Edgeworthstown (Currygrane Ho.)	J. M. Wilson, Esq. ...	5	1	0	275 $\nabla$	36.53	191
Longford.....	J. W. Gunnis, Esq. ...	...	...		...	40.54	204

## DIVISION XXII.—CONNAUGHT.

**GALWAY.**

D Ballinasloe .....	W. H. Kempster, Esq.	5	2	6	160 $\nabla$	36.05	241
D „ (District Asylum) ...	Dr. J. St. L. Kirwan ...	5	1	0	154 $\nabla$	34.39	215
D Woodlawn .....	Mr. J. Laurie .....	5	3	6	300 $\nabla$	40.06	207
Ahascragh (Clonbrock) .....	Lord Clonbrock, K.P. ...	10	5	6	200 $\nabla$	47.09	...
Tuam (Castle Hacket) .....	P. B. Bernard, Esq. ...	5	1	6	...	43.70	...
„ (Gardenfield) ..... No. 3 M	H. Kirwan, Esq. ....	5	1	0	155 $\nabla$	46.96	...
„ { „ } ..... No. 1	„ „ „ .....	5	6	0	160 $\nabla$	46.74	242
„ { „ } No. 2 weekly	„ „ „ .....	5	1	0	155 $\nabla$	47.28	...

**ROSCOMMON.**

D Strokestown (Castlenode) .....	W. J. Walpole, Esq. ....	5	2	0	150 $\nabla$	36.59	186
D Albert Lock [Jamestown].....	F Dudley Fletcher Esq CE	5	2	0	146 $\nabla$	38.29	206

**MAYO.**

D Cong (The Glebe) .....	Rev. Canon R. Y. Lynn	5	1	11	112 $\nabla$	50.36	245
D Westport House.....	The Marquis of Sligo...	...	12	0	40	45.17	197
D „ (St. Helen's) .....	Miss Kelly .....	6	0	11	35 $\nabla$	47.04	259
D Newport (Burrishoole House) ..	H. M. Anketell Jones Esq	5	1	10	30	52.39	260
D Dugort (Slievemore Hotel) .....	Mrs. J. R. Sheridan ...	5	1	0	50 $\nabla$	68.46	245
§ Blacksod Point .....	Meteorological Office...	8	0	10	41	49.49	249
D Crossmolina (Enniscoe).....	J. Pratt, Esq.....	5	0	11	74 $\nabla$	52.01	252

**SLIGO.**

D § Collooney (Markree Observatory)	J. R. Armstrong, Esq..	5	1	0	127 $\nabla$	53.38	251
§ „ ( „ „ )	„ „ „	5	16	6	143 $\nabla$	52.04	246

**LEITRIM.**

D Ruskey .....	F Dudley Fletcher Esq CE	5	2	0	139 $\nabla$	30.57	223
D Mohill Rectory .....	Rev. H. Justice .....	5	1	0	300 $\nabla$	43.74	223
§ Carrigallen .....	Meteorological Office...	...	...	...	350 $\nabla$	49.97	247
Drumshanbo (Lough Allen Sluices)	F Dudley Fletcher Esq CE	5	2	0	169 $\nabla$	45.87	...

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
<b>CAVAN.</b>							
D Killeshandra (Castle Hamilton) ..	Major W. J. Hamilton	5	1	0	251 T	40·43	221
D " (Drom Mullac) ...	Miss Prudence M. Lough	5	1	0	280 T	41·83	239
D Cootehill (Errigle) .....	Dr. T. H. Moorhead ...	5	0	9	220 T	40·73	214
D " (Cabragh House) .....	Lt.-Col. W. A. C. Roe..	5	1	3	260	41·56	217
D Belturbet (Cloverhill) .....	Mrs. Sanderson .....	5	1	0	202 T	37·56	224
D Ballyconnell House .....	Surg.-Gen. S. B. Roe, CB	8	1	2	196 T	50·08?	240
<b>FERMANAGH.</b>							
D Newtownbutler (Crom Castle) ...	Mr. A. Reid .....	5	0	9	174 T	40·91	266
Enniskillen (Portora) .....	W. N. Tetley, Esq. ...	5	1	0	251 T	43·54	...
Belleek .....	J. Beacom, Esq. ....	5	1	5	150 B	44·86	238
<b>MONAGHAN.</b>							
D Dartrey [Cootehill] .....	The Earl of Dartrey ...	5	2	6	265	41·33	215
D Monaghan (Rowantree House)...	Dr. J. Campbell Hall...	5	5	6	240	32·10	186
<b>ARMAGH.</b>							
D Bridge Street [Newry] .....	J. L. D. Meares, Esq. C. E.	5	0	9	22 T	40·03	199
D Tanderagee .....	Dr. J. Taylor .....	5	1	6	198 T	35·74	202
" .....	" .....	8	1	6	198 T	35·79	...
D § Armagh Observatory .....	Dr. J. L. E. Dreyer ...	8	1	0	210 T	32·51	209
D Loughgall (Manor House) .....	Mrs. Cope .....	5	1	0	210 T	30·73	197
D Lurgan (Belle Vue) .....	S. A. Bell, Esq. ....	5	0	5	200 T	29·20	195
<b>DOWN.</b>							
D Warrenpoint (The Manor House)	Lt.-Col. A. W. Mansergh	8	1	4	40 T	39·58	193
D Mourne Mountains (Fofanny Res.)	J. H. H. Swiney, Esq. C. E.	5	1	0	938	72·74?	240
D Newcastle (Tullymore Park) ...	The Earl of Roden .....	5	1	0	276 T	56·77	206
D Rathfryland (Ballynagappoge)...	J. Smyth, Esq., C. E. ....	5	1	0	300	30·51?	179
D Castlewellan (Lough Island Res.)	" .....	5	1	0	440 T	48·33	209
Banbridge (Katesbridge) .....	A. A. Mulligan, Esq. ...	5	1	0	230 T	28·71?	170
D Seaforde .....	Major W. G. Forde ...	8	0	5	180 T	38·62	214
D Banbridge (Corbet Reservoir) ...	J. Smyth, Esq., C. E. ....	5	1	0	234	30·35	168
D " (Milltown) .....	" .....	8	0	8	200 T	31·69	198
D Moyallon House [Portadown] ...	Mr. J. Lynas .....	5	0	5	130 T	30·81	192
§ Donaghadee .....	Meteorological Office...	8	1	6	40	33·58	219
<b>ANTRIM.</b>							
Stonyford (Belfast W. W.) .....	FW McCullough Esq. CE	5	1	6	437 T	39·46	211
D † Belfast (Queen's University) ...	Mr. G. Robinson ...	5	1	0	62 T	40·57	215
D † " (Springfield) .....	Miss Firth .....	5	1	0	150 T	45·12	228
D " (Outfall Works) .....	Belfast Corporation ...	8	2	11	19	36·79	210

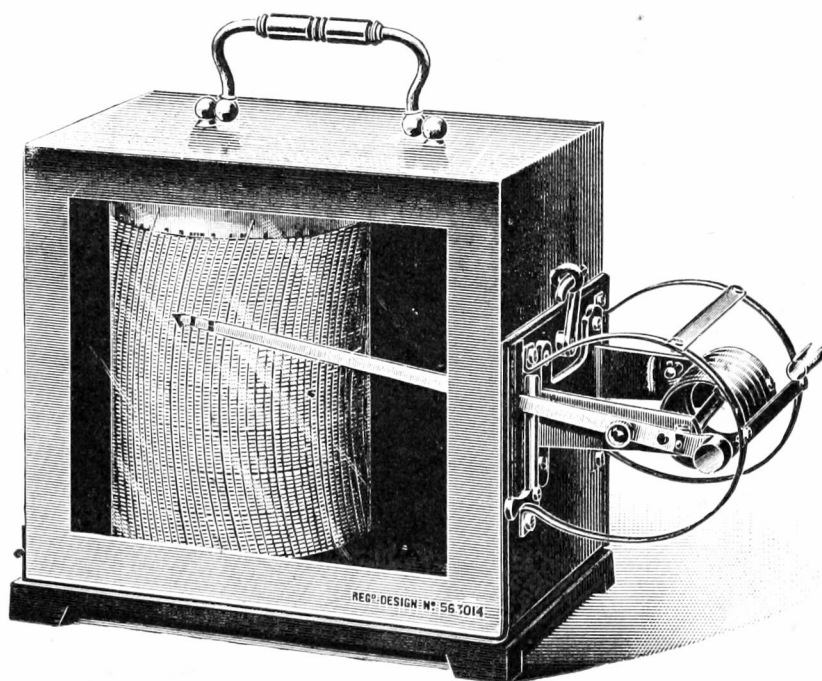
DIVISION XXIII.—ULSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1910	
		in.	ft.	in.	feet.	inches.	
ANTRIM—(con.)							
Belfast (Oldpark Filters) .....	F.W.McCullough Esq CE	5	3	6	203 7	39.48	219
Antrim (Ardnaveigh) .....	H. B. Murray, Esq. ...	5	1	0	210	36.54	215
Carrickfergus (Dorisland) .....	F.W.McCullough Esq CE	5	1	0	250 7	36.78	214
„ (South Woodburn) .....	„ „ „	5	1	0	640 7	44.28	248
„ (North „) .....	„ „ „	5	1	0	735 7	48.84	258
„ (Copeland) .....	„ „ „	5	1	0	424 7	37.07	236
„ (Lough Mourne) ...	„ „ „	5	1	0	596 7	46.42	249
D Ballymena (Harryville) .....	J. R. Williams, Esq. ...	5	1	5	150 7	46.63	249
D Broughshane (Quolie) .....	H. O'Hara, Esq., C.E..	5	1	4	893	47.51	228
§ Glenarm .....	Meteorological Office...	8	0	9	50	47.99	207
Ballymoney (Balmamore) .....	George Smyth, Esq. ...	5	1	5	50 7	35.54	264
D Bushmills (Dundarave) .....	late Sir F.E. Macnaghten	5	1	0	162 7	41.13	231
LONDONDERRY.							
D Garvagh (Moneydig) .....	H. R. Morrison, Esq. ...	5	1	0	121 7	42.01	217
D Londonderry (Creggan Res.) .....	Mr. J. Hutchison .....	8	1	0	320 7	48.63	258
D „ (Dunruadh) .....	J. H. Welch, Esq. ....	5	0	6	130 7	45.04	245
Limavady (Drenagh) ..	M.M. McCausland, Esq.	5	1	6	80 7	41.30	257
D „ (Culmore Ho., Myroe)	J. B. Martin, Esq. ....	8	4	6	15	37.24	238
D Bellarena .....	Dowager Lady Heygate	5	1	3	7	38.66	241
TYRONE.							
D Dungannon (Killyman Rectory) ..	Rev. E. F. Campbell ...	5	0	11	150	36.83	219
D Omagh (Edenfel) .....	Lt.-Col. J. B. Buchanan	8	1	0	280 7	43.73	222
D Cookstown (Lissan House) .....	J. H. Staples, Esq. ....	5	0	10	300	38.05	255
D Sion Mills (Sion House) .....	Miss G. I. Herdman ...	5	1	6	100 7	43.42	233
DONEGAL.							
D Killybegs .....	Capt. G. G. Philipps ...	5	1	0	50 7	64.94	251
D Convoy .....	Rev. Preb. K. Thompson	5	0	9	150 7	53.85	250
D Letterkenny (District Asylum) ..	E. E. Moore, Esq., M.D.	5	1	0	183 7	52.83	254
D Milford (The Manse) .....	Rev. W. J. Young .....	5	1	6	150	49.86	244
D Mulroy Gardens .....	Mr. Jas. Smith .....	5	0	8	...	52.66	208
D Buncrana (Rockfort) .....	T. Colquhoun, Esq. ...	5	1	0	55 7	47.47	231
D § Dunfanaghy (St. Helen's) .....	J. J. MacGrath, Esq. ...	8	1	0	55 7	47.19	247
D Fanad (Tamney Rectory) .....	Rev. A.C. Digby French	5	4	0	115 7	45.80	266
D Dunfanaghy (Horn Head) .....	C. F. Stewart, Esq. ...	5	2	0	163	44.06	253
D Lough Swilly (Carrablagh) .....	Rev. A.C. Digby French	5	1	0	130	52.07	250





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