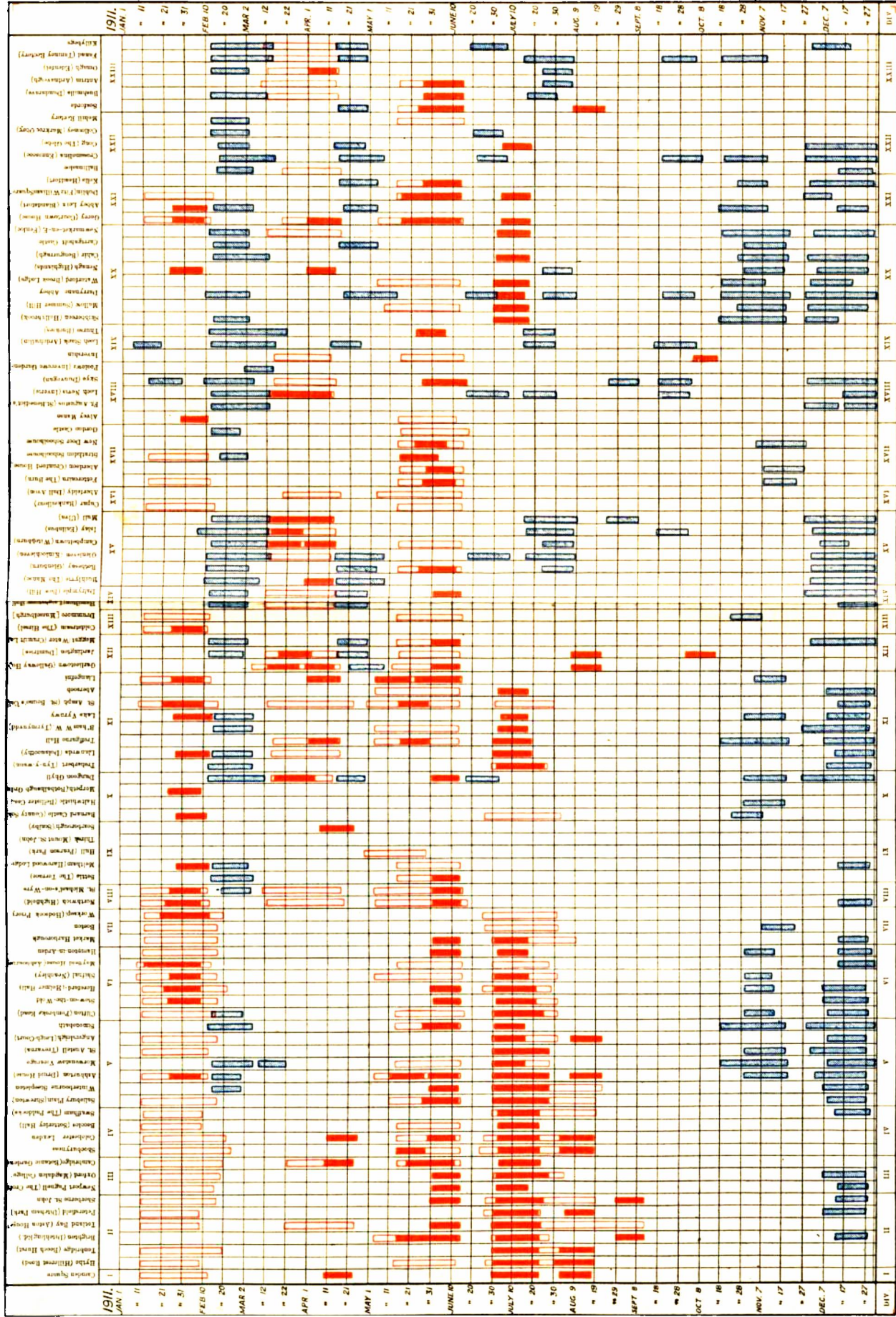


**BRITISH RAINFALL,
1911.**

LONDON :
SHIELD AND SPRING, PRINTERS,
LANCELOT PLACE, BROMPTON ROAD, S.W.

DIAGRAM SHOWING THE ABSOLUTE DROUGHTS, PARTIAL DROUGHTS AND RAIN SPELLS OF 1911 AT 100 STATIONS.



In this diagram a vertical column, representing the year 1911, is devoted to each station, the Roman numerals indicating the Divisions in which the stations are situated. The horizontal lines represent dates, each interval corresponding to ten days. An absolute drought is shown by a solid red rectangle the length of which corresponds to the number of days' duration, its upper limit corresponds to the date when it began, its lower limit to the date when it ended. A partial drought is similarly shown by a blue outlined rectangle. A rain spell is shown similarly by a blue rectangle.

BRITISH RAINFALL, 1911.

ON THE DISTRIBUTION OF RAIN

IN SPACE AND TIME OVER THE

BRITISH ISLES

DURING THE YEAR

1911

AS RECORDED BY MORE THAN 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

THE FIFTY-FIRST ANNUAL VOLUME.

WITH MAPS AND ILLUSTRATIONS

LONDON:

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

1912.

ERRATA IN BRITISH RAINFALL, 1900-10.

Part III., General Table, Scotland, Lanark, Leadhills, *increase the depth of rain in each case by 6 per cent. in order to compensate for size of funnel.*

ERRATA IN BRITISH RAINFALL, 1907-10.

Part I., in Table of Evaporation *for* Harlow Moor *read* Harlow Hill.

ERRATA IN BRITISH RAINFALL, 1910.

p. 75, *line 21, for 5 per cent. read 1 per cent.*

p. 109, *line 22, for 1910 read 1911.*

p. [24], *Transpose entry for October 7th to September 7th.*

p. [165], *line 2 from bottom, for March read February.*

p. [209], Haslemere (Grayswood Hill), *for 42·82 read 37·82.*

pp. [210] and [211], River-division 5, *for THAMES—Mole
read THAMES—Mole & c*

p. [210], Redhill (Station Road), *for 1.6 read 18.0.*

p. [237], *line 4, for Old Norton read Cold Norton.*

p. [246], Dartmoor, Black Dunghill, *for 60·70 read 60·80.*

p. [257], Herefordshire, Credenhill, *for 175 $\frac{1}{2}$ read 275 $\frac{1}{2}$.*

p. [261], *transfer* Blockley (Upton Wold), *from River-division 4
to River-division 3.*

p. [267], Derbyshire 4, Edlaston Rectory, *for 37·35 read 37·05.*

p. [272], 3. Bolton (Smithills Moor), *for 51·62 read 52·12.*

p. [279], 7. Langsett, *for Houch Road read Flouch Road.*

p. [280], 8. Holmbridge (Yateholme Farm), *for 64·30 read 64·50.*

p. [294], Monmouth 3., Abergavenny, *for (Linda Villa) read (Linda Vista).*

p. [303], Isle of Man, Douglas (Baldwin), *for 120 read 720.*

„ „ Ramsay, *for 1.3 read 15.0.*

p. [309], Ayr, Prestwick, *for 37·74 read 34·74.*

p. [316], Aberdeen, *insert* Aberdeen (King's College) 8 | 2. 0 | 90 | 27·74 | 223

p. [318], Arisaig (Faire-na-Sguir), *for 500 ? read 50.*

p. [323], Clare, Newmarket-on-Fergus (Fenloe), *for 75 read 156.*

ERRATUM IN BRITISH RAINFALL, 1911.

p. [285], Princetown (*Press Cutting*) *delete the record.*

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PREFACE.

THE fifty-first volume of BRITISH RAINFALL though 56 pages larger, has been completed ten days earlier than its predecessor, and I hope that despite the increasing labour of compiling an ever-growing mass of material, it may be possible to get the next finished earlier still.

In this volume, the arrangement of rainfall stations in river-basins within the counties has been extended to Scotland and Ireland. The discussion of the losses and gains of records on pp. 84—98 has been carried farther than before by introducing statistics of the number of rainfall records per 100 square miles in each county, thus calling attention to the counties where new records are most wanted.

A description of the year's work of the British Rainfall Organization and a summary of the accounts, are given in the Director's Report to the Trustees on pp. 9—18, to which special attention is directed.

The detail of the monthly weather maps, deserves a larger scale of reproduction than the funds permit, and in order to do full justice to the reproduction, pp. [177]—[208] have been printed on a special paper.

The frontispiece, showing the duration and distribution of Droughts and Rain Spells at 100 representative stations, is a new feature, suggested by the exceptional character of the year. It, as well as the Evaporation diagram facing p. 75, was drawn by Mr. W. E. Whitehouse, whose kind assistance we gratefully acknowledge.

With the approval of the Trustees, I have much pleasure in placing Mr. Salter's name on the first page of Part III., as he has had almost all the labour of compiling the General Table, and seeing it through the press ; my part in that portion of the work, having mainly been the settling of doubtful points as they arose ; Mr. Salter, as Chief Assistant, has also shared in all parts of the editorial work. All the Assistants have co-operated heartily with the Observers and with me, in the effort to ensure completeness and accuracy in this volume.

H.R.M.

62, CAMDEN SQUARE,
LONDON, N.W.

5th August, 1912.

Be gracious, Heaven ! for now laborious man
Has done his part. Ye fostering breezes, blow !
Ye softening dews, ye tender showers, descend !
And temper all, thou world-reviving sun,
Into the perfect year ! Nor ye who live
In luxury and ease, in pomp and pride,
Think these last themes unworthy of your ear.

James Thomson.

SECOND ANNUAL 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 24th, 1912.—The statistics, where necessary, are revised
to date of completion of "British Rainfall, 1911."

Introductory.—In this Report it is not necessary to go so fully into the routine of the working of the Organization as on the occasion of the First Annual Report. So far as regards rainfall statistics and the accounts of the Organization, the year under review is the calendar year 1911, but for the general work of the Organization it is the period between the annual meeting of the Trustees in 1911 and that in 1912.


Routine Work of the Office.—The house, 62, Camden Square, and the instruments in the garden have been maintained in a state of repair and efficiency, and observations have been carried out regularly at 9 a.m., 3 p.m., and, by self-acting instruments, at 9 p.m. Continuous records have been maintained with the Redier Barograph, the Campbell-Stokes Sunshine Recorder, and two self-recording rain gauges. The principal readings have been telephoned every morning to the Meteorological Office for the *Daily Weather Report*, and the full record sent in once a month.

The number of postal communications dealt with in 1911 was 18,281, within 7 of last year's number ; and the number dispatched was nearly as great (not counting the copies of the publications sent out by the printers). The number of letters of sufficient importance

to justify a copy being kept was 2,428, or an average of 7 per working day.

In response to the Christmas circular 5,139 returns of rainfall for 1911 were received ; a second application was sent to 381 Observers who had failed to respond to the first, and 248 replies were obtained. Third applications were sent for 55 outstanding returns, of which 27 have been received. It is satisfactory to find that far fewer additional applications were necessary than in other years. Of the 4,873 records dealt with in *British Rainfall*, 1910, 306 disappear, but 504 complete returns which did not appear for 1910 have been received, so that the number of records dealt with in *British Rainfall*, 1911, is 5,071, this being the first year for which the number has exceeded 5,000. The number of records printed first exceeded 1,000 in 1865, 2,000 in 1877, 3,000 in 1894, 4,000 in 1905, and now 5,000 in 1911. The intervals for the growth from thousand to thousand have been 12, 17, 11 and 6 years. During the nine years of my individual responsibility the increase in the number of records dealt with has been 1,270, or $33\frac{1}{3}$ per cent. of the previous number. In addition to the records printed, 320 have been received which are imperfect or obviously erroneous for the year, so that at the end of 1911 there were at least 5,391 rain gauges at work in the country.

The number of rain gauges submitted for testing from July 19th, 1911, to July 24th, 1912, was 69, and of measuring glasses 140, for which certificates were issued in 135 cases. It may be mentioned that the mark on tested glasses is now in the form


 No 1000
 H.R.M.

the initials below being those of the Director or Chief Assistant, as the case may be, who has personally verified the test.

The Table of Rainfall in Cambridge and Huntingdonshire has been continued monthly for the year. No new subscribers for it have appeared, and no comment upon it has been made by any individual or in any newspaper, so that I am unable to say whether the value of the work justifies the time spent upon it.

The provisional rainfall map of the British Isles for the month and for the year has been sent regularly to the Meteorological Office

drawn in transfer ink ready for direct reproduction. The Meteorological Office has increased the payment for these maps from £12 10s. 0d. to £25 per annum.

The Staff.—All the members of the staff have worked with the efficiency and enthusiasm that have become traditional, and every one takes a personal interest in the work and progress of the Organization. It is unnecessary to recapitulate their separate duties which were set out in detail in the annual report for last year. Mr. Salter had the whole charge of the work during my absence from the middle of December, 1911, to the end of February, 1912, and carried it on without a hitch, though it was the first time that I have been away when the annual returns were coming in. He has been mainly responsible for the compilation of the General Table in *British Rainfall*, and has collaborated with me in every detail of the editorship. Mr. Lamport has taken charge of the Monthly Returns and the testing of instruments as before. Mr. Carter has this year undertaken the whole compilation of the Notes of Observers on the Days and the Year for *British Rainfall*, a very heavy task, as the new forms employed have resulted in the volume of remarks sent in being more than doubled. Mr. D. S. Salter has been very fully occupied with the increasing volume of cartographical work, and the finish of the drawings shows that quality has not been sacrificed to quantity. Mr. Simpson, the shorthand clerk, was absent on account of ill-health for some time in the early part of the year, and he has resigned his position in order to go to America. He had acquired a thorough knowledge of his work, and was remarkably quick and accurate. I have appointed as his successor Mr. F. W. Corry, who was employed temporarily during Mr. Simpson's illness, and enters on the full duties on August 2nd.

The Observers and Special Services. — The number of Observers continues to grow, and particulars of the changes will be found in Part I. of *British Rainfall*. I regret to have to record the death of Mr. W. B. Pugh, of Patrington, one of the original contributors to *British Rainfall*, 1860-61, whose records have continued to appear in every issue down to the present volume. Mr. G. Nevile, of Stubton, whose death occurred this year, had almost a right to be included as an original Observer, as his records extended unbroken

for 50 years, from 1862 to 1911. The list of original Observers still includes nine names, and four of these, printed in small capitals, still send in records :—

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.

Col. Michael Foster Ward, Slough.

J. G. Wood, Esq., London.

I have to acknowledge, as in former years, special help from a number of public bodies, as well as from Observers who have made themselves centres of local interest in rainfall data. Amongst the former may be mentioned the Meteorological Office, the Royal Meteorological Society, the Scottish Meteorological Society, the Commissioners of Northern Lighthouses, the Shannon Navigation, various public Companies, the Croydon, Hertfordshire, and East Kent Natural History Societies, the Dorset Field Club, the Mid-Wessex Rainfall Association, the Cardiff Naturalists' Society, the North Devon Athenæum, the Cornwall County Council, the Schools Committee of the County Council of Oxford, the City of Nottingham, and a large number of Municipal Waterworks Authorities in all parts of the British Isles. Amongst the Observers who have given special help in addition to those responsible for the work of the various Societies which have been named, are Mr. A. Cross of Langbank, Mr. A. W. Preston of Norwich, Mr. C. A. Markham of Northampton, Miss Marshall of Ambleside, Mr. Whitehouse of Welshpool, Mr. D. W. Horner, Mr. C. Stirling, Sir John Moore of Dublin, Messrs. G. H. Hill & Son for the north of England, and Mr. A. Collenette and Mr. B. T. Rowsell for the Channel Islands. A great deal of help has also been obtained from local newspapers, foremost amongst which are the *Surrey Advertiser* and the *East Anglian Daily Times*. The original records collected by Mr. Markham and Mr. Preston are sent to us for preservation, and the originals collected by the Rev.

H. A. Boys of the Mid Wessex Rainfall Association, Mr. Stilwell of the Dorset Field Club, and Mr. Hopkinson of the Hertfordshire Natural History Society, are sent regularly for comparison. The full details of daily values are published in the admirable Tables prepared by Mr. F. Campbell Bayard for the Croydon Natural History Society.

Inspection of Rain Gauges.—The inspection of stations ought to be one of the most important duties in connection with our work, and at first sight it would almost appear to be indispensable. The large number and close grouping of stations in most parts of England enable us to exercise a close supervision, and to check the results by comparison of neighbouring records, so that a serious error can hardly pass unsuspected. There are hundreds of cases of such errors having been suspected during the last six months, and enquiries have usually elicited facts which make it possible to correct or justifiable to reject, and in some rare cases to accept the return. In a very few instances our suspicions are not justified, but taken as a whole the means of controlling the accuracy of observations are far greater than one not aware of the nature of the comparisons made could suppose. In the remoter districts where records are few and far between, the system fails altogether. There are some parts of Scotland and Ireland where half the rain gauges are open to the suspicion of reading too high, and the other half are equally open to the suspicion of reading too low. The stations are too far apart to allow one gauge to be of any use as a check on another. In such cases personal inspection is necessary, and every opportunity is taken by every member of the staff to see all the rain gauges which can be reached in the course of holidays, or when travelling for other purposes.

In the course of the year I have been enabled to inspect 78 gauges in twelve counties, Mr. Salter inspected 31 rain gauges, Mr. Carter 15, Mr. Simpson 6, and Mr. D. S. Salter 1, the total number of 131 being distributed as follows:—London 6, Surrey 2, Kent 20, Hampshire 8, Middlesex 1, Hertfordshire 1, Somerset 4, Cheshire 4, Lancashire 9, Yorkshire 8, Carmarthenshire 4, Breconshire 16, Isle of Man 3, Channel Islands 18, Lanarkshire 8, Perthshire 9, Kincardineshire 6, and Aberdeenshire 4.

These inspections were greatly facilitated by the kindness of

Observers and the officials of public bodies in putting the means of visiting the gauges at our disposal. I have particularly to thank Lady Jenkyns, of Botley Hill, for introducing me to several new Observers in Hampshire, Mr. A. Wilson, of Ilkley, and Mr. Grayson, of Goole, for similar courtesies in Yorkshire. I am most grateful also to Mr. W. King Wilkinson, of Middlewood, Chatburn, and to Dr. J. Crawford Renton for their generosity in giving the use of their motor cars for visiting Observers in Lancashire and Perthshire. Mr. F. W. Macaulay on behalf of the Birmingham Water Works Committee, Mr. Cecil H. Roberts on behalf of the Aberdeen Water Committee, and Mr. Macmillan on behalf of the Mid-Lanark Water Committee, enabled me by the use of their cars to reach a number of places in Wales, Lanarkshire and Kincardineshire which would otherwise have been very difficult of access, and I have to thank them for the opportunities. Mr. A. Collenette and Mr. B. T. Rowsell were most helpful to Mr. Salter in visiting the rain gauges in the Channel Islands.

Amongst the gauges inspected one was found with its receiving surface 6 per cent. too small for the measuring glass used, a good many were out of repair, and a few were badly exposed. One or two were hopelessly antiquated, but the great majority were in good condition, well placed and conscientiously looked after.

The New Volume of British Rainfall.—The various alterations in arrangement initiated in *British Rainfall*, 1910, have been continued. The subdivision of the counties into river divisions has been carried out for Scotland and Ireland, so that all the records are now arranged in groups corresponding to drainage areas, though the county is retained as the chief unit of area. The maps of river divisions for each of the eleven Divisions of England and Wales are given in the General Table which forms Part III. of *British Rainfall*, but the maps of the Divisions of Scotland and Ireland, being new, are given in the special article in Part I., which describes the work of subdivision and summarizes the measurements. In the General Table the name and area of each river division are now inserted whether there are any observations under it or not. This serves to direct special attention to the places where records of rainfall are most required, and enables the article on the Gains and Losses of records in Part I. to be definitely based on statistics of area.

No other change has been introduced except a slight simplification in the summary of Heavy Falls on Rainfall Days and the new graphic representation of the frequency and duration of droughts and rain spells which appears as the frontispiece.

Annual Maps.—I have taken advantage of every interval of time left between the recurring routine duties of the month and year to push forward the discussion of the annual rainfall maps of the British Isles since 1865. These are completely plotted down to date, and the isohyetal lines have been drawn provisionally. The main problem is now to combine all the maps so as to yield a trustworthy average map, and the method of doing this has been arrived at. Each map is being ruled up into small squares numbered along the top and side so that every intersection may be referred to conveniently. For each horizontal row, numbered from I to CXXIX, a sheet has been prepared, ruled into columns for each vertical line on the map, and with a line for every year in the series. The rainfall at each intersection interpolated from the adjacent isohyets, is read off from the map, and entered in the appropriate line and column, so that when a sheet has been filled up, it will give the rainfall at each point from west to east, on some particular row for each year from the beginning. Each column will then be averaged, and the average figures will be used to enter up the row with which the sheet deals on the final average map. In order to get some definite result as soon as possible, I am proceeding with the first 59 rows, including Scotland, and the work of estimating and extracting the values is completed for 18 years back to 1892. In this work I have the assistance, for the present, of Mr. W. R. Watt.

With reference to these maps, I may mention the discoveries of old rainfall records made during the year, the data of which are available for supplementing the existing material. Since July 19th, 1911, we have received 87 records for earlier years from stations in 37 counties of England and Wales, 10 records from stations in 6 counties of Scotland, and 3 for stations in 3 counties of Ireland, 100 in all. Of these 25 are for 1 year only, 48 for between 2 and 9 years, 24 for between 10 and 19 years, and 3 for 20 years or more. There are altogether records for 623 years. Amongst the most interesting, I may cite a record of 25 years duration at Birchington, one of 22 years at Snelston in Derbyshire, a group of records of

about 10 years duration at four stations in Lanarkshire, 12 years' additional observations at Fasque, Forfarshire, and 10 years' records at Ballyduff in Co. Kilkenny.

Scientific Work and Advice.—The work undertaken by the Director under Clause 18 of the Trust Deed included the preparation of an average rainfall map of Essex for the Water Supply Memoirs of the Geological Survey, which was supplied under the authorization of the Board of Education. I have also reported on the rainfall of extensive areas in Lanarkshire, Lancashire, Carmarthenshire and Kincardineshire, in connection with Water Supply schemes, and the opportunity was afforded to make an average rainfall map of the Ribble Basin, which includes the extremely interesting isolated patch of high ground known as Bowland Forest, the resemblance of which to the English Lake district extends to the distribution of rainfall.

Various publishers have been supplied with the isohyets of average rainfall for maps of the British Isles, and I have continued to report monthly on the rainfall of the Thames Valley to the Metropolitan Water Board, and annually on the rainfall of their gathering grounds to the Corporations of Birmingham and Birkenhead. I have also continued to act as Referee under the Abertillery and District Water Act, 1910.

In many cases data have been supplied for professional purposes to Engineers and others on the terms sanctioned by the Trustees, and this has been a useful supplementary source of income for the General Fund. Preparation was made for several law cases, but only in one was evidence required, and Mr. Salter attended on that occasion.

Amongst the gratuitous work of the Organization during the year I may mention letters to *The Times* on various interesting features in the Camden Square record, innumerable interviews with the reporters of other newspapers, supplying notes on the climates of various counties to the authors of the County Geographies issued by the Cambridge University Press, revising MSS. submitted by various authors, supplying data to University professors and school teachers for educational purposes, and informing many inquirers as to the average rainfall in different parts of the country to help them in choosing residences or planning holidays.

Amongst the more important information supplied were a report to the King Edward Memorial Committee for Wales with regard to districts in Wales with the lowest rainfall, with a view to selecting sites for the National Sanatoria; a report to the Royal English Arboricultural Society on the summer drought of 1911 at certain stations, for which data regarding damage to trees had been obtained; assisting Mr. J. Fairgrieve with his discussion of the time relations of the thunderstorm of May 31st, 1911; and supplying Mr. Cave with records for the thunderstorm of March 11th, 1912.

Mr. Salter initiated a discussion on Mr. A. Watt's Rainfall Map of Scotland at one of the Meteorological Office meetings, and I introduced the subject of Professor Hellmann's investigations into the Summer Floods of the Oder at another. I was invited by the Council of the British Association to address the working people at Portsmouth on the occasion of the meeting in that town in September, 1911, and I gave a lecture on Rainfall Observing. I also lectured at the London Institution on Storm Rains, and (for the Gilchrist Trust) at eleven towns in the north of England and the Isle of Man, on "Rain."

The General Fund.—While under no obligation to submit accounts of the General Fund, for the collection and disposal of which I am responsible, and the sufficiency of which to meet all the expenses of the Organization I personally guarantee, I desire to place on record in a form comparable with the statements of previous years a summary of the income and expenditure. The Subscription Book, the Ledger, and all other account books are laid before the Trustees, and I shall be glad to submit them to the inspection of any subscriber who may desire to see them, and who calls at the Office for that purpose. It is gratifying to note that the deficiency which I was called upon to meet in 1911 amounted to less than £30, though it should be remembered that since I transferred the property to the Trustees no rent has been charged in the expenditure.

Receipts on Account of British Rainfall Organization, 1911.

	£	s.	d.
Balance in hand from 1910	7	16	6
Subscriptions	1131	15	8
Sales to Public	66	5	6
Advertisements	55	15	1
Certificates	13	10	6
Supplying Rainfall Data	72	4	0
Literary Work	1	11	6
Interest on Endowment Fund and Bank Account ...	42	9	9
Miscellaneous	30	0	0
TOTAL	£1421	8	6

Expenditure on Account of British Rainfall Organization, 1911.

	£	s.	d.
<i>British Rainfall and Meteorological Magazine</i> (including Postage)	494	1	1
Salaries and Assistance	676	3	11
Printing, Stationery and Establishment Expenses ...	193	3	11
Extra Postage, Telephone, Petty Cash and Miscellaneous Expenses	85	11	1
	£1449	0	0
DEFICIT, met by Director ...	£27	11	6

The effort to keep the deficit down to a practicable amount has not been made without a severe limitation of the size of the publications (though they continue to grow and are larger than in any previous year) and the postponement of many desirable new departures which would add to the scientific value and practical utility of the observations so generously collected and transmitted by the thousands of voluntary Observers.

HUGH ROBERT MILL.

62, CAMDEN SQUARE,
LONDON, N.W.

TREASURER'S REPORT ON ENDOWMENT FUND.

STATEMENT FOR THE YEAR 1911.

RECEIPTS.				PAYMENTS.			
	£	s.	d.		£	s.	d.
Balance from 1910	80	3	5	Purchase of £119 9s. 2d.			
R. Shafto Adair, Esq.	5	5	0	North British Railway 3%			
G. Herbert Strutt, Esq.	20	0	0	Debenture Stock	100	0	0
R. Cooke, Esq. (2nd donation)	4	5	0	Purchase of £60 12s. 10d.			
Lord Ernest St. Maur	2	0	0	ditto Stock	50	0	0
A. Pearse Jenkin, Esq.	3	3	0	Austin & Son — Safe for			
Miss Constance L. Rashleigh	5	0	0	Records	29	6	0
Mrs. Kate Druce (2nd don'n)	5	0	0				
F. Druce, Esq. („ „)	25	0	0				
Professor H. L. Bowman	3	3	0				
The President and Fellows,							
Magdalen College, Oxford	10	0	0				
Col. Henry Mellish (2nd don'n)	50	0	0				
R. M. Barrington, Esq. (2nd							
donation)	5	0	0				
A. F. Sharman Crawford,							
Esq. (2nd donation)	10	0	0				
The Weaver Navigation							
Trust	10	10	0	Balance in hand	66	7	5
Sums under £2	7	4	0				
	£245	13	5		£245	13	5

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Rogers, Col. J. M., D.S.O.	2	0	0	Tailleur, W. Stewart, Esq.	1	1	0
Roper, W. E., Esq.	2	2	0	Tapp, A. M., Esq.	1	0	0
Roper, Mrs.	2	2	0	Tate, Alfred, Esq.	1	11	0
Ross, Rev. J. C.	1	11	0	Tatham, Leonard J., Esq.	1	5	6
Rutter, H. F., Esq.,	1	1	0	Tatham, M. T., Esq.	1	0	0
St. Maur, Lord Ernest	1	0	0	Tatton, T. Egerton, Esq.	1	10	0
Sainty, C., Esq., C.E.	1	1	0	Tawney, Miss E. M.	1	0	0
Sanderson, Mrs.	1	5	6	Taylor, C. E., Esq.	1	1	0
Sanger, the late C., Esq.	1	1	0	Taylor, Capt. E. R.	5	0	0
Schuster, Rev. W. P.	1	1	9	Taylor, F., Esq.	1	0	0
Scott, Sir Benjamin	1	1	0	Taylor, F. J., Esq.	1	0	0
Scott, C. H., Esq.	1	0	0	Taylor, Sons & Santo Crimp, Messrs.	1	1	0
Scott, John, Esq.	1	1	0	Taylor, W., Esq.	1	1	0
Scott, Lady Mary	1	0	0	Tempest, J. H., Esq.	1	1	0

	£	s.	d.		£	s.	d.
Tew, E. G., Esq.....	1	0	0	Weller, G., Esq.	1	2	
Thomas, R. E. S., Esq.	2	0	0	Westminster, His Grace the Duke of	1	0	0
Thompson, G. Rodie, Esq.	1	0	0	Weston, G., Esq.	1	1	0
Thompson, Mrs. Heywood	1	1	0	Weston, J., Esq.....	1	1	0
Thompson, Mrs. H. Yates	1	1	0	Whish, G. H. M., Esq.....	1	1	0
Thomson, J., Esq.	1	1	0	Whitaker, B. I., Esq.	1	0	0
Thresh, J. C., Esq., M.D., D.Sc..	1	1	0	Whitaker, J., Esq.....	1	1	0
Tidswell, R. J., Esq. (2 years) ..	2	2	0	Whitchurch, J. A., Esq.	1	1	0
Towse, Sir J. Wrench	1	10	0	White, J. Martin, Esq.....	1	1	0
Travers, Major J. A.	2	10	0	White, J. N., Esq.....	1	12	6
Trevelyan, Lady.....	1	0	0	Whittington, C. J., Esq.	1	0	0
Tritton, J. H., Esq.	2	13	9	Widnell, E. H., Esq.....	1	1	0
Truell, Rev. W. H. A.	1	1	0	Wilde, Mrs.	1	0	0
Tuckett, F. F., Esq.	1	5	0	Wilkin, Mrs. A.	1	6	0
Turner, F., Esq.....	1	1	0	Wilkin, F., Esq.	2	10	0
Tyacke, G. Ashley, Esq.	1	1	0	Wilkinson, W. King, Esq.	1	1	0
Urmson, Rev. T.	1	16	0	Williams, C. Theodore, Esq..			
Vernon, J. H., Esq.	1	1	0	M.D., M.V.O.	1	5	0
Vint, W. F., Esq.	1	1	6	Williams, Rev. Leonard A.....	1	1	0
Waddingham, T. J., Esq.	2	2	0	Williams, Morgan B., Esq.....	1	0	0
Waldegrave, The Earl	1	19	6	Wilson, Albert, Esq.	1	15	0
Walker, A. J., Esq.	5	9	0	Wilson, Alexander M., Esq.	1	1	0
Walker, A. O., Esq.	1	5	0	Wilson, E. T., Esq.	1	5	8
Walker, J. H., Esq.	1	0	0	Wilson, Mrs.	1	1	0
Walters, F. R., Esq., M.D.	1	1	0	Wood, J. G., Esq.	2	2	0
Ward, Mrs. H.	1	1	0	Woodforde, Col. W. B.....	1	0	0
Ward, Col. M. F.	1	0	0	Woodhouse, Miss E. D.	1	1	0
Waterhouse, Edwin, Esq.	1	0	0	Woods, Capt. E. G.	1	0	0
Webber, W. D., Esq. (2 years)....	2	0	0	Woods, J. W., Esq.	1	0	0
Wedderburn, E. M., Esq.....	1	0	0	Wordsworth, Gordon G., Esq. ..	1	0	0
Welch, J., Esq.	1	1	0	Worthington, W. B., Esq., C.E..	1	1	9
Welch, J. H., Esq.	1	0	0	Wyndham, H., Esq., C.E.	1	1	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 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 1910" WERE:—

Boughton, Miss F. H. Rouse	£100
Brook, Charles L., Esq.	£500
Druce, Francis, Esq.	£125
Mellish, Lt.-Col. H.	£150
Murray, Sir John, K.C.B., F.R.S.	£100

FOR DONATIONS RECEIVED BETWEEN JULY 19TH AND DECEMBER 31ST, 1911, SEE TREASURER'S
REPORT ON P. 19. THERE HAVE ALSO BEEN RECEIVED UP TO JULY 24TH, 1912:—

	£	s.	d.		£	s.	d.
Cave, C. J. P., Esq.	25	0	0	Brought forward	309	5	0
Cooke, R., Esq. (3rd donation) ..	4	5	0	Sums under £2	3	3	0
Druce, Francis, Esq. (3rd don'n)	25	0	0				
Freshfield, D. W., Esq.	200	0	0		312	8	0
Mellish, Lt.-Col. H. (3rd don'n)	50	0	0	Received up to Dec. 31st, 1911 ..	1294	11	0
Morrison, W., Esq.	5	0	0				
Carried forward	309	5	0	Total received	£1606	19	0

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

THE THUNDERSTORMS OF MAY 31st, 1911.

METEOROLOGISTS have recently devoted much attention to the detailed study of thunderstorms and their accompanying phenomena, and considerable additions have been made to our knowledge, which should be extremely valuable in indicating the lines of future research. The investigation of the minor barometric oscillations which take place apparently without any very close relation to the general circulation, has gone far to show that it is almost entirely with these that abrupt and violent manifestations such as thunderstorms are associated. It is chiefly by the study of thunderstorm rains in relation to geographical conditions that we may hope to contribute something to the rapidly extending knowledge of dynamical meteorology. The limited number of barometric observations sufficiently accurate and well-timed to be useful, which are available for drawing detailed isobaric charts, is much to be regretted ; but when we turn to records of rainfall we find abundant material for mapping the precise distribution of at least one of the phenomena associated with thunderstorms, especially when the thunderstorms occur in the neighbourhood of London. Maps of the distribution of rainfall during most of the important thunderstorms of the last ten or twelve years have been prepared and published in *British Rainfall*, and several of their features have been noted and commented upon from time to time. Not the least prominent of these is the strongly marked tendency for splashes of heavy rainfall in different parts of the country to fall into a linear arrangement, not infrequently repeated in a succession of parallel bands which have come to be recognized as characteristic of thunderstorm rains. Excellent examples of this may be seen in the maps of the rainfall of individual days given in the section on Heavy Falls on Rainfall Days on pp. [138]—[165] of this volume. The almost irresistible suggestion of wave-propagation in this phenomenon turns one's attention to the importance of the time relationship of the various splashes. Want of data has hitherto made it extremely difficult to formulate any opinion on this point, and it was on this account that we welcomed and assisted with

more than usual interest the work of Mr. J. Fairgrieve,* who was able, by collecting and charting a very large number of observations of the time of commencement of rain, to map out in great detail the movements of the rain areas during a period of about eight hours covered by the more intense phase of the thunderstorms of May 31st. At our request, Mr. Fairgrieve most kindly supplied the account which follows of the methods and results of his enquiry. The facts go to show that on this occasion at any rate the propagation of thunderstorm activity, so far as that may be judged by precipitation, took place in a direction parallel with the axis of the main band of rain splashes, in this case approximately from north to south. We cannot, of course, assume that this is always the case, but to have shown that it was so in this instance is a definite advance.

The thunderstorms which took place on May 31st marked the termination of a long period of dry and hot weather, which broke up during the last week of the month with a remarkable series of violent electric disturbances. Thus on May 25th a strip of the country stretching from Mansfield to the south coast was visited by rainfall which was heavy over two elongated and parallel bands extending from north to south, and forming a striking contrast with the distribution on the following day, which took the form of extremely local and heavy plumps of rain scattered broadcast over the south of England and Wales from Newark on the north to Red Hill on the south-east and Glamorganshire on the west. On May 31st, however, although thunder and lightning were reported from most parts of England during some part of the day the rainfall was, with insignificant exceptions, concentrated in the home counties, and it seems fairly certain that it was only within about 30 miles north and south of London that the rainfall was an important feature of the storms. We may, perhaps, except a very local rainfall, which measured 1·00 in. at two stations a few miles south of Launceston in Cornwall, which spot was also visited on the following day by a storm of considerable severity. In the district affected by the storm proper a definite limiting line can be assigned to the rain area, outside which no rain fell ; this line passes in a south-easterly direction near Oxford and Reading, and through Godalming to Horsham, then turns to the east along the crest of the Forest Ridges, and as far as Paddock Wood, after which point it stretches in a nearly straight

* See *Quarterly Journal*, Royal Meteorological Society, Vol. 38, p. 105.

line to the neighbourhood of Cambridge. Within the loop thus formed the storm ran its course, and beyond the limits mentioned, with trifling exceptions, no measureable rain fell. The limit of the rain area on the north and north-west was ill-defined, some rain having fallen within the twenty-four hours nearly everywhere as far north as Perthshire. The rainfall, however, reached so much as $\cdot 50$ in. only over a few square miles in Shropshire and Worcestershire, and over the greater part of the whole area affected it failed to amount to as much as $\cdot 10$ in. Within the southern part of the rain area, a map of which we reproduce, the splashes of rainfall may be regarded as falling into three groups, or nearly parallel strips. The map reproduced shows the configuration of the whole Thames Valley and the surrounding country, the height of the land being indicated by contour lines with brown shading, in three tints, distinguishing the land above 250, 500, and 1,000 feet respectively. The isohyets showing the distribution of rain are added in black. In the centre the track of the main storm was marked by a streak of one-inch areas, stretching from Hitchin to Edenbridge (Axis 1). On the North Downs this breaks into two, an isolated one-inch area lying to the west and south-west of Reigate, and in the north a subsidiary band appears which we prefer to mention in connection with the main track, because it appears to have been coincident with it in time, and therefore presumably part of the same system, and different from the second strip (Axis 2), which is represented by two one-inch splashes, one near Sevenoaks and the other centred at Lewisham. The third parallel strip (Axis 3), is only rudimentary, but it is indicated by the presence of $\cdot 50$ in. areas on the Chiltern Hills near Watlington, and on the North Downs near Ewhurst.

The central or main rain strip increases in intensity of fall in an intermittent manner as one passes from north to south, and three well-marked areas received more than one inch of rain. A fourth possibly occurred between Biggleswade and Shefford, but the heaviest fall recorded there was just below the inch. The long one-inch splash stretches from St. Albans to Fulham, where, as the axis of the storm track passes over the river Thames the rainfall was not much more than $\cdot 25$ in. Within this splash more than three inches fell at Harrow and, according to some newspaper statements, also at Acton. Enquiries have failed to elicit any confirmation of the Acton figure, which, although the rain there was undoubtedly severe, seems likely to be exaggerated. On the south side of the river the rainfall increased

RAINFALL OF MAY 31ST, 1911.

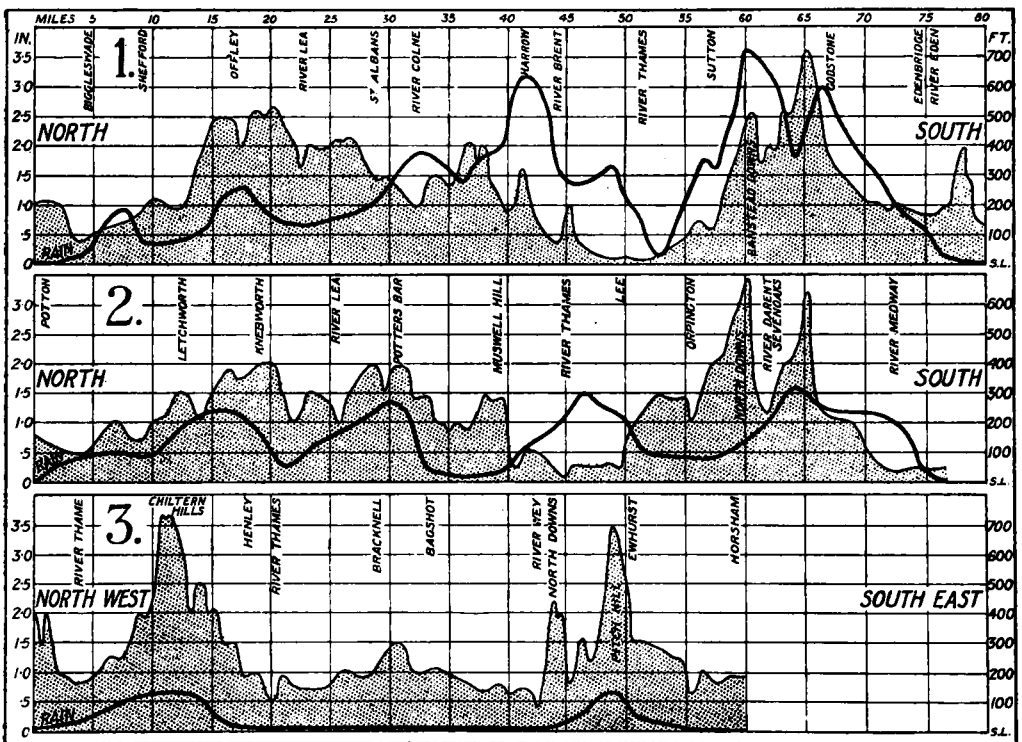


not very abruptly at first, but reached 1·00 in. in the neighbourhood of Mitcham, and 2·00 in. at Wallington. To the south of this point the storm was very severe, and rainfall of extreme intensity took place during its passage over Banstead and Epsom Downs. The band of heavy rainfall, which had hitherto nowhere exceeded five miles in width, spread out somewhat at this point, owing possibly to the coalescence of the main storm coming from the north with a second storm, which seems to have developed in the south, and to have moved in a north-westerly direction. The area with one inch of rain or more stretched in a south-easterly direction as far as the borders of Kent, after which the amount fell off rapidly, till at Groombridge no rain fell. There was a slight increase again at Crowborough, but the rainfall was not heavy. Another one inch area, detached from the main area, stretched southward from the culminating point on the North Downs, and brought a considerable contribution to the River Mole, which otherwise received a comparatively small share of the flood water. In the centre of the main splash near Banstead a strip about five miles long and one mile wide received more than three inches of rain, almost the whole of which fell within about an hour. During this period the fall over a small area was probably nearly, if not quite, as heavy as any of which we have records in this country, though it should be borne in mind that the district in which it occurred was one in which there is no lack of rain gauges, whereas in many parts of the country it would be easy for the whole of the extreme portion of such a thunderstorm to occupy an area entirely unrepresented by rainfall Observers, and consequently to escape notice.

Turning from the main storm axis to the second or easterly strip of rain, if we disregard the time element, which, as mentioned above, suggests that the northern and southern splashes were independent of one another, we find that the arrangement is very nearly parallel to that of the central strip. Four one inch areas appear, separated by breaks of about ten miles in which the rainfall was much smaller. The amount of rain increased generally, but very slightly, from north to south, and a heavy fall took place near the Thames at Southwark, and south-westwards to Eltham, which contrasted with the well marked break in the main band of rain as it passed the river. A heavy splash also occurred on the Downs, but in this case further southwards, the high land near Knockholt having comparatively little. The falling off on the north-east side of this southern splash

was notably abrupt, stations within three miles of one another measuring respectively no rain and about an inch and a half. A third strip of rain seemed to lie to the westward between Oxford and Horsham, but its rainfall was slight, reaching .50 in. only at two points. The coincidence of these points with the only elevated land which lay in its track is however interesting, and we add a curve showing the rainfall in relation to the land relief, to those for the two heavier rain strips which are reproduced herewith.

This diagram, which represents the amount of rainfall and the height of the land above sea level at numerous points along the axis of the three bands of rain, has been prepared with a view to



bringing out the marked coincidence of the heavy rainfall in each band, at certain points, with the hills which lay in the track of the storm. It has usually been found that hills play little or no part in determining the distribution of the heavy splashes of cyclonic or thunderstorm rains. It is possible that the coincidences in the present instance, may be fortuitous, but they are sufficiently frequent to be worthy of note, and it is natural to expect such a relationship. It must be noted that, although in many instances the part of the bands of rain which lay on the hills showed a higher fall than the

parts that lay on the low ground, the direction of the axes of rain was, as a rule, at right angles to the axis of the hills, and the rainfall fell off just as rapidly from the centre of the band along the hill-tops to right and left of its central position as it did in the valleys. The fact of the frequent coincidence of high land with high rainfall in the line of the eastern axis, throws into the greater relief the low rainfall on the highest part of the North Downs, followed by the very high rainfall over the lowest part of the Thames Valley, and followed again by the very low rainfall on the Northern Heights at Muswell Hill.

We cannot yet claim to be in a position to pronounce definitely on what is certainly a very complicated subject; but we hope that as detailed maps of rainfall accumulate, we may be able to elucidate the relationship between configuration and rainfall which undoubtedly exists. One broad fact we may state as definitely established. It is that when wind containing vapour near its saturation point, blows horizontally across the country, the distribution of the resulting rainfall is in close relationship to the configuration of the land, the rain which falls on the windward slopes being greater in amount as the land is higher (there being no mountains of much more than 4,000 feet to consider). It may be added that where the relationship of rainfall to configuration does not appear there must be ascensional movements in the air, producing condensation, in consequence of the action of causes not directly related to the form of the land, but resulting from meteorological causes.

The part of the country affected by the heavy rain storms was fairly well marked out by the isohyet of $\cdot 25$ in., and measurements have accordingly been confined to the districts with more than that amount of rain, viz., 1,438 square miles. We give the areas of the one-inch splashes in the eastern and central strips separately (there was no fall of so much as 1.00 in. recorded in the western strip). This shows the central (No. 1 Axis) to have been more extensive, as well as more intense, than the eastern.

The unit of the "square mile-inch" which we have adopted as a measure of volume, is a convenient one for the purpose; it is equal to about 14,480,000 gallons, or 64,640 tons of water, and a simple calculation gives the volume of the precipitation over the whole area with more than $\cdot 25$ in. of rain as 14,414 million gallons, or 64,346,300 tons of water. The general rainfall of the the area with more than a quarter of an inch of rain was $\cdot 69$ in.

<i>Area.</i>	Eastern Strip. (2) sq. mi.	Central Strip. (1) sq. mi.	Western Strip. (3) sq. mi.	Whole. sq. mi.
More than 3 in.	—	6	—	6
2—3 in.	—	19	—	19
1—2 „	51	161	—	212
·50—1 „	510		34	544
·25—·50 „	657			657
	Total.....			1438
<i>Volume of Rainfall.</i>	Eastern Strip. sq. mi. x in.	Central Strip. sq. mi. x in.	Western Strip. sq. mi. x in.	Whole. sq. mi. x in.
More than 3 in.	—	20	—	20
2—3 in.	—	48	—	48
1—2 „	62	228	—	290
·50—1 „	375		20	395
·25—·50 „	242			242
	Total.....			995

We have searched with care a vast mass of notes from correspondents and of newspaper accounts of the thunderstorms of May 31st, and have been somewhat surprised at the small amount of flooding which is stated to have taken place. In the west of London the Great Western and District Railways were inundated, and considerable delay to traffic resulted. The Metropolitan Railway was also flooded in places, and in the City flood water, unable to escape by the over-charged sewers, found its way into the basements of houses. Near St. Paul's Station a temporary lake formed, and foot traffic became impossible for a time. More serious results were landslips which occurred near Park Royal on the Great Western, and near Merstham on the South Eastern Railway, which made it necessary to close these sections temporarily. The most severe part of the storm fell just as the Derby race meeting was coming to a close, and the enormous crowds who were finding their way from Epsom Downs were exposed to its full fury. Thousands of racegoers had no means of obtaining shelter, and so flooded were the roads that even those fortunate enough to procure vehicles found progress a matter of great difficulty. The damage done by lightning was great, several persons losing their lives either from being struck or from falling masonry. Details of the effects of the storm will be found in the Observers' remarks on pp. [12]—[15].

TIME RELATIONS OF THE RAINFALL ON MAY 31st, 1911.

By JAMES FAIRGRIEVE, M.A., F.R.G.S.

MY investigation of the thunderstorms of May 31st was the result partly of accident and partly of set purpose. The method of investigation—plotting on maps the places at which rain was falling at successive short intervals—had struck me as being one which might lead to valuable results, but the actual work would certainly not have been undertaken had not circumstances produced the opportunity.

The pupils of the William Ellis School, at Hampstead, are drawn from an exceptionally large area, principally in the north-west suburbs of London. On the afternoon of May 31st they seem to have scattered themselves very widely, and on the following morning many of them came to me with stories of heavy rain; stories which seemed to agree on only one point—that the rain *was* heavy. The times at which the rain was stated to have fallen did not agree at all; some gave it as the afternoon, some as the evening. It seemed worth while to see why there should be these different accounts, and, with a view to understanding them, for some months I collected information about the “Derby Day Thunderstorm” from everyone with whom I came into contact.

The staff and 300 boys of the William Ellis School were first examined; then all my friends and acquaintances. Information was also sought from many Observers of the British Rainfall Organization, from records at the Meteorological Office, Camden Square, and the Royal Meteorological Society, as well as from Observatories which retained their own records.

The day and place were propitious for obtaining accurate information. It was a school half-holiday, and boys dated events by cricket; Jones had made so many in such a time. Country inn-keepers remembered what they had thought about happenings at Epsom when the rain began; the city man fixed the time most accurately by the appointments he kept and the trains he caught. School children were detained whilst going to school at one place, and

THUNDERSTORMS OF MAY 31st, 1911.

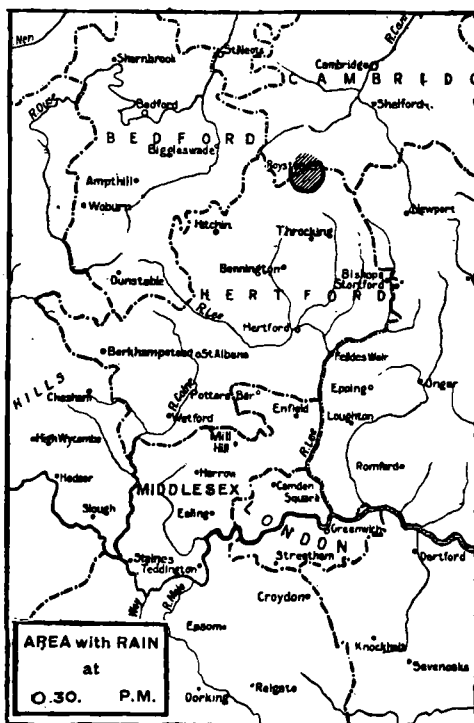


Fig. 1.

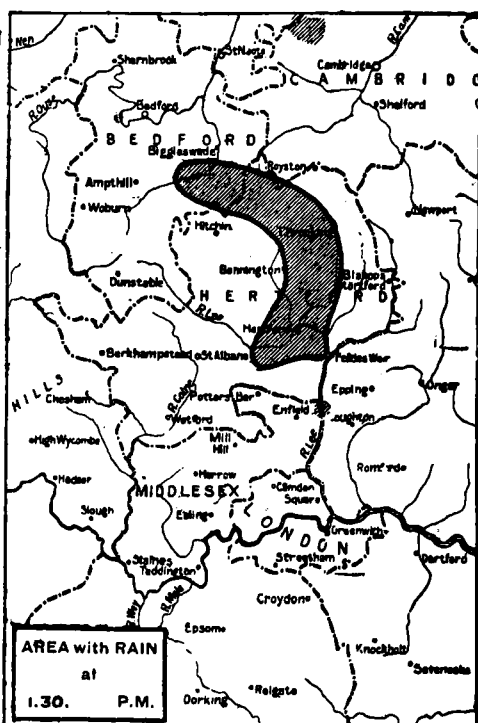


Fig. 2.

SCALE OF MILES
0 5 10 15 20

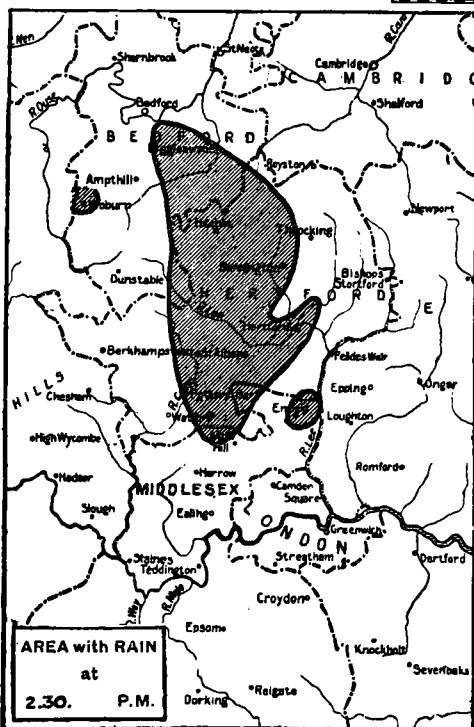


Fig. 3.

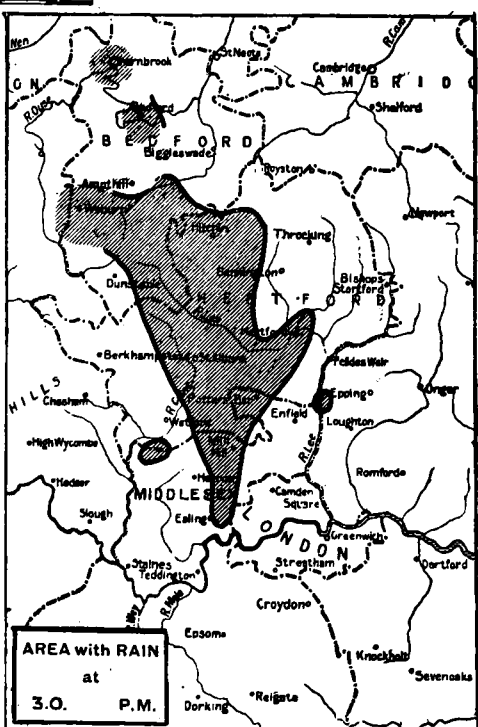


Fig. 4.

returning from school at another ; jumble-sales, missionary meetings and dinners, all interfered with by the rain, gave data by which times were obtained at which rain fell.

In all, statements containing information as to the time, or the absence, of rain were received from about 700 persons, including many trained Observers. The reports varied in value ; some covered the whole time from 0.30 to 9.30 p.m. ; others only a part of the time. Some reports gave details for part of the time at one place and for other parts at others. The total number of plottings made was about 14,000. The result was that in the area in which the chief storms occurred, within 40 miles of London, I was able to draw maps showing, with almost complete certainty, where rain was falling at every quarter of an hour from 0.30 p.m. till 8.45 p.m. Each of these maps was the result of some 400 or 500 separate observations. It was then evident that the storm began on the north edge of the Chiltern Hills, at or near Therfield, and for two hours gradually moved westward as a whole, while extending northwards and southwards. This movement is seen in Figs. 1, 2 and 3, on which are exhibited the rain areas at 0.30 p.m., 1.30 p.m., and 2.30 p.m. It will be observed that during the two hours in question the area with rain increased in extent from almost nothing till it stretched from Bedford on the north to Mill Hill on the south, with detached areas round Woburn and Enfield. The width of the main area was from 10 to 15 miles from east to west. By 3 p.m. (Fig. 4) the extension northwards had stopped, but the rain area was still extending southwards, and reached as far as Acton. Thereafter the rain ceased more and more in the north, but the rain area continued to move southwards. At about 4.30 p.m. a new rain area appeared over Crowborough, and this extended north-westwards in the direction of the southern apex of the main storm. At about 5 p.m. a third rain area appeared over Leith Hill. The position and extent of the two new areas may be seen in Fig. 5, which indicates the situation at 5 p.m. At that time the Leith Hill rain area was small, but the storm which had commenced half an hour earlier at Crowborough had spread in a north-westerly direction as far as Godstone, or some six miles from the front of the storm advancing from the north. These three rain areas continued to move towards each other, as shown in Fig. 6, and, shortly after 5.15 p.m., united near Epsom. At the point of juncture, on Banstead Downs, the intensity of the rainfall was at its maximum. Thereafter the storm

THUNDERSTORMS OF MAY 31st, 1911.



Fig. 5.

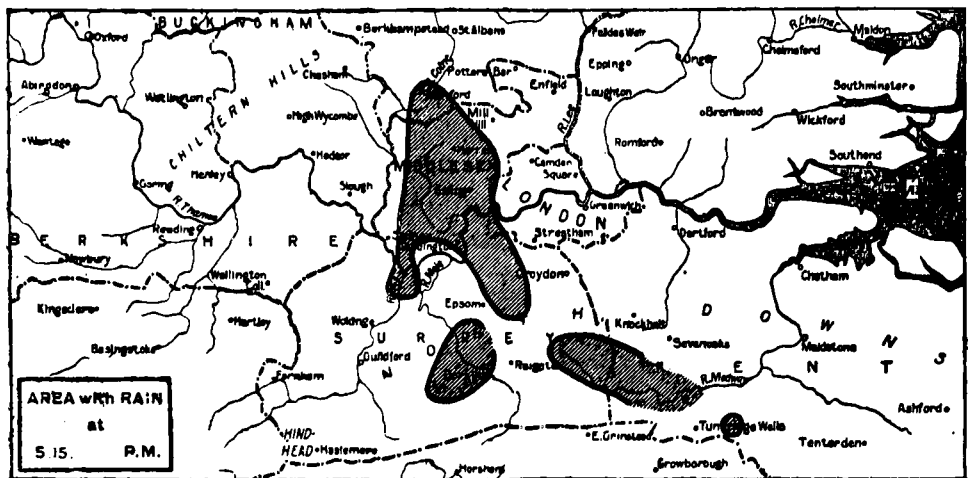


Fig. 6.

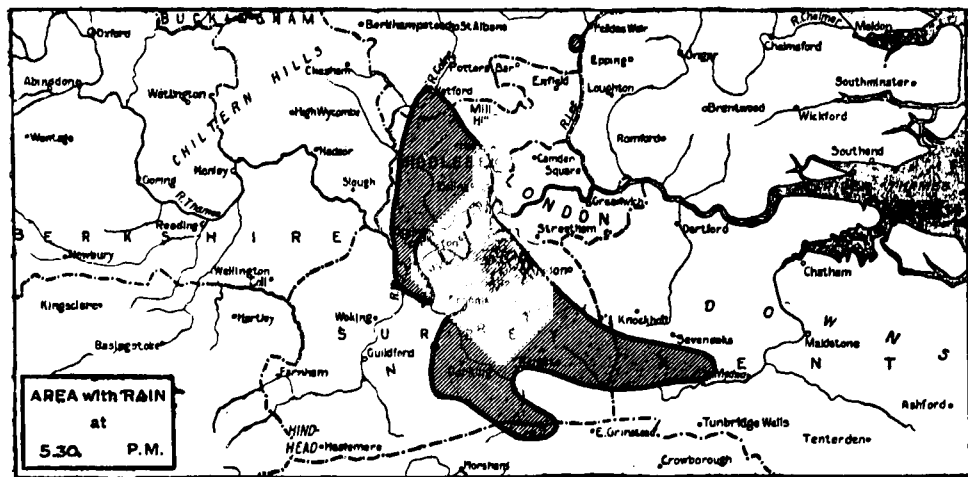


Fig. 7.

SCALE OF MILES
0 5 10 20

THUNDERSTORMS OF MAY 31st, 1911.

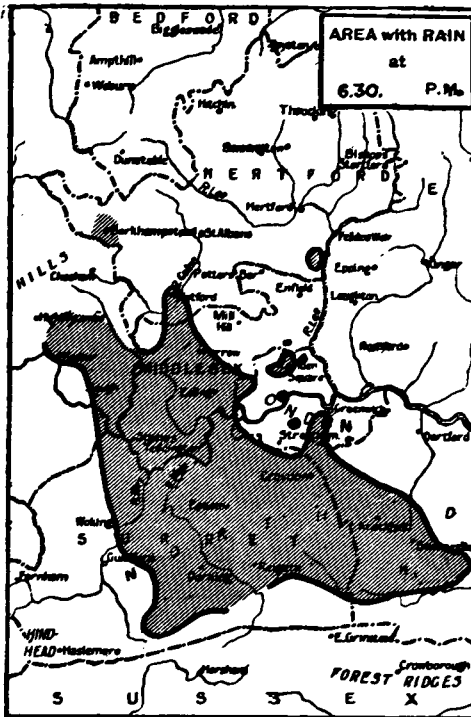


Fig.8.

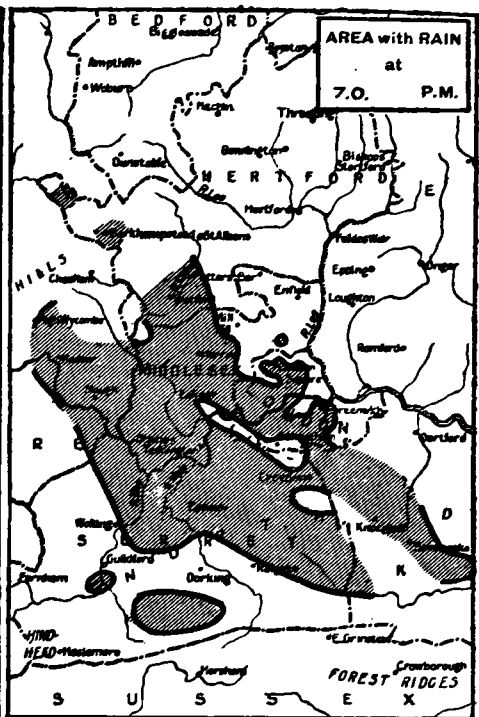


Fig.9.

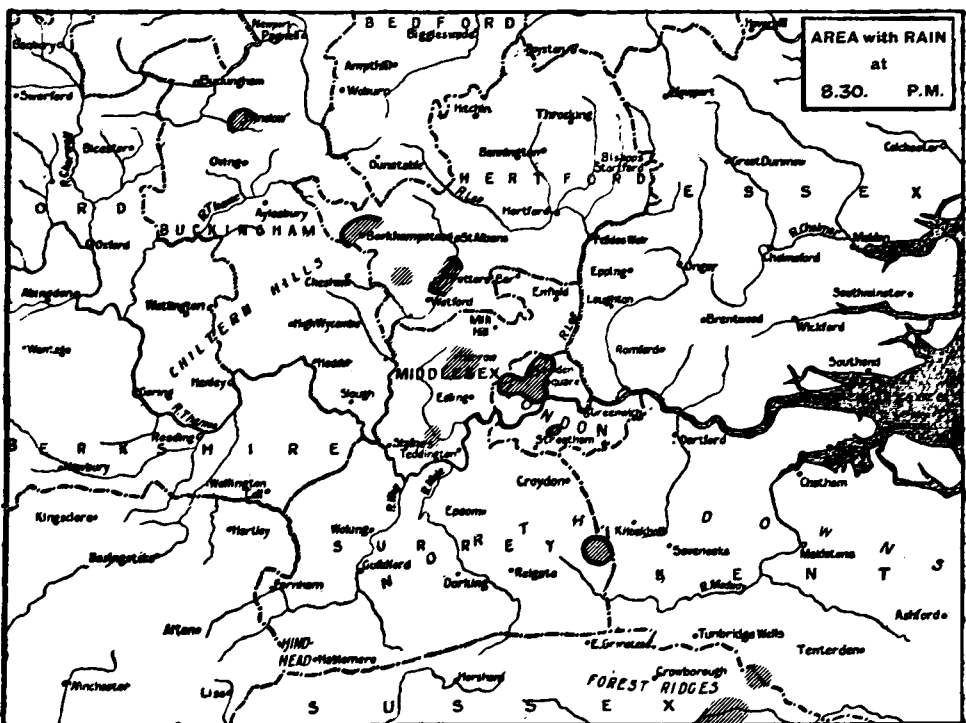
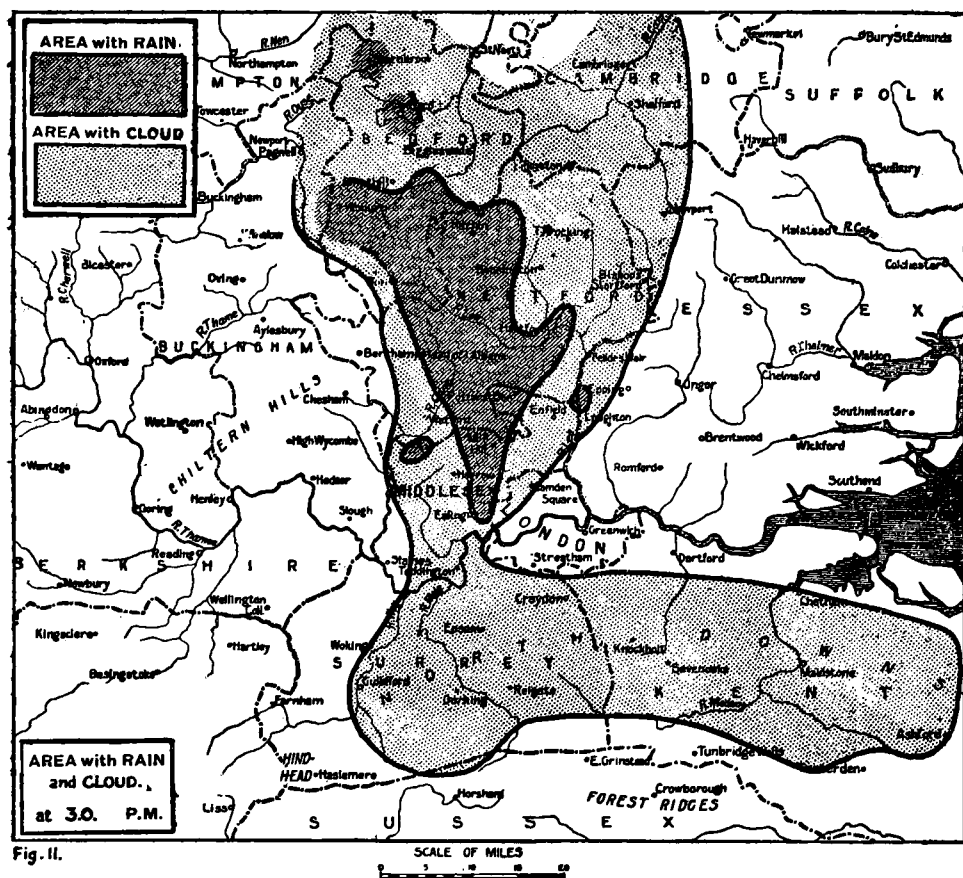


Fig.10.

SCALE OF MILES
0 5 10 20

extended again in three directions, south-east, south-west and north-west, and at 5.30 p.m. the rain area stretched unbroken from Watford on the north to Tonbridge on the south-east and to Worth on the south. In addition, a considerable number of isolated rain areas appeared over London on the north-east side of the storm. Later, while the rain ceased on the south-west, these isolated areas gradually ran together (Figs. 8 and 9), the unbroken rain-field reaching nearly to High Wycombe, to Windsor and to Woking on the western

THUNDERSTORMS OF MAY 31st, 1911.



boundary, and to Greenwich on the north-east. Its area at 6.30 p.m. was greater than at any other period, being about 770 square miles. Thereafter there was heavy rain on the eastern side of the storm for a short time, and then the disturbance gradually ceased, leaving a number of separate rain areas on a line stretching from Winslow in the north-west through London to near Heathfield in the south-east (Fig. 10). These decreased in size, and rain had ceased entirely by 10 p.m.

The extensions to the south-east and south-west at about 6 or 6.30 p.m., are curiously suggested as early as 3 p.m., by the distribution of the clouded area (Fig. 11). The map showing the clouded area, was drawn from data derived from three sources, (*a*) to a very slight extent, by statements contained in the ordinary reports, (*b*) by the official 3 p.m. observations, and (*c*) to a much greater extent by the examination of sunshine records. For the two latter, I am indebted to the courtesy of the Royal Meteorological Society and the Meteorological Office.

In the map reproduced on the opposite page, the area over which the pall of the thunderstorm extended is indicated by a light tint, while the rain area, which naturally falls entirely within it, is shown by a darker shading. The latter area, is the same as that shown in Fig. 4. Another obvious feature in this map, is the closeness with which the rain area approached the edge of the overcast area on the north-west. As the surface temperature was here between 70° and 80° , and hail was falling not far from the edge of the rain area, there seems to be evidence of an upward movement of air, to at least a height of two miles.

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

Part II.—SCOTLAND AND IRELAND.

THE first part of this article published in *British Rainfall*, 1910, explained the principles which guided the re-arrangement of the rainfall stations in England and Wales then introduced, and we repeat here the rules which were followed, referring the reader to last year's volume for details and discussion.

The county is retained as the main unit of sub-division, and the counties are grouped as before in larger divisions corresponding to those in use by the Registrar-General. Each county is sub-divided by watersheds into River Divisions, and in these the stations are arranged as nearly as possible in order from south to north. The degree of sub-division is, as a rule, determined by the size of the streams, the tributaries of a great river being treated separately when large enough, or grouped as right and left tributaries, while in some cases the whole river-basin is treated as the smallest unit. The order in which the individual pieces of the mosaic of river-divisions making up a county is taken in Great Britain, is based on the rule of beginning at the Solway Firth and proceeding southward along the west coast, eastward along the south coast, northward along the east coast, westward along the north coast, and southward again along the west coast to the Solway. The larger rivers are treated as arms 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.*

Before going on to the proper subject of this article, it is necessary to make one or two remarks on the sub-division of England and Wales. As we anticipated, we have received a good deal of correspondence criticizing the methods of procedure and making corrections. With the former class it is difficult to deal, as no system of classification can ever be perfectly logical where, as in this case, we have to follow natural and artificial boundaries simultaneously. A good many criticisms were based on the ignorance of the critics of the hydrography of their own surroundings. In one case, the name of

* The terms *right* and *left* are applied by universal geographical usage to the banks on the right and left respectively of a person *looking downstream*.

the principal river of a group was unknown to our correspondent, and he preferred a smaller, but more familiar one. In such a case, however, we feel that we must be guided by the Ordnance maps. Another criticism was that when two rivers entered the same inlet of the sea close together, we either called one a tributary of the other or we did not. There was one case of each. It is rather curious that in the case when for convenience we chose alternative A, we received a letter saying that we should have adopted alternative B; and in the case when we chose alternative B, we received a letter saying that we ought to have taken alternative A. We have as high an opinion of the judgment of our friendly critics as of our own, and their arguments were perfectly sound; but if we altered the arrangement in each case we should still have the inconsistency, and if we abolished the inconsistency we would still leave one or other unsatisfied. And as the processes of Nature are still making large changes every year in the river entrances, we have felt justified in leaving the matter as it is. In several cases our critics failed to appreciate the meaning of & c. or & C. following the name of a river-division, and they pointed out quite truly that some particular station was not in the drainage area of the stream the name of which was given. A moment's consideration will show that it is impossible to give separately the name of every little stream, so the name of the largest of a group is chosen, and "& C." added to indicate "and other streams falling into the sea." Similarly, when two tributaries of a large river are treated separately, a strip of land between the points where the two streams comes in probably drains into the main river; but, as it would mean nearly doubling the number of river-divisions if this small patch were treated separately, it is shared between two neighbouring river-divisions, whose names are followed by "& c.," meaning "and some land draining to the main river." Where tributaries are a long distance apart a special division is of course made. If our readers would remember that in geography it is the map which is the true document, and refer to the maps we give, they would see exactly what areas are included under every name, and they would realize how many words one little map can save.

We are much indebted to Mr. Lawrence Gibbs, writing from Hongkong, for pointing out some of the real lines of drainage in the Fen District, to the difficulty of dealing with which we referred last year. The information he gives shows that where art steps in the

map that is always true to nature may deceive, for in one instance at least the watershed between two flat drainage areas is the river itself, which is carried across the low ground between two lofty artificial banks. The changes made necessary by the valuable information sent by Mr. Lawrence Gibbs is set out below, and it has been given effect to in Part III. of *British Rainfall*, the General Table.

In Table on p. 46 of <i>B.R.</i> , 1910				for	substitute
Ouse, line 5	...	Huntingdonshire	...	1 ... 217	327
„ 7	...	Cambridgeshire	...	2 ... 655	740
„ 10	...	Norfolk	...	4 ... 683	700
Nene, line 2	...	Huntingdonshire	...	2 ... 149	39
„ 4	...	Cambridgeshire	..	3 ... 187	102
„ 5	...	Norfolk	...	5 ... 47	30
Welland, line 4	...	Lincolnshire	...	2 ... 411	341
Witham & C., line 3	...	Lincolnshire	...	3 ... 1015	1085

In Tables on pp. 53—59 of <i>B.R.</i> , 1910				for	substitute
HUNTINGDONSHIRE.	1.	OUSE	...	217	327
	2.	NENE	...	149	39
CAMBRIDGESHIRE.	2.	OUSE	...	655	740
	3.	NENE	...	187	102
NORFOLK.	4.	OUSE & C.	...	683	700
	5.	NENE	...	47	30
LINCOLNSHIRE.	2.	WELLAND	...	411	341
	3.	WITHAM & C.	...	1015	1085

There are 288 river divisions in England and Wales, 186 in Scotland, 138 in Ireland, and 26 insular, making 638 sub-divisions used for grouping the rainfall stations of the British Isles, excluding the Channel Isles.

RIVER DIVISIONS OF SCOTLAND.

The watersheds of Scotland were drawn on the Ordnance Survey contour map, on the scale of 2 miles to 1 inch, upon which all the rain observing stations had been entered, and on which the county boundaries were also drawn. In a great many cases the county boundaries were nearly, but not quite, coincident with the watersheds, and the resulting crossing of the two sets of lines cut off a large number of very small areas on the borders, which were troublesome to measure, and take up a good deal of space to record. The mainland of Scotland, with its 186 river divisions, had 29 of less area than 10 square miles, while England and Wales with 288 river divisions,

had only 21 of less area than 10 square miles. The largest river division in Scotland measures 736 square miles, and there are only two over 700, whereas in England and Wales, there are 5, and in Ireland, 11. While the general system of sub-division was the same as for England and Wales, one or two special difficulties presented themselves. The numerous islands have been treated apart from the mainland and are not divided by watersheds. In the west of Scotland, where there are very few rain-observing stations, the river divisions have been made to include the land draining to several contiguous sea-lochs, in such a way that each can be readily sub-divided if ever the happy occasion should arise to make such a step necessary. The study of the watersheds and county boundaries has been extremely interesting, from the geographical point of view, showing as it does how little the arbitrary county boundaries have to do with the past, and how intimately the river valleys, with their natural watershed boundaries, are associated with the history of land and people. As an instance, the counties of Division XII. very effectively mask the natural cleavage into the historic Nithsdale, Annandale, Eskdale and Liddesdale, which the watersheds restore. We doubt if many people remember that a considerable area of Perthshire drains into Loch Lomond, and an equal area of Argyllshire drains to the Tay; that a little speck of Midlothian sends its rainfall to the Clyde, and a larger portion of Lanarkshire to the Forth.

It is interesting to notice that almost exactly half the area of Scotland, including islands, drains to the North Sea on the east, and the other half to the Atlantic on the west and north, especially when we remember that half of England and Wales drained to the North Sea, and half to the bordering seas of the Atlantic on the west and south. In fact 44,186 square miles of Great Britain drain into the North Sea, and 44,259 into the outer seas; those who think comfortably in percentages may like the statement that 50·04 per cent. of the land area of Great Britain drains to the Atlantic side, and 49·96 per cent. to the North Sea side.

We add two lists, the first showing the counties that participate in the various river valleys, the second the rivers that drain the various counties.

LIST OF RIVER BASINS IN SCOTLAND.

East Coast.—

River.	County River-division.	Area sq. miles.
North Tyne	Roxburgh	1 ... 6
Tweed, Lower—Right Bank Tributaries	„	2 ... 57
„ Teviot & c.	„	3 ... 431
„ Ettrick & c.	Selkirk	1 ... 34
„ Upper—Right Bank Tributaries	Roxburgh	4 ... 10
„ „ —Left Bank Tributaries	Selkirk	2 ... 192
„ —Gala	„	3 ... 17
„ —Leader & c.	Peebles	1 ... 127
„ Lower—Left Bank Tributaries	Selkirk	4 ... 19
„ —Whiteadder	Peebles	2 ... 192
East Coast Streams	Lanark	1 ... 20
Tyne & C.	Roxburgh	5 ... 6
Firth of Forth—Right Bank Tributaries	Selkirk	5 ... 6
Esk	Berwick	1 ... 6
Almond & C.	Midlothian	1 ... 68
Forth—Right Bank Tributaries ...	Roxburgh	6 ... 25
Forth, Upper—Left Bank Tributaries	Berwick	2 ... 92
„ Teith	Haddington	1 ... 1
„ Lower—Left Bank Tributaries	Berwick	3 ... 115
Leven & C.	Roxburgh	7 ... 25
Eden & C.	Berwick	4 ... 164
	Haddington	2 ... 35
	Berwick	5 ... 80
	Haddington	3 ... 69
	„	4 ... 114
	Midlothian	2 ... 28
	Haddington	5 ... 48
	Midlothian	3 ... 3
	Peebles	3 ... 23
	Midlothian	4 ... 129
	„	5 ... 140
	Linlithgow	1 ... 60
	Lanark	2 ... 14
	Linlithgow	2 ... 59
	Lanark	3 ... 9
	Dumbarton... ..	1 ... 10
	Stirling	1 ... 263
	Perth	1 ... 17
	„	2 ... 64
	Stirling	2 ... 5
	Perth	3 ... 276
	Stirling	3 ... 15
	Clackmannan	1 ... 55
	Kinross	1 ... 15
	Fife	1 ... 66
	Perth	4 ... 107
	Kinross	2 ... 67
	Fife	2 ... 208
	Perth	5 ... 1
	Kinross	3 ... 2
	Fife	3 ... 205
	Perth	6 ... 4

River.					County River-division.			Area sq. miles.
Firth of Tay	...	...	...	...	Fife	...	4	25
Tay—Earn	...	...	...	...	Kinross	...	4	3
					Fife	...	5	1
					Perth	...	7	376
„ —Almond & c.	...	...	...	...	„	...	8	149
„ —Strathtay below Dunkeld	...	...	...	...	„	...	9	33
„ —Bran	...	...	...	...	„	...	10	81
„ —Strathtay above Dunkeld	...	...	...	...	„	...	11	95
„ —Loch Tay	...	...	...	...	„	...	12	186
„ —Lyon	...	...	...	...	„	...	13	142
„ —Tummel	...	...	...	...	Argyll	...	1	36
					Perth	...	14	587
					Inverness	...	1	28
Tay—Isla	...	...	...	...	Perth	...	15	282
					Forfar	...	1	211
„ —Left Bank Tributaries	...	...	...	...	Perth	...	16	51
Firth of Tay—Left Bank Tributaries					„	...	17	45
					Forfar	...	2	80
South Esk & C.	...	...	...	...	„	...	3	371
North Esk & C.	...	...	...	...	„	...	4	213
					Kincardine	...	1	99
Bervie, Cowie & C.	...	...	...	...	„	...	2	139
Dee	...	...	...	...	„	...	3	144
					Aberdeen	...	1	672
Don	...	...	...	...	„	...	2	512
Ythan & C.	...	...	...	...	„	...	3	285
					Banff	...	1	1
Ugie & C.	...	...	...	...	Aberdeen	...	4	257
Deveron & C.	...	...	...	...	„	...	5	248
					Banff...	...	2	344
					Elgin	...	1	7
Spey—Right Bank Tributaries	...	...	...	...	Perth	...	18	1
					Banff	...	3	285
					Elgin	...	2	35
					Inverness	...	2	437
„ —Left Bank Tributaries	...	...	...	...	Elgin	...	3	133
					Inverness	...	3	257
Lossie & C.	...	...	...	...	Elgin	...	4	154
Findhorn & C.	...	...	...	...	„	...	5	148
					Nairn	...	1	102
					Inverness	...	4	164
Nairn & C....	...	...	...	...	Nairn	...	2	61
					Inverness	...	5	131
Ness—Right Bank Tributaries	...	...	...	...	„	...	6	252
„ Garry & c.	...	...	...	...	„	...	7	185
„ Moriston	...	...	...	...	Inverness	...	8	120
					Ross & Cromarty	...	1	35
„ Enrick	...	...	...	...	Inverness	...	9	131
Beaully	...	...	...	...	„	...	10	341
					Ross & Cromarty	...	2	109
Moray Firth	...	...	...	...	„	...	3	64
Cromarty Firth	...	...	...	...	Inverness	...	11	13
					Ross & Cromarty	...	4	714
Dornoch Firth	...	...	...	...	„	...	5	355
					Sutherland	...	1	413

River.	County River-division.	Area sq. miles.
Fleet, Brora, & C.	Sutherland 2 ...	309
Helmsdale & C.	„ 3 ...	226
Berriedale, Dunbeath & C.	Caithness 1 ...	169
Wick & C.	„ 2 ...	184

North Coast.—

Thurso & C.	Caithness 3 ...	238
Forss & C.	„ 4 ...	104
North Coast Streams	Sutherland 4 ...	736

West Coast.—

Loch Laxford & C.	Sutherland 5 ...	256
Enard Bay	Ross & Cromarty 6 ...	78
L. Broom & C.	Sutherland 6 ...	138
L. Ewe, L. Torridon & C.	Ross & Cromarty 7 ...	367
L. Carron, L. Alsh & C.	„ „ 8 ...	423
Sound of Sleat	„ „ 9 ...	401
Sound of Arisaig, Sound of Mull & C.	Inverness 12 ...	259
Loch Linnhe—Right Bank Tributaries	Argyll 2 ...	317
Lochy—Right Bank Tributaries	Inverness 13 ...	126
„ —Left Bank Tributaries	Argyll 3 ...	139
Loch Linnhe—Left Bank Tributaries	Inverness 14 ...	48
Loch Etive	„ 15 ...	143
„ —Loch Awe	„ 16 ...	362
Firth of Lorne	Argyll 4 ...	165
Sound of Jura	Perth 19 ...	2
Kintyre, West	Inverness 17 ...	120
„ East	Argyll 5 ...	197
Loch Fyne	„ 6 ...	319
Firth of Clyde and Cowal	„ 7 ...	112
Clyde—Leven	„ 8 ...	163
„ —Right Bank Tributaries	„ 9 ...	146
„ —Left Bank Tributaries	„ 10 ...	177
Firth of Clyde—Left Bank Tributaries	„ 11 ...	264
	Dumbarton 2 ...	52
	Argyll 12 ...	242
	Dumbarton 3 ...	149
	Stirling 4 ...	128
	Argyll 13 ...	4
	Perth 20 ...	36
	Dumfries 1 ...	5
	Peebles 4 ...	6
	Midlothian 6 ...	1
	Linlithgow 3 ...	1
	Lanark 4 ...	378
	Renfrew 1 ...	3
	Dumbarton 4 ...	59
	Stirling 5 ...	52
	Lanark 5 ...	448
	Ayr 1 ...	20
	Renfrew 2 ...	194
	Ayr 2 ...	60
	Renfrew 3 ...	34

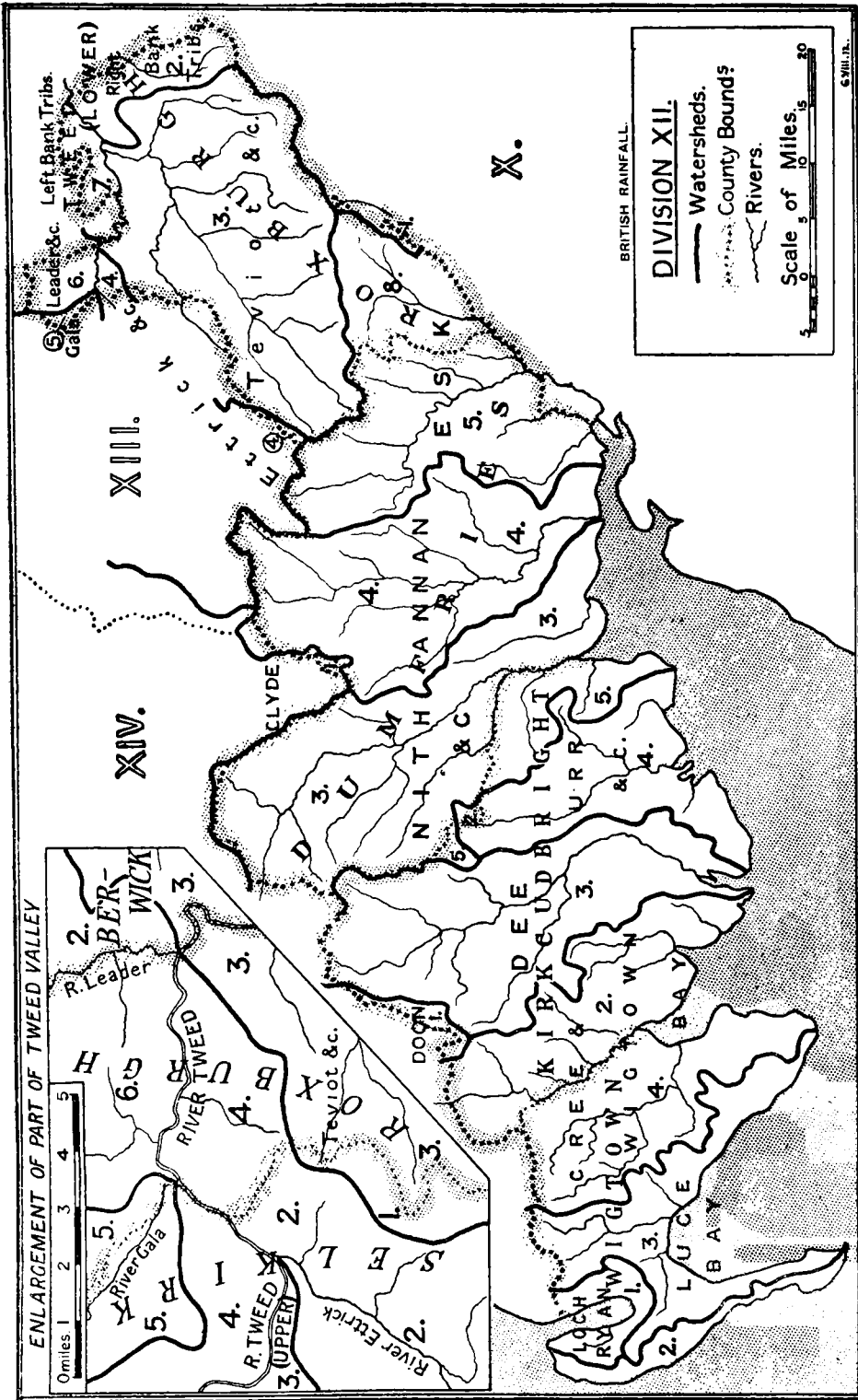
River.					County River-division.			Area sq. miles.	
Irvine & C.	...	...	...	...	Lanark	...	6	...	2
					Ayr	...	3	...	283
					Renfrew	...	4	...	10
Ayr	...	...	...	...	Lanark	...	7	...	1
					Ayr	...	4	...	222
Doon	...	...	...	...	Kirkcudbright	...	1	...	16
					Ayr	...	5	...	119
Culzean Bay & C.	...	...	...	..	Ayr	...	6	...	32
					Girvan	...	7	...	105
Stinchar & C.	...	...	...	...	"	...	8	...	155
Loch Ryan	...	...	...	...	Wigtown	...	1	...	46
					Ayr	...	9	...	12
Western Galloway	...	...	...	...	Wigtown	...	2	...	44
Luce Bay	...	...	...	..	"	...	3	...	186
					Ayr	...	10	...	15
Cree & Wigtown Bay	...	...	...	...	Wigtown	...	4	...	212
					Kirkcudbright	...	2	...	222
					Ayr	...	11	...	40
Dee	...	...	...	...	Kirkcudbright	...	3	...	377
					Ayr	...	12	...	9
Urr & C.	...	...	...	...	Kirkcudbright	...	4	...	196
					Dumfries	...	2	...	6
Nith & C.	...	...	...	...	Kirkcudbright	...	5	...	91
					Dumfries	...	3	...	421
					Lanark	...	8	...	2
					Ayr	...	13	...	62
Annan	...	...	...	...	Dumfries	...	4	...	367
					Lanark	...	9	...	7
Esk	...	...	...	...	Dumfries	...	5	...	275
					Roxburgh	...	8	...	106

Insular Scotland.—

Haddington	...	6	...	—
Ayr	...	14	...	1
Bute	...	1, 2, 3	...	218
Argyll	...	14	...	900
Fife	...	6	...	—
Inverness	...	18	...	786
"	...	19	...	243
Ross & Cromarty	...	10	...	691
Sutherland	...	7	...	2
Caithness	...	5	...	1
Orkney	...	...	...	389
Shetland	...	...	...	558

Summary of the River Basins of Scotland.

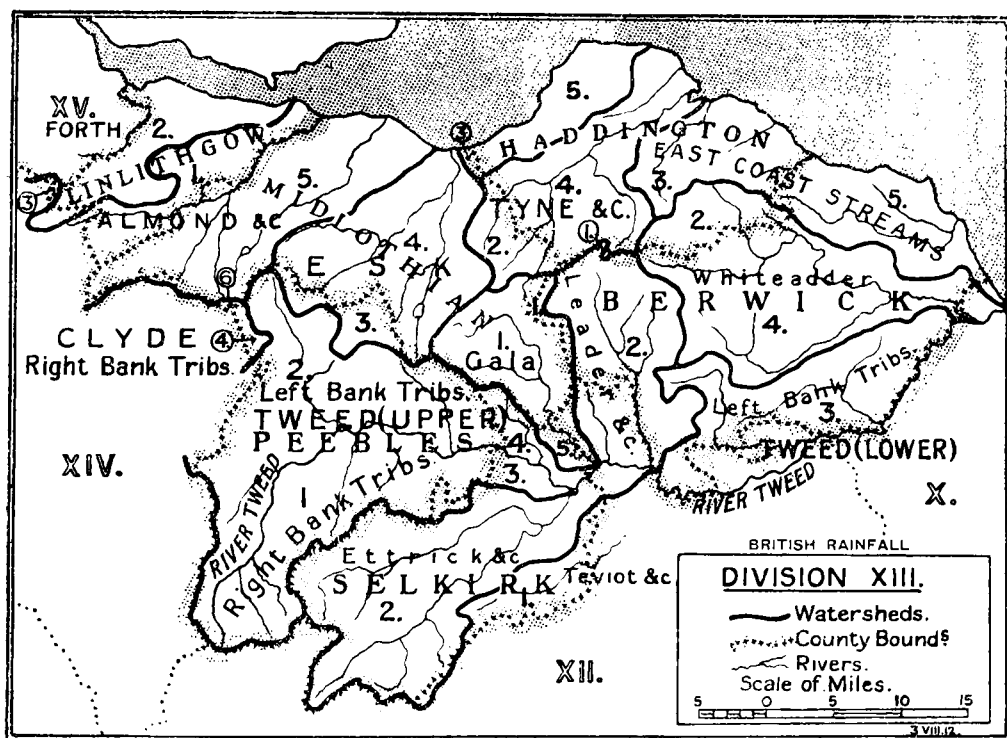
	Sq. miles.
East Coast. —Tweed	1642
Forth & Firth of Forth	1654
Tay & Firth of Tay	2411
North and South Esk	683
Dee	816
Don	512
Deveron	599
Spey	1148
Moray Firth	2570
Dornoch Firth	768
Smaller Rivers	2232
<hr/>	
Total land draining to East Coast	15,035
 North Coast. —Thurso and other Rivers	1,078
 West Coast. —Loch Broom & C.	367
Loch Ewe, Loch Torridon & C....	423
Loch Carron, Loch Alsh & C. ...	401
Sound of Arisaig, Sound of Mull & C.	443
Loch Linnhe & Loch Etive ...	1495
Loch Fyne	264
Clyde & Firth of Clyde	1872
Irvine & C.	295
Ayr	223
Cree & Wigtown Bay	474
Dee	386
Nith & C.	576
Annan	374
Esk	381
Smaller Rivers	2261
<hr/>	
Total land draining to West Coast	10,235
 SUMMARY. —Land draining to East Coast ...	15,035
„ „ North „ ...	1,078
„ „ West „ ...	10,235
Islands	3,789
<hr/>	
Total area of Scotland ...	30,137
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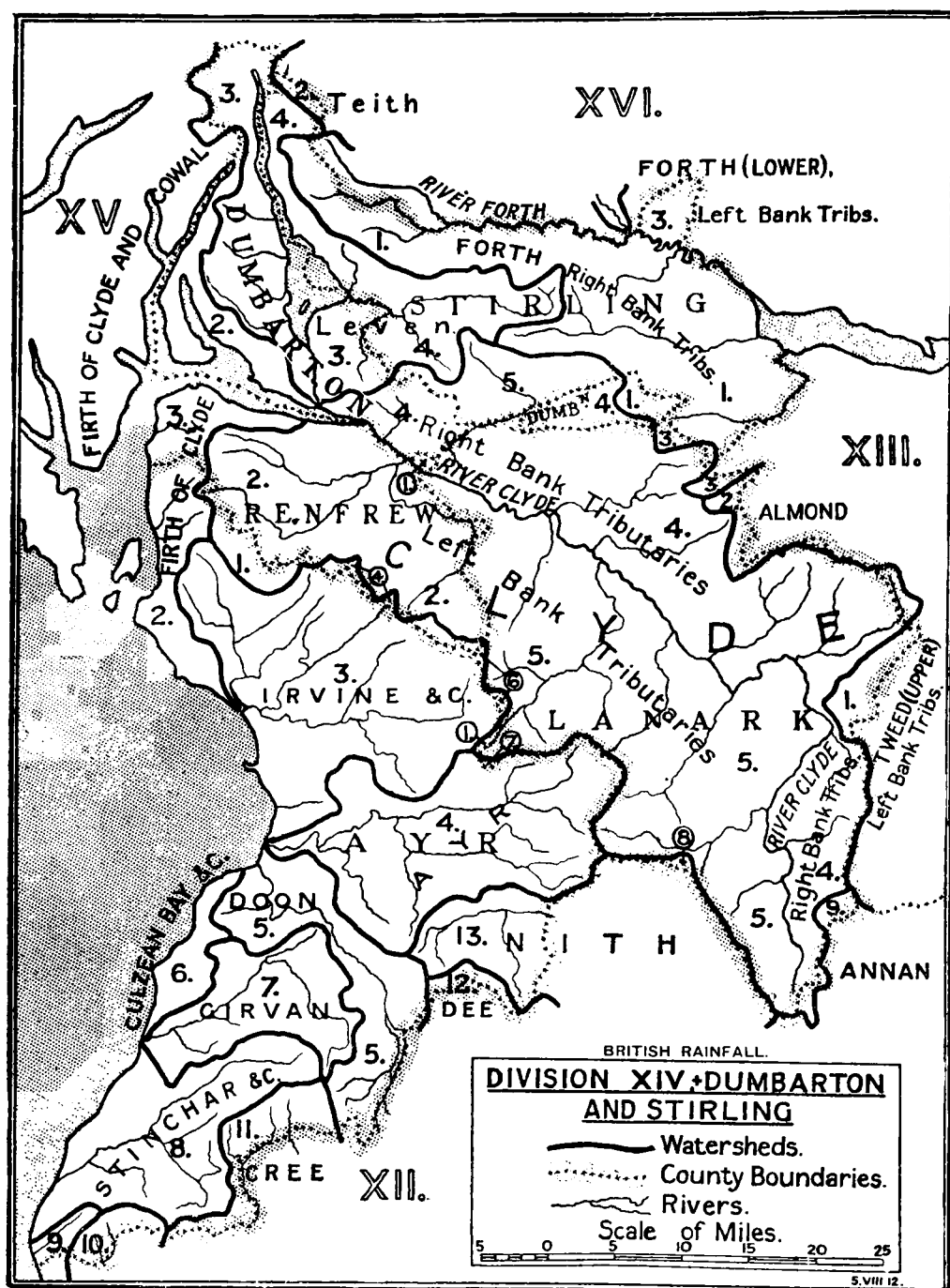
LIST OF COUNTIES AND RIVER DIVISIONS OF SCOTLAND.

COUNTY.	RIVER DIVISIONS.	Area of River Division, sq. m.	Area of County, sq. m.
XII. WIGTOWN.			
1.	LOCH RYAN	46	
2.	WESTERN GALLOWAY	44	
3.	LUCE BAY	186	
4.	CREE & WIGTOWN BAY	212	
		—	488
KIRKCUDBRIGHT.			
1.	DOON	16	
2.	CREE & WIGTOWN BAY	222	
3.	DEE	377	
4.	URR & C.	196	
5.	NITH & C.	91	
		—	902
DUMFRIES.			
1.	CLYDE—Right Bank Tributaries ...	5	
2.	URR	6	
3.	NITH & C.	421	
4.	ANNAN	367	
5.	ESK	275	
		—	1074
ROXBURGH.			
1.	NORTH TYNE	6	
2.	TWEED, LOWER—Right Bank Tribs. ...	57	
3.	„ —Teviot & c.	431	
4.	„ —Ettrick & c.	10	
5.	„ —Gala	6	
6.	„ —Leader & c.	25	
7.	„ LOWER—Left Bank Tribs. ...	25	
8.	ESK	106	
		—	666
XIII. SELKIRK.			
1.	TWEED—Teviot & c.	34	
2.	„ —Ettrick & c.	192	
3.	„ UPPER—Right Bank Tribs. ...	17	
4.	„ UPPER—Left Bank Tribs. ...	19	
5.	„ —Gala	6	
		—	268
PEEBLES.			
1.	TWEED, UPPER—Right Bank Tributaries	127	
2.	„ „ —Left Bank Tributaries	192	
3.	ESK	23	
4.	CLYDE—Right Bank Tributaries ...	6	
		—	348

COUNTY.	RIVER DIVISIONS.	Area of River Division, sq. m.	Area of County, sq. m.
XIII. BERWICK.			
1.	TWEED—Gala	6	
2.	„ —Leader	92	
3.	„ LOWER—Left Bank Tributaries...	115	
4.	„ —Whiteadder	164	
5.	EAST COAST STREAMS	80	
		—	457
HADDINGTON.			
1.	TWEED—Leader	1	
2.	„ —Whiteadder	35	
3.	EAST COAST STREAMS	69	
4.	TYNE & C.	114	
5.	FIRTH OF FORTH	48	
6.	INSULAR	—	267

**MIDLOTHIAN.**

1.	TWEED—Gala	68
2.	TYNE	28
3.	FIRTH OF FORTH	3
4.	ESK	129
5.	ALMOND & C.	140
6.	CLYDE—Right Bank Tributaries	1
		—

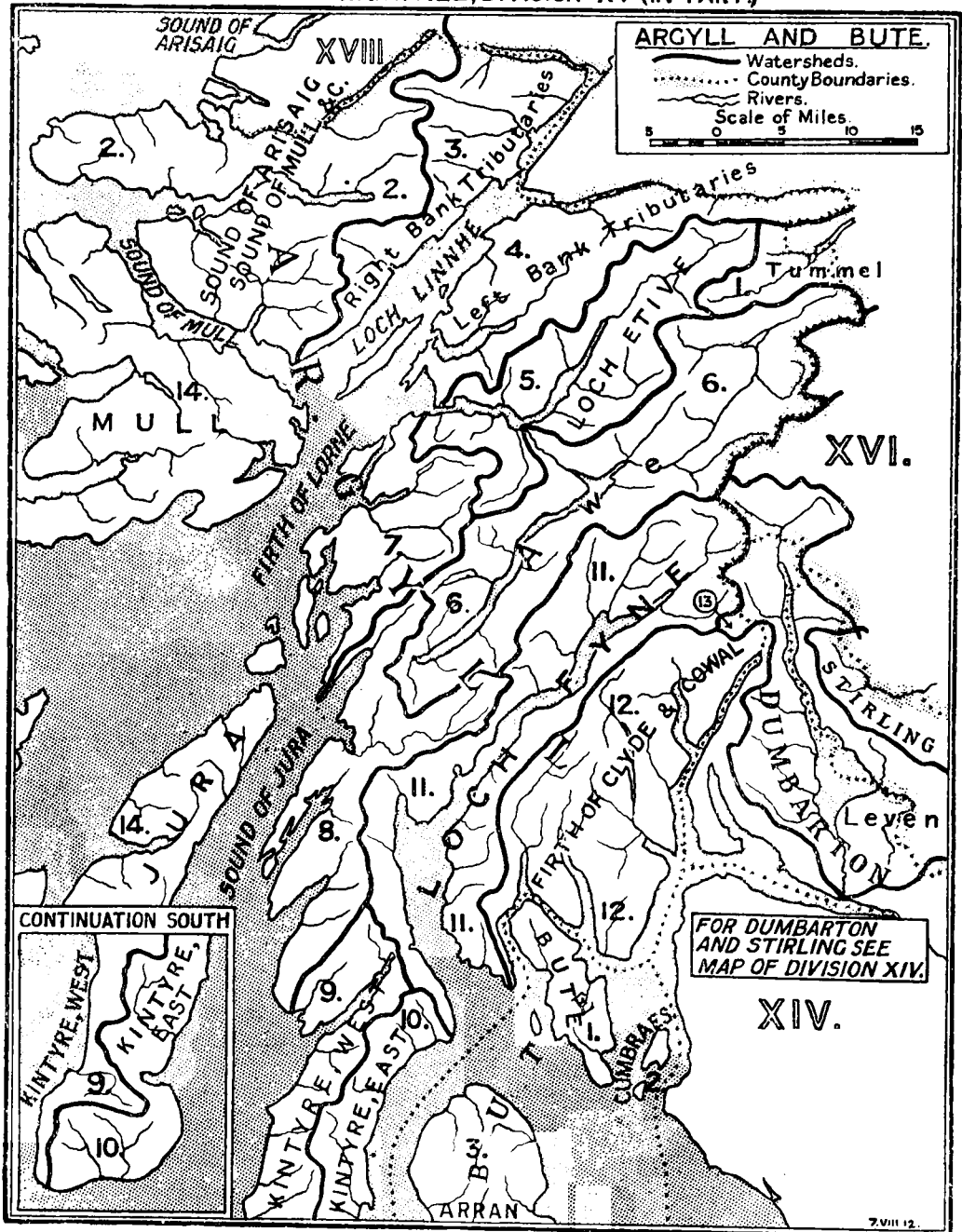


COUNTY.	RIVER DIVISIONS	Area of River Division, sq. m.	Area of County, sq. m.
XIII. LINLITHGOW.			
1.	ALMOND & C.	60	
2.	FORTH—Right Bank Tributaries ...	59	
3.	CLYDE—Right Bank Tributaries ...	1	
		—	120
XIV. LANARK.			
1.	TWEED, UPPER—Left Bank Tributaries	20	
2.	ALMOND	14	
3.	FORTH—Right Bank Tributaries ...	9	
4.	CLYDE—Right Bank Tributaries ...	378	
5.	„ —Left Bank Tributaries ...	448	
6.	IRVINE	2	
7.	AYR	1	
8.	NITH	2	
9.	ANNAN	7	
		—	881
AYR.			
1.	CLYDE—Left Bank Tributaries ...	29	
2.	FIRTH OF CLYDE	60	
3.	IRVINE & C.	283	
4.	AYR	222	
5.	DOON	119	
6.	CULZEAN BAY & C.	32	
7.	GIRVAN	105	
8.	STINCHAR & C.	155	
9.	LOCH RYAN	12	
10.	LUCE BAY	15	
11.	CREE	40	
12.	DEE	9	
13.	NITH	62	
14.	INSULAR	1	
		—	1135
RENFREW.			
1.	CLYDE—Right Bank Tributaries ...	3	
2.	„ —Left Bank Tributaries ...	194	
3.	FIRTH OF CLYDE	34	
4.	IRVINE	10	
		—	241
XV. DUMBARTON.			
1.	FORTH—Right Bank Tributaries ...	10	
2.	FIRTH OF CLYDE & COWAL ...	52	
3.	CLYDE—Leven	149	
4.	„ —Right Bank Tributaries ...	59	
		—	270

COUNTY.	RIVER DIVISIONS.	Area of River Division, sq. m.	Area of County, sq. m.
XV. STIRLING.			
1.	FORTH—Right Bank Tributaries	...	263
2.	„ —Teith	... ..	5
3.	„ —Left Bank Tributaries	...	15
4.	CLYDE—Leven	... ..	128
5.	„ —Right Bank Tributaries	...	52

463

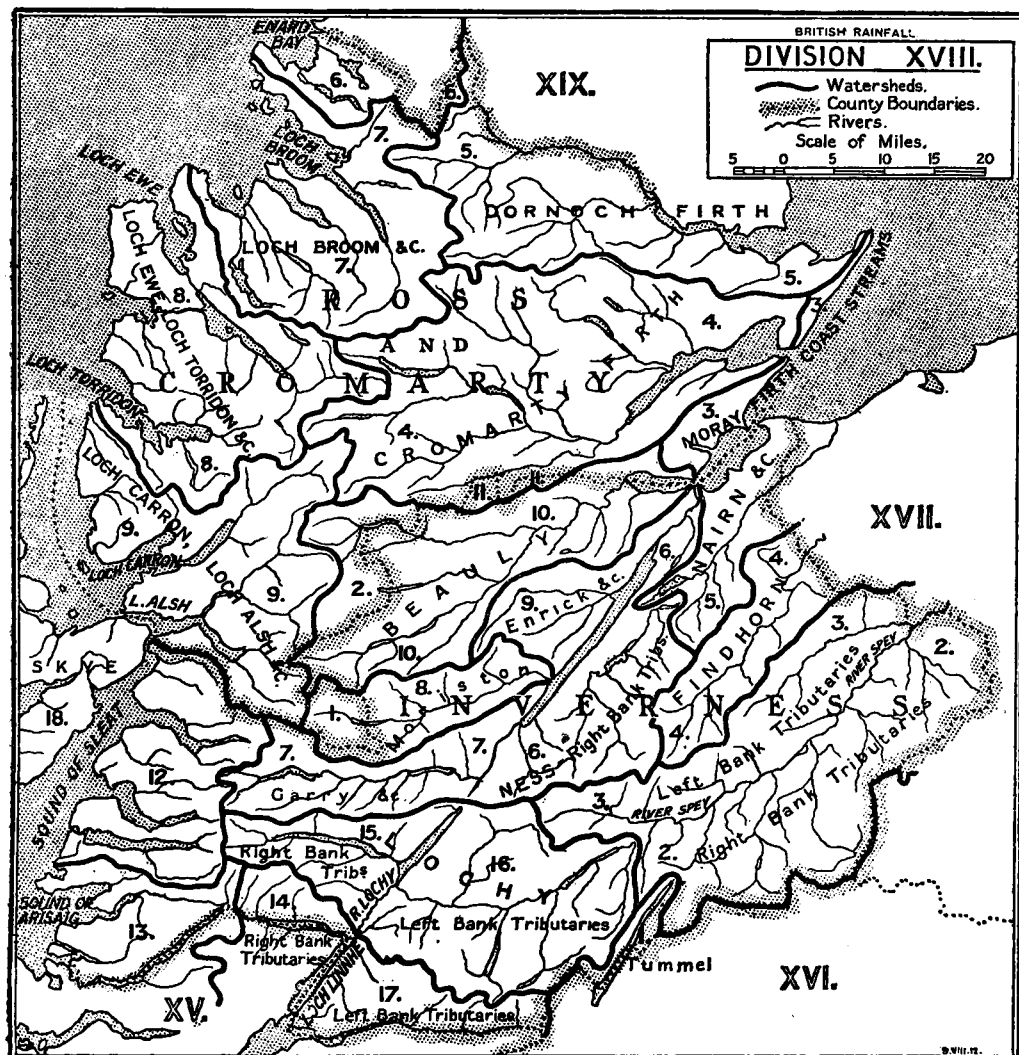
BRITISH RAINFALL, DIVISION XV (IN PART.)



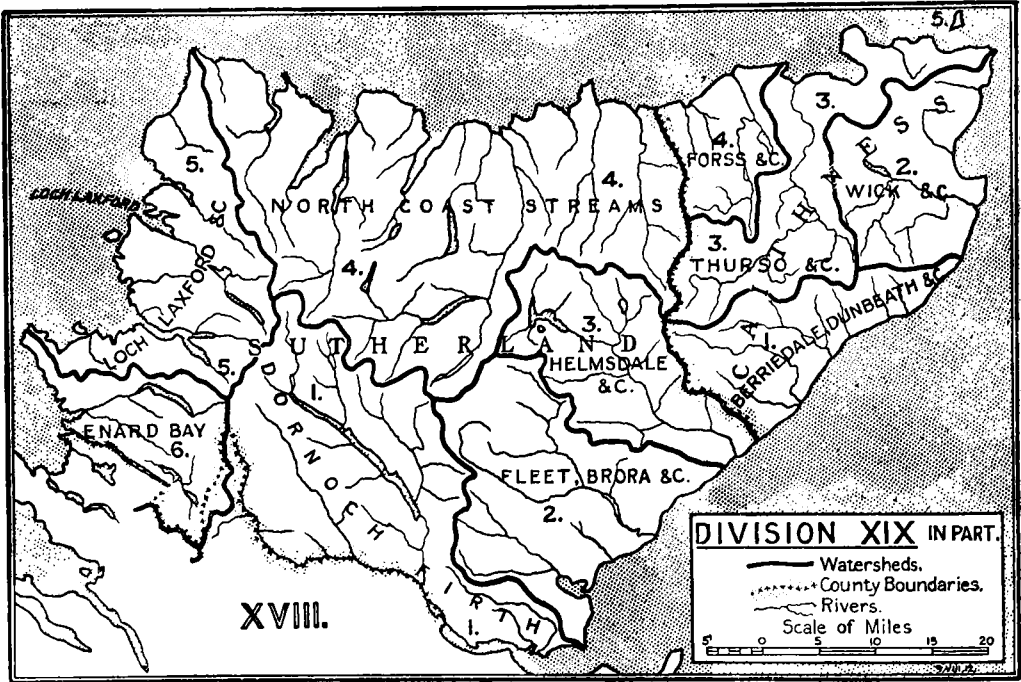
COUNTY.	RIVER DIVISIONS.	Area of River Division, sq. m.	Area of County, sq. m.
XV. BUTE.			
1. ISLE OF BUTE	50	
2. CUMBRAES	4	
3. ARRAN	164	
		<hr/>	218
ARGYLL.			
1. TAY—Tummel	36	
2. SOUND OF ARISAIG, SOUND OF MULL & C.		317	
3. LOCH LINNHE—Right Bank Tributaries		139	
4. „ —Left Bank Tributaries...		165	
5. LOCH ETIVE	197	
6. „ —Awe	319	
7. FIRTH OF LORNE	112	
8. SOUND OF JURA	163	
9. KINTYRE, WEST	146	
10. „ EAST	177	
11. LOCH FYNE	264	
12. FIRTH OF CLYDE & COWAL	242	
13. CLYDE—Leven	4	
14. INSULAR	900	
		<hr/>	3181
XVI. CLACKMANNAN.			
1. FORTH, LOWER—Left Bank Tributaries		55	55
KINROSS.			
1. FORTH, LOWER—Left Bank Tributaries		15	
2. LEVEN & C.	67	
3. EDEN	2	
4. TAY—Earn	3	
		<hr/>	87
FIFE.			
1. FORTH, LOWER—Left Bank Tributaries		66	
2. LEVEN & C.	208	
3. EDEN & C.	205	
4. FIRTH OF TAY	25	
5. TAY—Earn	1	
6. INSULAR	—	
		<hr/>	505
PERTH.			
1. FORTH—Right Bank Tributaries	17	
2. „ UPPER—Left Bank Tributaries	64	
3. „ —Teith	276	
4. „ LOWER—Left Bank Tributaries	107	
5. LEVEN	1	
6. EDEN	4	
7. TAY—Earn	376	
8. „ —Almond & c.	149	
9. „ —Strathday below Dunkeld	33	

						Area of River Division, sq. m.	Area of County, sq. m.
COUNTY.		RIVER DIVISIONS.					
XVI.	PERTH—(con.)						
10.	TAY—Bran	...	...	...	...	81	
11.	„ —Strathtay above Dunkeld	...	...	...	...	95	
12.	„ —Loch Tay	...	...	...	...	186	
13.	„ —Lyon	...	...	...	...	142	
14.	„ —Tummel	...	...	...	...	587	
15.	„ —Isla	...	...	...	...	282	
16.	„ —Left Bank Tributaries	...	...	...	...	51	
17.	FIRTH OF TAY	...	...	...	...	45	
18.	SPEY—Right Bank Tributaries	...	...	...	...	1	
19.	LOCH LINNHE—Left Bank Tributaries...	...	...	...	...	2	
20.	CLYDE—Leven	...	...	...	..	36	
						—	2535
	FORFAR.						
1.	TAY—Isla	...	...	...	...	211	
2.	FIRTH OF TAY	..	...	...	...	80	
3.	SOUTH ESK & C.	...	...	...	...	371	
4.	NORTH ESK & C.	...	...	...	...	213	
						—	875
XVII.	KINCARDINE.						
1.	NORTH ESK & C.	...	...	...	...	99	
2.	BERVIE, COWIE & C.	...	...	...	...	139	
3.	DEE	...	...	...	...	144	
						—	382
	ABERDEEN.						
1.	DEE	...	...	...	...	672	
2.	DON	...	...	...	...	512	
3.	YTHAN & C....	...	...	..	...	285	
4.	UGIE & C.	...	...	...	...	257	
5.	DEVERON & C.	...	...	...	...	248	
						—	1974
	BANFF.						
1.	YTHAN	...	..	...	...	1	
2.	DEVERON & C.	...	...	...	...	344	
3.	SPEY—Right Bank Tributaries	...	...	...	...	285	
						—	630
	MORAY.						
1.	DEVERON & C.	...	...	...	...	7	
2.	SPEY—Right Bank Tributaries	...	...	...	...	35	
3.	„ Left Bank Tributaries	...	...	...	...	133	
4.	LOSSIE & C. ...	...	...	...	...	154	
5.	FINDHORN & C.	..	...	...	...	148	
						—	477
	NAIRN.						
1.	FINDHORN & C.	...	...	...	...	102	
2.	NAIRN & C. ...	...	...	..	...	61	
						—	163

COUNTY.	RIVER DIVISIONS.	Area of River Division, sq. m.	Area of County, sq. m.
XVIII. INVERNESS.			
1.	TAY—Tummel	28	
2.	SPEY—Right Bank Tributaries	437	
3.	„ Left Bank Tributaries	257	
4.	FINDHORN	164	
5.	NAIRN & C.	131	
6.	NESS—Right Bank Tributaries	252	
7.	„ —Garry & c.	185	
8.	„ —Moriston	120	
9.	„ —Enrick	131	
10.	BEAULY	341	
11.	CROMARTY FIRTH	13	
12.	SOUND OF SLEAT	259	
13.	SOUND OF ARISAIG	126	
14.	LOCH LINNHE—Right Bank Tributaries	48	



COUNTY.	RIVER DIVISIONS.	Area of River Division, sq. m.	Area of County, sq. m.
XVIII.	INVERNESS—(con.)		
15.	LOCHY—Right Bank Tributaries }	143	
16.	„ —Left Bank Tributaries ...	362	
17.	LOCH LINNHE—Left Bank Tributaries...	120	
18.	INSULAR, INNER HEBRIDES ...	786	
19.	„ OUTER HEBRIDES ...	243	
			4146
	ROSS & CROMARTY.		
1.	NESS—Moriston ...	35	
2.	BEAULY ...	109	
3.	MORAY FIRTH COAST STREAMS...	64	
4.	CROMARTY FIRTH ...	714	
5.	DORNOCH FIRTH ...	355	
6.	ENARD BAY ...	78	
7.	LOCH BROOM & C. ...	367	
8.	LOCH EWE, LOCH TORRIDON & C. ...	423	
9.	LOCH CARRON, LOCH ALSH & C. ...	401	
10.	INSULAR, OUTER HEBRIDES ...	691	
			3237



XIX. SUTHERLAND.

1.	DORNOCH FIRTH ...	413
2.	FLEET, BRORA & C. ...	309
3.	HELMSDALE & C. ...	226
4.	NORTH COAST STREAMS ...	736
5.	LOCH LAXFORD & C. ...	256
6.	ENARD BAY ...	138
7.	INSULAR ...	2
		2080

COUNTY.		RIVER DIVISIONS.				Area of River Division, sq. m.	Area of County, sq. m.
XIX.	CAITHNESS.						
	1. BERRIEDALE, DUNBEATH & C.	...	...	...	...	169	
	2. WICK & C.	...	...	...	...	184	
	3. THURSO & C.	...	...	...	...	238	
	4. FORSS & C.	...	...	...	...	104	
	5. INSULAR	...	...	...	...	1	
						<hr/>	696
	ORKNEY	...	...	...	...		389
	SHETLAND	...	...	...	...		558

RIVER DIVISIONS OF IRELAND.

The small number of rainfall stations in Ireland made it possible to employ somewhat larger river-divisions than in Great Britain, and the fact that the Shannon divides counties throughout almost its whole length, made it less necessary to sub-divide the basins of that great river amongst its tributaries. Considerable difficulty was found in drawing the watersheds in the west of Ireland, and at some points it was necessary to consult large-scale maps in order to determine how the line should run. In some cases the map showing surface drainage only did not suffice, as, for instance, in the case of the land draining to Lough Mask from which there is no outlet on the surface; but the fact that there is an underground communication with Lough Corrib, justified us in assigning the whole drainage area to the Corrib. We trust that any mistakes which may have been made will be pointed out with full data for correction, as the labour we have expended on this really heavy task justifies us in requiring definite proof before we make a change.

The summary at the end of the following Table of Irish rivers, shows that 16,284 square miles of the mainland drains to the west coast, and 15,955 square miles to the south and east coasts; the east coast being assumed to join the west coast at Inishowen Head on Lough Foyle.

LIST OF RIVER BASINS IN IRELAND.

West Coast.—

River.					County River-division.			Area sq. miles.
Donagh & C.	...	...	...	...	Donegal	...	1	146
Lough Swilly	...	...	...	...	Londonderry	...	1	6
					Donegal	...	2	273
Sheephaven & C.	...	...	...	...	„	...	3	307
Gweebarra & C.	...	...	...	...	„	...	4	341
Donegal Bay	...	...	...	...	„	...	5	322

River.					County River-division.			Area sq. miles.
Erne	...	...	...	...	Longford	...	1	61
					Leitrim	...	1	152
					Cavan	...	1	489
					Fermanagh	...	1	667
					Monaghan	...	1	208
					Tyrone	...	1	46
Drowes & C.	...	...	...	...	Donegal	...	6	68
					Sligo	...	1	49
					Leitrim	...	2	85
					Fermanagh	...	2	46
Sligo Bay	...	...	...	...	Donegal	...	7	10
					Roscommon	...	1	6
					Mayo	...	1	10
					Sligo	...	2	444
Moy & C.	...	...	...	...	Leitrim	...	3	135
					Roscommon	...	2	11
					Mayo	...	2	797
					Sligo	...	3	166
Blacksod Bay & C.	...	...	...	...	Mayo	...	3	411
Clew Bay	...	...	...	...	"	...	4	254
Eriff & C.	...	...	...	...	Galway	...	1	141
Galway Bay, North	...	...	...	...	Mayo	...	5	121
					Galway	...	2	277
					"	...	3	846
					Roscommon	...	3	16
Galway Bay, South	...	...	...	...	Mayo	...	6	432
					Clare	...	1	100
					Galway	...	4	281
					Clare...	...	2	294
Mal Bay & C.	...	...	...	...	Limerick	...	1	7
Shannon—Right Bank Tributaries	...	...	...	...	Clare...	...	3	854
					Galway	...	5	803
					Roscommon	...	4	928
					Mayo	...	7	35
					Sligo	...	4	56
					Leitrim	...	4	47
					Cavan	...	2	34
					Cork	...	1	79
					Kerry	...	1	372
					Tipperary	...	1	582
					Limerick	...	2	944
					Queen's Co.	...	1	25
					King's Co.	...	1	560
					Meath	...	1	32
					Westmeath	...	1	517
Tralee Bay & C.	...	...	...	...	Longford	...	2	363
					Leitrim	...	5	196
					Cavan	...	3	91
					Kerry	...	2	221
Dingle Bay	...	...	...	...	Cork	...	2	4
					Kerry	...	3	789
Kenmare & C.	...	...	...	...	Cork	...	3	47
					Kerry	...	4	426
Bantry Bay	...	...	...	...	Cork	...	4	197
Dunmanus Bay	...	...	...	...	"	...	5	57

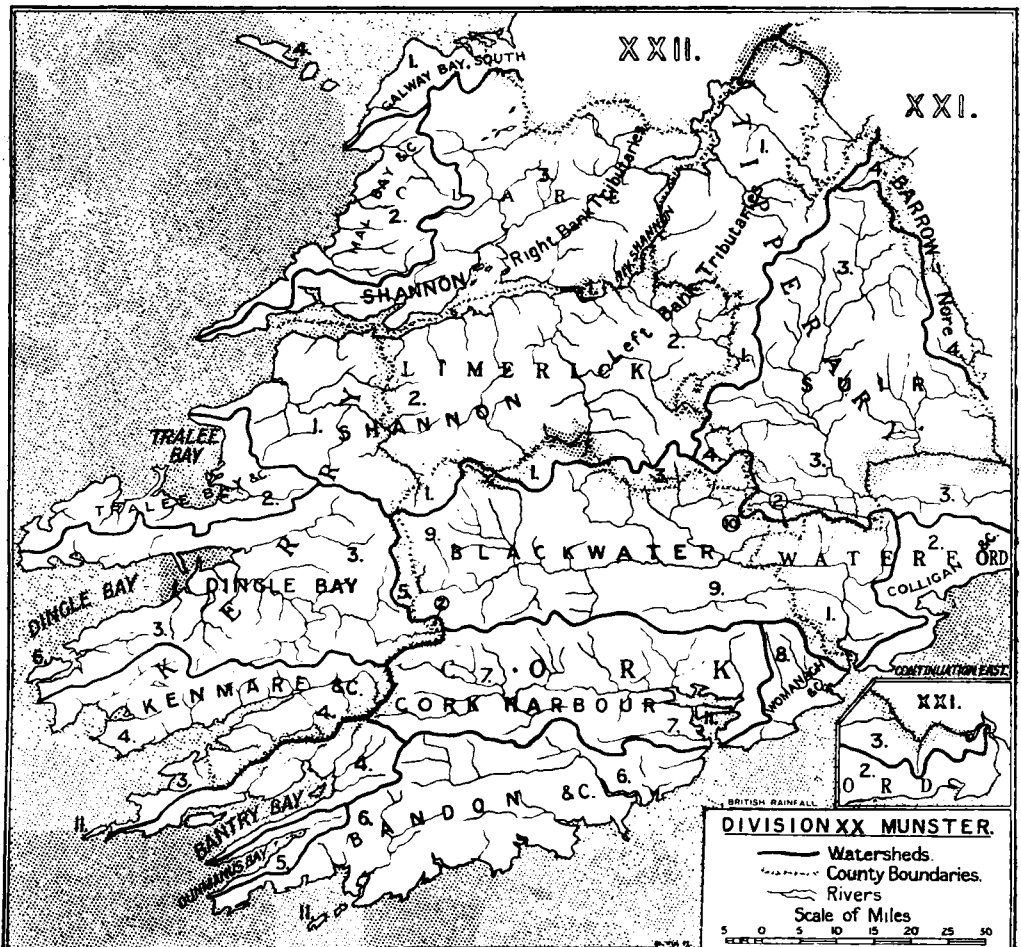
River.					County River-division.			Area sq. miles.
South Coast.—								
Bandon & C.	...	...	...	...	Cork	...	6	694
Cork Harbour	...	...	...	...	"	...	7	726
Womanagh & C.	...	...	...	...	"	...	8	118
Blackwater	...	...	...	...	"	...	9	922
					Kerry	...	5	30
					Waterford	...	1	243
					Tipperary	...	2	21
					Limerick	...	3	64
Colligan & C.	...	...	...	...	Waterford	...	2	259
Suir	...	...	...	...	Cork	...	10	3
					Waterford	...	3	213
					Tipperary	...	3	965
					Limerick	...	4	25
					Kilkenny	...	1	162
Barrow—Nore	...	...	...	...	Tipperary	...	4	92
					Kilkenny	...	2	527
					Carlow	...	1	9
					Queen's Co.	...	2	339
					King's Co.	...	2	5
Barrow	...	...	...	...	Wexford	...	1	43
					Kilkenny	...	3	109
					Wicklow	...	1	12
					Carlow	...	2	216
					Queen's Co.	...	3	300
					King's Co.	...	3	156
					Kildare	...	1	332
Owenduff & C.	...	...	...	...	Wexford	...	2	240
East Coast.—								
Slaney & C.	...	...	...	...	Wexford	...	3	467
					Wicklow	...	2	200
					Carlow	...	3	121
Owenavorragh & C.	...	...	...	...	Wexford	...	4	146
Ovoca & C.	...	...	...	...	"	...	5	6
					Wicklow	...	3	241
Vartry & C...	...	...	...	...	"	...	4	193
					Dublin	...	1	23
Liffey & C. ...	...	...	...	...	Wicklow	...	5	135
					Kildare	...	2	246
					Dublin	...	2	188
					Meath	...	2	72
Nanny, Delvin & C.	...	...	...	...	Dublin	...	3	142
					Meath	...	3	150
Boyne	...	...	...	...	King's Co.	...	4	51
					Kildare	...	3	76
					Meath	...	4	560
					Westmeath	...	2	195
					Louth	...	1	32
					Cavan	...	4	122
Dundalk Bay & C.	...	...	...	...	Meath	...	5	95
					Louth	...	2	264
					Cavan	...	5	17
					Monaghan	...	2	132
					Armagh	...	1	118

River.				County River-division.				Area sq. miles.		
Carlingford Lough	...	...	...	Louth	...	...	3	...	20
				Armagh	...	...	2	...	23
				Down	...	...	1	...	104
Dundrum Bay & C.	...	..	...	„	...	...	2	...	173
Strangford Lough	...	...	...	„	...	...	3	...	260
Coast Streams	...	...	...	„	...	...	4	...	47
Belfast Lough	...	...	...	„	...	...	5	...	206
Glenarm & C	...	...	...	Antrim	...	...	1	...	107
				„	...	...	2	...	186
				„	...	...	3	...	193
Bush & C. ...	...	...	...	Londonderry	...	...	2	...	9
Bann, Lower	...	...	...	Antrim	...	...	4	...	112
				Londonderry	...	...	3	...	240
				Armagh	...	...	3	...	37
„ —Lough Neagh, East	...	...	...	Down	...	...	6	...	7
„ Upper	...	...	...	Antrim	...	...	5	...	590
				Armagh	...	...	4	...	144
				Down	...	...	7	...	162
„ —Lough Neagh, West	...	...	...	Monaghan	...	...	3	...	158
				Armagh	...	...	5	...	192
				Londonderry	...	...	4	...	196
				Tyrone	...	...	2	...	442
				Londonderry	...	...	5	...	365
Foyle & C.	...	...	...	Tyrone	...	...	3	...	769
				Donegal	...	...	8	...	396
Total area of mainland				...	...	...	...	...	<u>32,239</u>
Insular.—				Cork	...	...	11	...	26
				Kerry	...	...	6	...	13
				Clare	...	...	4	...	22
				Dublin	...	...	4	...	1
				Galway	...	...	6	...	29
				Mayo	...	...	8	...	89
				Sligo	...	...	5	...	1
				Down	...	...	8	...	2
				Antrim	...	...	6	...	5
				Donegal	...	...	9	...	12
Total area of islands				...	...	...	...	...	<u>200</u>
										<u>32,439</u>

Summary of River Basins of Ireland.

				Sq. miles.
West Coast. —	Lough Swilly	...	...	279
	Erne	...	...	1691
	Moy & C.	...	...	974
	Corrib	...	...	1294
	Shannon	...	...	6525
	Smaller Rivers	...	...	5521
				<u>16,284</u>

				Sq. miles.
South Coast. —	Cork Harbour	...	...	726
	Blackwater	...	...	1280
	Suir	...	...	1368
	Barrow	...	...	2140
	Smaller Rivers	..	...	1311
				<hr/> 6,825
East Coast. —	Slaney & C.	...	...	788
	Liffey & C.	...	...	641
	Boyne	...	...	1036
	Belfast Lough	...	...	313
	Bann	...	...	2280
	Foyle	..	...	1530
	Smaller Rivers	...	...	2542
				<hr/> 9,130
Islands	...	...	...	200
				<hr/>
Total area of Ireland				32,439



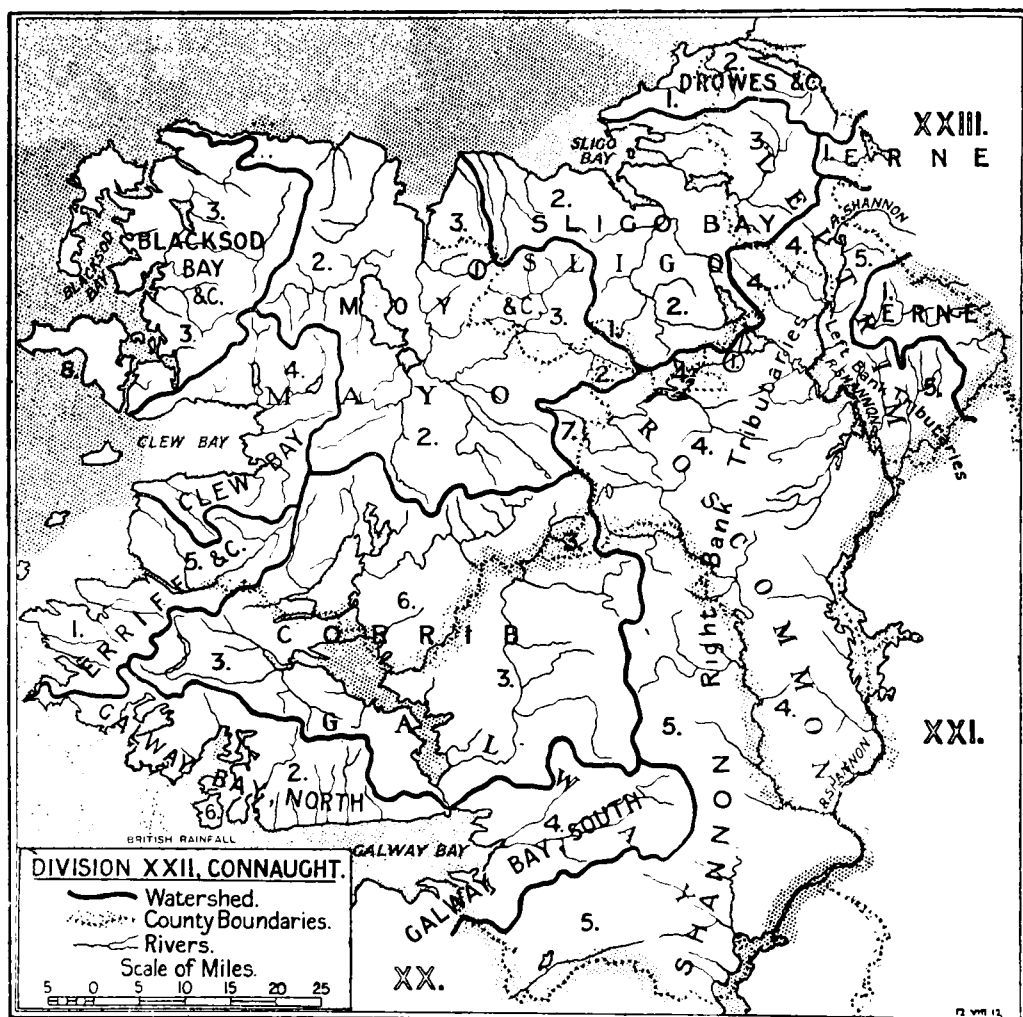
LIST OF COUNTIES AND RIVER DIVISIONS IN IRELAND.

COUNTY.	RIVER DIVISION.	Area of River Division, sq. m.	Area of County, sq. m.
XX. CORK.			
1.	SHANNON—Left Bank Tributaries	79	
2.	DINGLE BAY...	4	
3.	KENMARE & C.	47	
4.	BANTRY BAY	197	
5.	DUNMANUS BAY	57	
6.	BANDON & C.	694	
7.	CORK HARBOUR	726	
8.	WOMANAGH & C.	118	
9.	BLACKWATER	922	
10.	SUIR ...	3	
11.	INSULAR ...	26	
		—	2873
KERRY.			
1.	SHANNON—Left Bank Tributaries	372	
2.	TRALEE BAY & C.	221	
3.	DINGLE BAY	789	
4.	KENMARE & C.	426	
5.	BLACKWATER	30	
6.	INSULAR ...	13	
		—	1851
WATERFORD.			
1.	BLACKWATER	243	
2.	COLLIGAN & C.	259	
3.	SUIR ...	213	
		—	715
TIPPERARY.			
1.	SHANNON—Left Bank Tributaries	582	
2.	BLACKWATER	21	
3.	SUIR ...	965	
4.	BARROW—Nore	92	
		—	1660
LIMERICK.			
1.	SHANNON—Right Bank Tributaries	7	
2.	SHANNON—Left Bank Tributaries	944	
3.	BLACKWATER	64	
4.	SUIR ...	25	
		—	1040
CLARE.			
1.	GALWAY BAY, SOUTH	100	
2.	MAL BAY & C.	294	
3.	SHANNON—Right Bank Tributaries	854	
4.	INSULAR ...	22	
		—	1270

COUNTY.		RIVER DIVISIONS.				Area of River Division, sq. m.	Area of County, sq. m.
XXI.	WEXFORD.						
1.	BARROW	...	...	...	...	43	
2.	OWENDUFF & C.	...	...	...	...	240	
3.	SLANEY & C.	...	...	...	...	467	
4.	OWENAVORRAGH & C.	...	...	...	...	146	
5.	OVOCA & C.	...	...	...	...	6	
						—	902
	KILKENNY.						
1.	SUIR	...	...	...	...	162	
2.	BARROW—Nore	...	...	...	...	527	
3.	BARROW	...	...	...	...	109	
						—	798
	WICKLOW.						
1.	BARROW	...	...	...	...	12	
2.	SLANEY	...	...	...	...	200	
3.	OVOCA & C.	...	...	...	...	241	
4.	VARTRY & C.	...	...	...	...	193	
5.	LIFFEY & C.	...	...	...	...	135	
						—	781
	CARLOW.						
1.	BARROW—Nore	...	...	...	...	9	
2.	BARROW	...	...	...	...	216	
3.	SLANEY	...	...	...	...	121	
						—	346
	QUEEN'S COUNTY.						
1.	SHANNON—Left Bank Tributaries	...	...	...	...	25	
2.	BARROW—Nore	...	...	...	...	339	
3.	BARROW	...	...	...	...	300	
						—	664
	KING'S COUNTY.						
1.	SHANNON—Left Bank Tributaries	...	...	...	...	560	
2.	BARROW—Nore	...	...	...	...	5	
3.	BARROW	...	...	...	...	156	
4.	BOYNE	...	...	...	...	51	
						—	772
	KILDARE.						
1.	BARROW	...	...	...	...	332	
2.	LIFFEY	...	...	...	...	246	
3.	BOYNE	...	...	...	...	76	
						—	654
	DUBLIN.						
1.	VARTRY & C.	...	...	...	...	23	
2.	LIFFEY & C.	...	...	...	...	188	
3.	NANNY, DELVIN & C.	...	...	...	...	142	
4.	INSULAR	...	...	...	...	1	
						—	354

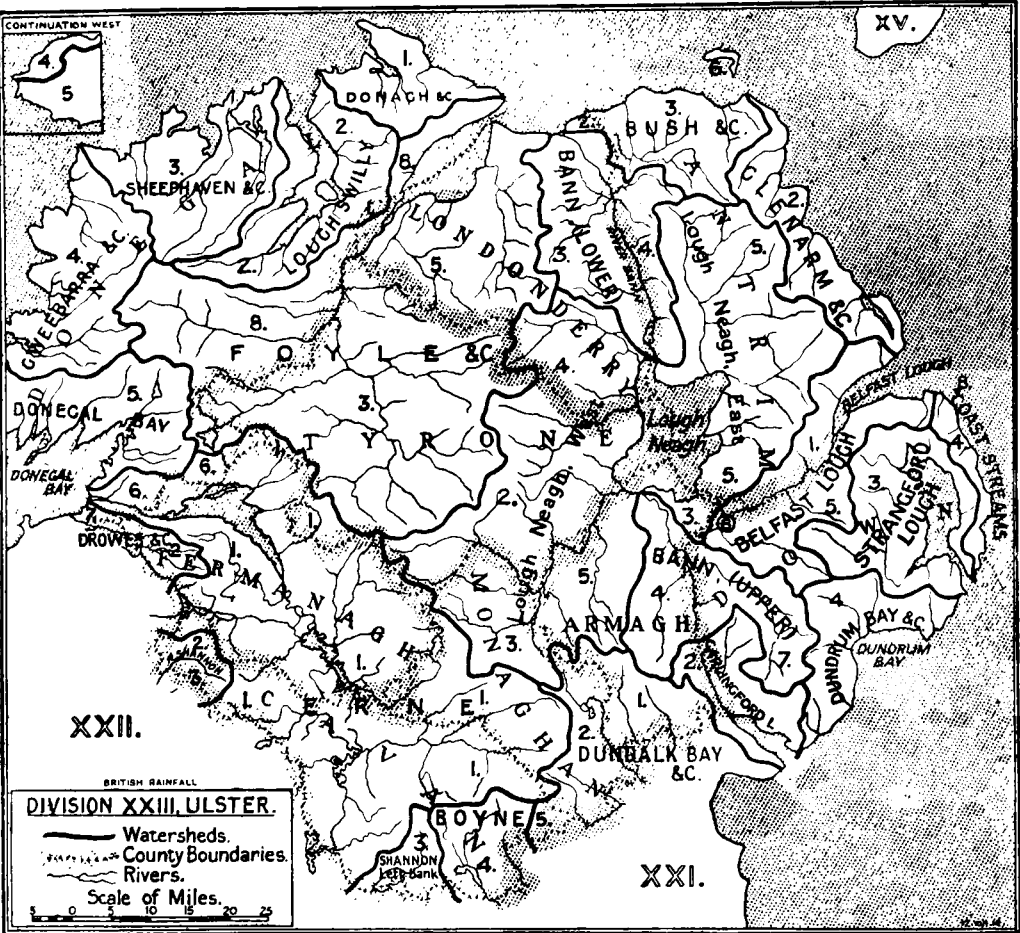
COUNTY:	RIVER DIVISIONS				Area of River Division, sq. m.	Area of County, sq. m.
MEATH.						
1.	SHANNON—Left Bank Tributaries				...	32
2.	LIFFEY & C.	...	...	...	...	72
3.	NANNY, DELVIN & C.				...	150
4.	BOYNE	...	...	...	...	560
5.	DUNDALK BAY				...	95
					---	909
WESTMEATH.						
1.	SHANNON—Left Bank Tributaries				...	517
2.	BOYNE	...	...	...	...	195
					---	712
LOUTH.						
1.	BOYNE	...	...	...	...	32
2.	DUNDALK BAY & C.				...	264
3.	CARLINGFORD LOUGH				...	20
					---	316
LONGFORD.						
1.	ERNE	...	...	...	...	61
2.	SHANNON—Left Bank Tributaries				...	363
					---	424
GALWAY.						
1.	ERIFF & C.	...	...	...	...	141
2.	GALWAY BAY, NORTH				...	277
3.	CORRIB	...	...	...	...	846
4.	GALWAY BAY, SOUTH				...	281
5.	SHANNON—Right Bank Tributaries				...	803
6.	INSULAR	...	...	...	...	29
					---	2377
ROSCOMMON.						
1.	SLIGO BAY	...	...	...	...	6
2.	MOY	...	...	...	...	11
3.	CORRIB	...	...	...	...	16
4.	SHANNON—Right Bank Tributaries				...	928
					---	961
MAYO.						
1.	SLIGO BAY	...	...	...	...	10
2.	MOY & C.	...	...	...	...	797
3.	BLACKSOD BAY & C.				...	411
4.	CLEW BAY	...	...	...	...	254
5.	ERIFF & C.	...	...	...	...	121
6.	CORRIB	...	...	...	...	432
7.	SHANNON—Right Bank Tributaries				...	35
8.	INSULAR	...	...	...	...	89
					---	2149

COUNTY.	RIVER DIVISIONS.	Area of River Division, sq. m.	Area of County, sq. m.
SLIGO.			
1.	DROWES & C.	49	
2.	SLIGO BAY	444	
3.	MOY & C.	166	
4.	SHANNON—Right Bank Tributaries ...	56	
5.	INSULAR	1	
		<hr/>	716
LEITRIM.			
1.	ERNE	152	
2.	DROWES & C.	85	
3.	SLIGO BAY	135	
4.	SHANNON—Right Bank Tributaries ...	47	
5.	„ —Left Bank Tributaries ...	196	
		<hr/>	615



	COUNTY	RIVER DIVISIONS.	Area of River Division, sq. m.	Area of County, sq. m.
XXIII.	CAVAN.			
	1. ERNE		489	
	2. SHANNON—Right Bank Tributaries		34	
	3. SHANNON—Left Bank Tributaries		91	
	4. BOYNE... ..		122	
	5. DUNDALK BAY		17	
			—	753
	FERMANAGH.			
	1. ERNE		667	
	2. DROWES & C.		46	
			—	713
	MONAGHAN.			
	1. ERNE		208	
	2. DUNDALK BAY		132	
	3. BANN—Lough Neagh, West		158	
			—	498
	ARMAGH.			
	1. DUNDALK BAY		118	
	2. CARLINGFORD LOUGH ..		23	
	3. BANN—Lough Neagh, East		37	
	4. BANN, UPPER ..		144	
	5. BANN—Lough Neagh, West		192	
			—	514
	DOWN.			
	1. CARLINGFORD LOUGH ..		104	
	2. DUNDRUM BAY & C. ...		173	
	3. STRANGFORD LOUGH ...		260	
	4. COAST STREAMS		47	
	5. BELFAST LOUGH		206	
	6. BANN—Lough Neagh, East		7	
	7. BANN, UPPER		162	
	8. INSULAR		2	
			—	961
	ANTRIM.			
	1. BELFAST LOUGH		107	
	2. GLENARM & C.		186	
	3. BUSH & C.		193	
	4. BANN, LOWER		112	
	5. ,, —Lough Neagh, East		590	
	6. INSULAR		5	
			—	1193
	LONDONDERRY.			
	1. LOUGH SWILLY		6	
	2. BUSH & C.		9	
	3. BANN, LOWER		240	
	4. ,, —Lough Neagh, West		196	
	5. FOYLE & C.		365	
			—	816

COUNTY.	RIVER DIVISIONS.	Area of River Division, sq. m.	Area of County, sq. m.
TYRONE.			
1. ERNE		46	1257
2. BANN—Lough Neagh, West		442	
3. FOYLE		769	
DONEGAL.			
1. DONAGH & C.		146	1875
2. LOUGH SWILLY		273	
3. SHEEPHAVEN & C.		307	
4. GWEEBARRA & C.		341	
5. DONEGAL BAY		322	
6. ERNE		68	
7. DROWES & C.		10	
8. FOYLE... ..		396	
9. INSULAR		12	
TOTAL ...		32,439	



METEOROLOGICAL OBSERVATIONS AT CAMDEN SQUARE, LONDON, IN 1911.

SHADE TEMPERATURE.

1911.	MEAN DAILY.			MAXIMUM DAILY.						MINIMUM DAILY.					
	1911.	Diff. from Average.	Mean.	Diff. from Average.	Highest Reading.	Date.	Lowest Reading	Date.	Mean.	Diff. from Aver.	Highest Reading.	Date.	Lowest Reading.	Date.	
January	38.6	+0.1	42.4	-0.9	52.1	26	34.7	31	34.6	+0.8	45.4	9	25.6	14	
February ..	41.2	+1.5	46.7	+1.2	55.6	18	35.4	1	35.2	+0.5	49.4	18	20.5	1	
March	42.2	+0.1	49.2	-0.8	61.5	22	41.1	15	36.4	+1.0	46.8	3	28.8	17	
April	47.3	-0.8	56.1	-1.8	67.5	22	38.1	5	39.7	0.0	50.3	23	25.5	6	
May	58.0	+4.0	69.2	+4.6	81.7	31	53.8	20	47.9	+3.3	56.1	26	38.1	7	
June	61.4	+1.3	71.8	+1.0	87.6	5	61.2	26	52.2	+1.5	58.4	6	41.8	15	
July	69.0	+5.5	81.7	+7.4	92.6	22	68.4	1	56.9	+2.7	63.8	29	48.5	3	
August	68.2	+5.9	80.8	+8.1	97.1	9	70.4	22	57.9	+4.5	63.7	13	48.4	31	
September ...	60.4	+2.7	73.0	+5.6	92.3	8	61.6	30	50.0	+1.3	61.2	13	39.0	22, 29	
October	50.4	+0.3	58.1	+0.4	63.2	18	50.5	27	43.9	+0.2	55.5	21	28.5	29	
November	44.4	+0.9	49.9	+0.8	59.1	4	40.0	26	39.3	+1.1	50.1	5	27.7	22	
December	44.7	+5.0	49.3	+5.0	55.2	19	43.3	8	39.5	+4.5	49.6	18	27.6	8	
YEAR	52.2	+2.2	60.7	+2.6	97.1	Aug. 9	34.7	Jan. 31	44.5	+1.8	63.8	July 29	20.5	Feb. 1	

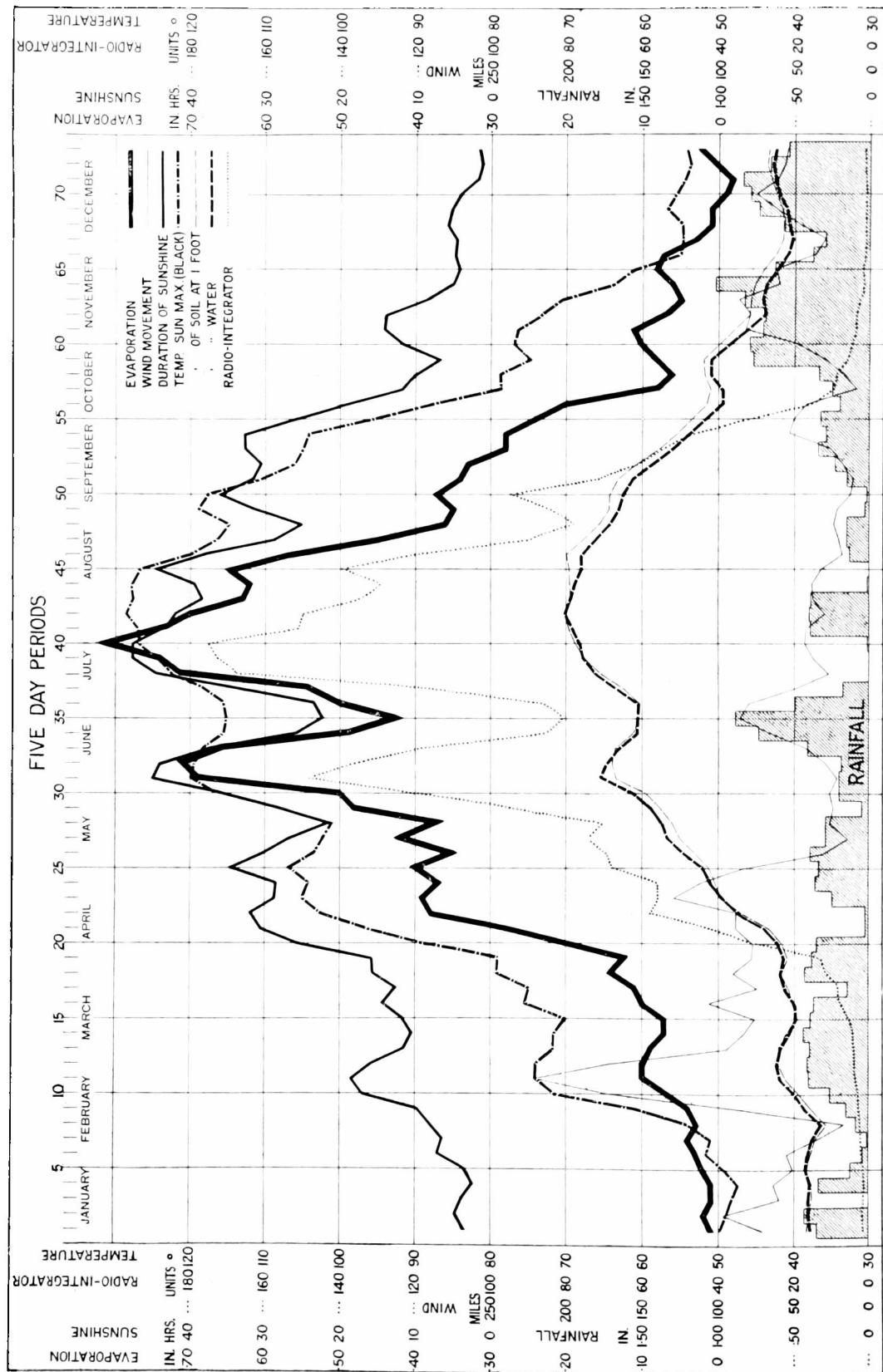
These Tables of meteorological observations are compiled from the readings taken at 9 a.m. and 9 p.m. The average, when quoted, is in every case for the 50 years 1860-1909. The rainfall is from the 8-inch rain gauge of the Meteorological Office pattern; the radiation temperature from a black-bulb maximum 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 1911.

1911.	RAINFALL.						Evapor- ation.	RADIATION TEMPERATURE.		Radio- Integra- tor.	SUNSHINE.		EARTH TEMPERATURE.		
	Total duration. hrs.	Max. dura- tion in one day. hrs.	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. hrs.	Mean at 1 foot. °	Mean at 4 feet. °	Mean at 10 feet. °
January.....	44.4	7.9	1.38	— .62	.32	12	49.6	31.7	9.0	Units.	hrs.	38.2	42.9	49.1	
February....	39.2	11.0	1.48	— .12	.39	14	63.3	31.3	14.0	14.0	30.5	38.4	41.1	47.5	
March	59.1	12.9	1.72	— .03	.47	18	73.9	33.1	39.0	39.0	78.2	41.0	42.4	46.4	
April	35.1	10.4	1.80	+ .18	.57	11	96.7	34.8	258.5	258.5	164.0	45.5	43.9	45.9	
May	22.8	7.2	1.80	— .05	.50	10	106.0	43.0	516.0	516.0	180.1	55.4	49.5	46.6	
June	39.6	12.2	2.69	+ .37	.92	11	116.7	47.6	628.1	628.1	193.3	62.1	55.7	48.8	
July	5.5	1.7	1.17	— 1.19	.89	5	125.8	51.7	1012.9	1012.9	283.1	67.8	59.2	51.3	
August	9.2	3.9	.48	— 1.87	.22	7	121.4	53.0	656.5	656.5	207.4	68.2	62.8	53.3	
September ..	25.1	5.8	1.31	— .88	.41	11	109.3	47.2	404.5	404.5	198.2	60.3	60.7	55.1	
October	39.8	8.2	3.12	+ .49	1.10	14	78.7	40.2	51.3	51.3	77.8	50.6	55.0	54.9	
November...	62.8	10.2	3.62	+ 1.28	.68	19	64.1	36.1	11.5	11.5	46.1	44.2	50.2	53.6	
December...	90.4	9.5	4.22	+ 2.09	.48	23	55.2	36.2	8.1	8.1	19.2	42.7	46.4	51.7	
YEAR.....	473.0	12.9	24.79	— .35	1.10	155	88.4	40.5	3609.4	3609.4	1543.4	51.2	50.8	50.4	

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.

The importance of evaporation data from different parts of the country is so great that we heartily wish that more Observers would take up the work, though we realize that only a small number can provide themselves with the standard tank, with which alone comparable observations can be made. The highest figures this year are those at Croydon, Otterbourne, Downholland, and Isfield Place, all of which show more than 23 inches; but Downholland is less raised above the average than the others. All the records are above the average, and, in the case of Camden Square, Croydon, Isfield Place, Otterbourne, Kennick, Ardsley and Harlow Hill (for which only five years are available), they are the highest that have been observed since the respective records were started.

There seems no reason to doubt that the general evaporation from an exposed water surface for the year 1911 was close to 20 inches.

We have, as usual, subjected the Camden Square observations to a detailed comparison with other meteorological factors, which is represented graphically in the accompanying plate. To prepare this diagram, the daily readings of each element were first meaned for 5-day groups, and the 5-day means were bloxamized in groups of three so as to smooth the curves. On account of the high temperatures and the great duration of sunshine in the summer, we have been obliged to shift the zero points of each scale nearer the bottom of the diagram; but the intervals have the same value as in earlier years, except in the case of the radio-integrator, which has had to be drawn on a less open scale in order to get it within the limits of the page. The evaporation was, as the following table shows, higher than in any previous year by half an inch; but higher values were shown in previous years for each month except July, which is .35 in. above the previous highest. The temperature of every month in 1911 except April was above the average, and the mean for the year exceeded the average by 2.2° ; but the evaporation exceeded the average by more than .26 in. only in the months of June, July, August and September. It will be observed that the evaporation came to a maximum first in the beginning of June, and then fell off sharply for the rest of that

month, rising to a higher maximum towards the end of July, when evaporation was more active than at any other time since the record began in 1885. The evaporation curve closely followed the curves of duration of sunshine and black-bulb maximum temperature, as on previous occasions. Wind appears to have had little effect. If it had, one would expect to find the evaporation curve at variance with that of the radio-integrator, which is protected from wind-influence, but, unfortunately, when the wind is strongest, in winter, the radio-integrator is practically valueless, as it seems to require a greater degree of insolation to start its action than is required to start the evaporation of water in the open. This is shown clearly in the maximum for sunshine, black-bulb temperature, water and soil temperature and evaporation (and also wind), about Period 11 at the end of February, and about Period 61 at the beginning of November, on both of which occasions there was no response in the winter level of the radio-integrator curve.

Evaporation at Camden Square, 1885-1911.

	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·15	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
1910.	·22	·17	·80	1·43	2·52	2·57	2·00	2·12	1·42	·76	·19	·10	14·30
Average	·10	·26	·67	1·51	2·36	2·89	3·08	2·37	1·35	·62	·23	·09	15·53
1911.	·15	·32	·59	1·77	2·58	3·34	4·60	3·19	1·96	·64	·37	·02	19·53
Diff.	+·05	+·06	-·08	+·26	+·22	+·45	+1·52	+·82	+·61	+·02	+·14	-·07	+4·00

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.

1911	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	1·390	1·397	1·295
February	1·210	·327	·358
March	1·895	1·468	1·201
April	2·100	1·182	1·053
May	1·055	—	·001
June	2·200	—	·003
July	·445	—	—
August	1·020	—	·012
September	1·200	—	—
October	4·070	—	·568
November	4·250	·667	3·323
December	6·285	5·644	5·656
Total	27·120	10·685	13·470

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

1911	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.	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.	°	°
January	·245	·025	35·3	·670	36·3	34·4
February	·425	—	37·5	1·245	38·7	35·2
March	·860	·005	40·6	1·735	40·8	37·7
April	2·050	—	46·6	4·020	49·6	39·5
May	2·855	—	59·9	5·555	65·1	48·7
June	3·910	—	64·9	6·810	70·1	51·3
July	5·185	—	70·4	10·905	79·4	55·2
August	4·140	—	69·4	8·330	75·4	57·8
September	2·710	—	61·2	5·780	66·0	51·4
October	·990	—	50·1	2·130	49·6	46·5
November	·775	·015	43·2	1·790	42·1	40·3
December	·390	·115	42·4	1·215	42·7	42·2
Totals	24·535	·160	...	50·185	...	...
Means .....	...	...	51·8	...	54·6	45·0

Table of Rainfall and Percolation at Windwhistle House, Grayshott, Hampshire. Mrs. Lyndon.

660 feet above Sea Level. Gauge 3 ft. × 3 ft. × 3 ft.

1911	Rainfall.	Percolation.	Calculated Evaporation.
	in.	in.	in.
January	1·49	1·51	C ·02
February	2·03	1·10	·93
March	2·63	2·25	·38
April	2·04	·72	1·32
May	1·71	·81	·90
June	2·09	·06	2·03
July	·92	—	·92
August	1·25	—	1·25
September	1·33	—	1·33
October	5·27	·22	5·05
November	4·95	4·80	·15
December	10·36	10·06	·30
Total	36·07	21·53	14·54

NOTE.—c indicates condensation.

Table of Rainfall and Percolation at the South Hants Water Company's Pumping Stations, at Timsbury and Twyford, Hants.

Mr. Wm. Matthews, M.Inst. C.E.

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

1911.	TIMSBURY.		TWYFORD.	
	Rainfall. Level of Gauge 96·39 ft. above O.D.	Percolation Gauge. <i>Chalk.</i> Level of Gauge 89·75 ft. above O.D.	Rainfall. Level of Gauge 138·72 ft. above O.D.	Percolation Gauge. <i>Chalk.</i> Level of Gauge 137·49 ft. above O.D.
	in.	in.	in.	in.
January	1·15	1·17	1·23	1·23
February	1·39	·66	1·53	·83
March	2·40	1·82	2·36	1·90
April	1·36	·07	1·67	·36
May	1·93	·01	2·35	·28
June	1·83	·01	1·63	—
July	·10	·01	·15	—
August	·44	·01	·40	—
September	1·39	·01	·89	—
October	2·58	·02	4·58	—
November	3·78	·03	4·19	·17
December	9·31	7·59	9·82	9·69
Total	27·66	11·41	30·80	14·46

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

Altitude 420 feet.

1911.	Rainfall.	Percolation through Soil.		
		20 in. deep.	40 in. deep.	60 in. deep.
	in.	in.	in.	in.
January	1·27	1·163	1·277	1·266
February	1·78	·776	·717	·741
March	2·09	1·245	1·356	1·370
April	1·50	·533	·586	1·091
May.....	3·69	2·020	1·856	1·878
June	2·60	·854	·837	·792
July.....	·64	·007	·040	·045
August	·95	—	·004	·004
September	1·36	—	—	—
October	3·30	1·947	1·828	1·723
November.. ...	3·27	2·847	2·719	2·672
December	6·11	6·164	5·971	5·822
Total	28·56	17·556	17·191	17·404

Table of Rainfall and Percolation, also Calculated Evaporation therefrom, compared with Evaporation from a Free Water Surface at Harlow Hill Reservoir, Harrogate. Mr. C. E. Rivers, C.E.

Rain gauge 551 feet above O.D., and percolation gauge 550 feet above O.D.

1911.	Rainfall.	Percolation.	Calculated Evaporation.	Evaporation from Free Water Surface.
	in.	in.	in.	in.
January	·97	·10	·87	·22
February	2·51	·16	2·35	·82
March	1·25	·38	·87	·89
April	1·10	·14	·96	1·59
May.....	1·03	·07	·96	2·66
June	2·87	—	2·87	3·54
July.....	·44	—	·44	4·32
August	2·86	·07	2·79	3·22
September	2·88	·05	2·83	2·47
October	2·94	·68	2·26	·91
November	3·21	1·50	1·71	·70
December	4·49	2·25	2·24	·18
Total	26·55	5·40	21·15	21·52

EVAPORATION IN 1911.

County	<i>London,</i> Camden Sq.	<i>Surrey,</i> Croydon, Park Hill Ho.	<i>Sussex,</i> Isfield Place	<i>Hampshire,</i> Otterbourne	<i>Devon,</i> Torquay W. W., Kennick	<i>Lincoln,</i> Revesby Water Works
Station	51° 32' 20" N. 0 8 10 W. 111 ft. H.R. Mill, D.Sc.	51° 22' 12" N. 0 5 32 W. 264 ft. Baldwin Latham, C.E.	50° 56' 50" N. 0 33 40 E. 50 ft. Major H. King.	51° 0' 28" N. 1 19 55 W. 112 ft. E. C. Rodda, C.E.	50° 36' 30" N. 3 41 20 W. 835 ft. S. C. Chapman, C.E.	53° 9' N. 0 3 W. 130 ft. J. Shaw.
Latitude	6 ft. × 6 ft. 450	1 ft. diameter 5	4 ft. × 4 ft. 250	6 ft. × 6 ft. 450	6 ft. × 6 ft. 450	6 ft. × 6 ft. 450
Longitude	3 inches	4 in. above water	3 inches	3 inches	3 inches	2 inches
Altitude						
Observer						
Size of tank						
Capacity (galls.)						
Height of lip above ground						
January	in. .15	in. .22	in. .02	in. .09	in. .22	in. .15
February .....	.32	.43	.27	.34	.30	.66
March .....	.59	.85	.81	1.07	1.04	.54
April	1.77	2.05	1.40	2.24	1.89	1.31
May	2.58	2.86	2.70	2.99	3.08	2.39
June	3.34	3.91	3.71	3.70	3.65	2.50
July	4.60	5.18	5.18	5.74	5.31	3.81
August	3.19	4.14	4.07	4.30	3.46	2.82
September	1.96	2.71	2.72	2.73	2.25	1.56
October .....	.64	.99	1.17	.86	.74	.70
November .....	.37	.76	.93	.26	.17	.43
December .....	.02	.28	.32	0.42	0.44	.02
Year, 1911	19.53	24.38	23.30	23.90	21.67	16.89
Average, 1903-1911	16.30	17.76	...	18.70	19.63	15.67
Difference	+3.23	+6.62	...	+5.20	+2.04	+1.22
Year, 1911	24.79	27.12	32.90	27.44	43.01	25.25
Average, 1903-1911	25.51	27.93	...	28.42	41.45	25.32
Difference	— .72	— .81	...	— .98	+1.54	— .07

Note.—C indicates condensation.

EVAPORATION IN 1911—(continued).

County Station	Lancashire, Downholland	Lancashire, Southport, Hesketh Pk.	Yorkshire, Wakefield, Stanley Grange	Yorkshire, Ardley Reservoir	Yorkshire, Harrogate, Harlow Hill	Middlethian, Edinburgh University.	Mean of Twelve Stations.
Latitude.....	53° 34' 38" N.	53° 39' 10" N.	53° 45' N.	53° 43' 10" N.	53° 58' 30" N.	55° 56' 30" N.	
Longitude	3 1 12 W.	2 58 0 W.	1 28 W.	1 33 20 W.	1 33 30 W.	3 11 30 W.	
Altitude	14 ft.	37 ft.	234 ft.	390 ft.	550 ft.	240 ft.	
Observer.....	J. Baxendell.	J. Baxendell.	H. Stanley Haworth.	C. C. Smith, C.E.	C. E. Rivers, C.E.	Prof. T. H. Beare.	
Size of tank	6 ft. x 6 ft.	3 ft. x 3 ft.	6 ft. x 6 ft.	6 ft. x 6 ft.	6 ft. x 6 ft.	6 ft. x 6 ft.	
Capacity (galls.)	450	112	450	450	450	450	
Height of lip above ground }	3 inches	3 inches	...	3 inches	...	3 inches	
January	in. ·32	in. ·05	in. ·13	in. ·11	in. ·92	in. ·10	in. ·15
February.....	·70	·27	·39	·53	·82	·18	·43
March.....	1·38	·91	·73	1·04	·89	·56	·87
April	2·18	1·60	1·53	2·08	1·59	1·51	1·76
May.....	3·22	2·92	2·04	2·70	2·66	2·30	2·70
June	4·15	3·86	2·46	3·41	3·54	3·00	3·44
July	4·26	4·17	3·04	4·69	4·32	2·76	4·42
August	3·52	3·45	2·41	3·64	3·22	2·54	3·40
September	2·32	1·96	1·41	2·31	2·47	1·50	2·16
October	·79	·59	·48	·58	·91	·50	·75
November	·56	·28	·34	·60	·70	·19	·46
December	·18	0·04	·08	0·06	·18	·00	·01
Year, 1911... Average, } 1903-1911 }	23·58	20·02	15·04	21·63	21·52	15·14	20·55
Difference ...	21·86	...	13·36	17·13	...	...	...
	+1·72	...	+1·68	+4·50	...	...	...
Year, 1911... Average, } 1903-1911 }	27·27	30·38	19·47	20·13	26·55	22·42	27·23
Difference ...	31·21	32·32	22·86	24·37	...	...	...
	—3·94	—1·94	—3·39	—4·24	...	...	...

Note.—C indicates condensation.

THE STAFF OF OBSERVERS.

THE increase in the number of records published is greater than ever before, the General Table this year containing 5,072, an increase of 198 over the previous year. The following table shows the gains and losses of records since 1906, the heading "returned" referring to records which had formerly appeared, but were absent the year before; and "Temporary" under losses meaning records which, though absent in the year in question, have not come to an end, and may be expected to return in a later year.

Year.	Total Gains.	Returned.	Real Gain.	Total Losses.	Temporary.	Real Loss.	Net Real Gain.
1906.....	400	58	342	237	40	197	145
1907.....	375	49	326	289	81	208	118
1908... ..	444	62	382	251	64	187	195
1909.....	426	89	337	290	87	203	134
1910.....	490	81	409	292	73	219	190
1911.....	502	99	403	304	94	210	193

The last line of the table may be amplified to show how the losses and gains were distributed in the four great divisions.

1911.	Total Gain.	Returned.	Real Gain.	Total Loss.	Temporary.	Real Loss.	Real Net Gain.
England	370	63	307	226	57	169	138
Wales, &c. ...	38	6	32	29	16	13	19
Scotland	70	24	46	34	16	18	28
Ireland	24	6	18	15	5	10	8
British Isles...	502	99	403	304	94	210	193

It thus appears that the net real gain continues to be at the rate of 4 per cent. for the British Isles as a whole, and for England, which in rainfall matters is certainly the predominating partner. The gain in Scotland, where additions are much wanted, is at the rate of $5\frac{1}{2}$ per cent., a higher rate than last year, and a most encouraging sign of the gradual revival of the old Scottish enthusiasm for observing natural phenomena; and it is still more encouraging to note that the number of daily records received from Scotland has increased by 15 per cent. This is mainly due to the courtesy of the Scottish Meteorological Society in transmitting complete returns. The rate of increase has dropped both in Ireland and Wales, to 3 per

cent. in the former, and to $2\frac{1}{2}$ per cent. in the latter. We particularly regret the nearly stagnant condition of affairs in Ireland, which is the more remarkable as we frequently receive letters of complaint, asserting that we give less attention to Ireland than to the other islands. The contrary is the case: whether we reckon per square mile of area, or per head of population, or per rain record sent to us, the state of Ireland absorbs more of our time and thought than any part of the larger island; but, unfortunately, we cannot by taking thought add one rain record to the existing number without Irish co-operation.

There are only four counties in Ireland with 2 or more rain records to each hundred square miles of area, and seventeen counties have less than 1 per hundred square miles. We are well aware that there are special difficulties in the way; but we know also from the fine results which follow the efforts of such an enthusiast as Sir John Moore that once the interest of intelligent Irishmen is aroused there are no limits to what can be done. The interesting set of observations in Clare Island, arranged by Prof. Lyons, is a very good case in point. It must be remembered that the physical geography of Ireland is such that over the greater part of the country a much wider network of stations can produce as full a knowledge of the distribution of rain as the closer network does in England, Wales or Scotland, and that we do not wish more rain gauges in Ireland than an average of 2 to the hundred square miles, say 700 altogether. In Scotland an average of at least 5 to the hundred square miles, or about 1500 would be required to enable us to draw maps with the same degree of precision. In England and Wales the *number* of rain gauges at present at work is amply sufficient, if only they could be better distributed. A large increase is necessary in all the east coast counties from the Thames to the Tweed, in all the western counties of Wales, and in Shropshire and Staffordshire and on their borders. Although in some of the counties near London we would not greatly miss half the records, if the other half were spread uniformly over the country, we cannot secure uniform distribution, and so we do not discourage the observations of volunteers anywhere, for we can make good use of all the records we are ever likely to receive.

Following the method introduced last year we give below a list of the counties, stating the number of losses, of gains, and the total number of records in the county in the form ($a-5+8=88$), where a means the number published in 1910, — the loss, + the gain, and

= the total published in 1911. To this number we add in distinctive type the number of rain records in the county per 100 square miles of area.

London ($a-11+9=86 \dots 75^*$).—The two records in Islington have gone, and that borough vanishes from our pages; but Bermondsey finds a place for the first time, and Shoreditch returns, so that the metropolitan boroughs now unrepresented are Islington, Bethnal Green and Southwark. One of the most interesting insertions is the gauge on the great flat roof of Messrs. Selfridge's establishment in Oxford Street.

Surrey ($a-18+23=225 \dots 31^*$).—The most serious loss, on account of its high elevation, is Walton-on-the-Hill, Shirley; but, fortunately, a new record in the neighbourhood had been added last year. We have several valuable gains, including Caterham, Ashfield, at 610 feet, and Haslemere, Beech Road, at 540 feet, the latter compensating for the loss of Haslemere, Grayswood Hill. The record from Lord Rosebery's rain gauge at Epsom, The Durdans, is also interesting. For several of the gains in this county we are again indebted to the *Surrey Advertiser*.

Kent ($a-16+22=180 \dots 12^*$).—The most serious losses are the gauges at Crockham Hill and Ide Hill Vicarage, both more than 700 feet above sea level, to balance which we have the addition on the North Downs farther east of Frinningham Lodge and Polhill Fields, both near Detling and both at altitudes above 600 feet. We have also to welcome two new stations at Sevenoaks, several in the plain of the Weald, and one at Sheerness Technical Institute, which improves the representation of the dry margin of the Thames estuary.

Sussex ($a-5+15=157 \dots 11^*$).—Of the five losses, two are only temporary, and one is the station on Beachy Head, the exposure of which on the edge of a cliff made it impossible to get satisfactory readings. The gains include some very interesting positions. A new gauge at Winchelsea, and another near Rye, are valuable in defining the abrupt change of rainfall at the interval between the seaward ends of the South Downs and North Downs, and the representation of the coast strip has been strengthened also at Brighton, Worthing and Chichester. There are several very welcome additions also in

* Rain gauges per 100 square miles of area.

the Arun valley, though not at such a high elevation above sea-level as is desirable. Only one river division in the north-west, that of the Wey measuring ten square miles, has no rain gauge.

Hampshire ($a-13+17=148 \dots 9^*$).—There have been three losses in the New Forest, partly balanced by one new record at Ellingham Vicarage; but there are some interesting gains. Long-parish House brings a station in a very bare part of the rainfall map; Upper Wootton, Oakley, is at an altitude of 500 feet, and Row House, Vernham Dean, is at 650 feet, near Inkpen Beacon. The most interesting of all is the record established by Colonel Bibby at The Wakes, Selborne, in the very garden of Gilbert White, who kept a record of rainfall there more than 100 years ago. The copy of this old record preserved at Camden Square gives yearly values for the years 1780-92, and monthly figures from January, 1782, to May, 1793, the month before the death of the observer.

Berkshire ($a-5+3=59 \dots 8^*$).—We hope that only two of the losses are permanent.

Middlesex ($a-2+6=60 \dots 26^*$).—There is a decided improvement here, including the addition of a Snowdon gauge at one station to the obsolete British Association pattern hitherto used.

Hertfordshire ($a-4+5=73 \dots 11^*$).—We greatly regret the loss of the record at Fanham's Hall, Ware, and that at Bishops Stortford. A little help is given by the new gauge in the town of Stevenage; but the north-western and the extreme eastern borders of the county are most inadequately represented.

Buckinghamshire ($a-4+8=46 \dots 6^*$).—It is satisfactory to see the increase in this thinly gauged county; but the 30 square miles draining to the Cherwell are still without a rain gauge, and one of the losses is irreparable. The record at Addington Manor, Winslow, now terminated, had gone on unbroken for 40 years from 1871 to 1910.

Oxfordshire ($a-8+11=75 \dots 10^*$).—The changes are almost all at County Schools, at many of which the observations are admirably taken, though they suffer from the instruments supplied being in some cases unsatisfactory.

Northamptonshire ($a-7+8=68 \dots 7^*$).—The loss of Thorpe Mandeville, the highest station but one in the Cherwell Valley, is

serious ; almost all the other losses are schools out temporarily on account of gaps in the record.

Huntingdon ($a-1+2=13 \dots 4^*$).

Bedfordshire ($a-1+3=29 \dots 6^*$).—A useful new record at Luton was accompanied by returns for several back years.

Cambridgeshire ($a-3+4=49 \dots 6^*$).—The return from Tydd adds one to the still insufficient Fenland gauges.

Essex ($a-1+11=103 \dots 7^*$).—We are pleased with the progress of Essex this year. There is only one loss, and the eleven gains are all new records, three of them in very bare places, Sir Walter Gilbey's record at Elsenham being in the poorly-represented western margin, and the two Dunmows in the north-west. The result is that we can draw the East Anglian rainfall lines on the monthly and annual maps with greater confidence than before.

Suffolk ($a-1+10=66 \dots 4^*$).—Thanks largely to the interest taken in the discovery of new records by the *East Anglian Daily Times*, we have been able to maintain the improvement in the representation of this county, which has, however, still much leeway to make up.

Norfolk ($a-7+13=79 \dots 4^*$).—We much regret to lose two records in Yarmouth which agreed well together and differed considerably from the one remaining station in that town. The loss at Blakeney is balanced by a gain in that neighbourhood, thanks to the good offices of Mr. Preston, and there is a new gauge at Diss in the middle of a district where they were formerly very rare.

Wiltshire ($a-7+8=57 \dots 4^*$).—We hope that the absence of Bulford Manor is only temporary, as we cannot afford to lose one of the few gauges on Salisbury Plain. The loss in the City of Salisbury is balanced by a gain, but in Buttermere Rectory we lose, we fear, permanently, the gauge at the greatest height above sea-level in the county. We are fortunate in finding an excellent new record near Devizes, the discovery resulting from enquiries into an apparent falling-off in the catch of the gauge at Shepherd's Shore, which we have regretfully excluded this year, we hope only temporarily. Stanton St. Bernard Rectory improves the representation of the Vale of Pewsey.

Dorsetshire ($a-5+11=77 \dots 8^*$).—This county, thanks to its energetic field club, is well supplied with rain gauges, and steadily improves, but there is one vacant river-division, the 12 square miles draining to the East Avon in the north-east.

South Devon ($a-9+14=147 \dots 9^*$).—The improvement here proceeds, and most of the lost gauges are compensated by new records in the neighbourhood. A fourth gauge has been added to the Paignton Water Works' fine set on Holne Moor, and the slopes of Dartmoor are farther enriched by Ilsington and Barne House, Christow. The Teignmouth Urban District Council sends a new group of three.

North Devon ($a-2+5=51 \dots 6^*$).—The most serious loss is that of Dunsland, Holsworthy, as the Spreyton Vicarage gauge is at work close by, and we hope that the record will appear next year. The most interesting insertion is Clovelly Court, which will reinforce Hartland Abbey in improving our knowledge of the extreme west.

Cornwall ($a-2+12=75 \dots 6^*$).—The loss of Trewollock, St. Wenn, removes a gauge from a part of the country where gauges are fewest; the gains, though welcome, do not come at any of the very important points. A re-arrangement brings the Scilly Isles under Cornwall instead of grouping them under "Wales and the Islands."

Somerset ($a-11+21=156 \dots 10^*$).—One of the most important features in this rapidly advancing county is the improvement in the distribution of gauges in the Mendip district; the Bristol Waterworks have added three new stations in the north, and the excellent record from Sir George Reid's garden at Hillylands, 659 feet above the sea, supplements the few already existing at a higher level; and Brushford Rectory is a fine addition to the Exmoor gauges. In the centre and south of the county many accessions are due to the efforts of the Rev. H. A. Boys, whose Mid-Wessex Rainfall Tables have aroused much local interest in the subject.

Gloucestershire ($a-7+13=108 \dots 9^*$).—The public-spirited attempt of Major Wright and Mr. M. J. Salter to keep a rainfall record at 850 feet on Prospect Hill, on the summit of the Cotteswolds, has been defeated by the light-hearted brainless pleasure-seeker, who is the perennial curse of districts sought out by visitors from a distance. The gauge was persistently tampered with, and all attempts to protect it proved unavailing, so it disappears from our records. One small river division (No. 6 with 15 square miles) has no rain gauge; but there has been a steady improvement in most parts of the county, especially in river-division 7, where seven insertions are to be found this year, increasing the number in that division by one-third.

Herefordshire ($a-2+4=50 \dots 6^*$).

Shropshire ($a-2+3=45 \dots 3^*$).—There is no record in the river-division of the Weaver, 27 square miles, and otherwise this county is very poorly supplied with rain gauges.

Staffordshire ($a-1+6=45 \dots 4^*$).—Rodbaston has returned after a year's absence, and there are several valuable insertions, especially in the north, where Sharpcliffe Hall, Ipstones, at an altitude of 925 feet, is a most important position; but the loss of Betley Hall, near Crewe, if it be permanent, is most serious as it deprives the Weaver river division of its only station in Staffordshire, and the upper end of that valley is very poorly represented in Cheshire also.

Worcestershire ($a-6+5=53 \dots 7^*$).—The record for Eastwick, Evesham, does not appear because the Observer while loyally attending the Coronation festivities had his pocket-book stolen, including his rain gauge readings for the first six months of the year. Upton Wold, Blockley, disappears from river division 4, Windrush, because we found that its proper place was in the Upper Avon division, so that the losses are less serious than their number suggests. Amongst the gains Knightwick Sanatorium is, perhaps, the most interesting.

Warwickshire ($a-3+5=38 \dots 4^*$).

Leicestershire ($a-2+2=40 \dots 5^*$).

Rutland ($a--0+1=6 \dots 4^*$).—These three counties remain nearly stationary, the changes being unimportant.

Lincolnshire ($a-1+11=81 \dots 3^*$).—The very old record at Pode Hole, near Spalding, which began in 1829 and was, as we thought, stopped in 1905 is, we rejoice to find, still going on, and the figure for 1911 duly appears. Although there is marked improvement this year, this great county is almost the most thinly dotted with rain gauges in England, only Northumberland is as bad, and the East Riding of Yorkshire, a little worse. The whole river-division of the Nene in the south, measuring 100 square miles, is without a gauge.

Nottinghamshire ($a-6+2=63 \dots 7^*$).—This is disappointing.

Derbyshire ($a-4+9=116 \dots 11^*$).—The large number of rain gauges in this county is due to the Derwent Valley, in the 428 square miles of which there are 84, or at the rate of 20 per 100 square miles; the rest of the county has only 5 gauges per 100 square miles. Mosley Hall and Baslow are important acquisitions, as the records are exceptionally well-kept, and of remarkable accuracy.

Cheshire ($a-4+6=72 \dots 7^*$).—There is not much improvement in Cheshire, but Audlem Rectory, the loss of which we regretted last year, has come back, and Miss Bushell's gauge, which ceased to do service at Hinderton, Neston, has resumed work at Vine House, Neston. There is a most useful new record at Westgate, Congleton; but the south of Cheshire is still very thinly represented.

South Lancashire ($a-4+10=105 \dots 15^*$).

Central Lancashire ($a-2+10=80 \dots 15^*$).

North Lancashire ($a-2+4=63 \dots 10^*$). — The losses in Lancashire are unimportant, with the exception of Caton Vicarage in the northern section, which is likely to be missed. Some of the gains are useful, both in the hilly region of the east and in the flat land along the coast. Altogether the county can be looked upon with satisfaction as having the greatest number of gauges, compared with its area, except London, Surrey, and Middlesex.

Yorkshire, West Riding ($a-17+21=311 \dots 11^*$). — Though we much regret the loss of the two old records on Langsett Moor, at Pike Low and Range Moor, that region is now well represented by the Sheffield Water Works; and as most of the other losses are temporary there is only one the absence of which we have greatly to deplore, but this is at Grassington, in Upper Wharfedale, where records are very few indeed. The gains are, for the most part, well placed and promising. The new Barnoldswick and Earby records are in a position where observations were much wanted; the Sheffield Water Works have five new gauges in the upper Don valley, four of them at altitudes exceeding 1000 feet. Ackworth School again brings the name of Ackworth to our pages and reminds us of the long record kept there from 1824 to 1885. We regret to find that the public spirit which leads all the great towns of Yorkshire to publish the whole of their rainfall records does not extend to some Companies which keep up observations in very interesting localities but do not make them known. The ungenerousness of this proceeding is apparent from the fact that they can utilize the work of others without reciprocity; the shortsightedness is, perhaps, less apparent, but it is there, for they lose the benefit of the expert oversight and the correction of errors of observation which our trained assistants rarely fail to detect in the records sent in for publication.

Yorkshire, East Riding ($a-3+1=24 \dots 2^*$).—We are glad to welcome back the old record at Warter; but the loss of the fine

old records at Wetwang and Thixendale (see Obituary notice of Rev. W. H. Fox *postea*) are irreparable. When a clergyman preaches to a thin congregation on the evils of non-church-going, he may be very convincing to the faithful few, but he fails to reach those who alone could profit by the monition, and the contemplation of the woeful state of the East Riding makes us feel as if we, too, were in a hopeless pulpit. No other county in England has such a small number of rain gauges in proportion to area.

Yorkshire, North Riding ($a-4+7=95 \dots 4^*$).—Better than the East but worse than the West, the North Riding changes, though few, are in the right direction, and we are glad to welcome West Witton and Hawes as notable improvements in Upper Wensleydale.

Durham ($a-2+1=48 \dots 5^*$).

Northumberland ($a-2+5=60 \dots 3^*$). — Next to the East Riding and equally with Lincolnshire, this county causes us more thought and anxiety than any in England. The addition of a recording gauge at Tynemouth is interesting, so is the gain of Monksholme, Corbridge, by which the Lower Tyne is becoming well represented; the addition of Flotterton and Newton-on-the-Moor is a help in the middle of the county, and Flodden adds one to the Border district where an improvement seems to have set in. The absence of Pawston is temporary; we found that the gauge was recording too high a figure and called Mr. Selby's attention to the fact; he found the gauge defective and at once obtained a new one; but the loss of the record at Beltingham Vicarage is serious. There is no rain gauge in the Eden river-division (20 sq. miles), in the west; but a far larger area without a rain gauge exists between Rothbury and the Cheviots.

Cumberland ($a-8+3=72 \dots 5^*$).—The "gains" are only the return of old records, but four of the "losses" are we fear gone for ever. We hope that the Alston record will reappear in the same neighbourhood; but meantime its loss leaves the South Tyne river-division of 87 square miles without a gauge; but Leyfield, Millom, is not likely to be resumed, and the Duddon river-division of 50 square miles thus becomes a blank.

Westmorland ($a-2+1=52 \dots 7^*$).—There is no station in the Tees river-division of 40 square miles.

Monmouth ($a-0+2=34 \dots 6^*$).

Glamorgan ($a-3+8=65 \dots 8^*$).—Most of the insertions are

Water Works gauges; amongst those by private Observers, Plas Cilybebyl, Pontardawe, 500 feet above sea-level, is the most interesting.

Carmarthen ($a-0+0=9 \dots 11^*$).—The worst represented, and from the rainfall point of view the most unprogressive county in either England or Wales.

Pembroke ($a-0+1=16 \dots 3^*$).

Cardigan ($a-1+0=12 \dots 2^*$).—Unprogressive last year, going back this year, this county yet contains the key to the most interesting problem regarding the rainfall of Wales, viz., the rate of increase of rainfall from the coast inland towards the mountains where the heavy fall begins.

Brecon ($a-7+8=78 \dots 10^*$).—This county is the best served with rain gauges of any in Wales, yet the distribution within the county is irregular, and might be much improved. The river-divisions of the Towy and Tawe in the west, with an area of 58 square miles, have no gauges. All the losses, except one, are of old London County Council gauges, which have been kept gratuitously since the abandonment of the Welsh water scheme for London by the Observers who were formerly paid. Some of the rain gauges had been tampered with, some had got into a state of disrepair, and some of the records were obviously wrong, and no evidence as to why this was so could be obtained from the Observers. In some cases there is no doubt that payment would secure better results. The insertions are mainly the group of gauges in the Grwyne Fawr valley in the Black Mountains, set up by the Referees under the Abertillery and District Water Board Act, 1910, the Act requiring that the gauges should be kept up for a term of years to enable the true rainfall and run-off of water to be ascertained. The height above sea-level, at which the gauges are placed, varies from 1620 feet for the lowest to 2650 feet for the highest, this being the Waun Fach gauge, originally established by the Rev. R. P. Dansey, and now taken over from him. The gauges are under the charge of Mr. J. R. Gethin Jones, who has also set up a private gauge at his house in Capelyffin, close to the late Father Ignatius's celebrated monastery.

Radnor ($a-3+2=19 \dots 4^*$).—The new record at Norton Manor Gardens, Presteigne, is in a useful place on the borders of Wales and England, where the details of rainfall distribution are very imperfectly

known. There is no rain gauge in the river-division of the Severn, 50 square miles.

Montgomery ($a-4+2=26 \dots 3^*$).

Flint ($a-2+3=15 \dots 6^*$).—Lord Kenyon's new record at Gredington, Hanmer, helps to define the doubtful zone on the Welsh border. It is in the detached portion of Flint, between Shropshire and Cheshire.

Denbigh ($a-3+3=36 \dots 5^*$).

Merioneth ($a-1+0-9 \dots 14^*$).—The loss of Rug, Corwen, is serious, and there is no insertion. This is the worst county in Wales for rain observations with the exception of Carmarthen.

Carnarvon ($a-1+5=44 \dots 8^*$).—The improvement is very satisfactory. Mr. J. Rees Foster has added two records to the Llanberis district; Lake Eigiau, one of Mr. Gethin Jones's old gauges, has re-appeared, and there are two new check gauges in the Snowdonian group.

Anglesey ($a-1+1=11 \dots 4^*$).

Isle of Man ($a-0+0=8 \dots 4^*$).

Isles of Scilly—Now given under Cornwall.

Channel Islands ($a-0+3=16$).—We are glad to see the record from Alderney back.

SCOTLAND.

Wigtown ($a-1+1=10 \dots 2^*$).

Kirkcudbright ($a-1+2=22 \dots 2^*$).—The two accessions are most important, Barwhinnock in the Dee valley and Monybuie, near Loch Urr, far from other gauges. The loss is only a second gauge.

Dumfries ($a-0+3-26 \dots 3^*$).

Roxburgh ($a-1+1=14 \dots 2^*$).—The Esk river-division of 106 square miles area has no rain gauge.

Selkirk ($a-1+1-8 \dots 3^*$).

Peebles ($a-3+1=20 \dots 6^*$).

Berwick ($a-0+1=9 \dots 2^*$).—Northfield, near St. Abbs Head, is a useful station, serving as a confirmation of the lighthouse observations.

Haddington ($a-2+0=9 \dots 3^*$).—The Whiteadder river-division of 35 square miles has no rain gauge.

Midlothian ($a-0+1=28 \dots 7^*$).—Next to Renfrew, Clackmannan and Linlithgow, this metropolitan county has the largest

number of rain gauges per 100 square miles in Scotland ; but all tradition requires that it should stand at the head of every list, and 24 new records would be necessary to bring this about, even supposing that Renfrew were to continue to stand still.

Linlithgow ($a-0+4=12 \dots 10^*$).—The losses of last year are balanced, so that 1911 has to show as many records as 1909.

Lanark' ($a-0+7=40 \dots 4^*$).—The improvement here is most satisfactory. Except for Hamilton Palace, the new records are all kept at Waterworks, and they all lie in the drainage area of the left bank tributaries of the Clyde.

Ayr ($a-2+2=34 \dots 3^*$).—The losses are only temporary, but the two gains, at Glengarnock Chemical Works and Loch Braden, are very useful. In this county there are five river-divisions without a rain gauge, the largest being that of the Cree, 40 square miles.

Renfrew ($a-3+2=35 \dots 14^*$).—Though there is a record less this year than last, and a record less last year than the one before, Renfrew is at the top of all the Scottish counties for the number of rain gauges in proportion to area. This is mainly due to the number maintained by various Water Works in the hilly district in the north-west.

Dumbarton ($a-1+7=18 \dots 7^*$).—The loss is that of the Glenfinlas record, which we have ascertained to be the mean of the records of seven gauges the individual readings of which have not been received in time to publish. The four new Water Works records in the Kilpatrick Hills, ranging up to 1080 feet in altitude, are a splendid acquisition, and the private record at Alexandria is admirably kept, and will prove most valuable.

Stirling ($a-3+2=30 \dots 6^*$).—The Burgh Engineer's records at Falkirk, which were excellent, have lapsed.

Bute ($a-0+0=7 \dots 3^*$).—It is something of a disgrace that Arran should only have one rain gauge on the mainland ; but we cannot be too grateful to the Rev. A. Sutherland, at Brodick, for maintaining that one.

Argyll ($a-2+3=74 \dots 2^*$).—We could not expect the recent rapid improvement in Argyll to go on unchecked ; but the progress has not stopped. The loss of the record at Laudale, Strontian, is a very serious matter, for no number of new stations can make up for one which has a good average, and without Laudale we have been sorely put to it in our efforts to compare the 1911 rainfall in the

West of Scotland with the past. We are glad to have a return from Strachur once more, and the two new stations in Mull are in most interesting positions. We should much like to have a gauge established in the corner of Argyll which drains to the North Sea, it is the source region of the Tummel and measures 36 square miles.

Clackmannan ($a-0+1 = 6 \dots 11^*$).—This, though the least of the counties of Scotland in area, has as many rainfall records as one county twelve times its size.

Kinross ($a-0+1 = 3 \dots 3^*$).—There is improvement here, but there is room for improvement still.

Fife ($a-2+4 = 25 \dots 5^*$).—The new Water Works record in the Cleish Hills, at an elevation of nearly 900 feet, is a great acquisition.

Perth ($a-2+5 = 49 \dots 2^*$).—The loss of Rannoch station is not unmitigated, for the record was never fully satisfactory. The gains include the return of the Glasgow Water Works gauge between Glen Finlas and Ben Ledi, which always reads too low for its great altitude of 1800 feet; but this year the figure does not seem to be small enough to exclude. The other gains are all in the Tay valley, where there is abundant room for improvement, as indeed there is everywhere in this great county. Five river-divisions with an aggregate area of 365 square miles are without a single rain gauge.

Forfar ($a-2+2 = 32 \dots 4^*$).

Kincardine ($a-0+1 = 14 \dots 4^*$).

Aberdeen ($a-2+5 = 33 \dots 2^*$).—The new records from Lord Haddo, at the House of Schivas, and Mr. Pirie Gordon, from Thunderton, are useful towards filling the thin place in the north-east of the county. Of the old records returned, we have to acknowledge the mistake which we made last year in excluding the King's College record. We explained on that occasion that we did not know whether it was from a recording gauge or not, but we suspected that it was, and the low value suggested that the mechanism was not acting properly. The Director of the Meteorological Office kindly called our attention to the fact that the record was from a Meteorological Office pattern gauge, and was checked by another alongside. Had this been mentioned on the return we should never have questioned the figure, and we would most gladly publish the readings of both gauges if they were supplied to us. We always do our utmost both to obtain and to publish full information. When full information is not given we use our judgment, such as it is, and on the whole we believe we are

prone to err by admitting too much (for we would not willingly cast discredit on any return), rather than too little. We have had an opportunity of inspecting the King's College gauges, and gladly say that we have never seen a better-kept station.

Banff ($a-0+1=6 \dots 1^*$).—A backward county for rain gauges.

Morayshire ($a-0+1=8 \dots 2^*$).

Nairn ($a-0+0=5 \dots 3^*$).

Inverness ($a-0+7=53 \dots 13^*$).—The fact that no record has dropped out last year or this year, and that 7 have been added on each occasion is most encouraging. In a vast and thinly-peopled country like the Highlands it is impossible to expect more than a very few rain gauges per hundred square miles; but there is a large possibility of improvement, and that is in course of declaring itself. Three of the new records are in Skye, which is gradually resuming its old state of a fairly well gauged island. We print the Kinloch Castle record in the Isle of Rum with some hesitation, as we have only a newspaper cutting to go by; but it is quite possible that there is a very high rainfall in that wildly mountainous island, and we hope to get it next year from the responsible authority. The only accession on the mainland, Carrbridge, we also print with hesitation, as we have no information as to the rain gauge or its altitude. We most earnestly desire that a number of new rainfall stations should be established in this county, for there are eight river-divisions in it with an aggregate of 1,282 square miles without a single gauge; of these, the largest are Spey, Right Bank, 437 square miles; Beauly, 341 square miles; Findhorn, 164 square miles; Nairn, 131 square miles, and Morriston, 120 square miles.

Ross and Cromarty ($a-2+4=29 \dots 1^*$).—Very thinly sown with gauges. The new records at Glen Shiel in the wet district on the west, and at Invergordon in the dry district on the east, represent the extremes of climate in this county.

Sutherland ($a-2+0=10 \dots 04^*$).—The worst county in Great Britain from the point of view of rainfall information, and yet it is one of the most interesting as it is extremely varied in its configuration, and is unique among the counties in fronting on three seas, west, north and east. The two records lost are we hope only out for a time; but that at Borrobol was obviously defective, and we could not print it. It is greatly to be desired that some responsible

person in Sutherland would take the matter up and distribute gauges; there is no lack of interest amongst the schoolmasters and gamekeepers if it could only be utilized. The river-division of the Helmsdale & C. has no rain gauge, and measures 226 square miles; nor has that of Enard Bay with 138 square miles.

Caithness ($a-0+2=12 \dots 2^*$).

Orkney ($a-0+0=11 \dots 3^*$).

Shetland ($a-2+0=6 \dots 1^*$).

IRELAND.

Throughout Ireland the few losses are of little importance, but amongst the few gains there are several of great value, and although the number remains nearly stationary the distribution has improved.

Cork ($a-2+1=22 \dots 0.8^*$).—An increase of the number of Observers in the extreme west is much to be desired.

Kerry ($a-0+1=9 \dots 0.5^*$).—The river-divisions of the Shannon, Left Bank, and Tralee Bay, with nearly 600 square miles of area, have no rain gauges.

Waterford ($a-1+1=13 \dots 2^*$).

Tipperary ($a-0+0=10 \dots 0.6^*$).

Limerick ($a-3+0=3 \dots 0.3^*$).—This county is very disappointing; the three records are all in, or close to, the city of Limerick.

Clare ($a-0+2=13 \dots 1^*$).—One of the insertions is an old record returned, the other is close to Limerick.

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

Kilkenny ($a-0+3=9 \dots 1^*$).—Here there is some encouragement. We receive back two old stations, and in Ballyduff, Thomastown, welcome the discovery of an excellently kept record, which has been in existence, unknown to us, for ten years.

Wicklow ($a-1+2=15 \dots 2^*$).

Carlow ($a-0+0=6 \dots 1.4^*$).

Queen's County ($a-0+0=5 \dots 0.7^*$).

King's County ($a-1+0=4 \dots 0.5^*$).—The record discontinued is that of one of the gauges at Birr Castle, the other continues.

Kildare ($a-1+0=6 \dots 1^*$).

Dublin ($a-2+5=30 \dots 9^*$).—This is the only county in Ireland which has more than 2 rain gauges per 100 square miles of area; it ranks with the better-supplied counties of England and Scotland, and is in every way satisfactory both for the quality and the number of its records.

Meath ($a-1+1=9 \dots 1^*$)

Westmeath ($a-0+0=8 \dots 1^*$).

Louth ($a-0+0=5 \dots 1.5^*$).

Longford ($a-1+1=4 \dots 1^*$).

Galway ($a-0+1=9 \dots 0.3^*$).—The record at Knockboy House is excellently kept and is a great acquisition. Without it there would be no representation of the river-division of the North of Galway Bay, with an area of 277 square miles.

Roscommon ($a-0+0=2 \dots 0.2^*$).

Mayo ($a-0+3=10 \dots 0.5^*$).—Thanks to Professor W. J. Lyons, of Dublin, we have to add to the records in this remote region, three on Clare Island, which lies at the mouth of Clew Bay. The positions were carefully selected so as to represent the different exposures on the island; that at the lighthouse, perhaps because it is more exposed than the others, gets the lowest rainfall; but we cannot help noticing that it mentions only 170 rain days and was possibly not visited every day. The other two records show 226 and 217 rain days, closely agreeing in this with the 213 days of Mrs. Sheridan's most careful record at Dugort on Achill Island, the higher rainfall of which is doubtless due to its greater altitude. The accession of Clare Island is the brightest gleam in the Irish rainfall sky in 1911.

Sligo ($a-0+0=2 \dots 0.1^*$).—Markree Observatory alone remains to represent this county and the two gauges only count as one in estimating the number per 100 square miles, so that Sligo is now the worst off in this respect of all the counties of Great Britain and Ireland. From 1885 to 1906 Sligo had never less than 4 or 5 rain gauges to its credit. It came down to 3 in 1907 and to 2 in 1909.

Leitrim ($a-0+0=4 \dots 0.6^*$).

Cavan ($a-0+0=6 \dots 0.8^*$).

Fermanagh ($a-0+0=3 \dots 0.4^*$).

Monaghan ($a-0+0=2 \dots 0.4^*$).

Armagh ($a-0+1=7 \dots 1.2^*$).

Down ($a-0+0=10 \dots 1^*$).

Antrim ($a-1+1=16 \dots 1.4^*$).

Londonderry ($a-1+0=5 \dots 0.6^*$).

Tyrone ($a-0+1=5 \dots 0.4^*$).—We are happy to have the old Baron's Court record back in our pages once more.

Donegal ($a-0+0=10 \dots 0.5^*$)

The usual Table summarizing this series of changes for all parts of the British Isles, and comparing 1911 with previous years, 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...	3563 ..	388 ...	660 ...	262 ...	4873 ...	193
1911...	3704 ...	397 ...	699 ...	271 ...	5071 ...	193

Difference from 1910—

Increase	141 ...	9 ...	39 ...	9 ...	198
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OBITUARY.

WE have included in this list the names of those Observers of whose deaths we have been informed between August 1st, 1911, and July 31st, 1912. They number 75, but though we have made every effort to secure completeness in the list, we cannot hope that it is attained ; but as just the same efforts were made last year, when the list included 85 names, we hope that we can congratulate ourselves on profiting considerably by the reduced death-rate of the country which has been the theme of many newspaper comments. We have ascertained the ages of 45 out of the 75, and the average comes out as 77, an extraordinarily high figure, which is accounted for by the fact that only 2 out of the 45, were under 60 years of age, and no less than 16 were 80 or over, and five 90 or over.

Observers deceased in 1911-12, of 80 years of age or more.

Mr. Edward Beanes ...	...	...	...	95 years.
Sir J. G. N. Alleyne, Bart.	...	...	...	92 „
Miss Grubb ...	...	...	...	92 „
Mr. W. B. Pugh ...	...	...	...	92 „
Mr. Benjamin Carver	...	...	...	90 „
Sir W. J. Farrer ...	...	...	...	89 „
Mr. George Nevile ...	...	...	...	89 „
Rev. H. E. B. Ffolkes	...	...	...	88 „
Miss Elizabeth Southall	...	...	...	88 „
Sir J. A. Woolfryes, K.C.B.	...	...	...	88 „
Miss J. C. Edlmann...	...	...	...	86 „
Mr. William Garnett	...	...	...	86 „
Capt. W. A. Dobie ...	...	...	...	84 „
Mrs. Pemberton-Barnes	...	...	...	84 „
Rt. Hon. Lady Northwick	...	...	...	80 „
Rev. D. E. Norton ...	...	...	...	80 „

It is still more remarkable to find that 19 of the late Observers had records of 30 years or more to their credit, six of them had more than 40 years, and two had completed half a century of rainfall observing, one of them having the unique record of 65 years. The list of the long records, several of which we are happy to say have not come to

an end, is given below, an asterisk being placed before the names of those whose records were taken continuously in one place.

Records of Thirty years and upwards.

*Mr. W. B. Pugh	...	...	{ Patrington, Hull	...	...	{ 65 years.
			{ Newtown, Montgomeryshire			
*Mr. G. Nevile	...	...	Stubton, Newark	...	...	50 ,,
*Rev. H. E. B. Ffolkes	...	...	Hillington	...	...	47 ,,
*Mr. S. W. Jenkin	...	...	Liskeard	..	...	47 ,,
*Miss Grubb	...	...	Clonmel	...	...	46 ,,
Mr. F. M. T. Jones-Balme			Ambleside	...	...	46 ,,
Mr. W. Miller	...	...	Cork	...	...	39 ,,
*Miss Jones	...	...	Kensworth, Dunstable	...	...	36 ,,
*Rev. W. H. Fox	...	...	Thixendale	...	...	35 ,,
Rev. Dr. J. Dunne Parker			Bennington	...	...	35 ,,
*Mr. J. Alexander	...	...	Sudbury	...	...	34 ,,
Mr. P. Bicknell	...	...	Burnham	...	...	34 ,,
*Rt. Hon. Lord Rendlesham			Rendlesham Hall	...	...	33 ,,
Mr. J. C. Little	...	...	Ewes, Langholm	...	...	33 ,,
*Rev. C. Wigan Harvey	...	...	Throcking	...	...	32 ,,
*Mr. A. C. Bamlett	...	...	Sowerby, Thirsk	...	...	31 ,,
*Sir W. J. Farrer	...	...	Sandhurst Lodge	...	...	31 ,,
*Prof. W. A. Barnes	...	...	Moynalty	...	...	30 ,,
*Mr. T. Coulthard	...	...	Malham Tarn, Settle	...	...	30 ,,

While we are happy to know that the rainfall records are being continued in many cases there are some old friends in the Obituary list this year who have been for many years generous supporters of the General Fund and their financial help dies with them. Mr. Symons had a group of old supporters who used each to contribute £10 per annum to the funds of the Rainfall Organization; one of these disappears this year, leaving an estate which paid over £14,000 in death duties, but nothing to the Endowment Fund of the British Rainfall Organization. There can be very few Observers so wealthy as this; but some, even if less wealthy, may care to make provision for a bequest which would perpetuate their annual subscriptions.

We regret the inadequacy of the notes which follow, but they represent no little labour in endeavouring to get at sources of information. Occasionally all we know regarding the death of an Observer is the laconic endorsement "dead" on a returned letter.

MAJOR WILLIAM TOWERS ALCOCK-BECK, who died on October 22nd, 1911, was one of the keenest rainfall observers in the Lake District. He was educated at Rugby and Trinity College, Cambridge.

The elder son of the late William Towers, of Tower Bank, Sawrey, he succeeded, at the age of 21, to the estates of Thomas Alcock-Beck of Esthwaite Lodge, whose name he assumed and whose rainfall record he took over, and he resided at Esthwaite Lodge until ten or twelve years ago when he re-purchased the ancestral estate of Tower Bank and returned there. He was an officer of Volunteers from 1860 to 1876, when he retired as Honorary Major. From his twenty-fifth year he had held a number of public offices, and kept up an active interest in local affairs to the end. Without professing to be in any sense of the term a scientific man, Major Alcock-Beck was a lover of Nature, keenly interested in the habits of animals, especially of birds, and a watcher of the weather.

THE REV. WILLIAM HENRY FOX, Vicar of Thixendale, in the East Riding of Yorkshire, was one of the most systematic rainfall observers. He was educated at Sidney Sussex College, Cambridge, and received the living of Thixendale in 1872. Five years later he began to keep a rainfall record and added the readings of other meteorological instruments. He was a regular correspondent of Mr. Symons, Mr. Wallis and myself, and frequently contributed letters to *Symons's Meteorological Magazine*. He took great trouble in keeping notes of his observations, and the first notice we received of his death was a letter from Mr. H. Sowerby Wallis stating that Mr. Fox had left him his meteorological records, which he presented to the British Rainfall Organization, believing that to have been the intention of the testator. The records were kept in "one-year" Meteorological Registers, beginning in 1878, and the first 22 years were bound in a substantial volume, bearing on its last page the inscription:—

"This volume contains the Meteorological Register, a
observations, made during the last twenty-two years of the
Nineteenth Century.—W.H.F.

FINIS

hujus Libri, et XIX. centum Annorum"

But, as we have noted in the case of many people to whom the change of the century was an impressive period, Mr. Fox closed his century with the year 1899. The remaining twelve yearly books were loose, but we have bound them to match the first volume. The last entry is of the 10 a.m. observations on September 16th, 1911, and his death must have occurred very soon afterwards, as the books were in our hands on October 10th. We also received a set of

diagrams for each month since January, 1881, each year mounted in a continuous strip and bound in a leather portfolio, the appearance suggesting that it was done by the Observer himself, and if so it does credit to his neatness of manipulation. Mr. Fox must have been about eighty years of age.

MISS SUSANNAH GRUBB, of Glenam, Clonmel, died on September 23rd, 1911, at the great age of 93. She or her sister sent in returns of rainfall since 1864, and the record appeared regularly up to 1911. Unfortunately this fine old record has come to an end.

MR. SILVANUS WILLIAM JENKIN, who died in August, 1911, was a member of the Institution of Civil Engineers, in practice at Liskeard, and, like so many of his profession, much interested in meteorology. His record of rainfall dates back to 1864, and we are glad to know that in this, as in many other instances, the interest has proved to be hereditary, for his son, Mr. W. A. Jenkin, is continuing the record.

MISS S. GRACE JONES, of Kensworth, Dunstable, who died in February, 1912, had the unusual distinction of being, for many years, Churchwarden of her parish. She was keenly interested in the observations, and her station occupied a very important position on the Chiltern Hills, where it is invaluable for drawing the lines on the monthly rainfall maps, and we are glad to say that it is being kept up, for the present at least. I may quote a passage from a characteristic letter from Miss Jones, written four years ago :—

“ More than forty years have passed since Professor Charles Tomlinson presented me with a rain gauge and requested me to send a yearly report to Mr. Symons, and hitherto I have not failed, but years pass very rapidly as age increases and strength diminishes. I hope to continue the most interesting observations as long as I am able to do so, but if you should fail to receive them you may conclude my work is ended.”

REV. PETER NEIL MACKICHAN, Parish Minister of Inveraray, died in December, 1911, at the age of 74. The Parish Church of Inveraray is perhaps unique in consisting of two churches under one roof, with separate entrances and separate ministers, one preaching in English, the other in Gaelic. Mr. Mackichan was the Gaelic minister, and had a rare knowledge of the ancient language and a love for the Highlanders and their legends. He had an insatiable curiosity in many branches of literature and in some fields of Nature,

and nearly thirty years ago he used frequently to accompany me on the steam yacht *Medusa* when I was engaged in oceanographical researches on Loch Fyne. From the interest he took in that work I felt sure that he would be a good observer of rainfall, and when he went to occupy the new manse at Stronshira, a mile across the bay from Inveraray, I induced him to start a record there. He also enlisted the services of a farmer living six miles up Glen Shira, the picturesque valley associated in old days with the more exciting investigations of Rob Roy, where the rainfall record has proved very valuable.

REV. WILLIAM M. MACPHERSON, D.D., was a son of the late Dr. Macpherson, Professor of Divinity at the University of Aberdeen. After graduating at Aberdeen (where he afterwards received the honorary degree of Doctor of Divinity) Mr. Macpherson became a minister of the Church of Scotland, and after two years at Kennethmont, Aberdeenshire, he was inducted in 1868 to the charge of Monymusk in the same county, where he remained until his death in September, 1911, at the age of 69. He was a remarkably careful observer of rainfall, and his record at Monymusk was of the utmost service in a part of the country where rainfall records are few.

MR. WILLIAM MILLER, who died on March 13th, 1912, kept up a record of rainfall in Cork for 39 years, and did much to encourage an interest in meteorology in the south of Ireland. Mr. Miller carried on an unpretentious business in Cork for many years, but retired some time ago, and devoted increased attention to his two great sources of interest, meteorology and a detailed study of the English Bible, which supplied him with materials for many papers and pamphlets; these, if works of faith rather than learning, were, at least devoid of the fads and fancies which so often obsess simple students whose opportunities for critical study are few. I had the pleasure of meeting Mr. Miller a few years ago, and was much impressed by the earnestness of his character.

MR. GEORGE NEVILE, of Stubton, near Newark, died on June 21st, 1912, at the age of 89, leaving behind him a record of fifty years of rainfall observations taken at the same place. The yearly total has appeared in its place in every volume of *British Rainfall* except the first, but of Mr. Nevile we know nothing. He has never been unpunctual in sending in his return, and we believe that his records have never been found in error. However important or obscure his life may have been in other respects, this long persistence in faithful

recording has added a solid fact to knowledge the value of which time can never diminish.

THE RIGHT HON. LADY NORTHWICK always signed the rainfall record from Northwick Park, Blockley, her usual residence ; but I fear that this was a mark rather of her characteristically conscientious attention to detail, than of any particular interest in the scientific aspects of our work, for in the apportionment of her ample fortune the Rainfall Organization found no place. Nevertheless, the opening paragraph of her will, as quoted in the press, is one which may be commended to those who are equally wealthy and more interested. It runs :—" With regard to this world's goods, I am deeply sensible that I have ten talents to account for. I earnestly hope I have (with no feeling of merit and often with failure of success, but as a positive duty and responsibility) tried not to misuse them, and I trust that I am now about to make a just disposal of what I have to leave to others."

THE REV. JAMES DUNNE PARKER was born on January 10th, 1835, at Ballyvally, Co. Down, and educated at Trinity College, Dublin, and University College, Galway, at both of which he had a brilliant career. He was interested in scientific studies, and pursued several branches effectively. He was first a curate in Newcastle, then Vicar of Bowes in Durham from 1867 to 1870, Vicar of Hawes from 1870 to 1878, and of St. Mary Abbey Church, Nuneaton, from 1878 to 1883. He took first the LL.B., and then the LL.D., degree of Queen's University, Ireland, and received the honorary D.C.L. from Durham University. He was a keen politician, and took an active part on the Unionist side. On retiring, he settled at Bennington House, near Stevenage, where he equipped a very complete meteorological and astronomical observatory. He was a Fellow of the Royal Meteorological, the Royal Astronomical and the Geological Societies, and he was a frequent attendant at meetings of the British Association. Dr. Parker's meteorological observations began at Hawes about 35 years ago, but the fuller and more detailed observations began when he moved to Bennington in 1883, and we rejoice to learn that his two daughters, who had latterly assisted in the observations, are continuing the record. Amongst the very large number of the clergy who assist in the collection of rainfall statistics, Dr. Parker was perhaps the owner of the most perfect meteorological equipment, and he took a great pride in keeping his records with scrupulous exactness. He died on October 12th, 1911.

MR. WILLIAM BUCKLEY PUGH, one of the small number of those whose rain records have appeared in each of the fifty-one volumes of *British Rainfall*, died at his home at Patrington early in June, 1912, in the 93rd year of his age. Mr. Pugh was an old friend of Mr. Symons, and like him a collector of meteorological books, and for years, we believe, it was a grim jest between them that each would endeavour to survive long enough to purchase the other's library. Mr. Pugh came of a Montgomeryshire family, and was educated at Rugby under Dr. Arnold, passing on to the University of Caen in France. In 1845 he became Manager of a flax mill at Patrington, in the East Riding of Yorkshire, and resided there until his death, retiring from active work in 1881. He was a Justice of the Peace, both in Yorkshire and Montgomeryshire, where he had property, and where he kept up a second rain record. Mr. Pugh was much interested in old churches, and was active in promoting the restoration of churches both in Yorkshire and in Wales. I never met Mr. Pugh, but for ten years I have looked forward to his annual letter, which always contained some characteristic note. On January 10th, 1908, he wrote from Patrington: "I enclose a return for rainfall here and at Dolfor. I feel I must give up soon these returns. I am 88, too old, and have to employ others. It costs me ——" (the amount was illegible). In September, 1910, he said: "Would you like to have an annual return of rainfall from the first? At the end of this year I shall be 91, and I don't think I can make out many observations, my eyesight deficient, and my hand too." My last letter from him was much more cheerful, and it was, I think, the only one in which he did not refer to his age and his failing powers. It was dated 25th January, 1912, when he was over 92, and ran: "Was it in the year 1812 that the Thames was frozen over, and bonfires lighted on it? and that Napoleon crossed the Elbe. If you can give me this information I shall feel obliged." The old record at Patrington, which began in 1847, should not be allowed to lapse, and as it was impossible to ascertain whether Mr. Pugh had any surviving relatives, the British Rainfall Organization has provisionally undertaken to pay the assistant who helped Mr. Pugh in his later years to keep up the observations for the present.

LORD RENDLESHAM, the fifth baron, who died at Rendlesham Hall on November 9th, 1911, was much interested in the rainfall returns, which he always sent in in his own handwriting, and he was a generous contributor to our funds. An Irish peer, Lord Rendlesham was a

Member of Parliament for East Suffolk from 1874 to 1885, and in his own county he filled all the honorary offices which are part of the responsibilities of a great landowner, having been chairman of the Suffolk Quarter Sessions for 30 years, and also of the Suffolk County Council. He was an old member of the Jockey Club, and one of the stewards of that typically British institution, and he was also a member of the Royal Yacht Squadron.

MISS ELIZABETH SOUTHALL died at Leominster on October 17th, 1911, aged 88, two years after the death of her sister Miss Hannah Southall, who was only four years her junior. The venerable ladies were the most charming embodiment of the old Quaker type, and it was a great happiness to me to have met them both, and seen with what interest they followed all that that was going on around them, whether in weather, or in works of philanthropy. Old as they were, they kept abreast of the age, and were delighting in the acquisition of a new motor car, when I saw them, with the freshness of appreciation that we are accustomed to associate only with youth. To meet such people on the common ground of mutual interests, is one of the great privileges of our work.

MAJOR-GENERAL THOMAS EATON SWETTENHAM was born in 1834, and on joining the army he was sent to the Crimea, where he was present at the siege and fall of Sebastopol. He also saw active service in the China war of 1860. When, some time after his retirement from the army, he settled at Calcot House, Reading, he commenced to keep records of rainfall and other meteorological conditions, keeping up the record almost to the last. He sent in a carefully plotted barometer curve of December, 1911, showing the extraordinary fluctuations of pressure as the continuous procession of cyclones swept in from the Atlantic during that remarkably rainy month; this must have been almost the last work he did as he was seriously ill early in January and died before the end of that month.

THE VEN. GEORGE ROBERT WYNNE, Archdeacon of Aghadoe and Canon of St. Patrick's, Dublin and of St. Mary's, Limerick, was born in Co. Wicklow, in 1838, and studied at the Royal Agricultural College, Cirencester, and Trinity College, Dublin. He was successively Incumbent of churches in Dublin, Holywood, Co. Down, Killarney, and Limerick. He took an active part in promoting emigration to Canada, and he was the author of several devotional works and tales for the young. Dr. Wynne was versatile and catholic in his tastes; his recreations, as classified by himself, began

with meteorology and botany and extended to Esperanto. For many years he kept up two rain gauges in the neighbourhood of Killarney, one at Gearahameen, at the beautiful landing-place on the upper lake, the other on a mountain at Mangerton, nearly 1,800 feet above sea-level, the only rain gauge in Ireland above the level of 1,000 feet. The Mangerton record, where the highest values for Ireland were obtained, was stopped in 1904 when Archdeacon Wynne moved to Limerick, but the Gearahameen record is being carried on at the expense of the Organization.

Observers deceased to June 30th, 1912.

Small capitals designate Observers with 30 years' records.

*Alcock-Beck, W.	Sawrey, Ambleside.
ALEXANDER, JOSEPH	Sudbury.
Alleyne, Sir John G. N., Bart. ...	Chevin, Belper.
BAMLETT, ADAM CARLISLE ...	Sowerby, Thirsk.
BARNES, PROFESSOR WILLIAM A.	Westland, Moynalty, Co. Meath.
Beanes, Edward	Moatlands, Paddock Wood, Kent.
BICKNELL, PERCY	Lincoln Hatch, Burnham, Bucks.
Bracher, Edwin	The Limes, Mere, Wilts.
Browne, S.	Glencoe, Roche, Cornwall.
Bruce, Thomas Rae	Old Garroch, Dalry, Kirkeudbright.
Burney, W.	Mickleton, Middleton-in-Teesdale.
Campbell, Major-Gen. William Maxwell (late R.E.) ...	Henmead Hall, Cuckfield.
Carver, Benjamin	Polefield House, Prestwich.
Cole, Rev. Edward Maule ...	Wetwang, York.
COULTHARD, T.	Malham Tarn, Settle.
Craik, J. Watson	Littlecauseway, Forfar.
Cure, Rev. Laurence George Capel	Abbess Roding, Essex.
Dickinson, Mrs. John	Broomhill, Tiverton.
Dobie, Capt. William Alexander	St. John's Park, Ryde.
Edlmann, Miss Josephine C. ...	Hawkwood, Chislehurst.
Edwards, H.	Rutland Terrace, Stamford.
Elliot, George Stanley	Metropolitan Asylum, Caterham.
FARRER, SIR WILLIAM JAMES ...	Sandhurst Lodge, Berks.
Festing, Major-General Edward Robert, C.B., F.R.S. ...	Science Museum, South Kensington.
*FFOLKES, REV. HENRY E. B. ...	Hillington, Norfolk.
Foster, Rev. Ambrose Millett ...	Samford Brett, Somerset.
*FOX, REV. WILLIAM HENRY ...	Thixendale, York.
Gardhouse, Miss Barbara ...	Denton House, Carlisle.
Garnett, William	Low Moor, Clitheroe.
*GRUBB, MISS SUSANNAH ...	Glenam, Clonmel.
*HARVEY, REV. CHARLES WIGAN	Throcking Rectory, Herts.
Heberden, Rev. Charles Lewis ...	Desborough, Market Harborough

Observers deceased to June 30th, 1912—(continued).

Hill, George M. Wansbeck	...	Foxrock, Dublin.
Holcroft, Rev. Thomas Austen	...	Bolney Vicarage, Sussex.
Inglefield, G. A.	... ..	Tidworth House Gardens, Andover.
Ingram, Mrs. Fanny	... ..	Steyning, Sussex.
Jarrett, Miss Emily Elizabeth	..	Camerton Court, Bath.
*JENKIN, SILVANUS W., C.E.	... ..	Dean Terrace, Liskeard.
*JONES, MISS S. GRACE	... ..	Kensworth, Dunstable.
JONES-BALME, FRANK M. T.	... ..	High Close, Ambleside.
Last, William Isaac, A.M.I.C.E.	...	Victoria and Albert Museum, South Kensington.
Lee, Anthony	... ..	Bendamph Gardens, Ross-shire.
Leonard, Rev. Arthur Allen	...	Beaminster, Dorset.
Linton, John, J.P., D.L.	... ..	Stirtloe House, Buckden, Hunts.
LITTLE, J. C.	... ..	Burnfoot, Ewes, Langholm.
Lloyd, Rev. John Augustus	...	Knowle, Godalming.
*Mackichan, Rev. P. N.	... ..	Stronskira, Inveraray.
*MacPherson, Rev. Dr. W. M.	...	Monymusk, Aberdeenshire.
Marriott, Rev. Charles	... ..	Cherington.
*MILLER, WILLIAM	... ..	Fernhurst Avenue, Cork.
*NEVILE, GEORGE	... ..	Stubton, Newark.
Nice, A. S.	... ..	Carlton Hall, Newmarket.
*Northwick, Rt. Hon. Lady	...	Northwick Park, Blockley.
Norton, Rev. David Evans	...	Maperton Rectory, Somerset.
*PARKER, REV. JAMES DUNNE, LL.D.	... ..	Bennington House, Herts.
Pemberton-Barnes, Mrs.	... ..	Havering-atte-Bower, Essex.
Pennington, Col. William A.	...	Lake House, Netley Abbey.
Phipps, H.	... ..	Heath End, Milford, Surrey.
Pigott, Rev. Edmund Vincent	...	Welborne, Norfolk.
*PUGH, WILLIAM BUCKLEY	...	Patrington, Hull.
*RENDLESHAM, RT. HON. LORD...	...	Rendlesham Hall, Woodbridge.
Rice, Mrs.	... ..	Danefield, Eastry.
St. John of Bletso, Rt. Hon. Lord	...	Melchbourne Park, Beds.
Sanger, Charles	... ..	Burecote, Weybridge.
Smith, Andrew Scott, M.B.	..	Chagford Sanatorium, Devon.
*Southall, Miss Elizabeth	...	Farm, Leominster.
Summers, Rev. William	... ..	Stoke-on-Trent.
Sutcliffe, Arthur, J.P.	... ..	The Royd, Todmorden.
*Swettenham, Major-Gen. Thomas Eaton	... ..	Calcot Place, Reading.
Tiarks, Henry Frederick	...	Foxbury, Chislehurst.
Willson, Major-Gen. Sir Mildmay Willson, K.C.B.	... ..	Rauceby Hall, Sleaford.
Woolfries, Sir John Andrews, K.C.B., C.M.G., M.D.	... ..	Woodbury House, Wells.
*Wynne, Ven. Archdeacon G. R.	...	Limerick.
Wynne, Wyndham H.	... ..	Glendalough, Co. Wicklow.
Yorke, John Reginald	... ..	Forthampton Court, Tewkesbury.

BRITISH RAINFALL, 1911.

PART II.

RAINFALL AND METEOROLOGY

OF

1911.

EXPLANATION.

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 of "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 1911.

With occasional quotations from the Newspaper Press.

NOTES ON THE DAYS OF 1911.

These Notes should be read in conjunction with those on Heavy Rains in 1911, and reference should also be made to *Symons's Meteorological Magazine*, Vol. 46.

JANUARY.

2nd.—*Epsom* (II). Brilliant display of sheet L between 5.30 and 7 a.m.—*Norwich* (IV). Severe TS with H from 6 to 6.30 a.m.—*North Walsham* (IV). TSS, with H, R and S.—*Malton* (IX).

“In north-east Yorkshire a storm of snow and hail was accompanied by lightning. At Yedingham, Malton, three sheep, the property of Mr. John Coverdale, a farmer of Heslerton, were killed by lightning.”—*The Times*.

3rd.—*Guildford* (II). S $1\frac{1}{2}$ inch deep.

10th.—*Hornby* (VIII). Well defined lunar halo from 6 to 6.45 p.m.—*Easby Hall* (IX). A most extraordinary TS; the T was deafening and the L very vivid. It lasted for some time though the R that fell was only .01 in.—*Fanad, Tamney Rectory* (XXIII). Strong N. gale, with H and S squalls.

12th.—*St. Pancras, Camden Square* (I). N. gale sprang up at about 2 a.m. and blew with great violence for some few hours, moderating at about 9 a.m.—*Goldsborough Hall* (IX). Very stormy, with frequent S showers.—*Horsley Vicarage* (X). Icy N.E. wind, with 2 inches of S.—*Upper Redesdale* (X). S 2 inches deep.

14th.—*Lewisham, Limes Grove* (I). Black fog throughout the day.

15th.—*Manor Park* (IV). Thick fog at 8 p.m. Dangerous to traffic.—*Clifton* (VI). Dense fog all day.

15th—16th.—*Bourne End* (III).

“Skating began on Sunday in the Upper Thames Valley, and with 12 degrees of frost registered on Sunday night the ice was yesterday in excellent condition. There is a fine stretch of ice on the flood water at Cock Marsh, Bourne End.”—*The Times*.

16th.—*Norwich* (IV). Thick fog, evening.—*Tiverton* (V). Thick fog.

19th—20th.—*Rathmines* (XXI). Dense wet fog.

20th.—*St. Pancras, Camden Square* (I). Black fog at 9 a.m., clearing somewhat towards noon.

20th—21st.—*Grimsby* (VII). Thick fog.

23rd.—*Oxford* (III). Thick fog.

24th.—*New Malden* (II). Thick fog.

25th—26th.—*Fanad, Tamney Rectory* (XXIII). Violent W. gale, with high temp.

28th.—*Royston* (III). Heavy fog.

29th.—*New Malden* (II). Thick fog.

31st.—*Musselburgh, Levenhall* (XIII). Dense fog.

FEBRUARY.

1st.—*Sion House* (XXIII). Thick fog.

1st—2nd.—*Castledermot* (XXI). Dense fog.

2nd.—*Horeham Manor* (II). S began at 3.45 p.m. and at 4.15 p.m. it was an inch and a half deep. It continued to fall till 5 p.m. and there were slight falls later, but they made no appreciable difference to the depth. The wind was blowing sharply from the N.E. That night we had 20° of frost, and according to a more exposed thermometer at The Grange (a few hundred yards away) 26° of frost.

3rd.—*Luton, Tennyson Road* (III). Absolute drought of 22 days ended.

9th.—Absolute drought ended after continuing at *Kentchurch Rectory* (VI). For 21 days.—*Shifnal, Haughton Hall* (VI). 28 days.—*Sparkhill* (VI). 29 days.—*Kibworth Beauchamp* (VII). 28 days.

15th.—*Glenelg Manse* (XVIII). Gale during night. Rivers in flood.

16th.—*Pen-y-Gwryd* (XI). Heavy gale in evening causing damage to property. A man found drowned in Llydaw. The circumstances point to his having been blown in.

16th—17th.—*Mosbrough* (VII). A heavy gale did considerable damage to property, uprooting trees and blowing away stacks.

17th.—*Buchlyvie* (XV). Very stormy night. W. gale.

17th—18th.—*Kilsyth, Currymire* (XV). Severe storm of wind and R. The heavy flood caused much damage.

18th.—*Irvine* (XIV).

“Serious floods took place in the Irvine district of Ayrshire through the overflowing of the three local rivers, as the result of which railway traffic was disorganized, pits and houses were flooded, and many people were imprisoned in their houses. Railway traffic between Irvine and Kilmarnock

had to be diverted *via* Barassie owing to the flooding at Dreghorn, where the stationmaster was among those flooded out. At Craig pit the men could not get to work by the flooded roads, and at Warrix pit, Irvine, the miners had to leave their work hurriedly on account of the flooding of the pit. The floods are stated to be the worst ever known in the district."—*The Times*.

19th.—*Goring* (III). Heavy H storm with T at 6.30 a.m.

22nd.—*Drumnadrochit* (XVIII). At between 8 and 9 p.m. a milky band, like white mist, crossed the sky from W. by S. to E. by N., as broad as the body of the Plough from root of tail to head. The pole star appeared through the northern edge of it, and the two stars next the Plough tail were occulted by the middle of the band. By a quarter to nine it had moved S. about its own breadth, and then the sky became overcast and it disappeared. — *Castletown* (XIX). A beautiful bright rainbow-like band of aurora ran from E. horizon across the sky to S. of zenith and right down to W. horizon at 9 p.m. It lasted from 10 to 15 minutes.

23rd.—*Upper Redesdale* (X). Stormy day ; river flooded.—*Pen-y-Gwryd* (XI). Gale. Floods on Glaslyn and Gwryd.—*Darrynane Abbey* (XX). Fresh N.W. gale and very heavy sea.

MARCH.

2nd.—*Haslemere* (II). A well defined meteor was observed to pass vertically between the moon and Venus at 6.35 p.m.

12th.—*Detling, The Croft* (II). Bright morning, but overcast after 11.30 a.m. At 2.30 p.m. it was almost dark for 5 minutes. About 10 inches of S fell, but thawed as it fell.—*Dunstable, Kensworth* (III). R, and S 3 inches deep.—*Shrewton* (V). Steady R ending in 2 inches of S.—*Liscombe* (V). S lay for about 30 hours.—*Capel-y-ffin* (XI). Average depth of S 2 inches.—*Thurso, Buckies* (XIX). S 2 inches deep.

13th.—*St. Pancras, Camden Square* (I). Sharp S shower for 20 minutes at 3.50 p.m.—*Molesey* (II).

"A severe storm of rain, snow and sleet, accompanied by a high wind, prevailed during the early hours in the Lower Thames valley, and lasted for about three hours. The snow and sleet melted at daybreak. There has been a sharp rise in the level of the Thames above the locks. On Friday the river was so low that mud banks were exposed opposite Hampton Court Palace, and the water gauge at Molesey Lock measured only $7\frac{1}{2}$ ft. Yesterday the level had risen to $10\frac{1}{2}$ ft., and an immense volume of water was pouring over the weir from the upper reaches."—*The Times* (14 March).

—*Detling, Frinningham* (II). S $4\frac{1}{2}$ inches deep at 9 a.m.—*Haileybury*

College (III). TS with L and S at 4 p.m.—*Chalfont St. Giles* (III). Extraordinary black clouds, with shower of H and S at 4 p.m. Dark as night for a short time.—*Steeple Aston* (III). Total darkness from 4 to 4.20 p.m., with some S.—*Milton Bryant* (III). Storms of S and H, with almost total darkness from 4 to 4.10 p.m.

14th.—*Epsom* (II). S $1\frac{1}{2}$ inch deep at 7 a.m.

18th.—*Fanad, Tamney Rectory* (XXIII). Violent S.E. gale and bitterly cold.

22nd.—*Whitstable, Tankerton* (II). Vivid sheet L in night.—*Medstead Manor* (II). T and vivid L from 3 to 5 p.m.—*Hartley Wintney* (II). Shade temp. reached 61°, followed by heavy T in afternoon.—*Selborne, The Wakes* (II). Heavy TS, with .44 in. of R in half an hour.—*Oving House* (III). Vivid L and heavy T in afternoon.—*Codford St. Mary* (V). An extraordinary TS passed over. T began to be heard about 3 p.m., and soon after 4 p.m. it became intensely black over the eastern sky with continual flashes of vivid L. The storm passed over at about 4.50 p.m. when it began to rain with slight H. The darkness was such that it was necessary to light candles for tea, but notwithstanding this, although it rained continuously till 6.30 p.m. and there was some heavy R later after dark, the total for the day was only .47 in. The L was very frequent and the T very heavy. A gentleman at Figheldean, who was amusing himself in his workshop reported that the T was so heavy that it made his tools rattle with the vibration. There also, there was hardly any R.—*Ashmore Rectory* (V). Beautiful morning, followed by heavy TS.—*Clifton, Stoke Bishop* (VI). Much T and L.

23rd.—*Halstead Rectory* (II). H showers, with much sheet L.

25th.—*St. Pancras, Camden Square* (I). Sharp S shower from 8.10 to 8.45 a.m. Squalls from N.E. all day and occasional S showers.—*Godalming* (II).

“During a severe snowstorm a young man named Percy Holt, of Godalming, was blown off the cycle he was riding. His head struck the kerbstone and he was severely cut and bruised. An eye-witness of the accident stated that a strong gust of wind caught the cycle and turned it completely round.”—*The Times*.

—*Folkestone* (II).

“A large hoarding was hurled into one of the principal thoroughfares, and a brick wall, about 60 ft. long and 5 ft. in height, was blown down.”—*The Times*.

—*St. Peters* (II). TS with S.—*Ticehurst* (II). S at 10.30 a.m. and again after dark. About 4 inches deep next morning.—*Steeple Aston*

(III). Tremendous wind storms, with S lasting for 15 minutes.—*Sheerness* (IV).

“The gale reached a velocity of more than 60 miles an hour, and was accompanied by blinding snowstorms, which swept across the Thames and Medway. In the evening, owing to the wires being dismantled, Sheerness and the Isle of Sheppey were entirely cut off from telegraphic communication with the rest of England, and the telephone service was also interrupted.”—*The Times*.

26th.—*Detling, Frinningham* (II). S $2\frac{1}{2}$ inches deep at 9 a.m.

27th.—*Capel-y-ffin* (XI). S 5 inches deep.

31st.—*Sparkhill* (VI). Black fog. Artificial light necessary at noon.—*Rathmines* (XXI). A day of dense gloom.

APRIL.

2nd.—*Middlesex* (III).

“In consequence of the heavy rainfall the river Brent overflowed its banks. This was accelerated by the fact that the reservoir gates at the Welsh Harp at Hendon had been opened to relieve the extraordinary pressure of storm water. Thus greater velocity was given to the stream, which from 5 o'clock rose considerably. At Perivale the fields were flooded to the extent in one spot of over half a mile. A large number of sheep were completely cut off The ancient church of Perivale was almost isolated, and the footpath from Ealing was flooded to the extent of 300 or 400 yards. A number of people returning from Horsendon Hill were compelled to traverse flooded fields and gain a railway embankment, about 60 ft. high, in order to reach the road at Ealing. The Ealing Golf Links are under water, and considerable damage has been done to property on either side of the river.”—*The Times*.

4th.—*Walton-on-the-Hill* (II). S 3 to 4 inches deep.—*Mayfield, Five Ashes* (II). Fall of S which drifted considerably and greatly impeded local traffic.—*Ticehurst* (II). S about 4 inches deep.—*Lynturk Manse* (XVII). S 1 inch deep in morning.

4th—5th.—*Winchelsea* (II). Disastrous blizzard and S storm did much damage.—*Goldsborough Hall* (IX). Heavy showers of S and sleet, with strong N.E. wind.

5th.—*Hampstead Observatory* (I). At noon the shade temp. was only $28^{\circ}2$. Ink froze in the telescope house, and also the astronomer's moustache.—*St. Pancras, Camden Square* (I). S fell to the depth of an inch in early morning. Slight falls during day.—*Poplar* (I). S 3 inches deep.—*New Malden* (II). S from N.E. $1\frac{1}{4}$ inch deep.—*Weybridge, Station Road* (II.) Shade max. only $34^{\circ}3$.—*Ulcombe Place* (II). Shade max. only 32° , and the lowest recorded since the cold snap of December 29th, 1908, when it only reached $24^{\circ}3$.—*Detling, Frinningham Lodge* (II). S $5\frac{1}{2}$ inches deep at 9 a.m. Many roads

blocked with S drifts, one near this house being from 4 to 6 feet deep for 40 yards along the road.—*Rochester* (II). A very severe gale from the E. lasting to the following day, with exceptionally low temp. for the time of year. Icicles, several feet in length, were hanging from the buildings and other places. The storm caused a heavy loss amongst young lambs, and also did a lot of mischief to vegetation, especially rose bushes and some varieties of fruit and early potatoes.—*Brighton, Preston Drove* (II). S 2 inches deep.—*Brighton, Ditchling Road* (II). Shade max. only $33^{\circ}8$ —*Brighton* (II).

“For the first time in the history of the Brighton and Hove Albion Football Club a Southern League match at Brighton, West Ham being the visitors, had to be postponed owing to the snow.”—*Daily Graphic*.

—*Oakley* (II). Violent blizzard.—*Southgate, Reservoir Road* (III). Shade max. only $34^{\circ}7$, the lowest, by 5° , recorded here in April in 35 years.—*Blisworth* (III). Terrific S storms and gales in afternoon, but sunny at times.—*Buxton* (VII). Heavy S in night; 2 inches on ground at 9 a.m.—*West Witton* (IX). Wintry day, with 3 inches of S.—*Sunderland* (X).

“Disregarding warnings, a miner named John Morrison went to the extreme end of the South Pier, Sunderland, to fish, the pier projects a quarter of a mile into the sea, and when a strong wind caused the waves to dash over the structure he could not return. Some fishermen urged Morrison to fasten himself to a rope and be pulled through the sea into the boat, but he refused the risk, and remained ten hours in his exposed position without food and in great danger. He had lashed himself to the iron railings with his braces and a muffler, and stood bound while the icy seas beat over him. He was rescued at last almost lifeless.”—*Nottingham Daily Express*.

5th—6th.—*Hildenborough* (II). Undrifted S 4 to 6 inches deep.—*Chatham* (II).

“On Wednesday night the Ramsgate to London and London to Ramsgate motor mail coaches ran into heavy snowdrifts between Chatham and Sittingbourne, and were delayed 10 or 12 hours. The Dover to London motor mail coach, which was due at Chatham at midnight, was snowed up at Lenham, and did not reach its destination until 8 o'clock last night. The Staplehurst mail cart took nearly six hours to travel seven miles from Maidstone to Chatham.”—*The Times*.

—*Hampton Poyle* (III). S and sleet did considerable damage to apricot trees and roses, and consequently there were few flowers for Easter decorations. One nurseryman calculated his loss at £100.

6th.—*North Cadbury Rectory* (V). Shade max. $38^{\circ}5$. The lowest max. in any previous April for 14 years was $44^{\circ}3$.—*Wirksworth* (VII). An inch of S on ground.

7th.—*Poplar* (I). S 3 inches deep.

14th.—*Glenlair* (XII). Absolute drought of 34 days ended.

14th—15th.—*Killaloe* (XX). Owing to the prolonged drought the Board of Navigation gave orders to close the sluices at Killaloe on 14th to prevent the water in Lough Derg falling still lower, as it had been reduced to a depth not touched, it is stated, for the past half a century. The closing of the sluices led to an additional fall in the river overnight, and at low water on 15th ledges of rock and shoals, not visible for years, were to be seen. A number of men were employed in getting the salmon fry from the low lying waters of the Shannon into the deep water above Killaloe Bridge.

16th.—*Meggernie Castle* (XVI). Heavy S showers.

18th—19th.—*Fanad, Tamney Rectory* (XXIII). Strong S.E. gale, increasing in severity on 19th. Harsh H squalls.

19th.—*Birmingham* (VI).

“Considerable damage was done to property, as well as injury to people in the streets, by the gale. The most serious accident occurred at Hands-worth, where the gable end of a house was blown down, and two men injured by the falling *débris* Two other men were injured by the fall of a chimney pot at the works of Messrs. Middlesmore and Lamplugh. In the country districts a large number of trees were blown down, blocking the roads.”—*The Times*.

—*Sunderland* (X).

“A locomotive fireman named Robert Woodhouse, of West Hartlepool, was blown from his engine by the force of the wind. He injured his head severely owing to striking a signal cabin and was removed to the Sunderland Infirmary.”—*The Times*.

—*Workington* (X).

“A girl named Margaret Ann Matthews, five years of age, was blown into the harbour and drowned.”—*The Times*.

26th.—*St. Pancras, Camden Square* (I). Sharp H shower at 12.55 p.m.

—*Norwich* (IV). Sharp TS from 2 to 3 p.m.

28th.—*Warkleigh Rectory* (V). Between 3.10 and 3.20 p.m. .25 in. of R fell.—*Cardross, Kilmahew* (XV). Heavy H shower at 3 p.m.

MAY.

3rd.—*Grasmere, The Wray* (X). In 7 hours 2.00 in. of R fell, causing a flood.—*Pen-y-Gwryd* (XI). Heavy floods.

10th.—*Oakley Rectory* (II). Violent TS with H stones half an inch in diameter, causing much damage. From 6.15 to 6.45 p.m. .85 in. fell in half an hour. A chimney was struck in the neighbourhood.—

Warminster, Rye Hill (V). Severe TS in evening. Farm premises in the parish of Horningsham, one mile W., were set on fire by L and 4 horses and 6 calves burnt to death, and much property destroyed.—*Lynmouth, Rock House* (V). Heavy TS, with L and 1·34 in. of R between 6.30 and 9.30 p.m.—*Newport, Llwyngwair* (XI). Violent TS doing great damage to live stock.

11th.—*City of London* (I).

“A little after three there were such torrents of rain that the gutter rivulets were soon pavement high. The noise of the thunder caused Mr. Justice Bargrave Deane to adjourn his Court, counsel's remarks being inaudible Fire alarms were set ringing all over London, with the result that fifteen steamers, nine escapes, 46 horses and 130 firemen, as well as one of the river floats, turned out at the call of the lightning.”—*Daily News*.

—*Langley, Rumwood* (II). Heavy TS but no R.—*Mapledewell* (II). Downpour of ·89 in. in little over 20 minutes.—*Dyrham Park Gardens* (III). Heavy TS in afternoon. A splendid specimen of a cedar tree was shattered, leaving a portion of the trunk like a peeled carrot, and throwing fragments a distance of 42 yards.—*Watford, Weetwood* (III). TSS with H at 9.30 a.m., and from about 3 to 5 p.m. R measured 1·96 in.—*Cheshunt, Goff's Oak House* (III). TS with ·94 in. of R in an hour and a half.—*Epping, The Hemnalls* (IV). Severe TS with large H stones; 1·30 in. fell between 3 and 4 p.m.—*Arkesden, Wood Hall* (IV). R 2·52 in. in little over 2 hours. Many roads in the district washed out and young crops destroyed.—*Newport* (IV). TS with 1·07 in. of R in about 3 hours.—*Cirencester, Dollarward House* (VI). TS in afternoon; ·30 in. of R fell between 2.50 and 3 p.m.—*Oystermouth, Newton* (XI). TS. A house was struck and the roof partially stripped.—*Llandrindod Wells* (XI). Heavy TS at 6 p.m.—*Thurso, Buckies* (XIX). Thick fog in early morning.

11th—13th.—*Glanmire, Lota Lodge* (XX). Severe TSS passed over the district doing considerable damage.

12th.—*Caheragh* (XX). Heavy TS with large H stones.

13th.—*Lewisham, Limes Grove* (I). T shower in early morning, yeilding ·22 in of R in 15 minutes.—*London* (I).

“The Church of St. Stephen, Bow, was struck by lightning and a large turret was dislodged. Part of the masonry fell on the roof of the church and it was considerably damaged.”—*The Times*.

—*Broxbourne, Stafford House* (III). TS in afternoon, with 1·37 in. of R in an hour and a half.—*Ingatestone, Furze Hall* (IV). T and H. Two trees were struck close by. Heavy R a mile and a half N.E.

and E.—*Sudbury* (IV). Severe TS. Several trees struck by L.—*Walsham-le-Willows* (IV). Violent TS with H stones nearly an inch long. A tree was struck.—*Norwich, Eaton* (IV). Severe TS from noon to 1.50 p.m., with .76 in. of R.—*Meltham, Harewood Lodge* (IX). TS from 1.30 to 4.30 p.m. A horse was killed and a man injured at Ford Inn.—*Earby* (IX). A storm of great violence took place at night. A fall of 1.61 in. was recorded, and this, as far as could be ascertained, took place in 2 or 3 hours time, between the hours of 10 p.m. and 1 a.m. Damage to the extent of £1,000 was done to property and to the roads.—*Harby, Moorlands* (IX). TS, with 3.25 in. of R in 2 hours.—*West Witton* (IX). TS, with L and .42 in. of R after 10 p.m.—*Llandilo, Caeglas* (XI). TS, with 1.96 in. of R in 2 hours.—*Aberystwyth, Gogerddan* (XI). Heavy TS, with 1.58 in. of R.—*Fota Island* (XX). A TS occurred, with 2.49 in. of R falling in about 2 hours and doing great damage. Strange to say not a drop of R fell a mile or two from here on either side.—*Longford* (XXI). Heavy TS passed over a few miles N. R started at 9.20 p.m. and by 10.30 p.m. 1.07 in. had fallen.—*Tuam, Gardenfield* (XXII). Violent TS in evening, with heavy R. Considerable damage done in several places.—*Cong* (XXII). T continuing for 7 hours.—*Belfast* (XXIII).

“During a storm which passed over the district on Saturday evening a number of gentlemen took shelter in a hut on the links of the Malone Golf Club. One of them, Mr. Jack McCammond, took an old golf ball from his pocket and began to cut it with a knife when there was a blinding flash. Both the knife and ball were struck, a portion of the blade of the former being melted, while the ball was reduced to a soft mass. Mr. McCammond escaped with slight burns to his fingers.”—*The Times*.

14th.—*Huddersfield Cemetery* (IX). Heavy TS from 1.30 to 3 p.m., during which .20 in. of R fell in 3 minutes.—*Upper Redesdale* (X). TS, with R for 3 hours, causing great damage in the neighbourhood.—*Kirkby Lonsdale, Casterton* (X). Severe TS at 1 p.m. and .52 in. of R in 30 minutes. Loss of cattle by L.—*Edinburgh* (XIII). Dense fog all day.

15th.—*Grange-over-Sands, Merlewood* (VIII). Absolute drought of 32 days ended.

16th.—*Eskdale Vicarage* (X). Earthquake shock at 8.50 a.m. It lasted about 20 seconds, and there was a thick mist at the time.

23rd.—*Facombe* (II). Thick fog.

24th—25th.—*Liss, Kippences* (II). Heavy TS in night, with 1.94 in. of R.

26th.—*Barton Stacey, Moody's Down* (II). Heavy local TS, with

1·70 in. of R in 3 hours.—*Longparish House* (II). Heavy T and 1·10 in. of R in less than 2 hours.—*Fareham, Cams Hall* (II). R, 3·22 in. falling in less than 2 hours.—*Fareham, The Mount* (II). From 3 to 4 p.m. 3·00 in. of R fell, washing away the soil from many fields, blocking several roads and tearing them up in many places, making them impassable for several days.—*Fareham, Roche Court* (II). Very violent and very partial TS, with 2·92 in. of R in 2 hours. No R at Gosport (7 miles S.E.) during that time.—*Hartley Wintney* (II). Between 4 and 6 a.m. 1·75 in. of R fell.—*Winslow* (III). TS at 4.15 a.m. travelling to S. Heavy R for half an hour, and then moderate fall till 9 a.m.—*Castle Ashby* (III). In 10 hours, from 5 a.m. to 3 p.m., 2·18 in. of R fell.—*Sywell Hall* (III). R commenced at 5.30 a.m. and fell until 1.30 p.m., the total fall amounting to 2·20 in.—*Wimpole Hall* (III). TS, with ·64 in. of R in 25 minutes.—*Chedington Court* (V). From 2.15 to 4 p.m. 1·14 in. of R fell. The radius of this fall did not extend more than $\frac{3}{4}$ mile to W. and a mile to E, beyond which the fall was comparatively light.—*Winterbourne Steepleton* (V). Heavy TS, with R, L and H in afternoon.—*Putley Court* (VI). Quite local storm from Bromyard to Ledbury, giving 1·20 in. here. At Bromyard they had about 1·75 in. and the fall diminished all the way till it got to something like ·75 in. at Ledbury. Next day there were no signs of R 2 miles out of Ledbury on the Tewkesbury Road, nor 2 miles the other side of Dymock on the Gloucester Road. It quite saved the situation in fruit growing.—*Tenbury, St. Michaels* (VI). TS, with 2·06 in. of R, the heaviest fall ever recorded here.—*Rochford Rectory* (VI). The wettest day of the year, 3·06 in. of R falling during a heavy TS from 7 p.m. to 9 a.m. on 27th.—*Broughton-in-Furness* (VIII). Heavy TS, with some L.

27th.—*Beer Alston, Rumleigh* (V). Heavy TS began at 2.30 p.m. and at 4 p.m., when it had nearly ceased, the gauge was found to have overflowed. Its contents gave 2·61 in.

30th.—*Heathfield, The White Cottage* (II). Absolute drought of 27 days' ended.

31st.—*Southwark Park* (I). Heavy TS, with 1·24 in. of R between 7 and 8 p.m.—*Lewisham* (I). After a day of oppressive heat and distant rumblings of heavy T in N.E., S.E. and S.W., a dreadful TS travelled up slowly from the N.E., finally breaking with all its fury at 6.40 p.m. Magnificent flashes of forked L were succeeded by loud sharp crackling peals of T shaking the houses. The R and H fell in one solid sheet, flooding cellars and basements to a depth of almost 4 feet.

One resident was over an hour clearing the water away out of his basements. A chimney and roof were struck by L. After lasting just an hour the R ceased and the storm passed away to the W.S.W. with much distant sheet L until 10.25 p.m., when the atmosphere became very misty. R measured after the storm was 1.25 in.—*Chelsea, Physic Garden* (I). Much L and T, but only .08 in. of R.—*St. Pancras, Camden Square* (I). Distant T at 2 p.m. and throughout afternoon. The storm broke at 7.25 p.m., and until 8 p.m. the T and L were almost incessant. R fell heavily, .25 in. falling in 6 minutes from 7.40 to 7.46 p.m.—*Caterham Valley, Bradenhurst* (II). The TS began here, with an apparent centre between the Barracks at Upper Caterham and the Harestone Valley, about 3.45 p.m., and continued stationary for over two hours before it began to move to N.W. about 7.30 p.m., apparently to the W. of Croydon. The R was .86 in. The L was varied in character, forked, and in all directions from perpendicular to diagonal, even horizontal, whilst much was either sheet or reflected.—*Caterham, White Hill* (II). TS, with 2.97 in. of R.—*Banstead, Burgh Heath* (II). Very heavy TS broke over here at 5 p.m., lasting until 6.45 p.m., when 1.75 in. of R had fallen. L very vivid and forked, and at times right overhead. The storm came up from N.E. and finished there. The whole place was flooded as the drains could not carry off the water. A little H fell at the beginning. A boy and a horse were killed at Buckle's Gap, Epsom Downs; the wall of the intermediate reservoir of the Sutton Water Company, on Banstead Downs, near Belmont Station, was struck by L, and 8 or 9 men sheltering were struck down, several being killed.—*Mitcham* (II).

“A young City policeman while riding a bicycle on Mitcham Common was caught in the storm, and subsequently his dead body was found on the Common. It is supposed that he was struck by lightning.”—*The Times*.

—*Bletchingley House* (II). Between 5 and 7 p.m. 1.94 in. of R fell. Three houses were struck by L, and a wall and motor house wrecked. One woman was badly hurt and three children slightly.—*Betchworth, The Holmes* (II). TS, with about 1.15 in. of R in an hour.—*Banstead, Basing House* (II). R began at 4.45 p.m. and fell until 7 p.m., when there was a lull after which it fell heavily for half an hour. Total fall 3.54 in. Three houses were struck and two people killed by L.—*Epsom, Ashley Road* (II). Very severe TS, with 2.86 in. of R between 5.20 and 8 p.m. Of this total 2.44 in. fell between 5.20 and 6.10 p.m.—*Sutton, Camborne Road* (II). R commenced at about 5.15 p.m. and by 7.45 p.m. the gauge registered 2.39 in. H fell at

5.30 p.m. and the stones, measured at 8 p.m., were $1\frac{1}{2}$ to 2 inches in diameter. Violent L, and trees and shrubs were literally stripped of their leaves. Several people in the locality killed and injured.—*Sutton, Sewage Works* (II). 1.75 in. of R in a little over 2 hours.—*New Malden, Edenfield* (II). Heavy TS from 4.50 to 6.40 p.m., with 1.30 in. of R.—*Kingston, County Hall* (II). TS, with .95 in. of R between 5.10 and 6.10 p.m.—*Tunbridge Wells, Hawkenbury* (II). Distant T and L, and .03 in. of R deposited by a shower of large drops at 5 p.m.—*Hadlow Place* (II). Terrific TS, with 1.15 in. of R and H in about 45 minutes.—*Detling* (II). T from 4 to 8 p.m. but no R.—*Wrotham* (II). Curiously no R was observed during the storm between the railway, from Otford to Malling and the North Downs, but floods occurred S. of the railway and close to it.—*Ticehurst* (II). Distant TS during afternoon, and another about 9 p.m. in N. and N.E. No measurable R.—*Ealing, Grange Park* (III). Between 3.10 and 5.40 p.m. 1.24 in. of R fell.—*Acton* (III).

“A woman named Hester, wife of a grave-digger employed at Acton Cemetery, was taking tea to her husband when the lightning struck the cemetery wall, which collapsed and fell on her, killing her instantly.”—*The Times*.

—*Harrow, Bessborough Road* (III). Record R as far as known, 3.19 in. falling in about $2\frac{1}{2}$ hours.—*Potters Bar, Little Heath* (III). TS began about 2.20 p.m. and lasted about an hour, with 1.29 in. of R.—*Watford, Bushey Hall Road* (III). In an hour and a half 1.59 in. of R fell.—*St. Albans, County Museum* (III). Heavy TS at 2.55 p.m., with H stones, some of which were over a quarter of an inch in diameter. The storm lasted about 17 minutes, but L continued afterwards.—*Harpenden, Rothamsted* (III). Between 2 and 4.30 p.m. .93 in. of R fell, accompanied by T and L which injured several people and damaged buildings in the neighbourhood.—*Bennington House* (III). Severe TS passing directly over here between 1.30 and 2.30 p.m., travelling in direction N.E.—S.W. The end of the garden wall on which the sun recorders stand was struck, both instruments and a yard of brickwork being flung to the ground.—*Dunstable* (III). Heavy TS. Great damage done by H.—*Clifton Bury* (III). Terrific TS. R commenced to fall about 1.30 p.m. and ceased at 2.50 p.m., in which time .53 in. fell. Some farm buildings were fired and some hundreds of pounds worth of damage done. Three oak trees and one poplar tree were struck. The L struck the ground in the middle of a field of onions and burnt the crop in a round place about 6 yards

in diameter. A similar round patch of parsnips was burnt in another field.—*Launceston, Hexworthy* (V). Between 2 and 2.45 p.m. 1.01 in. of R fell, causing serious floods. Hardly any R fell in Launceston $3\frac{1}{2}$ miles away.—*Hoar Cross* (VI). TS of remarkable severity, with heavy R and large pieces of ice falling.—*Tow Law* (X).

“A man named Dickenson was killed by lightning while returning from a pit with two other miners, who were struck to the ground.”—*The Times*.

JUNE.

1st.—*Landue* (V). TS, with 1.75 in. of R in about 2 hours. A number of cattle were killed by L.—*Launceston, Hexworthy* (V). Severe TS and serious floods. R 1.61 in., most of which fell between 1.15 and 2.15 p.m. A visitor from Tavistock reported that there was no R there, but he noticed the road wet five miles from here.—*Launceston, Tamar Terrace* (V). Heavy TS, with L and 1.25 in. of R.—*Lochgoilhead, Nuthill* (XV). TS, with .28 in. of R in 20 minutes.—*Drumnadrochit* (XVIII). Severe TS at 4 p.m. The worst for many years.—*Fanad, Tamney Rectory* (XXIII). Dense fog after very hot day.

2nd.—*Fanad, Tamney Rectory* (XXIII). TS but no R.

3rd.—*Wantage, Ginge Manor* (II). Local R measuring .56 in. No R fell a mile away, but 4 miles off 1.30 in. fell.—*Baldock* (III). In an hour 1.59 in. of R fell.—*Tavistock* (V). At 3.36 p.m. there was a long rumble like a carriage passing in the distance. Several people felt the ground and houses shake. This earthquake shock was also felt at Gunnislake, at Horndown and at Double Waters.—*Moate, Coolatore* (XXI). Severe TS in afternoon, with 1.57 in. of R in three and a half hours.—*Fanad, Tamney Rectory* (XXIII). Heavy TS but no R here. The country was flooded two miles distant.

4th.—*Ticehurst, Myskyns* (II). Local storm at 1.10 p.m., when R fell heavily for 10 minutes, and then more lightly until 1.45 p.m., measuring .50 in.

7th.—*Guernsey, St. Peter Port*, (XI). Absolute drought of 26 days ended.

9th.—*Totnes* (V). The *Western Daily Mercury* reports a heavy TS, when Sharpham Barton Farmhouse was struck and set on fire. Storms also occurred at Ermington, where cattle were destroyed, and at Modbury, Ivybridge and Newton.—*Ashburton, Druid House* (V). Very heavy T and L at 2 p.m., with torrents of R in Ashburton and round the S. and E. about a mile away. No R here.

10th.—*Bury St. Edmunds, Westley* (IV). Absolute drought of 27 days ended.—*Stafford* (VI). Sharp frost in early morning, which did considerable damage to potatoes and kidney beans.—*Droitwich* (VI). Potatoes and other vegetable crops damaged by frost on low ground.

11th.—Absolute drought ended after continuing at *Eastbourne, Staveley Cross* (II). 28 days.—*Leeds Schoolhouse* (II). 28 days.

12th.—*Ulcombe Place* (II). Absolute drought of 30 days ended.

13th.—*Bocking, Fennes* (IV). Absolute drought of 30 days ended.—*Strokestown, Castlenode* (XXII). TS, with 1·79 in. of R.—*Markree* (XXII). Severe frost at night, doing considerable damage.

13th—14th.—*Sion House* (XXIII). Frost did damage on low ground.

13th—15th. — *Meggernie Castle* (XVI). Frost destroyed fruit, potatoes and some bedded-out plants.

14th.—Absolute drought ended after continuing at *Minehead, Mariansleigh* (V). 32 days.—*Pembroke Dock, County School* (XI). 32 days.—*Alderney, Le Huret* (XI). 28 days.—*Rathmines, Ormond Road* (XXI). 30 days.—*Malahide, The Green* (XXI). 30 days.—*Skerries, Milverton Hall* (XXI). 30 days.—*Droitwich* (VI). Potatoes and other vegetable crops damaged by frost on low ground.—*Newtown* (XI). Frost at night injured the garden crops in many places in the district.—*Pen-y-Gwryd* (XI). Absolute drought of 21 days ended. The vegetation around Snowdon suffered greatly from drought, and in many places where the soil is shallow on the rocks the grass was completely burnt up. The noted bogs on Moel Siabod were dry, the mud baked and the surface cracked, some of the cracks being 4 feet to 6 feet deep. Many drinking water supplies were completely dried up.—*Vale of Conway* (XI).

“Exceptionally cold weather prevailed at Penmachno, an upland district adjoining the Vale of Conway, which materialised into 10 degrees of frost during the night. The potato crops are ruined, while such garden crops as vegetable marrows, French beans, &c., are all destroyed. The adjoining hills were covered with ferns of varied shades of green, but by morning the hills were converted into a brown colour, the frost having withered hundreds of acres of the ferns in one single night.”—*Liverpool Daily Post and Mercury*. —*Omagh* (XXIII). Considerable damage done to potato crop by frost.

15th.—Absolute drought ended after continuing at *Frant, Henley Lodge* (II). 27 days.—*Warminster, Bishopstrow Farm House* (V). 29 days.—*Dartmouth, Stoke Fleming* (V). 44 days.—*Grange-over-Sands, Merlewood* (VIII). 25 days.—*Welbourn* (VII). Sharp frost did much

damage.—*Newport, Llwyngwair* (XI). Sharp white frost in valleys. Potatoes badly cut and bracken killed.

16th.—*Eastbourne* (II). Absolute drought of 34 days ended.

17th.—*Shifnal, National School* (VI). Heavy TS, with .82 in. of R in 2 hours.—*Wolverhampton* (VI).

“At Trysull village, five miles from Wolverhampton, two labourers named Leaman and Baker, who had been walking in a field, took shelter under a tree during a thunderstorm. Leaman was struck by lightning and killed, and Baker was rendered unconscious and yesterday was in a critical condition.”—*The Times*.

—*Chellaston* (VII). Violent TS, with H and .77 in. of R.—*Stalybridge* (VIII).

“The Bridge Street Cotton Mills were struck by lightning, and the fire which followed did considerable damage, the two top storeys of the building being completely destroyed.”—*The Times*.

—*Clayton-le-Moors* (VIII).

“During a severe thunderstorm which passed over the Accrington district Thomas Henry Haworth, aged 50, a spinner, of Church, who was walking to Clayton-le-Moors with his wife and child, was struck by lightning and killed.” *The Times*.

—*Huddersfield Cemetery* (IX). Heavy TS, with H and R, in which .20 in. fell in 3 minutes.—*Pickering* (IX). Severe TS, with 1.03 in. of R and H in half an hour. The H stones were very big and did great damage to fruit trees.—*Kendal, Birchfield* (X). Shower lasting half an hour, yielding .52 in. No R fell 800 yards away.—*Buchlyvie* (XV). TS lasting from 3 to 8.30 p.m. with some short intervals. Very vivid L and loud T.—*Balbriggan, Ardgillan* (XXI). T in S. at 11.30 a.m. Heavy showers of H and R from 0.25 to 2 p.m. H stones a quarter of an inch in diameter. Heavy T and L to 5.45 p.m. Showers 3.30 to 5.45 p.m. Cleared at 6 p.m. R to 3 p.m., 1.37 in.; to 6 p.m., 1.58 in.—*Moate, Coolatore* (XXI). TS during which .38 in. of R fell in half an hour.

18th.—*Waltham-on-the-Wolds* (VII). Severe TS from S.W., lasted 15 minutes; 15 sheep killed by L.—*Glanmire, Lota Lodge* (XX). Violent TS, with 2.21 in. of R between 2 and 4.30 p.m.

19th.—*Meltham, Harewood Lodge* (IX). Fine rainbow at 7.45 p.m. lasting until 8.33 p.m. Three supernumerary bows were regularly visible inside the primary bow, and at times four, and once there appeared to be five.—*Pontefract* (IX).

“While erecting a bonfire at Stapleton Park near Pontefract for the Coronation celebrations, a woodman was struck by lightning and killed. Two other men were rendered unconscious.”—*The Times*.

—*Aberdeenshire and Banffshire* (XVII). The *Aberdeen Journal* reports a severe TS, in which cattle were killed at Grange and Rothiemay. The Infectious Diseases Hospital at Turriff was struck by L. The copestones of one of the chimneys were displaced, a number of slates were broken, and in one of the wards a bed was hurled into the middle of the floor and holes torn in the walls.

23rd.—*Swaffham* (IV). R 2·08 in., being the heaviest fall since June 15th, 1883, and only the third occasion that 2·00 in. has been exceeded in 32 years.—*Oakamoor* (VI). Extraordinary local deluge. No R at all 3 miles off in an E. direction. T and L, and the R came down in a sheet, but the clouds seemed stationary. Time about 1.45 to 2.15 p.m.—*Thornton-le-Moor* (IX). R measured 1·11 in. None fell at Otterington, a village one mile W.

23rd—25th.—*Willingham-by-Stow* (VII). R without intermission from 8.30 p.m. on 23rd to 6.30 a.m. on 25th.—*Middlesbrough, Ormesby* (IX). Heavy R amounting to 3·21 in. in 54 hours.—*Doddington Vicarage* (X). An abnormal R resulting in the flooding of the Haughland of the Till in the district of Glendale. The wind was N.E., bringing with it rainclouds which impinged on the Cheviots.

24th.—*Heckfield, Park Corner* (II). Bracken cut by frost.—*Bacup, Beech House* (VIII). Continuous R for more than 12 hours, amounting to 2·06 in.—*Wearhead Station* (X). R 2·66 in., and the greatest daily fall ever recorded here.—*Conselt* (X). At 2.15 a.m. R fell steadily, and at 9 a.m. ·95 in. was registered for June 23rd. From about this time the R continued, but in heavier showers as the day advanced, and became steadier towards night, when it ceased at about 11.30 p.m. At this time a second reading measured 2·47 in., making a total of 3·42 in. within 22 hours.—*Newcastle, Chronicle Office* (X). R fell all day heavily, and continued for some time into the following morning. It appears that this quantity, 3·25 in., is the largest that has fallen in Newcastle in 24 hours.—*Pen-y-Gwryd* (XI). Gale and heavy R. Much damage done to garden produce. R, 3·45 in. for 24 hours, caused large floods. Salmon and sea trout took advantage and came some 14 or 15 miles inland.—*Nant Ffrancon Pass* (XI). During the heavy R an enormous landslide took place. Not for 30 years has the River Ogwen been so flooded. The water was so high as nearly to touch the arches of some of the bridges spanning it. Masses of earth and rock slipped down the mountain side rendering wheeled traffic of any kind impossible over a considerable stretch of much frequented road. A young quarryman managed to surmount the

obstruction and hastened to Bethesda where he informed the police sergeant. Later a gang of men were set to work levelling the débris so as to make a temporary passage for vehicles pending the clearing away of the obstruction.

24th—25th.—*Fanad, Tamney Rectory* (XXIII). Fresh gale from N. caused great damage to corn and potato crops.

JULY.

2nd—*Buxton* (VII). Aurora seen between 9 and 11 p.m.—*Goldsborough Hall* (IX). Sharp H storm, with T.

12th.—*Aldershot* (II).

“Two houses collapsed in Lime Street on Wednesday night, owing, it is supposed, to the warping of the rafters by the heat. The occupants, numbering about 12, alarmed by the fall of plaster and the creaking of the roof, escaped before the houses fell.”—*The Times*.

—*Jardington* (XII). A thermometer, which had been exposed in the sun under the same conditions for over 20 years, burst. It read to 135°.—*Bridge of Earn* (XVI). Shade max. 92°.—*Perth* (XVI). Shade max. 90°.

13th—14th.—*Broadford, Hurdlestown* (XX). Very warm night. At 11.25 p.m. on 13th the temp. was 78°, and at 11.4 p.m. on 14th it was 79°.

18th.—*Logie Coldstone, Loanhead* (XVII). A heavy shower of H, preceded by T, which did great damage to the fruit and the turnips.

21st.—*Corsley, Sturford Mead* (V). Between 1.0 and 1.45 p.m. .99 in. of R fell.

22nd.—*St. Pancras, Camden Square* (I). The shade max., 92°·6, was the highest recorded since 2nd September, 1906, and the highest temp. recorded in July since 1900.—*Epsom* (II). Shade max. rose to 96°·8 at 3 p.m., the highest in the record.—*Aldershot* (II).

“About 1,000 acres of woodland were destroyed on the eastern side of the town. Thousands of soldiers were employed in endeavouring to limit the area of fire, and until late in the evening hundreds were retained to watch the smouldering embers and to check fresh outbursts.”—*The Times*.

24th.—*Eastbourne* (II). Absolute drought of 25 days ended.

25th.—Absolute drought ended after continuing at *Sutton, Camborne Road* (II). 25 days.—*Wallingford, Woodlea* (II). 26 days.—*Hedsor* (III). 26 days.—*Luton, Tennyson Road* (III). 26 days.—*Redruth, Trewirgie* (V). 25 days.—*Winscombe* (V). 25 days.—*Huddersfield Cemetery* (IX). Heavy TS, with H and R. At 3.30 p.m. .25 in. fell in

4 minutes.—*Darrynane Abbey* (XX). Heavy TS from 4.30 to 8 p.m., with 1.45 in. of R.

25th—26th.—*North Finchley* (III). Severe TS from 5.30 p.m. on 25th to 6.30 a.m. on 26th. Heavy R, the bulk of 1.70 in. falling in two hours.

26th.—Absolute drought ended after continuing at *Banwell, Eversley* (V). 26 days.—*Chipping Sodbury, The Ridge* (VI). 27 days.—*Capel St. Mary* (IV). Storm, with .65 in. of R in 20 minutes.—*Nordrach-on-Mendip* (V). R 1.74 in., falling in an hour and a quarter.

27th.—*Woodperry* (III). Absolute drought of 25 days ended.

28th.—Absolute drought ended after continuing at *Stockbridge* (II). 28 days.—*Oxford, Banbury Road* (III). 27 days.—*Stockton House* (V). 25 days.—*Warminster, Bishopstrow Farm House* (V). 28 days.—*Shrewton* (V). 28 days.—*Portland, Easton* (V). 29 days.—*Weymouth, Massandra* (V). 28 days.—*Plympton, Leigham* (V). 28 days.—*Torquay, Cockington Court* (V). 29 days.—*Kingskerswell, South Hill* (V). 29 days.—*Teignmouth, Woodlands* (V). 28 days.—*Sidmouth, Sidmount* (V). 28 days.—*Milverton, Spring Grove* (V). 28 days.—*North Cadbury Rectory* (V). 28 days.—*Kentchurch Rectory* (VI). 27 days.—*Breinton Court* (VI). 28 days.—*Hereford, Quarry House* (VI). 28 days.—*Burghill Court* (VI). 28 days.—*Pembroke, Dilwyn* (VI). 28 days.—*Upton-on-Severn, The Eades* (VI). 25 days.—*St. Marylebone* (I).

“The Marylebone Road Bridge over the Metropolitan Railway is being reconstructed, and through the open spaces the rain poured in such a mass that the metals were soon covered. Between Edgware Road Station and Baker Street Station the line dips, and here the water attained a great depth. Sleepers were floating about in the tunnel, and as the water was gaining depth all traffic had to be suspended. Both Inner Circle and Hammersmith trains were brought to a standstill. At 6.30 the trains recommenced running.”—*The Times*.

—*St. Pancras, Camden Square* (I). Rolling T from E. and S.E. at 4.50 p.m., and a few drops of R fell at 5.10. Heavy downpour at 5.16, with T and L, when .75 in. fell in 10 minutes. The storm was preceded by a calm, but at 5.10 a strong wind sprang up blowing with almost gale force for a few minutes. R ceased at 5.30 p.m. but commenced again at 5.40 and fell gently for about 30 minutes. At 5.34 there was a flash like a small bright object falling diagonally from left to right across window. If 20 feet from the window a bolt 6 inches by 2 inches, white hot, would have the same appearance. T and L ceased about 6 p.m.—*Holborn, Hatton Garden* (I). H shower at 5 p.m. from E.—*Ponders End, Bylock Hall* (III). After a hot day

the sky in the S. began to assume a hazy, brazen appearance about 3.30 p.m., and clouds began to form into definite and compact shape. T was first heard in the S. at 5 p.m., and another storm was rapidly forming in the N.E. At 5.15 p.m. loud T was heard from both storms. At 5.25 p.m. R commenced and a violent storm burst overhead. R fell in sheets, a violent gale blew and the T and L were severe, especially at 5.57 p.m. when there was a very loud outburst immediately overhead. Some H was mixed with the R. At 6.30 p.m. the R and storm ceased except for occasional T and L in the N.E. until 7.20 p.m. The fall was 2.75 in., and some damage was done by floods. Shade max., $95^{\circ}3$, being the highest yet registered here.—*Berkhamsted, Rosebank* (III). In 5 minutes .11 in. of R fell.—*Barrington Grove* (VI). Local TS, with 2.26 in. of R in about an hour.

29th.—*Lewisham, Limes Grove* (I). TS from S. at 7 p.m., lasting until 8.15 p.m. Vivid L was followed by long rolling T. R fell in showers, but only .20 in. was recorded. Wind at several times almost reached a gale. The storm moved away in a N. direction at 8.15 p.m., with much sheet L until nearly midnight.—*New Malden* (II). Very marked barometric oscillations from 7 p.m. to 8.20 p.m. The barograph rose .10 in., remained so for half an hour and then fell .20 in.—*Farnham* (II). A tropical dust storm about 7 p.m.—*Detling, The Croft* (II). TS from 5 to 6 p.m. In about 10 minutes .46 in. of R and H fell.—*Rudgwick, Hermongers* (II). At 6.30 p.m. a long roll of cloud, extending from the S.E. to the S.W. horizon, was observed to be approaching over the South Downs. At the time there was almost a calm, though a slight S.W. drift could be observed. By 6.45 p.m. the line squall had so far advanced that the general structure of the cloud could be noted. Its eastern extremity had spread out and now formed a considerable mass of black thunder-cloud from which R was falling. There was a remarkable display of L. The main part of the cloud had preserved its roll-like form, and could be traced in a continuous line to the western horizon. It appeared to be in a state of extreme agitation. At 6.50 p.m. the cloud was vertically above the observing station, and in three seconds the wind had increased to about gale force, though little change of direction was noted. The squall lasted about seven minutes, and the wind gradually died away to a calm.—*Heathfield, The White Cottage* (II). After a fine, but very oppressive morning and mid-day, the sky clouded over steadily from the S.E., and from 5.15 to 5.30 p.m. there was .01 in. of R. At

6.30 p.m. there was heavy T and L about three miles away to the W. and N.W., the wind here being still light from the S.E. At 6.53 p.m. a sudden squall accompanied by heavy R blew for two minutes, during which time .08 in. fell. The wind then dropped and continued light from the S.W. the rest of the evening. From 7 to 7.30 p.m. R fell to the extent of .06 in., making a total of .15 in. for the day.—*Wintershill Hall* (II). A fearful sand storm, brought about by weeks of dry, hot weather. All the roads were inches deep in dust. The wind blew with hurricane force for half an hour, and the sky was inky black. Everywhere else round a fearful TS, but here only .07 in. of R fell.—*Slough* (III). Very sudden and violent wind storm at 6.30 p.m.—*Oxford* (III). TS at 7.30 p.m. preceded by wind and dust.—*Assenton* (III). TS from 7.30 to 8 p.m. with .79 in. of R.—*Enstone* (III). 17 sheep killed by L.—*Pyrtton Hill* (III). The TS at 7.40 p.m. was remarkable for the splendid display of L and cloud form as the storm came up from the S. In nine minutes .49 in. of R fell.—*Bulmer Lodge* (IV). T and L all around from 8 to 10 p.m.—*Winterbourne Steepleton* (V). Storm of L and T, with whirlwind at about 7 p.m.—*Moretonhampstead* (V). TS, preceded by severe dust storm on Dartmoor.—*Tiverton* (V). Whirlwind at 4.30 p.m. It suddenly got dark, the air was full of dust, and at last R and T came but soon ceased, leaving coolness. Trees were uprooted, sheaves of corn were scattered in all directions and the orchards denuded of their crops.—*Bullmoor* (V). The dust storm was very thick but did not last long. The clouds rolled up like smoke and the atmosphere was very close. T followed, but only .20 in. of R.—*Sidmouth* (V). Fine till 3.30 p.m. About 4.30 p.m. most uncommon clouds appeared, said to resemble those in a tornado, then a sudden squall and dust storm followed by T and heavy R. Brilliant sunset and rainbows. At the commencement of the storm the bar. rose suddenly and then fell a little.—*Rousdon* (V). About 4 p.m. a black cloud of remarkable intensity advanced from the S.W., and a sudden whirlwind carried a cloud of dust and leaves into the air. T and L followed, and the storm lasted until 6.30 p.m. Barograph trace much disturbed.—*Truro, Killiow* (V). More than 1.00 in. of R fell in a TS between 2 and 3.30 p.m.—*Antony Vicarage* (V). Very hot and oppressive. A few drops of R fell at about 2.50 p.m., and from 3.5 to 3.20 p.m., following a sudden hurricane: there was quite 1.00 in. of R. The R continued for about 80 minntes.—*Langford Budville, Bindon* (V). After great heat a regular oriental "dust storm" burst about

4.50 p.m. and lasted for about half an hour, followed by sharp TS.—*Minehead, Mariansleigh* (V). The day opened rather cloudy but about 9 a.m. it became clear with a fresh E.N.E. wind blowing. The wind gradually fell and at 1.30 p.m. suddenly changed to S.S.E., and commenced to blow strongly, the temperature rising rapidly and the barometric gradient becoming very steep. The max. temp., $92^{\circ}8$, was recorded at 3 p.m. and is far the highest recorded here in the last eight summers. After 3 p.m. the sky became covered with a dense film of cirrus cloud which, by 3.45 p.m., had completely blotted out the sun. At 4.15 p.m. stratus cloud was observed to the S. and cumulus to the N.E., the whole sky having a very threatening appearance. At 4.45 p.m. an inky black stratus cloud, with a wavy edge and in the form of a huge arch, came up rapidly from S.S.W. Then without warning there burst a terrific squall with blinding dust and sand, so that objects 100 yards away became invisible. A thorn tree was torn off near the roots and fell across the road. The Territorial Camp, situated some 500 feet up on top of a hill, caught the full force of the storm; nearly all the marquees being blown down and plates whirled into the air and carried away over a neighbouring wood. After the first squall the dust cleared considerably and light R fell. The squall was particularly dangerous at sea and the lifeboat here was called to the assistance of some yachts in distress. There were some flashes of L and peals of T during the evening, the wind continuing to blow strongly. Only $\cdot 11$ in. of R was registered. The barometric oscillations were very remarkable both before and during the storm.—*Pembridge, Marston* (VI). Heavy TS after 3 p.m., with high wind and H, which did a lot of damage to the young apples, marking them badly.—*Clunbury Vicarage* (VI). A violent TS preceded by darkness which required candle light at 5.30 p.m. to write by. Nearly the whole R for the month, $\cdot 86$ in., fell between 6.30 and 8 p.m. No damage to speak of was caused by the R, a fact attributed to the drought having made the corn, which was nearly ready for cutting, somewhat light in the head, and short and very stiff in the straw.—*Tredegar, Llysuedog* (IX). Extraordinary dust storm at 5 p.m. The wind suddenly got up and it became quite dark. Clouds of dust swept up the valley, and in houses high up off the road, where windows were open, there was a thick layer of dust covering everything. There was a little T but only $\cdot 09$ in. of R.—*Ystalyfera, Wern House* (XI). A furious dust storm raged through the Swansea Valley between 5 and 6 p.m. The

dust was so thick that absolutely nothing could be seen a few yards away for a few minutes. A TS followed.—*Carmarthen District* (XI).

“A whirlwind of terrific force passed over on Saturday evening. It was ominous in its character and although there was an apparent warning of a heavy thunderstorm still the whirlwind made a most unexpected swoop upon the borough, divesting trees in numerous orchards of thousands of pears, apples and other fruit, bodily shifting carts and gambos which stood in the the market thoroughfares, shattering shop awnings, and creating a dust storm which, for a few minutes, completely enveloped the streets and buildings, and generally caused the greatest consternation. The whirlwind was succeeded by a heavy thunderstorm.

At Milford Haven the whirlwind of dust in the air lasted about ten minutes. Shopkeepers had their wares carried away and broken, and householders had their houses filled with dust.

At Llandilo the wind rose with startling rapidity. Near Golden Grove a huge wave of dust was seen to rise off the road, and up the valley it swept for miles, and to golfers on the links the sight was astonishing. Man or beast caught in the dust storm were momentarily blinded. Orchards in the track of the rush of air were well nigh depleted, and here and there huge branches were brought down.”—*South Wales Daily News*.

—*Norton Manor* (XI). Violent storm passed over very quickly, causing serious damage to timber and growing crops.—*Newtown* (XI). TS, with heavy R from 6 to 8 p.m.—*Dunmanway* (XX). Great TS with L at noon, and between 10 and 11 p.m. with heavy R. A tree was struck by L.—*Enniskeen, Kilcoleman* (XX). At about noon the storm rapidly approached, accompanied by great darkness and almost continuous T and vivid L. R began to fall at 12.20 to 12.25 p.m. and continued in torrents till 1 p.m. At 1.10 p.m. the storm had practically passed and R ceased. The rain gauge was found to contain 1.59 in. The bulk of this must have fallen inside half an hour.—*Glanmire, Lota Lodge* (XX). Severe TS from 1 to 3 p.m. It caused much damage to the N. of this district.—*Castle Lough* (XX). Heavy TS. A large number of animals were killed by L all through Ireland.—*Clonmel, Bruce Villa* (XX). TS with 2.14 in. of R, the heaviest fall since November 6th, 1902. From 11 to 11.45 a.m. .95 in. of R fell.—*Broadford, Hurdlestown* (XX). TS began slightly at 12.10 p.m. but soon cleared off. At 2.45 p.m. it came up very bad from the S.E. Great T, L and R till 4.45 p.m.—*Tullamore, St. Catherines* (XXI). Severe TS. The darkness was very remarkable and the L almost continuous for an hour or more about 5 p.m.—*Castledermot* (XXI). TS began at about 4.30 p.m. and lasted two hours, with continuous L.—*Rathmines, Leinster Road* (XXI). TS in evening of intense severity. In less than an hour 1.30 in. of R

fell, and much damage was done.—*Rathmines, Ormond Road* (XXI). Heavy T and R storm, when 1·23 in. of R fell in 40 minutes about 6 p.m., causing overflow of sewers, and some heavy flooding in low lying districts.—*Donnybrook, Belmont Avenue* (XXI). TS, with 1·29 in. of R in 45 minutes.—*Longford* (XXI). TS at 7 p.m., with ·61 in. of R in half an hour.—*Strokestown, Castlenode* (XXII). Violent TS, causing unprecedented damage in this district..

31st.—Absolute drought ended after continuing at *Lambourn, Clarionville* (II). 35 days.—*Gloucester, Belgrave Road* (VI). 30 days.

AUGUST.

1st.—*Tunbridge Wells* (II). Between 6.50 and 7.15 p.m. an extraordinarily perfect double rainbow spanned the south-eastern sky. The conditions for its formation were ideal, as the heavy bank of clouds, with steady R falling from them, was almost stationary in the S.E., whilst the sun, low in the N.W., shone with undiminished brilliancy from a clear sky. The R during the shower was ·08 in.

4th.—*Pen-y-Gwryd* (XI). R, 3·68 in., causing large floods. About 10 tons of stones and gravel were washed on to the main road.

5th.—*Southport, Hesketh Park* (VIII). In 15 minutes, from 2.15 to 2.30 p.m., ·48 in. of R fell.—*Windermere, Brockhole* (X). Between 10 a.m. and 1 p.m. 2·11 in. of R fell.—*Canonbie, Irvine House* (XII). Between 10 a.m. and noon 1·30 in. of R fell.

9th.—*Hampstead Observatory* (I). Shade max. 94°·1, the highest known in Hampstead.—*St. Pancras, Camden Square* (I). The shade max. 97°·1 was recorded about 2.15 p.m., and was the highest temp. recorded here in 54 years, the nearest approach being 95°·2 registered on July 16th, 1900.—*Purley, Riddlesdown Road* (II). Shade max. reached 97° at 1 p.m.—*Tenterden, View Tower* (II). Record shade max., 95°. Temp. was above 90° from 11 a.m. to 5 p.m.—*Sevenoaks, Riverhill* (II). Temp. at 1 p.m. 94°·0.—*Ulcombe Place* (II). Shade temp. at 2 p.m. 95°·5.—*Mayfield, Five Ashes* (II). Shade max. 98°·5.—*Ticehurst, Myskyns* (II). Shade max. 94°·8.—*Wootton, Fernhill* (II). Shade max., 92°, was the highest ever recorded here.—*Micheldever, Northbrook House* (II). Shade max. 94°.—*Finchampstead, West Court* (II). Shade max. 99°·3.—*Southgate, Reservoir Road* (III). Shade max. 97°·3, the highest recorded in 35 years.—*Great Billing* (III). Shade max. 100° on Glaisher screen.—*Brentwood, Warley Common* (IV).

“Eight or ten acres of undergrowth on the common adjoining Warley Barracks were destroyed by fire, and some alarm was felt as the outbreak

occurred near the magazine. Three or four hundred soldiers were called out to beat out the flames. Hundreds of rabbits were burned."—*The Times*.

—*Bury St. Edmunds, Westley* (IV). Shade max. $95^{\circ}8$.—*Forthampton Court* (VI). Shade max. $99^{\circ}7$.—*Hoar Cross* (VI). Shade max. 97° , the highest recorded here in 33 years.—*Bucknall* (VII). Shade max. 97° , and the highest ever recorded here.—*Mansfield, West Bank* (VII). Shade max. $94^{\circ}5$.—*Doncaster, Wadworth Hall* (IX). Shade max. $94^{\circ}2$.—*Meltham, Harewood Lodge* (IX). The shade max., $91^{\circ}0$, was unprecedented here.—*Hawick, Branxholme* (XII). Distant T between 3 and 10 p.m., and a magnificent display of L, both sheet and forked, the latter mostly perpendicular to the earth.—*Jedburgh, Ploughlands* (XII). Beautiful TS for nearly 2 hours.

9th—10th.—*Aberdeen* (XVII). Heavy TS at 10 p.m. on 9th and on morning of 10th.—*Lynturk Manse* (XVII). Terrific TS to eastward on evening of 9th and morning of 10th. Here it was seen and heard only as distant but was exceedingly impressive.

10th—11th.—*St. Andrews* (XVI). Superb display of L from 9 p.m. to 2 a.m. For hours it was incessant with a continuous roll of T. The sky from N. to S.E. was illuminated, and a common feature was the appearance of 3, 4 or 5 simultaneous parallel vertical streaks of L from the sea to the clouds.

11th.—*Kettering* (III). Sharp TS in afternoon. Two bullocks were killed by L.—*Macclesfield* (VIII). TS at 7.30 p.m. Very vivid L.

12th.—*Warsash Vicarage* (II). Remarkable dust storm at 6 p.m., lasting 30 minutes, accompanied by T but no R.—*Hacketstown* (XXI). TS from 10 p.m. to midnight.

13th—14th.—*Crooksbury Ridges* (II). Disastrous forest fires.

15th.—*Ingoldsby* (VII).

"The parish council, to prevent any waste of water, have decided to dole out water to the parishioners twice a day. In another village the supply is so scarce that it is being sold at 2d. per bucket."—*Daily Graphic*.

19th.—*Lewisham* (I). In 24 minutes $\cdot 70$ in. of R fell.—*Acton* (III).

"Two men who were watching a cricket match at Old Oak Road, Shepherd's Bush, between the Union Cricket Club and the Bloomsbury Club, were struck by lightning. Both were removed to the West London Hospital and detained."—*The Times*.

—*Hoar Cross* (VI). Ponds, and wells 33 ft. deep, dried up by the drought.

20th.—*Clapham Common* (I).

"An extraordinary story was told at the inquest on Henry Norman Lambie, who was killed by lightning. Francis Bullcraig said he was with

the deceased when the storm came on. He ran down the path to get out of the rain, when a flash of lightning dazed him for a moment, and then he noticed smoke arising from a tree and saw deceased lying on the ground. All the deceased's clothing was burnt off one side. Two other lads under the same tree were also struck, one being rendered insensible. Dr. Caudwell said that about twenty minutes after deceased was brought in arborescent marks appeared on the body. . . . There was a deep burn on the throat which corresponded in position with the collar stud. The buckles of the braces were rendered slightly magnetic. Death was due to shock."—*Herts and Cambs Reporter*.

—*Guildford, Hillside* (II). Storm with H stones as big as marbles.

—*Tenterden, View Tower* (II). Two TSS. One report was a bang like a cannon close by.—*Detling, The Croft* (II). T at 5 p.m. and L at 6.15 p.m. R commenced at 7.5 p.m. with continuous and vivid L and 45 seconds' intervals between flash and report. At 8.5 p.m. it was almost overhead. Report almost before flash had died away. T began in S. and S.E. and then E., and was over by 9 p.m.

—*Wymondham, Wattlefield* (V). Absolute drought of 20 days ended.

—*Spilsby, Ashby Road* (VII). In half an hour .95 in. of R fell.

—*Malton, The Leat House* (IX). Very severe storm in afternoon. The T and L were not in any way extraordinary, but in 30 minutes the gauge showed 1.61 in. of R. The actual fall was much larger than that as during the whole time, or nearly so, enormous quantities of H fell, a great deal of which would naturally never get into the gauge. Fifteen hours after, although the night had been quite warm, considerable quantities of H, collected in hollows, remained still unmelted. The H was of the size of ordinary Barcelona nuts.—*Malton* (IX). A remarkable storm, with T and L, commenced about 5.45 p.m. R, 1.51 in., from about 6.14 to 6.45 p.m. Up to 9 a.m. on the 21st .41 in. more fell, making a total for the 24 hours 1.92 in.

21st.—*Englefield Green, Harvest Road* (II). Heavy local TS from 4 to 5 p.m., in which hour 1.95 in. of R fell.—*Beenham House* (II). During a TS which passed over here in the afternoon 1.94 in. of R fell between 4.10 and 4.50 p.m.—*Waldringfield Old Rectory* (IV). No R fell here, but there was a deluging little cloud-burst of small area a mile distant.—*Stratford-sub-Castle* (V). From 5.45 to 7.15 p.m. 2.01 in. of R fell.—*Cholderton Rectory* (V). TS, with 1.29 in. of R within an hour.—*Collingbourne Kingston* (V). In 2 hours 2.00 in. of R fell.—*Ludgershall, Conholt Park* (V). Severe TS, with 3.50 in. of R.—*Wexcombe* (V). In less than two hours 1.36 in. of R fell.—*Aldbourn, The Warren* (V). TS, with 1.14 in. of R in two hours.—*Wroughton,*

Burderop Park (V). Heavy TS at 4.45 p.m., with 1.59 in. of R in an hour.—*East Harptree, Harptree Court* (V). Between 3.30 and 4.36 p.m. 2.23 in. of R fell.—*Temple Cloud* (V). TS, with 1.23 in. of R. The R was very heavy at High Littleton (2 miles N.E.), slight at Farnborough (4 miles N.E.), and none at all fell at Marksbury (6 miles N.E.)—*Huddersfield Cemetery* (IX). Heavy TS, with .15 in. of R in about two minutes at 4.30 a.m.—*Swansea* (XI). Heavy TS. Streets flooded.—*Dumbarton* (XV). At 4 p.m. .77 in. of R fell in less than an hour.

25th.—*Haslemere, Hawthorn Cottage* (II). TS, with .70 in. of R from 2 to 3 p.m.—*Rendlesham Hall* (IV). Storm at midday of half an hour's duration, with .57 in. of R.—*Cholderton Rectory* (V). TS in which .20 in. of R fell in less than 15 minutes.

26th.—*Credenhill* (VI). R only .11 in., though more than 2.00 in. fell within four miles, and more than 1.00 in. within a mile to the E.

28th.—*Huddersfield Cemetery* (IX). Heavy TS, with .10 in. of R in two minutes at 8 p.m.

29th.—*Foxford School* (VI). In 20 minutes .38 in. of R fell.—*Withington Sewage Works* (VIII).

“The river Mersey became much swollen, and in the vicinity of the works attained a height fully four inches beyond the highest figures hitherto recorded. The works were flooded so much that the manager of the Moss Side Works found his house like a miniature island surrounded by water, and for a time he was unable to leave the place. When he did get away it was by wading thigh-deep in water The crops of ryegrass, cabbages and turnips, that were growing near the works have been quite spoiled. In the stables the horses were standing in 18 inches depth of water.”—*Manchester Guardian*.

30th.—*Swerford* (III). A heavy TS broke over this district in the afternoon. T was heard in the N.W. about 1.30 p.m. and died away in the N.E. about 4 p.m. Heavy R fell here but no H, while two or three miles to the S. of the village H stones as large as walnuts fell. An ash tree, about 1½ miles to the S.E., was struck by L. It was about 30 feet high and ended at the top with a fork. The L appears to have entered in the centre and split off one of the branches of the fork. This lay at the bottom of the tree close to the trunk on the east side. Pieces of the trunk were then torn off in lengths of about 2 feet, the average thickness being about 3 inches and the width 5 inches. These were thrown in a semi-circle to the eastward of the tree, the furthest being 60 yards away. Two pieces, each about 8 feet long, were thrown, one 12 yards and the other between 20 and 30 yards. One piece 2 feet long and 2 inches by 6 inches, fell

10 yards away on the W. side. The branch which was split off from the top was 10 feet long with an average diameter of about 4 inches. No bark or chips fell inside the circle formed by the wood torn off the tree.—*Mickleton, Bank House* (VI). After a fine morning a heavy black cloud came over from the W. R and H began here at 1.45 p.m. In 15 minutes .88 in. was collected in the gauge besides some unmelted H in the funnel. H stones were about $\frac{1}{4}$ inch in diameter and covered the ground to a depth of at least an inch. R ceased at 2.15 p.m., and the total fall in half an hour was 1.02 in. The cloud passed away in an E. direction. Its area must have been very small, for places to N. and S. of its path, and not more than $\frac{3}{4}$ mile from Mickleton, had very little rain.—*Northleach, Leygore Manor* (VI). T and 1.52 in. of R in less than an hour.—*Glen Aray, Ladyfield* (XV). The greatest flood of the year.

SEPTEMBER.

2nd.—*Liskeard* (V). Meteor seen at 3.35 p.m.—*Buchlyvie* (XV). A very bright meteor passed over the village.

7th.—*Edington* (V). Shade max. 93°, the highest temp. recorded in September in 22 years' record.

8th.—*Hampstead Observatory* (I). Shade max. 93°·2.—*St. Pancras, Camden Square* (I). The shade max., 92°·3, was the highest temp. ever recorded here in September excepting only 94°·0 on September 2nd, 1906.—*Little Saxham* (IV). Magnificent and incessant L from 7 to 8 p.m.—*North Cadbury Rectory* (V). Shade max. 94°·2.—*Waltham-on-the-Wolds* (VII). Electric display from 5.15 to 5.30 p.m. Sharp H.—*Croxton Kerrial* (VII). A violent TS broke over the village at 5.5 p.m. and .62 in. of R fell in 17 minutes.

10th.—*Worden Hall* (VIII). L struck an oak tree at a neighbouring farm. In 1910 L tore up the earth in the same field, and a few years ago an ash tree was struck in this same field.

11th.—*Cartmel, Aynsome* (VIII). Severe TS from 7 to 8 a.m. A man was struck by L while indoors, and paralysed.—*Priestfield, Burnopfield* (X). TS from 9.30 a.m. to 2 p.m., with .58 in. of R.—*Hexhamshire* (X).

“A shepherd was killed by lightning. He was driving sheep over the fell from Lord's Lot to Stubbeck when he was struck. The dog's arrival at the latter place without his master led to a search being made, with the result that Cowing's dead body was found on the fell near his sheep.”—*Northern Echo*.

—*Pen-y-Gwryd* (XI) TS in early morn. Very vivid L. Pole struck.

12th.—*Tunbridge Wells, Hawkenbury* (II). A sudden squall at 8 p.m. may be said to have broken up the summer.—*Minsterley, Wallop* (VI). Very dark day, becoming as dark as night at 6.5 p.m.—*Christleton Hall* (VIII). R 2.28 in., and the heaviest fall since June 25th, 1891.—*Broughton-in-Furness* (VIII). Heavy TSS with L at 5 a.m. and from 8 to 9 a.m.—*Llanwrdu, Dolaucothy* (XI). R fell in torrents for about an hour.—*Welshpool* (XI). Dull and misty with spells of darkness throughout day; one at 5.15 p.m. necessitated artificial illumination. At midnight torrential R in showers until 2.30 a.m.

13th—14th.—*Skibbereen* (XX). Heavy floods.

20th.—*Huddersfield Cemetery* (IX). Violent TS. Local damage.—*Skibbereen Rectory* (XX). L with H shower and N.E. wind.

21st.—*Woolwich, Eltham* (I). Heavy TS at about 4 p.m., with R falling until 8.30 p.m. The streets were flooded and the rush of water was so strong that it blew up the manhole covers in Lee Road.—*Chellaston* (VII). Heavy TS in afternoon.

25th.—*Shanagarry, Kinsith* (XX). Fall of 2.00 in. of R in 3 hours between 10 a.m. and 1 p.m.

28th.—*Fanad, Tanney Rectory* (XXIII). W.N.W. gale and H squalls.

29th.—*Tiverton* (V). Branches of trees broken off during gale in night.—*Cockburn Hill* (XIII). The Pentland Hills were white with S.

30th.—*Waldringfield Old Rectory* (IV). A large flight of martins about all day. In the evening a bedroom was found full of them clinging together in clusters and very difficult to get out.—*Aylsham* (IV). Gale doing great damage to trees.

OCTOBER.

13th.—*Oxford* (III). Thick overhead fog from 2 to 8 p.m., with T and heavy R at intervals which came without warning because of the fog.—*Whitminster* (VI). A phenomenal R storm. Practically the whole of the fall of 1.20 in. occurred in the space of little more than an hour. It partook more of the character of a water spout than of ordinary R, and was very limited in area.—*Clifton, Stoke Bishop* (VI). Thick fog, heavy dew, and heavy T and L.—*Jersey, St. Aubins, Belle Vue* (XI). Exactly 3.00 in. of R fell in three hours in morning, and of this 2.09 in. fell in an hour and a half. In St. Heliers there was only .43 in. during the same time.

13th—14th.—*Grimsby* (VII). Thick fog on both mornings.

22nd.—*St. Pancras, Camden Square* (I). Heavy TS, with L and R from 2.40 to 3.30 a.m.—*Witley, The Mount* (II). Sharp TS at 2 a.m.

24th.—*Fareham* (II). Floods everywhere in district.—*Ingatestone, Furze Hall* (IV). TS at 1.15 p.m., with 1.30 in. of R.

25th.—*Foxford School* (VI). A sharp frost was experienced, freezing the water in the gauge into solid ice.

26th.—*Fortrose* (XVIII). S an inch deep.—*Clonakilty* (XX). Very brilliant L but no T.

27th.—*Bradford* (IX). Owing to recent heavy R the water supply was turned on at 6 a.m. The supply had been restricted to between 9 a.m. and 6 p.m. since August 29th.

29th.—*Cartmel, Aynsome* (VIII). R measured 2.30 in., and a quantity of low lying ground was flooded.—*Grasmere, The Wray* (X). In 22 hours 4.90 in. of R fell. The greatest daily fall since observations commenced in 1884.—*Holy Loch, Ardnadam* (XV). R all day and night, amounting to 3.60 in. for the 24 hours.

29th—30th.—*West Witton* (IX). A wild wet night. Floods in Upper Wensleydale.—*Keswick, Shu-le-crow* (X). R measured 3.43 in. on 29th. The River Greta was in high flood on 30th. The greatest flood in this valley since November 2nd, 1898.—*Ambleside, Rydal Farm* (X). In the 24 hours between 1 p.m. on 29th and 1 p.m. on 30th, over 5.00 in. of R fell.—*Kendal, Holmcroft* (X). Just over 3 in. of R fell from 1 p.m. on 29th to 1 p.m. on 30th.

29th—November 7th.—*Dumbarton* (XV). A storm of wind and R of unusual violence set in on October 29th and continued till November 7th, reaching its height on November 5th. Great damage was done. The R for the 10 days was 7.50 in.

30th.—*Hodsock Priory* (VII). At 2 p.m. .16 in. of R fell in about 5½ minutes; this accompanied a squall marking the passage of the trough of a V, with a sudden turn and sharp rise of the barometer and a fall of temperature.—*Chelford, Astle Hall* (VIII). Great storm of wind and R about 1 p.m., doing much damage to timber.—*Balerno, Cockburn Hill* (XIII). T and heavy H shower at 8.30 p.m.—*Fanad, Tamney Rectory* (XXIII). Strong W. gale with H squalls. TS at 4 p.m.

31st.—*Eskdale* (X). Heavy H showers, with vivid L and T.

NOVEMBER.

2nd—4th.—*Fort Augustus* (XVIII). A remarkable TS ushered in during the morning of the 2nd by fine specimens of mammato-cumuli. T and L began about 7 p.m., after a wet day. About 7 p.m. again on the 3rd T and L reappeared and lasted till about 8.15 a.m. on the

4th, this being the longest and most intense TS witnessed here, at least during the last 20 years. It was accompanied by violent squalls from S.W., R and H. At 5.15 a.m. the L struck one of the fuse-boards of the Abbey, followed by a terrific crash. There was a display of ball L at the same time. The L struck about eight houses, some over a mile apart. A ball burst over the Abbey cricket field, breaking up into small ones. The same phenomenon, balls rolling down a hill, was witnessed near the Free Church. A ball of football size, and red like hot iron, appeared at a window of one of the houses and floated towards the fuse-board. There it stopped and numerous arms shot out of the ball, playing about the fuse-board; then a smash came, and the person who witnessed it got a blow against her head and side, but was not hurt. In one instance a fiery line was seen flowing down from an electric lamp (hanging from the ceiling) and getting deflected towards the wall of the room; there a bed was kicked along a distance of one foot. In another case the wooden frame of a fuse-board was torn right asunder, and a door burst open. No great damage, however, was done on the whole by the L.

4th—5th.—*Broughton-in-Furness* (VIII). Violent storm of wind, doing considerable damage. — *Alexandria Rectory* (XV). Violent hurricane, which was the most violent within living memory in this part of Scotland. The storm in violence was equal to the memorable storm in Ireland on February 23rd, 1903, and the destruction wrought, even more, inasmuch as it lasted longer, continuing at hurricane violence from about 8 p.m. on 4th till well into the afternoon of 5th. Indescribable destruction was wrought amongst the beautiful woods on the sides of Loch Lomond. In the grounds of Botwick Castle alone 15,000 trees were uprooted, and a similar state of things occurred in all the beautiful policies by the Loch side. The wind blew mostly from S., but very many trees lay W. and E. and a good number indeed towards each point of the compass. The hurricane was preceded and followed by several violent TSS.—*Oban* (XV). The most severe gale for years, causing great damage, occurred between 10 p.m. on 4th and 6 p.m. on 5th.—*Mull, Quinish* (XV). Tremendous gale from W.S.W., with T and L. Wind fell suddenly on forenoon of 5th, and then blew with great fury from N.W. Great damage to plantations.—*Fort Augustus* (XVIII). Violent storm at night, with T, L and S.W. wind. — *Arisaig* (XVIII). Terrific storms accompanied by T, L, H and deluges of R and phenomenal tides. No such weather has been experienced here since 1881;

4,000 trees were blown down on the Arisaig Estate, roads washed away by the sea, and enormous quantities of seaware washed up on the shore.—*Fanad, Tamney Rectory* (XXIII). Hurricane from S.W. began on evening of 4th. It shifted to W. and attained its greatest degree of severity about 11 a.m. on 5th, subsequently blowing boisterously till night from W.N.W. Two trees were uprooted and widespread havoc was done.

5th.—*Oxford* (III).

“The gale wrought serious havoc at the Aviation Station on Port Meadow. A low wind swept down the valley from Yarnton at a velocity of 70 miles an hour and struck the aeroplane sheds with such terrific force that they were torn bodily from the ground and lifted in the air to a height of about 80 feet. The wreckage crashed through the telegraph wires, felled two telegraph poles, and dropped on to the G.W. Railway, blocking three sets of lines. Inside the sheds were fifteen aeroplanes, and these were demolished. The damage is estimated at £8,000.

Mr. J. Betts, managing director of J. Betts & Co., who own the station, felt some apprehension early on Sunday morning that an accident might occur, and he and a number of other men were actually in the sheds barricading the doors when the disaster took place. Their dramatic escape from death was little short of miraculous . . . Mr. Betts added that all the machines were totally wrecked. They saw a Farman perform a somersault in the air, whilst a Demoiselle went sailing on indefinitely, and performed a record by flying on its own a distance of 200 yards over both the G.W.R. and L. and N.W.R. lines, eventually falling into the canal. A piece of corrugated iron, weighing about half a ton, was hurled into a neighbouring field and ploughed up a hole in the ground two feet deep.”—*Oxford Times*.

—*Chelford, Astle Hall* (VIII). Furious S.S.W. gale all day, blowing trees down.—*Bacup* (VIII).

“While the inventor was testing an organ the building was blown in. Masonry and *débris* smashed the instrument to fragments, but the inventor escaped.”—*The Times*.

—*Cartmel, Aynsome* (VIII). High wind, estimated at 50 to 60 miles per hour at 12.30 p.m.—*Ushaw College* (X). A curious fact was noticed after a strong gale. All the windows facing S. and S.W. were found to be covered with a deposit of a greyish colour, which, on examination, was found to be salt. The gale was from the S.W. The salt must have been carried by the gale from the W. coast from a distance of at least 60 miles.—*Beaufront Castle* (X). A most damaging gale from the point of view of trees uprooted and branches twisted.—*Upper Redesdale* (X). Gale of wind and driving R caused a good deal of damage.—*Kirkby Lonsdale* (X). Severe S.W. to W. gale, causing

great damage to trees.—*Whithorn, Cutroach* (XII). Heavy gale which lasted a considerable time, and, with consequent high tide, did some damage.—*Lincluden House* (XII). S.W. gale, doing much damage to trees.—*West Linton Rectory* (XIII). Severe W. gale which did much damage locally to trees and house property.—*Musselburgh, Levenhall* (XIII). Severe storm, leaving traces of its severity over the whole district.—*Balerno, Cockburn Hill* (XIII). Terrific gale which did great damage to buildings and trees.—*Saltcoats* (XIV).

“The railway between Saltcoats and Stevenston was flooded. About eleven o'clock, when the tide was full, the sleeper fence was levelled and the sea poured on to the line. The sea wall opposite Auchenharvie Colliery next fell, and part of the railway wall near M'Lachlan's Lane was also demolished, the *débris* strewing the railway. The water got below the railway line, and a stretch from the lane to the colliery was undermined, the rails hanging clear. Near the colliery the full force of the gale was felt. The railway for nearly one hundred yards was wrecked, the up line being twisted. In one part of Dockyard Street shops were flooded, the sea entering at the back door and going out at the front. In other parts of the town great damage was done, the water rising to the sills on the first floor windows.”—*The Scotsman*.

—*Bishopton, Ingliston* (XIV). Severe storm of wind and R. Much damage done to plantations by trees being blown down.—*Kilsyth, Currymire* (XV). Very strong wind with R. Much damage.—*Largie Castle* (XV). The gale, which lasted for 18 hours and was at its height at about midday, was probably the severest experienced here for 30 years. It did a great deal of damage, large areas of woods being completely levelled.—*Inveraray, Newtown* (XV). Gale causing great damage to trees, and the roughest sea ever remembered on Loch Fyne.—*Lochgailhead* (XV). The most violent storm since the Tay Bridge was blown down. Great damage here by high tide to roads and steamboat pier, and destruction of boats. A large wych elm was blown down on an out-house, crushing the roof. Many trees blown down elsewhere.—*Tighnabruaich* (XV). The most severe storm remembered by the oldest people.—*Benmore* (XV). Hurricane, doing great damage to trees and buildings.—*Meggernie Castle* (XVI). Gale, causing much damage among the woods.—*Balruddery* (XVI). Hurricane from 1.30 a.m. to 2.30 p.m.—*Glenelg* (XVIII). The greatest gale experienced for many years, accompanied by the highest tide since 1882.—*Plockton* (XVIII). The worst gale for many years, at night.

5th—6th.—*Thirsk* (IX). A violent wind storm with a velocity about 80 miles per hour, the R driving through the least crack or

cranny.—*Mull, Quinish* (XV). Hurricane from W.S.W., with T and L. Great damage to woods.

6th.—*Stockton* (V). Sharp TS at 11 a.m.

8th.—*Treherbert, Tyn-y-waun* (XI). Heavy R, with H, L and T.

10th.—*Brighton* (II). TS. House struck at Kemp Town.

11th.—*Charnwood Forest* (VII). At about 10.30 a.m. a party of geologists observed the phenomenon known as the "Spectre of the Brocken" from the Hanging Rocks. The sun was shining brightly at the time, and the summit of the crag was just clear of a light mist which had spread over the lowlands. With these favourable conditions each member noticed that the whole party was transfigured on the surface of the mist below, though all except himself appeared to be very much out of focus. Each individual observed a "circle of glory" around his own head only, while all the other members of the party appeared to him to be without a "circle." The order of the colours in the "circle" was the same as that in the primary rainbow, *i.e.*, red outside and blue inside.

12th.—*Cragg Vale* (IX). The R poured in torrents, the deluge lasting about 5 to 10 minutes.—*Llanddeusant* (XI). Gale. Vale of Towy in flood.

14th.—*Enniskean* (XX). Highest flood in Bandon River for 13 years.

14th—15th.—*Clonakilty* (XX). Big floods.

16th.—*Drumnadrochit* (XVIII). The fall of 1.26 in. consisted of sleet. The trees had not shed their leaves and there being no wind there was much destruction to the woods. Sturdy oak branches as much as 8 inches in diameter were broken by the weight. Many trees on sloping ground were uprooted and the loss was serious, no such destruction by this cause having been known here. Telephone wires were borne down to the ground in some places by the weight of S sticking to them.—*Castletown* (XIX). Fall of S which left the ground white until 19th.—*Tuam, Gardenfield* (XXII). Great flood.

16th—18th.—*East Grinstead, Cranston Road* (II). In the three days 3.91 in. of R fell, the greatest amount for three successive days in 22 years' record.

17th—18th.—*Tonbridge* (II). Severe floods; boats in use in some of the streets.—*Tonbridge, Pinnacles* (II). R measured 1.07 in. on each day and resulted in the worst floods in the Medway valley for over 10 years.—*Harperrig Reservoir* (XIII). During the night 2½ inches of S fell.

19th.—*Tenterden* (II). The Rother Valley, part of Kent and East Sussex Railway was flooded.

26th.—*Titchhurst* (II). About 3 inches of S.

29th.—*Lewisham, Limes Grove* (I). Dense fog at night.—*New Malden* (II). Dense fog at 10 p.m.—*Oxford* (III). Dense fog at about 9 p.m.—*Cargen* (XII). Thick fog from 6 p.m. until midnight.

DECEMBER.

4th.—*Skibbereen Rectory* (XX). Heavy W. gale with H.

5th—6th.—*Sidmouth* (V). Violent storm of wind and R in night.

6th.—*Braemar, Derry Lodge* (XVII). S 3 inches deep.

7th.—*Lewisham, Limes Grove* (I). Unusual darkness from 1.45 to 2.15 p.m. For about 5 minutes it was as dark as night.

8th.—*Braemar, Derry Lodge* (XVII). S 9 inches deep.

9th.—*West Witton* (IX). S $2\frac{1}{4}$ inches deep.—*Rosebery, Edgelaw and Gardhouse Reservoirs* (XIII). S 2 inches deep.—*Cardross, Kilmahew* (XV). S an inch deep.

9th—10th.—*Sidmouth* (V). Terrific gale in night.

13th.—*Porth-en-alls* (V). S.W. gale such as had not been experienced here for 30 years.—*Wexford, Bann-aboo* (XXI). There was a fierce gale from the S. and S.W. which flooded the country round. The ground floor of Col. Magrath's house was flooded, and the road to the house was a river. The Quay of Wexford was flooded, and up to the main street, many shops in which had water 2 feet deep on the floor.

15th.—*Street* (V). L in S.E. from 10 to 11 p.m.

17th.—*Meggernie Castle* (XVI). Short but sharp TS.—*Blair Atholl* (XVI). T and L at 8 p.m.—*Skibbereen Rectory* (XX). Heavy T 5 a.m.

18th.—*Glyncorrug* (XI). Heavy flood at 11 a.m. Seven cottages washed away and the S.W.M. Railway undermined in several places.—*Llanddeusant* (XI). Great floods in the Llechach and Sawdde, the latter overflowing Llanydoeth and causing great damage to houses and to a railway bridge. The Towy did not rise until about 6 hours after the River Sawdde.

18th—19th.—*Glyn Neath, Resolven* (XI). Torrents of R. Great damage done by floods.

19th.—*Girvan, Glindoune* (XIV). A TS was experienced in the morning, which was reckoned to be the most severe ever remembered. A fireball burst overhead and did considerable damage.

21st.—*Guernsey, Les Blanchés* (XI). A rain spell of 59 days with 16·57 in. of R ended, this being the longest in the past 17 years.

22nd.—*Shanagarry, Kionoith* (XX). Very heavy fall of R in near districts, causing floods. Only ·88 in. registered by this gauge.—*Nenagh, Kilboy* (XX). S fell measuring ·70 in.

22nd—25th.—*Sudbury* (IV). Low-lying meadows flooded.

23rd—24th.—*Bethesda, St. Ann's Vicarage* (XI). Slight earthquake shock in the night.

24th.—*Ebbw Vale* (XI).

“Up to noon no outlet had been found for floods at Abercarn Tin Works, and matters have become serious. The water is now finding its way to the Ebbw Vale Company's colliery in its course to the river, with the result that the colliery is stopped and a thousand men are rendered idle. Workmen are engaged in cutting a trench to the river to release the water, but pumping will be necessary to drain the tin works.”—*Morning Post*.

25th.—*Marlow, Temple House* (II). The Thames rose 1 foot 6 inches above summer level.—*North Cadbury* (V). As a man was lighting the lamps on the way to Church at about 6.20 p.m. he was dazzled by a very brilliant blue flash in the N.W. accompanied by a hissing sound and followed by T.—*Wincanton, Holbrook* (V). TS at 6.30 p.m. accompanied by brilliant L.—*Porth* (XI). Heavy black clouds rapidly gathered in S.W. between 1 and 1.30 p.m., and during the TS which followed there were 3 intensely vivid flashes of L followed by heavy T and 4 or 5 minor flashes and peals and ·15 in. of R.

26th.—*Llanfrehfa Grange* (XI). Heavy T with L at 2.10 p.m.

NOTES ON THE YEAR, 1911.

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

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 of any other station.

ENGLAND AND WALES.

DIVISION I.—LONDON.

SYDENHAM, LETHEN GRANGE.—There were two remarkable features—(1) the deficiency of R in the first 9 months ; and (2) the excessive R of the last three months, making good that deficiency. Nearly half the R of the year fell in the last 3 months, and the aggregate R was about the average.—*G. F. Chambers.*

LEWISHAM, LIMES GROVE.—A remarkable feature of the year was the cold spring, followed by one of the hottest and driest summers known in this district since 1868. Temp. rose to 80° or above on 36 days, and to 90° or above on 4 days. TSS occurred on 12 days.—*G. E. Dacey.*

WEST KENSINGTON, EDITH ROAD.—Mean temp. of year was 2°·2 above average, and the highest recorded in 28 years. That of July was 5°·3, and of August 6°·7, above average, both likewise highest recorded. Max. temp. exceeded 80° on 41 days, 90° on 6 days, the absolute max. being 96°·8. Absolute droughts, June 30th—July 24th, 25 days ; August 2nd—18th, 17 days. No partial droughts. Rainfall only ·70 in. below average, owing to heavy fall in last three months.—*G. Searle.*

ST. PANCRAS, CAMDEN SQUARE.—The R of the first six months differed but slightly from the average, being in excess in April and June, but in defect in January, February, March and May. At the end of June the fall for the six months amounted to 10·87 in., or only ·27 in. below the average for that period. The dryness of the three following months was such that at the end of September the aggregate R was 4·21 in. below the nine months' average. July with 1·17 in. was 1·19 in. below the average ; August with only ·48 in.

was 1·87 in. below the average and the driest month of that name in the 54 years' record, with the single exception of August, 1880, when only ·45 in. was recorded. The last three months of the year were all wet. November, with 3·62 in. of R, was 1·28 in. in excess of the average, and December, the wettest month of the year, had 4·22 in., or 2·09 in. in excess. The total R was ·35 in., or 1 per cent. below the average of 50 years. The number of rain days was 8 below the average of 50 years. July and August had respectively 7 and 6 days below the average, and December had 8 days above. There were three absolute droughts ; for 15 days from April 10th to 24th, for 24 days from June 30th to July 23rd, and for 17 days from August 2nd to 18th. There was also a partial drought from January 12th to February 13th, 33 days with ·25 in. of R. There were no rain spells, the longest period of successive rain days being 12 days from December 13th to 24th. The duration of R for the year was 473·0 hours, or 47·6 hours above the average of 30 years. The greatest duration occurred in March, November and December. In December the duration, 90·4 hours, was the highest for that month in the 30 years' record. The duration in July was only 5·5 hours. The total for July and August together was less than for any one of the ten remaining months. The duration exceeded 10 hours on 5 days during the year, and twice exceeded 12 hours, viz., 12·9 hours on March 12th and 12·2 hours on June 23rd. The total duration of sunshine amounted to 1543·4 hours, the largest since the recorder was set up in January, 1904. The outstanding feature was the brilliancy of the summer months, more than 160 hours of sunshine being registered in every month from April to September inclusive. In July the total reached 283·1 hours and in August 207·4 hours. Only 19·2 hours were recorded in December. There were no sunless days in July, and only one in August. There were four periods of more than 20 successive sunny days, including 31 days from May 22nd to June 21st and 52 days from July 1st to August 21st. The longest period without sunshine was 8 days from January 16th to 23rd. There were 97 sunless days. The total evaporation from a free water surface amounted to 19·53 in., or 4·00 in. above the average of the preceding 26 years, and the highest on record. The highest previously recorded was 19·03 in. in 1906. April was the only month the mean temp. of which was below the average. July was the warmest month recorded here, mainly on account of high maxima, the mean shade max. being 81°·7. In this

month temp. reached 80° on 20 days and rose to 90° on 5 days. In August the mean temp. was $68^{\circ}\cdot 2$, or $5^{\circ}\cdot 9$ above the average, and the highest on record for August. In this month shade temp. readings of 80° or more were observed on 14 days, reaching 90° on 4 days, and rising to the unprecedented maximum of $97^{\circ}\cdot 1$ on August 9th. In September, 8 of the first 12 days had a shade temp. of 80° or above. December was also unusually mild, the mean temp., $44^{\circ}\cdot 7$, being $5^{\circ}\cdot 0$ above the average. The mean temp. of the year, $52^{\circ}\cdot 2$, was $2^{\circ}\cdot 2$ above the average and, with the single exception of $52^{\circ}\cdot 3$ in 1868, the highest in the 54 years' record. Frosts occurred in the screen on only 32 days, of which 25 were in the first 4 months of the year; and on the grass on 74 days, of which 56 were in the first four months. The latest spring frost was on April 12th in the screen and April 15th on the grass; the earliest autumn frost was on October 29th in the screen and October 26th on the grass.—*Hugh Robert Mill, F.R.Met.Soc.*

DIVISION II.—SOUTH EASTERN COUNTIES.

SURREY.

OAKWOOD VICARAGE.—One of the driest and hottest summers I have known since 1868, and the wettest October, November and December I have ever recorded.—*John Shearme.*

LYDEN CROFT [EDENBRIDGE].—The year was of unusual interest in regard to its unusual rainfall distribution and in regard to its lengthened period of continuous summer weather. In the 9 months, January to September inclusive, its total R was 12·60 in., the annual average for the last 20 years being 27·79 in. But the rainfall of October, November and December had the unusual record of 17·78 in., so that the total R of the year, 30·38 in., was in excess of the average. The R of December, 6·84 in., was the greatest in any month since the record began. The hours of bright sunshine recorded for the months of May to September inclusive were respectively 217, 185, 304, 246 and 213.—*C. Planck.*

PURLEY, RIDDLESDOWN ROAD.—Considerable damage was done to gardens by the exceedingly bitter weather in early April and by the summer drought, which, however, was less destructive on these chalk downs than elsewhere. There was little premature defoliation of trees and little, if any, drooping of leaves except of cherries. The abnormal heat in early August scorched and killed some tender-leaved annuals. The max. temp. was $97\frac{1}{2}^{\circ}$. The great rainfall from

October 19th to December 27th (15·70 in. on 70 days) was accompanied by an almost entire absence of frost, the coldest nights being November 8th, with 27° in the shade, and October 29th, with 29°.—*J. Edmund Clark, F.R.Met.Soc.*

WALLINGTON, COTSWOLD.—The dry January and February had a joint deficiency of 1·23 in. from the 30 years' average; the somewhat wet March and April a joint excess of ·52 in.; the dry May a deficiency of ·80 in.; the somewhat wet June an excess of ·24 in.; the very dry July, August and September a joint deficiency of 3·96 in.; and the exceedingly wet October, November and December had a joint excess of 5·64 in., making a curious record. Besides this the very warm months of May with a mean temp. 3°·1 above the 25 years' average; July 4°·9 above; August 5°·5 above; September 2°·0 above; and December 5°·0 above, were remarkable; in fact there were only three months, viz., January, April and October, in which the mean temp. was even a little below the average. With respect to the sunshine, by the Jordan recorder, the total annual amount, 1857·4 hours, has only been exceeded once since 1886, viz., in 1899, when the total was 1872·5 hours. In 1911 the only months with sunshine below the average were March and October; the excess above the average in July, August and September amounted to 283·1 hours.—*F. Campbell Bayard, F.R.Met.Soc.*

CROYDON, PARK HILL RISE.—R about the average, but very unequally distributed. Severe drought with great heat from May to September, though with some local heavy falls. The last three months, especially December, were mild and very wet, contributing more than half the R of the whole year.—*H. F. Parsons.*

CROYDON, PARK HILL HOUSE.—Mean temp. for year 51°·3, the average for 35 years being 49°·6. Average max. temp. of earth at 6 inches in depth 55°·6; average for 34 years 54°·2. Average min. temp. of earth at 6 inches in depth 48°·2; average for 34 years 46°·4. Mean temp. of earth at 2 ft. 6 in. in depth 52°·1; average for 34 years 50°·6. Mean temp. of earth at 5 ft. in depth 51°·6; average for 34 years 50°·5. Mean temp. of earth at 10 ft. in depth 50°·9; average for 10 years 50°·4. Mean temp. of earth at 20 ft. in depth 50°·4; average for 9 years 50°·6. Temp. of dew point at 9 a.m. 45°·0; average of 33 years 43°·9. The mean amount of cloud at Croydon during the year was 5·9; the average for 34 years being 6·2.—*Baldwin Latham, F.R.Met.Soc.*

REDHILL, STATION ROAD.—Although we had such an abnormal summer, we also had an abnormal R in a short time, bringing 1911 very nearly up to the wet years 1909 and 1910. The number of rain days was considerably less than for many years past. December was the wettest month and November a good second. July was the driest month with only 5 rain days and .32 in. of R, but August came very close with 7 rain days and .37 in. of R.—*W. H. Fowler.*

REIGATE, HOLMFELS.—July was the driest month since I have kept a record and August drier than any except July. In spite of this the total for the year was very little below the average if the exceptionally wet year, 1903, the first of my record, is omitted. There were in the course of the year four periods of 14 days or over without R, viz., 14 days in April, 15 days in June, 22 days in July, and 18 days in August.—*Thos. Jackson.*

LEATHERHEAD, EMLYN HOUSE.—Excessive drought and heat in July, August and September. The River Mole very low. Maximum shade temp. for 39 days 80° and upwards, August 9th being the hottest with 100°. Extremely heavy rainfall in October, November and December. My islands were entirely flooded 5 times before Christmas, which has never before happened in my experience of 40 years. Our average of floods is 3 during the winter.—*Arthur T. Miller.*

ASHTED, BARNET WOOD LANE.—The year was remarkable for the very high summer temp. and the irregular distribution of the R. The R for the first nine months was only 12.42 in., whereas the last three supplied 13.37 in. During the summer the max. shade temp. reached or exceeded 80° on 43 days, and on 8 of these it exceeded 90°.—*Theodore E. R. Phillips.*

HASLEMERE, WHITWELL HATCH.—December was the wettest month ever recorded since observations began in 1868. Total R for the year .36 in. above the average of 44 years.—*Altamont.*

HASLEMERE, HASLEHURST.—Two features stand out markedly: a time of heat, drought and sunshine, and a time of flood. The R in December, 10.65 in., was the most ever recorded in one month, and the R of October to December, 21.78 in., was a record for any three successive months.—*T. P. Newman, F.R.Met.Soc.*

WITLEY, THE MOUNT.—In spite of the glorious summer, the R was about 2.75 in. above the average. There were 23 days' absolute drought in July. The R of the last three months measured 19.15 in., of which 9.61 in. fell in December.—*Juliana Foster, F.R.Met.Soc.*

HASCOMBE RECTORY.—Notwithstanding the extraordinarily dry summer the total R for the year was over 5 in. in excess of the average for the last 20 years. Up to the end of September only 14·82 in. fell here, but in October, November and December, 18·50 in. fell. Three periods of absolute drought were recorded, from 27th May to the 15th June (20 days); from 1st to 23rd July (23 days); from 4th to 18th August (15 days). Also two partial droughts in January and April. Considerable damage was caused to farm crops during the summer, but the deeper rooted shrubs and trees did not appear to suffer until September when a great number died or were seriously injured.—*Charles T. Musgrave.*

EWHURST, CONEYHURST.—The heat and dryness were very trying to all vegetation, making a great scarcity of vegetables, and the quality of all except potatoes very inferior indeed. December had the heaviest R of any month in the past 23 years.—*J. Russell.*

FARNHAM, CHARLES HILL.—The year has been remarkable in many ways, having had the largest amount of sunshine (1908·4 hours), the greatest heat, the most frequent droughts, the sunniest month (July, 349 hours), and the wettest month (December, 8·32 in.) that have occurred during 10 years. Temp. rose above 80° on 37 days, and on 6 over 90°. In August most terrible and disastrous heath and forest fires took place in this district, coming within a quarter of a mile or less of this house. Hundreds of thousands of trees were destroyed and great risk run by dwelling houses.—*M. Oliver.*

FARNHAM, SHORT HEATH LODGE.—The winter was about normal; no extreme cold. Spring bitterly cold, with N.E. wind from 3rd to 7th April. Summer weather commenced about 23rd May. The heat was extreme in July and August, and continued till 11th September. The autumn was remarkable for its heavy R. Frost in the shade was observed on 67 days, of which 50 were in the first half of the year and 17 in the second. The latest frost was 27th April and the earliest 25th October. S was observed on 16 days. Min. temp. observed was 19° on 21st January and 1st February, and the max. 98° on 9th and 13th August.—*Geo. Chrystie.*

WEST BYFLEET, HOLLYWOOD.—The early months of the year were on the whole mild; no long spells of cold weather. The most trying time for man and vegetation was the three or four “blizzard” days between the 4th and 8th April. The summer was unusually hot and dry. There was a max. of 80° and over on 19 days in July, 16 in August and 9 days in September; and of over 90° on 7 days

in July, 6 in August and 2 in September. The highest temp. recorded was 99° on 9th August. The night temps. were also remarkable, the min. thermometer having on several occasions registered 60° and over. There were four periods of absolute drought; 8th to 24th April (17 days), 1st to 15th June (15 days), 3rd to 24th July (22 days), and 2nd to 19th August (18 days). R of the last three months above the average, having reached 5.75 in. for December.—*Allanson Bailey*.

WEYBRIDGE, STATION ROAD.—The principal features of the year's weather were the fine, dry and hot summer; the heavy R of the last three months and especially of December; the very cold snap in the first week of April and the absence of fog and winter cold. Mean temp. of year $50^{\circ}6$; the warmest month (July) $67^{\circ}1$, the coldest (January) $36^{\circ}9$. The absolute highest temp. was $96^{\circ}5$ on 9th August, the absolute lowest 17° on 1st February. R of the first 9 months was 12.99 in., of the last 3 months 12.05 in. The temp. rose to 80° or above on 40 days, of which 5 were in June, 18 in July, 13 in August and 4 in September; and rose to 90° or above on 7 days, of which 3 were in July, 3 in August and 1 in September. Temp. fell to 32° or below on 65 days, of which 14 were in January, 13 in February, 8 in March, 8 in April, 4 in October, 8 in November and 10 in December; and below 20° on 2 days, the 1st and 2nd February.—*H. K. G. Rogers*.

CHERTSEY, OTTERSHAW.—R shows a deficiency of about 1 inch from the average. Up to the end of September there was a deficiency of nearly 6 inches, but this was made up in the last 3 months of the year. The drought was very severe in the months of July, August and first half of September. May was very dry and cold, and nearly all the bloom was destroyed on the wall fruit trees by the bitter E. wind. An indifferent year for fruit of all kinds, for vegetables, and for gardens generally.—*R. H. Otter*.

KENT.

TENTERDEN, SUMMERHILL.—The year was remarkable for the glorious summer, and slight R in July (only .14 in.), August and September; the great heat of July (temp. exceeding 80° on 16 days, and exceeding 90° six times). There was only one bad TS, on August 20th. Very heavy S.W. gales in October and November. Notwithstanding a heavy fall of R in the last 3 months the ground was not very wet. Crops in this part, excepting hay, were good, hops

very good, wheat also, fruit remarkably good, abundance of cherries and apples. S only once in January, four times in March and twice in April.—*Mary Wilkin, F.R.Met.Soc.*

TENTERDEN, VIEW TOWER.—Hottest, driest and sunniest summer during 50 years, yet thanks to heavy R from October to December (the most since 1872) the year was above the average. Absolute droughts, of 23 days from July 1st to 23rd, of 18 days from August 2nd to 19th, and of 19 days from August 25th to September 12th. On 29 days max. temp. of 80° or over, of which 6 were over 90°, 2 being in July, 3 in August and 1 in September. Duration of sunshine in July 358 hours, or three times that of 1910, and the only month in 20 years over 300 hours, except 317 hours in May, 1909. Total for year 2,036 hours, the most I have had. The 5 months, May to September, 1,380 hours, had no rival, 1899 being the nearest with 1,212 hours. December the wettest since 1876. Prices of sheep in September excessively low, much as in 1893.—*J. Ellis Mace.*

RECULVER.—A very remarkable year's R; a prolonged drought with searching evaporation, followed in the last 3 months with much above average fall, with but little evaporation and but few fine days. The spring was favourable to agriculture, but the drought was very trying for arable, and disastrous to grazing. The November and December R caused much delay and damage. The high temp. in November and December assisted grazing by encouraging grasses to grow.—*Allington Collard.*

MARGATE, CLIFTONVILLE.—For the first 9 months the fall was deficient, but for the last 3 quite double the average amount. The summer was splendid and exceptionally dry. Average daily temp., 52°, was the highest in 30 years. Shade readings of 90° and over on 4 occasions.—*John Stokes, F.R.Met.Soc.*

TEYNHAM, NEW GARDENS.—The agricultural situation in this part of Kent was to a great extent saved by the magnificent R, which became known as "The Coronation Rain," which fell on 23rd June, 1·30 in., and was the only effective interruption of the general drought from May 15th until August 20th.—*J. F. Honeyball.*

GOUDHURST, SCOTNEY CASTLE.—The R of the last 3 months, 17·67 in., is greater than the R of any 3 consecutive months since a gauge was first kept here in 1873.—*E. W. Hussey.*

PADDOCK WOOD, MATFIELD.—It is perhaps worth noting that the R at this station from 20th October to end of year exceeded that

from 1st January to 19th October. The paucity of TSS here during 1911 was also remarkable.—*D'Arcy W. Reeve.*

SUSSEX.

FUNTINGTON.—A dry rainless spring, a hot dry summer, and then a very wet three months from October to December. The water in the artesian well ceased to overflow on September 24th, and judging from the R of the year it looked as though it would fall very low in the tube and not overflow again until January or February ; but the heavy R of October altered matters considerably. The water never fell more than 12 inches from top of tube and it overflowed again on November 8th.—*J. A. Greenwood, F.R.Met.Soc.*

BEPTON, LINCH FARM.—The first six months, although dry, did not cause inconvenience or drought, but July, August and September proved unusually dry and warm, there being little more than 4 inches of R recorded. October, November and December, with 23·65 in., were abnormally wet ; December, with 11·64 in., being a record within the past 19 years.—*Gilbert Eames.*

RUDGWICK, HERMONGERS.—This district suffered considerably during the year's droughts. The extreme imporosity of the Weald clay caused any R that fell to run off immediately into the rivers and consequently there was no reserve supply available. The great power of the sun's rays, also, baked the clay through to a considerable depth, and during the sinking of a well, in an attempt to reach the much needed water, a fissure, caused by the clay's contraction when dried, was discovered 14 feet below the surface. Many cases have been reported of the subsidence of the ground due to this fissuring, and the foundations of several houses have sunk to such an extent that cracks have appeared in their walls. The excessive precipitation of the last 3 months, which brought the year's R up to the average, has done little to relieve the hard lot of the farmer, for the clay, baked through by the great heat of the summer, would take up even less moisture than usual, and the water only ran straight off the land into the rivers, disastrous floods occurring in many of the low-lying districts.—*H. G. Busk, F.R.Met.Soc.*

BRIGHTON, DITCHLING ROAD, PRESTON.—The R for the first 4 months was of a normal character, and the dry spell appeared to have started about May 3rd and practically continued till September 18th. During that period the vegetation in this part of the country

suffered greatly, but the last $3\frac{1}{2}$ months were exceptionally wet, the R of which was only exceeded in the year 1864.—*G. B. Hamlin.*

HAYWARDS HEATH, FRANKLYN ROAD.—The dry hot period lasted practically from July 1st till August 20th, when R fell on 4 days out of the 50 with a total of .68 in. A TS on July 29th was responsible for .56 in. of that amount. During the same period the shade max. temp. was 80° or higher on 38 days, and on 10 of those days it was 90° or over. The R of the three autumn months was perhaps as remarkable as the drought of the summer. The total falls for November, 7.90 in., and that for December, 7.28 in., exceed any for those months in our 32 years' record.—*R. Inglis.*

TICEHURST, MYSKYNS.—The year was remarkable for its splendid summer. Farmers—but they alone—had some cause of complaint owing to poor root crops and a great shortage of feed towards end of summer for sheep and cattle. Nothing abnormal until March 19th. Then came three hot days and a TS, followed by S, R and fog, and again S and cold until April 14th, which was the date of the last screen frost. The summer may be said to have begun with May and lasted until the end of September. The R for first three months was 6.31 in. ; for the next six months 8.83 in. During the remaining three months the deficiency was fully made up by a fall of 20.25 in. The max. temp. was 90° or more on 5 days, and 80° or more on 22 other days.—*E. H. Cartwright.*

FOREST ROW, WYCH CROSS PLACE.—We had in the dry months, July and August, two very heavy and very local storms, so that our part of the forest was much greener than surrounding districts, and our roots took prizes. Springs lasted well on top of hill, but failed on the northern spurs some 150 to 200 ft. above the Medway at Forest Row. Much sunshine up to mid-December despite late rains.—*Douglas W. Freshfield, F.R.Met.Soc.*

HAMPSHIRE.

TOTLAND BAY, ASTON HOUSE.—Sunniest year I have known here, with 2115.3 hours of bright sunshine. There were 16 days this summer with a temperature in shade over 80° . Of these one occurred in June, 8 in July, and 7 in August. Before this year only 14 days above 80° were recorded in the past quarter of century.—*John Dover, F.R.Met.Soc.*

FORDINGBRIDGE, OAKLANDS.—The year will be remembered for its exceptionally dry and hot summer and for its record R in December. During January, February and March 5·31 in. of R fell. During June, July and August only 2·80 in. of R fell on 22 days. In July only ·12 in. was registered during a TS on the 29th. This is the smallest R taken in July during the 37 years' record. In August only ·84 in. of R fell. Only once has a smaller amount of R been recorded for August, viz., in 1899, when ·61 in. fell. October, November and December were wet months with 16·55 in. of R on 63 days. December was exceptionally wet; 8·80 in. fell, exceeding the record R for December of 8·63 in. in 1876.—*Sidney B. Rake.*

STOCKBRIDGE, ASHLEY.—The intermittent Somborne stream began to flow in December, 1910, and attained its greatest volume about March or April, 1911. It appeared at no time above Tanner's Pond. By the end of May the volume was markedly decreasing, whilst the flow practically ceased in July and completely ceased the first week in August. The well springs began to rise about the middle of December, and during the last week the stream was flowing decidedly from Tanner's Pond.—*Legh S. Powell.*

BROUGHTON.—The short R during the first eight months, totalling 13·12 in., with four very dry periods, resulted in the drying of very many of the wells in this district and in the total drying up of the river Wallop. The R of December, however, 9·36 in., being the highest recorded here, made good the deficiency. One interesting effect of it is seen in the rising and overflow of a pond near Lower Wallop, known as the Spring pond, which only overflows after a continuance of heavy R and usually runs for a very short time. On Christmas Day the pond had not risen at all, but within a week it was overflowing rapidly.—*Wm. Steele Tomkins.*

PETERSFIELD, FAIRLEY.—The R of December was greater than that of any month in the 21 years in which I have kept a register. The total R of July to September, 3·03 in., was the lowest I have recorded in 3 consecutive months, except in 1893, when the R of March to May amounted to 1·86 in. The temp. exceeded 80° on 4 days in June, 18 in July, 13 in August, 5 in September, and was 90° or over on 2 days in July and 3 in August.—*A. W. Leachman.*

UPTON GREY, HODDINGTON HOUSE.—A fine February and spring crops got in early. May was a splendid month for the farm, being warm and damp, and this caused a splendid hay crop and brought on all the cereals so as to make them independent of the long

drought. Our water supply is derived from wells in chalk 150 ft. deep which depend entirely on the winter R, and were consequently unaffected by the drought. The delay in autumn rains till the middle of October brought them dangerously low, but they rose rapidly with the downpours of November and December.—*Basing.*

BERKSHIRE.

FINCHAMPSTEAD, WEST COURT.—The heat was extraordinary. In July 8 days over 90° in shade, and in August 6 days. Over 7,000 of my young trees died; some of these had been planted 4 years but most of them only about January, 1911.—*C. E. Harris-St. John, F.R.Met.Soc.*

MAIDENHEAD, HALL PLACE.—Though it was a dry summer it was not nearly so dry as in 1893. This year we had the wettest May, November and December for the last 8 years. December had 5·80 in., and the heaviest month's R previous to this was in October, 1907, 5·16 in. The mean temp. for the year was 50°·8, which is 2°·2 above the average of 19 years.—*Gilbert A. Clayton East.*

NEWBURY, WESTON.—December had the largest R amount I have registered for that month since I commenced my register in 1874. July gave only ·02 in., the smallest recorded except April, 1893, which was also ·02 in. The R for the 3 months, for the 6 months, and for the 9 months ending September 30th, were each the smallest amounts recorded for the corresponding time.—*R. Osmond.*

DIVISION III.—SOUTH MIDLAND COUNTIES.

MIDDLESEX.

MILL HILL, THE HOLLIES.—Bright sunshine was recorded on 282 days with a total duration of 1788·2 hours. July was the brightest month with 316·6 hours, but more than 200 hours were registered in each month from May to September, the total for the five months being 1200·3 hours on 145 days. The total duration of R for the same months was 100·5 hours on 47 days. The greatest duration of sunshine on any one day was 14·1 hours, and this occurred on July 12th and 13th. The smallest monthly duration of sunshine was 36·9 hours on 14 days in December, in which month the duration of R was 93·2 hours on 26 days. The greatest duration of R on any rainfall day was 11·2 hours on June 23rd and October 24th. The shade temp. reached 80° or above on 34 days and exceeded 90° on

5 days. The min. temp. fell below 32° on 39 days, the last frost of the spring being on April 12th and the first of the autumn on October 29th.—*Frances Mill, F.R.Met.Soc.*

PONDERS END, BYLOCK HALL.—*Annus mirabilis* from a meteorological standpoint owing to the hot summer, droughts, and the severe TS of July 28th, also exceptional cold in the first week in April. On 38 days the max. was between 80° and 90° , and on 10 other days above 90° . The absence of R during the heat was intensified by the exceedingly low atmospheric humidity and the great abundance and brilliance of the sunshine.—*Harold Freir.*

HERTFORDSHIRE.

WATFORD, WEETWOOD.—R about 2 in. above the average; July very dry; May very wet; December the wettest on record.—*John Hopkinson, F.R.Met.Soc.*

ST. ALBANS, COUNTY MUSEUM.—Mean temp. of the year about 2° above the average of the 24 years 1887-1910. R $\cdot 30$ in. above the average of the same period. The wettest December in the neighbourhood for 50 years, at least, except in 1876.—*John Hopkinson, F.R.Met.Soc.*

BUCKINGHAMSHIRE.

SLOUGH, UPTON.—The R for the first nine months was light owing to the easterly bias of the wind. On October 21st a westerly change set in, and half the R of the year was collected in its three closing months. December alone contributed a quarter. A succession of droughts during five summer months, accompanied by very high temp., wrought great havoc with trees, pastures, fruit, vegetables, and flowers, and it became difficult to get sustenance for cattle, and wells ran short. Wasps were numerous. The undersoil remained, less than a foot down, dusty or baked hard until quite the last days of December. In July occurred the highest total of sunshine yet recorded in any month. August was the driest August on record here. September proved the sunniest September on record. December was the wettest December registered here, slightly eclipsing December, 1876.—*Richard Bentley, F.R.Met.Soc.*

HEDSOR.—The year opened cold, but with the exception of a sharp and destructive touch of wintry weather at close of March and early in April, mild and favourable conditions prevailed throughout

the spring. May was a beautiful month with fine, hot weather broken at intervals with heavy T rains. Hot and dry till mid-June, then wet and cloudy till the close, when the terrible drought set in lasting till mid-September. During the period of its greatest severity, July 6th to September 11th, the thermometer rose to 90° and upwards on 2 days and to 80° and upwards on 25 days. The autumn was persistently mild with many lovely days, and from mid-October very wet, especially in December.—*Boston.*

SAUNDERTON, SPEEN.—The drought was much felt on these hills. I lost 600 or 700 larch trees planted in 1910, simply because the ground was as dry as tinder for a depth of 3 ft. The ground was not properly wet again till about the end of October.—*H. R. McCarthy.*

SLOUGH, LANGLEY.—This year had the driest 4 consecutive summer months, June to September, during the last 40 years. It also had the wettest December for that period.—*R. H. Major.*

WINSLOW.—The first 2 months of the year were unseasonably mild, and an epidemic of measles was rampant in the district during February. March, April and May were more seasonable months with a good supply of R and frequent days of sunshine, when pastures and vegetation generally were well advanced. An unusually low shade max. of 35°·8 was recorded on April 5th. June, July and August were months of brilliant sunshine, with many days of high temp. The hay crop was short, pastures scorched, and water was scarce during July and August, when animals in the fields suffered considerably. The last 4 months were showery, and December especially contributed largely to the R of the year. The year was free from TSS and severe gales.—*R. A. Easton.*

OXFORDSHIRE.

CAVERSHAM.—In common with the greater part of the south of England the outstanding feature of the year was the glorious summer. The wintry weather of the first and second weeks of April was followed by 8 weeks of warm weather, and heavy TSS occurred in the Thames Valley on May 25th and 26th. The latter half of June was dominated by rather cool and unsettled conditions. The summer may be said to have commenced in earnest in July, and the semi-tropical state was maintained until the second week in September. During June, July and August, 838 hours of bright sunshine were recorded. The total R for the three months amounted to 2·98 in.,

R falling on 22 days only. October was drier than usual, but the deficiency of the year was counter-balanced by a wet November and a December which was abnormally wet, R falling on 26 days and yielding a total of 6·19 in., so that the total fall for the year amounted to 98 per cent. of the average.—*W. Simpson.*

NORTHAMPTONSHIRE.

BLISWORTH, CRIEFF HOUSE.—R 5·43 in. below, and rain days 2 above, the average of 26 years.—*A. Westley.*

RUSHDEN.—Remarkable for the very small number of days on which R fell between April and September. The last three months had 67 days with R, forming a striking contrast to the previous six months. Long periods of drought occurred, mainly during the latter part of January, and during April, May, June, July and August. Heavy downfalls have not been so common as during 1910, and TSS have also been less frequent. The average max. and min. temps. have been higher than usual during most of the months, and especially so during June, July and August. The last frost but one in the spring was noted on April 14th, but frost occurred on June 15th doing considerable damage to garden crops and fruit blossom.—*Saml. Saddler.*

ORLINGBURY HALL.—Have measured daily for over 20 years and never had so little to do. Wells here failed on August 15th for the first time since 1868. Springs only began to move on December 24th.—*W. B. Jacques.*

WOODFORD HOUSE.—A remarkably dry summer, July having no R whatever until the 27th, which was of little use considering the burnt state of all the fields. The R of August all came round the 21st; this being the first to do any good.—*E. N. Plevins, F.R.Met.Soc.*

BEDFORDSHIRE.

AMPTHILL, HIGHAM BURY.—The past summer has been unusually dry, owing to the very few days on which R fell in July, August and September. The deficiency was partly made good by the R in the first half of November and in December, verifying the ancient adage:—

“Nought as surely pays its debt
As wet to fine, and fine to wet.”

The summer has been remarkable for the almost total absence of TSS, notwithstanding the great heat.—*Edward J. Jekyll.*

DIVISION IV.—EASTERN COUNTIES.

ESSEX.

INGATESTONE, FRYERNING, FURZE HALL.—The feature of the summer and autumn was not only its heat but its dryness. No such early or rapid harvest has been remembered by the old farmers since 1868. It was practically ended by 10th August. No grass on the pastures. The cows were fed with hay from early August, and no green fodder to keep up the milk supply on our large dairy farms. Not till the middle of November did our neighbouring farmer get back his ordinary water supply and cease carting from our pond for his stock, and not till then did the R penetrate the ground and make it easy to work and to plough. Suet was very scarce and difficult to get during November and December, owing, says the butcher, to heat and absence of summer grass preventing the beasts fattening properly. Our own cows were scarecrows though fed with cake.—*Edith E. Wilde.*

SUFFOLK.

IPSWICH, ROOKWOOD, COPDOCK.—The marvellous summer will be the feature of 1911 which, no doubt, will stand out most in men's memory, though the year has yielded some other unusual phenomena. Most notable was the extraordinary cold of April 4th and 5th. Then came the drought, as well as the intense heat of July and August, practically extending from April to September. Finally the excessively wet November and December, the latter month having no less than 27 rain days, with a proportionately high mean temp. at 41°·8. The average mean temp. for the year was 50°·6. The total sunshine, 1,942 hours, was 80 hours above the previous record in 1906.—*F. L. Bland.*

GREAT GLEHAM, GLEHAM GROVE.—The R was so very short in the spring and summer that the farmers have suffered severely. The hay crop was the worst known for the past 70 years. Most of the pastures reserved for hay were not worth cutting, the grass having failed to grow. Many of the root crops failed altogether, and in others the roots were not half the usual size. Many meadows were dried up in the summer. The bareness of the pastures in the autumn afforded no food for the stock in the winter.—*A. Bloomfield.*

WALSHAM-LE-WILLOWS. — An unusually hot and dry summer followed by heavy R in the last 3 months. An excellent wheat harvest, but very poor hay crop.—*M. C. Martineau.*

DIVISION V.—SOUTH WESTERN COUNTIES.

WILTSHIRE.

SALISBURY PLAIN, SHREWTON.—The features of the year were, first the abnormal summer, the sun-heat being even more remarkable than the shade temp. which was here much modified by cool nights. The mean max. in the second week in August was over 90° in the screen. Secondly, the drought of the first $9\frac{1}{2}$ months, the R from 22nd December, 1910, to 18th October, 1911, being only 12·75 in., little more than half the average. Thirdly, the R in December, 8·77 in., was a record for December, and only once exceeded here in any month. Vegetation quite scorched up in latter part of summer, and gardens never so unproductive.—*F. J. Wardale.*

HIGHWORTH, HANNINGTON HALL.—The villagers and the farmers were only put to considerable inconvenience in carrying water, there was never an actual dearth of water. Pastures became quite brown but recovered quickly, and at the end of the year looked as in spring.—*F. M. S. Hussey-Freke.*

DORSETSHIRE.

WINTERBOURNE STEEPLETON.—The want of R in the five months, May to September, was most apparent. There was an absolute drought during the first 28 days in July, and by the end of September the total R was much below the mean for that period. The three last months of the year gave a total of 19·60 in., which brought the total fall of the year to within 2·11 in. of the average R of the previous 18 years.—*Henry Stilwell.*

BEAMINSTER, FLEET STREET.—A year remarkable for its heat and prolonged drought. R 3·63 in. below the average of 38 years. We had 15·52 in. in the first $9\frac{1}{2}$ months and 18·74 in. in the remaining $2\frac{1}{2}$ months. The fall in December, 10·27 in., was the heaviest I have recorded in 31 years.—*Jas. Andrews, Junr.*

DEVONSHIRE.

POLAPIT TAMAR [LAUNCESTON].—Up to the end of November, the accumulative amount of R to the end of each successive month showed a steady deficiency on the average, and at the end of November the deficiency amounted to 6·25 in. December, however, proved most abnormally wet, the total of 11·29 in. being the largest amount recorded for any single month in the past 42 years.—*R. C. Coode.*

DARTMOUTH, KINGSWEAR.—All months unusually dry except last three. October R but little above average, November and December much wetter than usual. Mean temp. of the year, $53^{\circ}\cdot 1$, was unusually high. December was warmer than April. During August the temp. never fell below 55° until early in the morning of the last day.—*W. L. G. Bennett*.

TORQUAY, ROBY HALL.—The remarkable phenomena of this year are, of course, the heat and drought of summer and the R of December. During the summer 70° or over was recorded on 83 days, and of those days 22 marked 80° or over and 7 marked 85° or over. On the other hand, frost was recorded on 48 nights down to and including April 14th. Only 13·82 in. of R had fallen up to October 18th, but the last 10 weeks of the year, and especially December with its gigantic total of 10·67 in., brought the total R a little above what is regarded as the local average.—*John Edwards-Moss*.

TIVERTON, ST. PETER STREET.—A long drought, beginning with a small R in May and June, an absence of R in July until the last 3 days, when a little fell, a small R for August and September, about the average for October and November, and a very heavy continuous fall in December with frequent gales at night.—*M. E. Gill*.

AXMINSTER, LEA COMBE HOUSE.—A year of extremes in R, July being practically rainless and December having the heavy total of 10·72 in. While the 3 months, July to September, together only contributed just 1·00 in. on 16 days, December alone had as much as the 7 months April to October. The great drought of July, August, and the first fortnight of September was attended by constant sunshine, clear air, and intense heat.—*A. C. F. Luttrell*.

CORNWALL.

HELSTON, TENDERAH.—Continuous summer weather from May 3rd to September 18th, but for a break from June 15th to June 24th. No R fell from June 30th to July 26th. December was the wettest month of that name for many years.—*J. Walker Tyacke*.

EMPACOMBE [DEVONPORT].—R ·43 in. below the average for 22 years. December had a record fall of 9·16 in. Although 1911 was the hottest and driest summer for many a long year the water supply at Mount Edgcumbe was even better than in other dry summers. The hay and root crops were very light, but a very healthy year for sheep and cattle.—*John Sandercock*.

SOMERSET.

CRANMORE HALL.—The year is remarkable for having the driest month ever recorded at this station, viz., July, with .03 in. of R, and also for having in the same year the wettest ever recorded, viz., December, with 10.20 in. The R was much below the average up to the end of September, but the year came out in the end with 1.24 in. above the previous 30 years' average.—*E. B. Whish.*

EAST HARPTREE, HARPTREE COURT.—In spite of the extraordinarily dry summer and autumn the total R was .31 in. above the average of 29 years. From May 11th to October 13th only 6.68 in. fell, of which 2.43 in. fell on August 21st.—*W. W. Kettlewell.*

PUBLOW.—During the long drought in July, which was the most severe even the oldest inhabitant could remember, it was a rather remarkable fact that the wells situated near the summits of the hills continued to give a good supply of water, whilst the wells in the valley for the most part were dried up.—*A. Hayes.*

EDINGTON.—July was the driest month recorded in 22 years, and December, with the exception of October, 1891, the wettest. Of the total fall, 14 in. fell in the last 9 weeks.—*A. C. F. Luttrell.*

LANGPORT, THE GRANGE.—Year chiefly remarkable for prolonged and largely uninterrupted sunshine totalling 1826 hours 40 mins. The sunshine of July was phenomenal; the sun shone on every day of the month, totalling no less than 337 hours 35 mins. It also rained only on 29th of this month. The great R of December caused the river Parrett to overflow its banks, and thousands of acres of the low-lying moors were submerged on either side of the G.W.R.; the lines were just submerged on December 20th, and 3 days afterwards were 20 in. under water, the space between the station platforms looking like a canal.—*H. Page.*

NORTH CADBURY RECTORY.—Remarkable for the protracted heat and drought of the summer and the phenomenal R of December. January and May had less than half their average, and July was all but rainless. Only March and November were above their average, and that but little, till December almost succeeded in bringing the year to normal amount. The dry period began with May 4th, and lasted to October 18th, 168 days, of which only 45 were rain days, with total R of 6.91 in. Then after October 18th R was so continuous that up to December 27th only 7 days were wholly rainless. The heat began with May 6th, and there were more readings above 90° in 1911 than above 80° in 1910. In the whole year not one max. below 36°.—*H. A. Boys, F.R.Met.Soc.*

DIVISION VI.—WEST MIDLAND COUNTIES.

GLOUCESTERSHIRE.

TORTWORTH COURT.—The year will be remembered for its drought. A good many of the ponds about the district, which cattle depended upon, dried up, and farmers were obliged to haul water from other places. The latter part of the year was mild and wet. No frost from April 12th till October 28th.—*John Banting.*

STROUD, STANLEY PARK.—R 1·61 in. below, and rain days 19 below, the average of 22 years.—*W. H. Marling.*

GLOUCESTER, BELGRAVE ROAD.—R 4·56 in. below, and rain days 10 below, the average of 28 years. The fall of ·04 in. in July was the lowest for that month, and 5·92 in. in December the highest for that month recorded in 28 years.—*W. Piffe Brown.*

WINCHCOMBE.—The year was characterised by prolonged drought during the months of June, July and August, and unprecedented R in December. In July there were 24 consecutive days on which no R fell.—*J. Halliwell.*

CIRENCESTER, DOLLARWARD HOUSE.—R 6·72 in. below the average of 66 years. Till the end of September the driest 9 months on record for 66 years, every month showing a deficiency. The heat, sunshine and drought of the summer will be long remembered. Though the last three months were wet, yet the springs never rose till mid-December, and were only full in the last 10 days of the year, and the shortage of water was most severely felt. Only twice in the last 66 years has a monthly rainfall been less than that of July, viz., ·06 in.—*C. P. Hooker, F.R.Met.Soc.*

DUNFIELD.—The year was remarkable for the small quantity of R during the first 9 months of the year, and the great heat during May, June, July, August and September. It was also the first year since 1844 that no R was registered in July. December had the heaviest R since 1844, with the exception of 1876.—*A. T. Iles.*

HEREFORDSHIRE.

WOOLHOPE, THE HYDE.—The R was 2·19 in. below the average of 20 years. The six months, April to September, had the lowest fall recorded during that period, only 7·78 in., against an average of 12·30 in.—*J. A. Thompson.*

WHITNEY-ON-WYE.—Vegetation suffered very much in the summer owing to the deficiency in the R. The hay crop was light,

and there was very little aftermath; corn was short in the straw, but good in the head; field roots appeared to stand the drought fairly well, but were smaller than usual and the farmers were not at all well prepared for a long winter. In gardens, fruit and vegetables suffered much, peas were over early, apples and other fruit fell from the trees before they were ripe, and the vegetable supply in some gardens for winter was very scant. Water in deep wells and surface streams failed almost entirely, and much difficulty was experienced in watering stock. There was a good R in the last 3 months, after which wells were about normal.—*W. Burgess.*

STAFFORDSHIRE.

MAYFIELD HOUSE [ASHBOURNE].—The year was remarkable for the long spells of drought, the great heat during the summer, and the large amount of sunshine throughout the year. On 19 days the thermometer exceeded 80° in the shade, and on August 9th reached 91°·9. The bright sunshine registered amounted to 1629·5 hours.—*G. C. Lawson.*

WORCESTERSHIRE.

TENBURY, ROCHFORD RECTORY.—An exceedingly dry summer with considerable periods in other months of light R. December, however, had the heaviest fall, 6·42 in., for this particular month recorded here for the past 17 years.—*John Tomson.*

EVESHAM.—A record year for shortage of R during May, June, July, and August; very high temp. in July and August. Pastures and lawns were practically “burnt up” and there was no keep for cattle, resulting in disastrous prices for stock, which at one time could hardly be sold. Market gardeners suffered severely by the loss of several fruit and vegetable crops owing to prolonged drought. Most ponds in the area were quite dried up and surface springs began to fail. In some cases large areas were artificially irrigated by pumping from the river Avon.—*Richard Burlingham.*

EVESHAM, BENGWORTH.—An exceptionally dry and hot year; there was no TS, though distant T was heard. Temp. over 80° in the shade on 20 days in July, 14 in August, and 5 in the first twelve days of September; several days over 90° in the shade. Local people say it was the driest and hottest year since 1868, and probably it was worse than that year.—*H. Ross.*

WARWICKSHIRE.

WORMLEIGHTON HALL.—A long hot summer followed by an exceptionally mild winter to the end of the year. The R from May 1st to October 20th was only 6·97 in. on 173 days.—*F. W. Burnett.*

STRATFORD-ON-AVON, AVONFIELD.—The lowest R here since 1887, when the fall was 17·74 in.—*G. W. Everard.*

LEAMINGTON, CUBBINGTON.—R 4·84 in. below the average of 25 years.—*Mary Isabel Robins.*

DIVISION VII.—NORTH MIDLAND COUNTIES.

LINCOLNSHIRE.

LOUTH.—The year has been a prosperous one for agriculture, exceptionally dry in July and August, and exceptionally wet in November and December. The number of rain days in December, 28, was the most registered in any one month during 39 years. R for year 1·27 in. below the average for that period.—*F. Fawcsett.*

NOTTINGHAMSHIRE.

NOTTINGHAM, BEESTON.—R 4·59 in. below the average of 30 years. Number of rain days in December, 27, has only been exceeded during the last 20 years in October, 1903.—*Frank Rothera.*

WORKSOP, HODSOCK PRIORY.—The year has been marked by the absence of cold throughout, by the hot days in summer, and by the pronounced deficiency of R from January to September. The mean temperature, 49°·9, was 2° above the average, and higher than in any of the previous 32 years, though 1898 was close behind with 49°·8. The maximum, 94°·4, was the highest yet recorded, and there were 30 days on which the temperature exceeded 80°, the highest number in any previous year having been 13 in 1893. There were 1438 hours of sunshine, which is rather more than in any of the previous 30 years, except 1893. Two of the previous 35 years had a smaller R, 1887 and 1905 ; at the end of September the deficiency was 42 per cent. of the average, but by the close of the year this was reduced to 21 per cent. The very short turnip crop was probably the worst feature of the year for the farmer.—*H. Mellish, F.R.Met.Soc.*

DERBYSHIRE.

ASHBOURNE WATER WORKS.—Not only was the summer a dry one but the autumn and early winter were exceptionally fine and open. In many cases water had to be carted 2 and 3 miles or cattle driven to streams from that distance. Almost the whole of the drinking pits for cattle ran dry and did not fill up until the middle of November.—*Jas. W. Twigg.*

CHELLASTON.—The R was below the average in every month of the year with the exception of June, November and December; in the two former only slightly above, but in December two-thirds above. Extensive floods prevailed on the rivers Trent and Derwent in the third week of December. The R of the year was below the average of 30 years by 5·27 in.—*Humphrey Chambers.*

BAKEWELL, CATCLIFF.—Great drought throughout June, July, August, September, and on into October. Many ponds were dried up which had never, in the recollection of the oldest inhabitant, been dried up before.—*Thomas Fentem.*

DIVISION VIII.—NORTH-WESTERN COUNTIES.**CHESHIRE.**

CHESTER, CHRISTLETON HALL.—The winter was generally mild and very dry; 10° or more of frost were registered on only 6 nights, and the total R for the 3 months only amounted to 2·72 in. The spring was unusually dry and fine, May and the first half of June being very dry, hot and bright. The summer was hot, dry and bright. The autumn was more showery, but mild and open to the end of the year.—*John Weaver.*

LANCASHIRE.

BLUNDELLSANDS, PARK CORNER.—The R was 4·34 in. below the average of 35 years, and the lowest total fall since 1905. The most remarkable feature was the low fall, only 6·29 in., during the first five months. July was, excepting 1898, the driest ever recorded here, while September was only wetter in 1883, and only in January, 1881, has the first month of the year been so dry.—*A. L. Reade.*

GARSTON, GRASSENDALE PARK.—R 3·44 in. below the average of 31 years.—*E. C. Abraham.*

ACCRINGTON, ST. JAMES'S VICARAGE.—Although the past year has been considered an unusually fine one, R fell on more than half

the days. No month was without its wet period. The longest dry period in my record was 16 days' drought ending June 15th. July, which is often the wettest month, was the driest this year. The R in December was the heaviest since 1891.—*A. Spencer.*

BROUGHTON-IN-FURNESS.—February, September and December were much in excess of the average R, but January, March and July were much below the average. The remaining six months did not vary greatly from the usual fall. There were 9 days during the year when the fall was over 1·00 in. in the 24 hours. The outstanding feature of the year was the large number of warm sunny days. Shade temp. reached 70° on 60 days, the average number for the previous 10 years being only 25.—*Chas. P. Chambers, F.R.Met.Soc.*

DIVISION IX.—YORKSHIRE.

WEST RIDING.

SETTLE, THE TERRACE.—The R from the end of the first week in March till the last week in October was very much below the average, but the subsequent fall was sufficient to make the total for the year 1·18 in. above the average of 25 years. On six occasions the fall exceeded an inch.—*J. W. Shepherd, F.R.Met.Soc.*

DONCASTER, WADWORTH HALL.—A warm, dry summer, the screen maxima reaching 80° and upwards on 25 occasions. The years 1893 and 1899 showed 13 and 12 such occasions respectively, and all other years from 1888 only reached single figures. In 1907 and 1910 80° was never reached. R 1·73 in. below, and rain days 6 below, the average of 20 years.—*Jas. C. Ross, F.R.Met.Soc.*

SHEFFIELD, FULWOOD HOUSE.—A remarkable year of long-continued drought, brilliant sunshine, and excessive heat. The R was deficient during each month from March to September, and the thermometer in the screen reached 80° and upwards on 25 days. As late as October 29th the unusual sight was witnessed of people walking about at the bottom of some of the reservoirs that supply Sheffield with water.—*James Dixon, F.R.Met.Soc.*

WATH-UPON-DEARNE, CHAPEL STREET.—The finest summer we have had for many years, with sunshine far above the average, R 5 in. short, the hottest day for many years, a May and December without snow, and a July and August with only one TS, make up a year quite unique in my experience. The mean temp., 47°·1, was far above the average. Duration of sunshine, 1696 hours.—*Fredk. J. Burman.*

MELTHAM, HAREWOOD LODGE.—R and rain days almost exactly the average. February, November and December were all wet, while July was the driest month of that name for very many years, and the fourth driest month in my record. The year was a very warm one, only equalled by 1893, the mean temp. of both being $48^{\circ}6$; two months only, October and November, were somewhat cold. The heat of July and August was exceptional, August being only exceeded by July, 1901, and July, 1911, ranging third. The two months together give a mean temp. of $62^{\circ}7$, more than 1° higher than any other two consecutive months.—*Charles Lewis Brook, F.R.Met.Soc.*

HORBURY, HIGHFIELDS.—The sunniest and driest year in the memory of the oldest inhabitant. After a dry spring everything suffered terribly from drought. Hay was cut and led in the village from 2nd to 5th June. Usually first cuts are about 25th June. On July 28th I made this note: "Everything burnt up—peas, cabbage and other greens, hollyhocks, calceolarias, and stocks quite dead. Great heat and drought. All springs failing, even those never known to fail before. Oats only 18 inches high, quite ripe, cutting July 26th in all directions." All the harvest was in, excepting beans, on August 20th. The ponds were dry until November 12th, when the R really got through for the first time.—*Jno. H. Green.*

HALIFAX, HALL INGS, S. OWRAM.—The driest and hottest year recorded. R below the average of 21 years by $10\cdot59$ in. Absolute drought from May 15th to June 16th.—*G. E. Aspinall.*

SHIPLEY, WEST POINT.—The R does not adequately represent the duration and rigour of the drought here, and all over the district. I took the gauge of water level in six small reservoirs— $17\frac{1}{2}$ to 95 million gallons in Rombald Moor draining an area of 2,000 to 3,000 acres in four catchgrounds from June 25th to October 20th on five occasions, during which period of 118 days there was a continued decrease in the reservoirs. During this time the influx sank to the merest dribbles. The River Aire and its tributaries sank in a similar way.—*Malcolm M. C. Paterson.*

NORTH RIDING.

WEST WITTON.—January and February were generally mild and open. March, and the first fortnight of April were decidedly cooler, the last fortnight in April being showery and favourable for the growth of vegetation. The summer drought began during the first

week of May, and lasted, with slight intermission, until the day after the Coronation. July was practically one continuous record of drought and heat, though the max. shade temp. of 85°·4 was not reached until August 8th. During August the conditions were still very droughty, but after the first week in September we had decidedly more precipitation. October, November and December were very mild, and the heavy R soon brought the springs to their normal level. I think the high earth temp. we experienced had a great deal to do with the intensity of the drought, as the ground was so warm that the slight R was quickly evaporated, leaving the soil caked and hard. The hay and corn crops were housed in excellent condition, though the former was deficient by about one-third.—*Jas. B. Espiner, F.R.Met.Soc.*

DIVISION X.—NORTHERN COUNTIES.

DURHAM.

SUNDERLAND, WEST HENDON HOUSE.—The R was ·65 in. above the arithmetical and ·99 in. above the geometrical mean for the 46 years, 1860—1905. After 4½ years with only one day with 1 in. of R, this amount was exceeded on three days this year, viz., June 23rd, with 1·17 in., June 24th, with 1·99 in., and November 18th, with 1·49 in. The result is that June was both the wettest month in the year, and the wettest June since I began my record in 1860. S fell on 14 days in the year, the greatest depth being only ½ inch on the mornings of March 13th and April 5th. The total duration of time that R fell was below the average, though above it in June. There was a striking deficiency of the S.E. wind up to September, a marked excess of the N. wind in October, and of the E. wind in March.—*T. W. Backhouse, F.R.Met.Soc.*

NORTHUMBERLAND.

TYNEMOUTH, PERCY PARK.—Duration of sunshine 1540·7 hours on 300 days.—*J. E. Burnett, F.R.Met.Soc.*

CUMBERLAND.

SEASCALE, WHINTHWAITE.—R 3·91 in. above the average of 22 years.—*Robert Hellon.*

DIVISION XI.—MONMOUTH, WALES AND THE ISLANDS.

MONMOUTHSHIRE.

ABERGAVENNY, LINDA VISTA.—The year was remarkable both for its heat and drought. During the first ten months the R only amounted to 18·70 in., against 18·46 in. during November and December. The latter month was particularly wet, culminating on the 18th in serious floods in South Wales.—*A. V. Whitehead.*

GLAMORGANSHIRE.

PORT TALBOT, MARGAM.—The unprecedented drought of the summer resulted in the failure of water supplies generally looked upon as reliable. In the whole of this district the situation became serious ; in some cases the sources of supply were absolutely dried up, and others reduced to mere dribbles.—*G. Lipscomb.*

PEMBROKESHIRE.

ST. DAVID'S.—Abnormally warm, dry and beautiful summer. Meadow hay light and carried in good condition. Corn crops on the whole good. Green crops poor at outset, but made wonderful progress after September rains. Very heavy R in November and December, and stormy.—*D. P. Williams.*

HAVERFORDWEST.—January was mild with a small R, the next three months were cold and wet, but the summer months, with the exception of June from the 10th to the end which was cold, were very fine and warm. The R from May to September was below the average, especially in July, which was exceptionally dry. October and November were wet months, and December produced the largest R for one month of which I have any record. December, 1868, is the nearest approach to it with 10·76 inches. Total R for the year 2·88 in. in excess of the average for 63 years. Up to the end of November the average had not been reached, but the unusual downpour of the last month more than made up the deficiency. July was the sunniest month, with 295·9 hours, the year having 1878·2 hours, the largest amount recorded since observations were first taken here in 1901, and 342·5 hours in excess of the average for that period. Crops of all kinds though small have been good, except potatoes, which in many cases have turned out badly.—*J. W. Phillips.*

DENBIGHSHIRE.

LLANGADWALADR, PENYGWELY RESERVOIR. — It is perhaps worthy of note that drought years have occurred in cycles of 5 years, viz., 1896, 1901, 1906, 1911. In each of these years there has been a shortage of R during the months of March to July, with a consequent lessened delivery of water from the gathering ground, resulting in the reservoir becoming empty in the early part of September. Although an exceptionally dry summer the R here is nearly up to average, almost 21 in. having fallen during the last 4 months of the year.—*G. W. Lacey.*

CARNARVONSHIRE.

ABERSOCH.—The R for the 5 months, March to July, was very small, being less than 10 in., but it was very heavy in the last 2 months, the total for which was 15·19 in.—*W. H. Winterbotham.*

GUERNSEY.

ST. MARTIN'S, LES BLANCHES.—Following a dry spring and a remarkably dry and hot summer the weather broke up for good on September 19th, and as the year advanced became increasingly unsettled and wet, with the result that, whereas at the end of September the year was to-date the driest of the last eighteen, the twelve months ended with a total ·79 in. in excess of the normal. The excessive wetness of November and December, as compared with the previous ten months, is well brought out by the fact that, of the twelve months' total rainfall, half fell in the last nine weeks and five days of the year.—*Basil T. Rowsell.*

SCOTLAND.**DIVISION XII.—SOUTHERN COUNTIES.****WIGTOWN.**

WHITHORN, CUTROACH.—The most remarkable feature of the year was the fine long summer, which lasted practically from early in May till near the end of October. The chief break in this fine spell was the last half of June, with its considerable rainfall, which saved many of the crops in this district from failure. The excessive

R of the last two months, especially December, with its 29 rain days, has brought the total to within a few inches of average.—*J. G. Martin.*

KIRKCUDBRIGHT.

LINCLUDEN HOUSE [DUMFRIES].—Hot and dry summer and a great scarcity of water in September. Very wet in November and December and an extraordinarily high temp., both in day and night, during the latter month.—*Patricia A. Young.*

DUMFRIES.

LANGHOLM, EWES, BURNFOOT.—R .83 in. above the average of 29 years.—*J. C. Little.*

ROXBURGH.

MELROSE ASYLUM.—R 3.60 in. below and rain days 10 below the average of 29 years.—*A. C. Pattman.*

DIVISION XIII.—SOUTH EASTERN COUNTIES.

BERWICK.

COLDSTREAM, LOCHTON.—Little or no S and comparatively little frost at the beginning of the year. Very unsettled weather during the first three weeks of March. Cold and unsettled, with a good deal of wind in April. Very warm in May and June. There were practically six weeks' drought straight on end, broken by a very wet day with a gale of wind on June 26th. Very warm in July and August, and a severe TS on August 9th. Heavy R on September 29th, after a spell of exceedingly dry weather. October, November and December were unsettled months.—*John Aitchison.*

LINLITHGOW.

BO'NESS, GRANGE.—The year was remarkable for the very fine, dry summer and autumn. The R was deficient all over West Lothian from April till the end of October. On October 21st the drought came to an end, and November was above the average in R. The harvest was remarkably good. Great trouble was caused from want of water, and the public reservoirs were quite dry for some weeks. Water had to be pumped from old quarries and pits all over the county.—*H. M. Cadell.*

DIVISION XIV.—SOUTH WESTERN COUNTIES.

RENFREW.

KILMALCOLM WATERWORKS.—Very dry year with a large amount of sunshine. Great growth of flowers and vegetables, which have never been finer. All crops were secured early and in splendid condition, but grazing was deficient owing to the small R.—*D. S. Carson.*

DIVISION XV.—WEST MIDLAND COUNTIES.

STIRLING.

BUCHLYVIE MANSE.—On the whole bright and sunny, except November and December, which were dull. The summer and autumn were unusually fine; February and November were very wet, and December had not a dry day. R 1·60 in. above the average of 22 years.—*J. A. Macdonald.*

KILSYTH, CURRYMIRE.—The year commenced very mild and open, February being in before the weather was very severe. A favourable spring was followed by a remarkably fine summer, the only drawback being the scarcity of water in places.—*James Smith.*

ARGYLL.

DALMALLY.—The year may be characterised as one of spells, unusually long periods of wet weather alternating with dry periods. Till the middle of March it was very wet; then a month or so of dry cold weather, followed by twenty days of excessive R for the period of the year. From the second week in May till the third week in June great heat and drought, resulting in a shortage of grass. November and December were excessively wet, indeed from November 27th to December 31st there were 35 consecutive rain days. There were great gales in the early part of November.—*Farquhar MacRae.*

DIVISION XVI.—EAST MIDLAND COUNTIES.

FIFE.

LARGO, CARLTON.—The smallest R since 1870, when the total was 21·69 in.—*E. Tate.*

ST. ANDREWS WATERWORKS.—From January to October the R was considerably below the average, and a remarkable period of fine and dry weather was experienced during the summer months. Crops

suffered considerably during the long continued drought, which was followed by a very wet November and December. The R was the lowest yet recorded, and was much below the average of past years.—*Wm. Watson.*

PERTH.

COUPAR ANGUS.—The year closed with R 5·94 in. under our average for the last 30 years ; also the driest year during that period. The first ten months were all dry and registered a deficit, particularly August which is generally our heaviest. The two closing months gave each a surplus fall, particularly December with a heavy total of 5·48 in., and a surplus of 3·00 in. over its average. There have been no heavy rains during the year, but very persistent during the last two months. The past year has also been unique as regards temp., being the warmest season during the past 30 years.—*John Robertson.*

PERTH.—During the first 10 months R was about 50 per cent. below the average ; but in the last two months it was in excess. The total R was about 66 per cent. of the annual average. The Tay was abnormally low from June to the end of August when there was a rise followed by another low period lasting till October 19th. Springs in many parts of the county gave out, and considerable inconvenience was experienced in some localities.—*Alex. M. Rodger.*

FORFAR.

ARBROATH, DISHLAND HILL.—Chiefly remarkable for the mildness of the winter months, the excess of sunshine in the summer and autumn, and the lowest R since 1898, when the total amounted to 18·67 in. The average R for the past 22 years was 22·90 in.—*J. Campbell.*

DIVISION XVII.—NORTH EASTERN COUNTIES.

KINCARDINE.

FETTERCAIRN, THE BURN.—The register sufficiently shows the abnormal season of 1911. From January 1st until October 18th the R amounted in all to 15·33 in., fairly distributed amongst the months. Wells and springs dried up altogether in many cases, whilst the crops, both grains and roots, were severely affected ; the

former, however, including straw, was of excellent quality. Since October 19th no less than 14·44 in. have fallen, thus, after all, bringing the R for 1911 to not so far below the average as might have been expected, and renewing the supply in the springs, &c.—*Chas. M'Inroy.*

ABERDEEN.

ABERDEEN, CRANFORD HOUSE.—The R for the first 9 months was only 13·97 in., but the last 3 months had a total of 14·53 in. There were frosts on 83 days.—*D. McHardy.*

ALFORD, LYNTURK MANSE.—An abnormally low R for the first 10 months. Excepting June, which was somewhat above the average, each of those months was below the average. An absolute drought of exceptional length, 23 days, ended on June 7th. Consequent great failure of water supplies, many springs drying up, and a harvest earlier than any since 1868. Heavy rainfall in November and December.—*James B. Duncan.*

DRUMBLADE PUBLIC SCHOOL.—The R up to October was much below the average, and resulted in the failure of water supplies in the neighbourhood. Early harvest, which in most cases was finished within three weeks of starting.—*G. Harper.*

DIVISION XVIII.—NORTH WESTERN COUNTIES.

INVERNESS.

LOCH NESS, DRUMNADROCHIT.—Although the R for the year was ·31 in. over the average, and the number of rain days 3 above the average, the year was looked upon as being very dry, no doubt because the fall for the growing months, May to August, was down below the average for the 26 years by 2·11 in. and 8 rain days. The fall for November was abnormally high, being 7·92 in., or 4·55 in. above the average.—*Angus Grant.*

ROSS.

ALNESS, ARDROSS CASTLE.—Drought was threatened during May and part of June, and again in August and the first half of September. The drought, however, in this immediate district was not so severely felt as in some parts of the country. S, during the early months of the year, was conspicuous by its almost entire

absence ; there was a rather heavy fall during November, when 7 inches of S were measured. Gales were not of frequent occurrence. The temp. was, on the whole, above the average, and altogether the summer was the finest for many years.—*William L. Minty.*

DIVISION XIX.—NORTHERN COUNTIES.

CAITHNESS.

CASTLETOWN, THE CLETT. —A specially dry and warm year, with more sunshine and more S. and W. winds than usual. Farmers say—“It was the best harvest there has been in Caithness during the last 40 years.”—*John Calder.*

IRELAND.

DIVISION XX.—MUNSTER.

CORK.

MIDLETON, BALLINACURRA. —The past year has been very remarkable for deficiency of R during the first 8 months, followed by a superfluity in the last 4 months ; also for excess of sunshine and heat during May, June, July, and August.—*J. H. Bennett.*

KERRY.

DARRYNANE ABBEY. —In spite of a very fine, hot summer, the R for the year was 8 per cent. above the average. With one exception (September, 1875, with a fall of 10·61 in.) December, with 10·27 in., was the wettest month in 32 years' record.—*D. O'Connell.*

WATERFORD.

WATERFORD, BROOK LODGE.—R 2·41 in. above the average of 37 years.—*C. P. Bolton.*

SHESKIN [CARRICK-ON-SUIR].—The distinguishing feature of the year was the small R up to July 24th. The water supply was seriously short in many places, grass lands and crops were suffering from drought, and inland navigation was greatly impeded. In December we had 30 days' R and the heaviest monthly fall on record excepting that of November, 1902, viz., 11·44 in. on 22 days. Floods filled our valleys and stopped inland navigation for 3 weeks continuously, a record without precedent in recent years I believe.—*J. Ernest Grubb.*

TIPPERARY.

NENAGH, CASTLE LOUGH.—Fine hot weather with temp. much above the average from May 9th to October 18th. Most of the R in this period fell in heavy T showers. From October 19th to December 31st 18·35 in. of R fell. The total for the year was 2·45 in. above, but the number of rain days 19 below, the average of 25 years.—*S. G. J. Parker Hutchinson.*

CLARE.

BROADFORD, HURDLESTOWN.—R 6·21 in. above, and rain days 21 below, the average of 26 years.—*W. A. Bentley.*

LAHINCH, MOY HOUSE.—It has been a remarkable year for its excessively hot summer, long droughts, and for its unusual heat waves. The crops and harvest were exceptionally good. The winter has been remarkable for its mildness and almost entire absence of cold winds, frost or S; and November and December for their severe gales, heavy R and high tides. Altogether it has been a record year, as the hottest, driest and most healthy for west coast of Clare for the past 20 years.—*C. H. Blood.*

DIVISION XXI.—LEINSTER.**WEXFORD.**

FETHARD-ON-SEA.—The generally dry and hot summer of 1911 was of the same character here as elsewhere in the British Isles, but it was pleasanter because of the absence of extreme temp. The shortage of water was severely felt here, but more because a dry spring was followed by the hot summer than on account of any extreme dryness of the summer itself, in which no month failed to produce at least 1 in. of rain, and all were fairly up to the average except May.—*W. F. A. Ellison.*

WICKLOW.

RATHNEW, CLONMANNON.—December, with 8·78 in. of R, was the wettest month in the 9 years that observations have been taken, and exceeded the total of the first 6 months of the year. There were 28 days' absolute drought from May 16th to June 12th, and there were also long partial droughts in summer.—*W. H. A. Truett.*

QUEEN'S COUNTY.

SUNNYSIDE [CARLOW].—Altogether abnormally dry summer. December was the wettest month since December, 1876. Heavy flooding in town of Carlow during December.—*E. Shackleton.*

KING'S COUNTY.

BALLYCUMBER, MOOROCK LODGE.—The spring months were cold and foggy, but the summer was very hot and dry. The latter months were very mild and wet, and there were floods in the Brosna and Shannon rivers.—*H. P. Mulock.*

DUBLIN.

RATHMINES, LEINSTER ROAD.—The year was chiefly remarkable for the splendid summer, which was the finest since I commenced my record, not even excepting 1887. Summer conditions prevailed from May 9th to September 11th, with the exception of the latter half of June. Temp. exceeded 80° on 6 days, and exceeded 70° on 55 days. January was very dry, but that is not remarkable here. August, however, had R below 1 in. for the first time since 1884. There was a total absence of real winter weather. A slight shower of S in January, a slighter one in April, and a few transient frosts, represented the "winter."—*E. H. Cannon.*

DIVISION XXIII.—ULSTER.**MONAGHAN.**

MONAGHAN, ROWANTREE HOUSE.—The year 1911 has been remarkable for having the driest and hottest summer as well as the wettest and least frosty winter known for many years. A water-famine prevailed in the months of August and September. May was a particularly good month, but June had some severe frosts at night. July was scorching and hot. August, September and October were very dry. Almost one-third of the total R for the year fell in November and December.—*J. Campbell Hall.*

DOWN.

WARRENPOINT, THE MANOR HOUSE.—There were eight spells of dry weather, commencing in January and continuing to the middle of September, and lasting for periods of from 12 to 21 days, followed

by almost perpetual R from October 18th to December 31st. There were only 25 days with frost in the whole year, against 64 in 1910 and 98 in 1909.—*A. W. Mansergh.*

ANTRIM.

BELFAST, QUEEN'S UNIVERSITY.—R 1·63 in. above the average of 45 years.—*G. Robinson.*

TYRONE.

OMAGH, EDENFEL.—A remarkably fine year, with a spring and summer R much below the average. The heavy R in November and December brought the annual fall almost to the average. During August and September there was a scarcity of water generally. The dry spring made the hay and oat crops light, but on the whole the year was a splendid one for farmers.—*J. B. Buchanan.*

DONEGAL.

FANAD, TAMNEY RECTORY.—A most remarkable year for fine and bright weather. There was practically no winter in January and February, the spring was very mild and genial, and the summer glorious, and all the more so when compared with the nightmare of a season that fell to our lot in 1910. The autumn was rainy, and distinctly so towards its close. Of the months, the R was defective in all except February, April, November and December. The shortage was singularly marked in August, January, June and May.—*A. C. Digby French.*

THE DISTRIBUTION OF RAINFALL IN TIME.

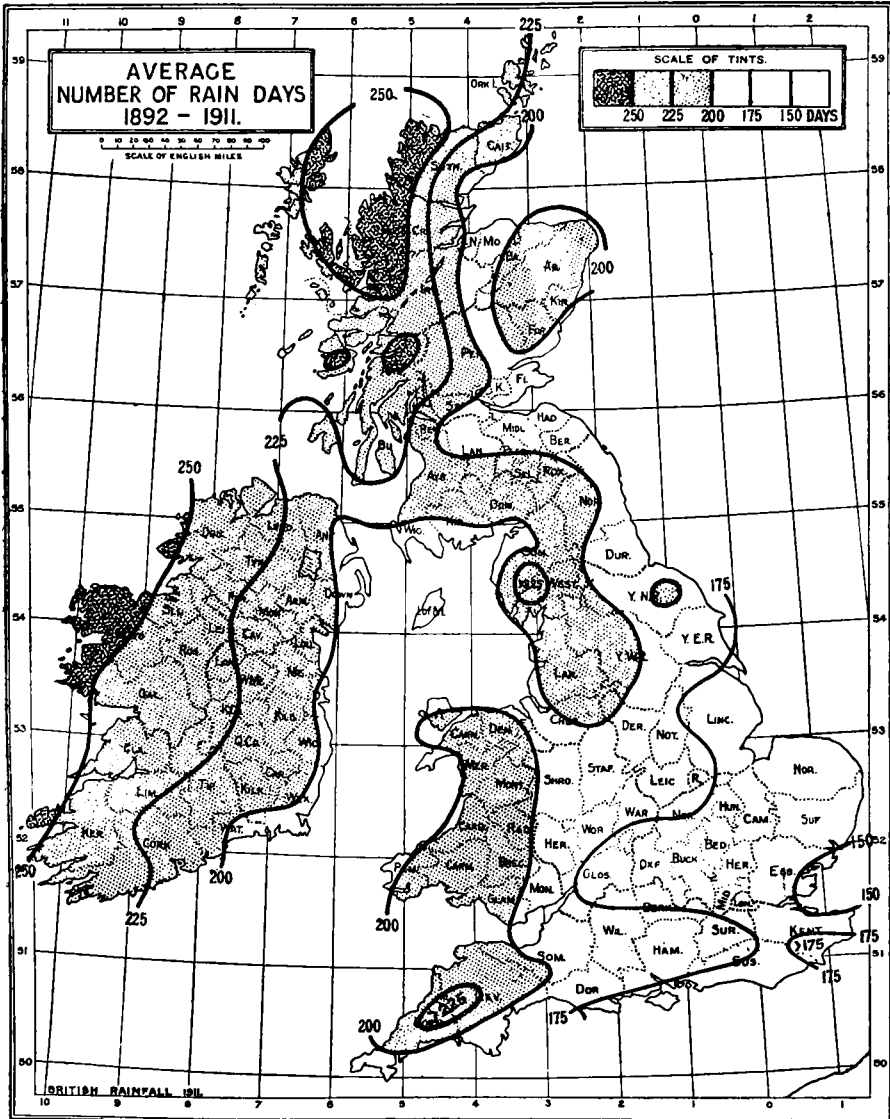
RAIN DAYS IN 1911.

IN *British Rainfall*, 1902, we made what we believe to have been the first systematic attempt to discuss the relative frequency of days with rain in different parts of the British Isles. The average number of rain days for 12 years at 62 well-distributed stations was calculated and a map plotted from them. The general averages for each of the larger divisions of the United Kingdom, as deduced from those data, have, since that time, provided a rough standard with which to compare the yearly values, and year by year it has been becoming more apparent that these average values were too low. The period used for the average was one in which dry years predominated, a fact which could hardly fail to be reflected in the frequency values. It is probable also that the rain gauge measures in use twenty years ago were often less sensitive than those of to-day, and other reasons also help to explain the fact.

For the purpose of obtaining more satisfactory standard values we have now extracted the numbers of rain days recorded at 100 stations of established accuracy and so distributed as to represent approximately equal areas. The period used was in each case the twenty years from 1892 to 1911. There is reason to suppose that the average of the last twenty years agrees fairly with that of a much longer period, and we may accept it as giving much more trustworthy values than the shorter period, 1891—1902. The results of this investigation are set out in Table I., and a map based upon them is also given, which for the present furnishes the best guide to the average distribution of number of rain days.

The distribution of frequency resembles that of amount of rainfall, the wetter districts of the west receiving rain on more days than the drier districts in the east. The uplands of Wales, the Pennines, and the mountains of Scotland are clearly included within the line of 200 days which entirely cuts them off from the eastern plains. The

occurrence of the 200 line in the Yorkshire Wolds and over Aberdeenshire, where the easterly wind rains have their most pronounced effect, is a noteworthy feature. The falling off towards the south-east of England is also conspicuous, the Thames Valley being marked by less than 175 rain days and the Thames Estuary being the only



part of the country where the average number of rain days may be believed to fall below 150. The western half of Ireland and that portion of the western half of Scotland which is not sheltered from the rain-bearing winds by Ireland, have uniformly more than 225 days with rain. In the still more westerly and exposed coastal strips

of both countries 250 is reached. Thus one may remark in passing that on the average of the year it rains on five days out of a week in the extreme west and on three days out of a week on the extreme south-east of the British Isles.

The mean values deduced from the newly-extracted data confirm our suspicion of the old standard values, showing them to have been uniformly too low by about $\frac{1}{4}$ per cent. For purposes of comparison we give them side by side.

COUNTRY.	Average, 1891-1902.		Average, 1892-1911.		Diff. days.
	Number of Stations.	Rain Days.	Number of Stations.	Rain Days.	
England and Wales	28	181	47	187	6
Scotland	19	206	30	216	10
Ireland	15	216	23	223	7
BRITISH ISLES	62	197	100	204	7

From 1903 onwards mean values for the countries deduced from carefully selected stations have been published year by year, and these may be regarded as giving a very fairly accurate indication of the fluctuations in frequency, whilst the averages given above enable us to compare them *inter se*.

Number of Rain Days, 1903-1911, compared with the Average of 1892-1911.

Year.	ENGLAND & WALES.			SCOTLAND.			IRELAND.			BRITISH ISLES.		
	Rain Days.	Diff. from Aver.	Per cent. of Aver.	Rain Days.	Diff. from Aver.	Per cent. of Aver.	Rain Days.	Diff. from Aver.	Per cent. of Aver.	Rain Days.	Diff. from Aver.	Per cent. of Aver.
1903	211	+24	113	244	+28	113	252	+29	113	229	+25	112
1904	188	+ 1	101	219	+ 3	101	231	+ 8	104	206	+ 2	101
1905	186	— 1	99	222	+ 6	103	221	— 2	99	203	— 1	100
1906	192	+ 5	103	226	+10	105	231	+ 8	104	210	+ 6	103
1907	203	+16	109	232	+16	107	240	+17	108	218	+14	107
1908	189	+ 2	101	221	+ 5	102	228	+ 5	102	206	+ 2	101
1909	195	+ 8	104	216	0	100	209	—14	94	204	0	100
1910	209	+22	112	221	+ 5	102	233	+10	104	218	+14	107
1911	175	—12	94	209	— 7	97	202	—21	91	191	—13	94

TABLE I.—*Average Annual Number of Rain Days, 1892—1911.*

Station.	County.	Average	Station.	County.	Average
Camden Square ...	London	161	Hamilton	Lanark	185
Hythe	Kent	181	Dalrymple	Ayr	210
Tunbridge Wells ..	„	174	Rothsay	Bute	226
Brighton	Sussex	163	Ballachulish	Argyll	236
Ventnor	Hants, I. of W	162	Lochgilphead ...	„	218
Swarraton	„	184	Campbeltown ...	„	226
Oxford.....	Oxford	158	Islay, Eallabus...	„	212
Wellingborough...	Northants	175	Mull, Quinish ...	„	236
Trumpington	Cambridge ...	168	Balcarres	Fife	198
Shoeburyness	Essex.....	147	Balquhiddier	Perth	229
Colchester	„	150	Blair Atholl	„	189
Beccles	Suffolk	170	Fettercairn	Kincardine ...	195
Swaffham	Norfolk.....	171	Logie Coldstone ..	Aberdeen	218
Warminster.....	Wilts	198	Aberdeen	„	221
Maiden Newton...	Dorset	177	New Deer.....	„	214
Ashburton	S. Devon	187	Gordon Castle ...	Elgin	202
Arlington	N. Devon	211	Grantown	„	187
Falmouth	Cornwall	197	Fort Augustus ...	Inverness	228
Altarnon	„	232	Arisaig	„	240
Quedgeley	Gloucester ...	169	Scalpay Island ..	„	248
Clifton.....	„	180	Lochmaddy	„	220
Leominster	Hereford	184	Glencarron	Ross	259
Shifnal.....	Shropshire ...	190	Stornoway	„	265
Kenilworth	Warwick	178	Dunrobin	Sutherland ...	175
Market Overton...	Rutland.....	178	Loch Stack	„	259
Hagworthingham ..	Lincoln	172	Watten	Caithness	216
Worksop.....	Notts	175	Scotland. Mean ...	216	
Belper	Derby	184	Dunmanway	Cork	228
Northwich	Cheshire	203	Mallow	„	216
Blackpool	N. Lancs.....	195	Killarney	Kerry.....	230
Settle	York, W.R....	211	Darrynane.....	„	247
Meltham	„ „	210	Waterford	Waterford	186
York	„ „	186	Clonmel	Tipperary	209
Hull.....	„ E.R. ...	180	Miltown Malbay ..	Clare	242
Northallerton	„ N.R. ...	195	Hurdlestown ...	„	233
Seamer	„ „	177	Courtown	Wexford	172
Barnard Castle ...	Durham	186	Abbey Leix	Queen's Co. ...	223
Morpeth	Northumberl'd	196	Glasnevin	Dublin	196
Brampton	Cumberland ...	205	Moynalty ...	Meath	216
Duncheon Ghyll ...	Westmorland	240	Ballinasloe	Galway	229
Treherbert	Glamorgan ...	213	Crossmolina	Mayo.....	261
Dolaucothy.....	Cardigan	220	Cong	„	243
St. Ann's Head ...	Pembroke	197	Markree	Sligo	245
Nantgwillt	Radnor	220	Belturbet	Cavan	217
Lake Vyrnwy.....	Montgomery...	206	Seaforde	Down	198
Llandudno	Carnarvon.....	196	Bushmills	Antrim	221
Holyhead	Anglesey	199	Antrim	„	202
England & Wales. Mean	187		Newtownstewart ..	Tyrone	228
Garliestown	Wigtown	173	Horn Head	Donegal	249
Dumfries	Dumfries	203	Killybegs	„	249
Portmore Res. ...	Peebles	195	Ireland. Mean ...	223	
Coldstream	Berwick	185	British Isles. Mean ...	204	

NOTE.—If the values for more than one year have been estimated the average is printed in italics.

during the year. It is the first attempt to map the number of rain days in full detail, the figures for nearly 3,000 stations having been plotted on the large-scale map on which the lines were drawn before they were reduced to the small scale required to fit our page. Comparing this map with the map of average distribution (on p. [75]), it will be seen that the areas covered by the tint indicating more than 200 rain days have shrunk from solid masses, including the whole of the western portion of the British Isles, into disconnected patches, unbroken, it is true, in Scotland and Ireland, but even there narrowed and deeply indented by intrusions of the 200-day line, whilst in England and Wales they have almost disappeared from the map. The 150-day line, on the other hand, though normally it hardly finds any place even in the driest part of England, stretches almost unbroken across the Midlands, reaches the Irish Sea at the mouth of the River Dee, and even appears on the east coast of Ireland. Only two isolated appearances of the 250 line occur, and these in spots where the rainfall of the year was well above the average amount. In Ireland the 225-day line coincides closely with the normal position of the 250-day line. It appears probable that although over no inconsiderable part of the United Kingdom the rainfall for the year exceeded the average, the number of days on which rain fell was practically everywhere deficient. We give, as last year, a table of the number of rain days for each month at 100 stations. No months stand out very conspicuously except November and December, which present the remarkable record of 49 rain days between them. In December, on the average, only 4 days escaped rain during the month.

The stations quoted in Table II. are also utilized in the articles which follow on Droughts and Rain Spells.

TABLE II.—*Number of Rain Days in 1911.*

STATION.	COUNTY.	Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Total.	Total Rain-fall.	Amount per Rain Day
[80]																
BRITISH RAINFALL, 1911.																
in.																
ENGLAND & WALES.																
St. Pancras, Camden Square ...	London	12	14	18	11	10	11	5	7	11	14	19	23	155	24·79	·16
Hythe, Hillcrest Road	Kent	20	13	18	14	7	15	4	6	9	17	20	25	168	29·13	·17
Tonbridge, Beech Hurst	"	14	12	18	11	6	11	2	7	9	14	22	24	150	30·08	·20
Brighton, Ditchling Road	Sussex	17	15	19	17	4	10	3	7	9	16	21	29	167	33·86	·20
Totland Bay, Aston House	Hampshire	11	14	16	14	8	11	2	7	10	18	16	25	152	27·41	·18
Petersfield, Ditcham Park	"	13	16	17	12	9	12	5	7	11	16	20	27	165	38·14	·23
Basingstoke, Sherborne St. John	"	14	17	20	11	12	11	4	11	7	16	21	28	172	25·90	·15
Newport Pagnell, The Croft ..	Buckinghamshire	5	11	15	12	7	12	5	10	10	15	17	27	157	20·52	·13
Oxford, Magdalen College	Oxfordshire	12	14	15	12	8	11	2	10	8	16	16	27	151	19·52	·13
Cambridge, Botanic Gardens ...	Cambridgeshire	13	13	16	10	7	13	5	6	10	16	19	22	150	19·01	·13
Shoeburyness	Essex	12	14	16	13	5	9	3	6	8	15	18	24	143	18·76	·13
Colchester, Hill House, Lexden	"	15	11	17	11	6	9	6	7	7	13	19	27	148	19·92	·13
Beccles, Sotterley Hall	Suffolk	15	19	18	11	6	12	6	9	12	17	20	25	170	21·43	·13
Swaffham, The Paddocks	Norfolk	15	18	18	14	5	12	4	8	11	17	25	29	176	29·10	·17
Salisbury Plain, Shrewton	Wiltshire	16	16	17	14	7	14	1	13	9	16	22	27	172	26·84	·16
Winterbourne Steepleton	Dorsetshire	17	18	16	12	8	12	1	9	10	18	23	28	172	36·24	·21
Ashburton, Druid House	S. Devon	11	16	20	14	6	13	3	11	14	22	25	27	182	51·58	·28
Morwenstow Vicarage	Cornwall	18	17	24	16	9	16	5	13	15	19	24	30	206	37·63	·18
St. Austell, Trevarna	"	12	15	21	14	7	15	3	11	14	18	22	29	181	42·20	·23
Angersleigh, Leigh Court	Somerset	9	17	18	14	10	13	3	7	12	21	22	27	173	32·83	·19
Simonsbath	"	17	18	22	18	10	15	5	13	13	19	23	31	204	66·29	·33
Clifton, Pembroke Road	Gloucestershire	11	17	18	19	7	16	3	13	12	16	22	27	181	31·54	·17
Stow-on-the-Wold	"	17	14	22	15	7	11	5	13	10	20	23	28	185	26·58	·14
Hereford, Holmer Hall	Herefordshire	11	13	19	16	5	11	4	13	10	17	21	26	166	22·56	·14
Shifnal, Neachley	Shropshire	8	13	15	9	8	11	4	11	13	16	24	26	158	20·28	·13
Mayfield House [Ashbourne] ..	Staffordshire	9	15	15	14	6	14	6	12	11	16	22	27	167	25·82	·15
Hampton-in-Arden, Hampton Manor.	Warwickshire	11	12	21	16	8	11	5	13	9	17	20	27	170	26·50	·16
Market Harborough, Rose Hill	Leicestershire	2	14	16	11	8	11	4	14	10	16	22	27	165	22·27	·14
Boston	Lincolnshire	14	15	20	10	8	16	5	13	10	16	27	28	182	24·12	·13
Worksop, Hodsock Priory	Nottinghamshire	5	9	12	13	8	9	6	13	10	17	20	24	160	19·29	·12
Northwich, Highfield	Cheshire	9	16	14	14	11	13	10	9	13	16	20	27	172	26·42	·15
St. Michael's-on-Wyre Vicarage	N. Lancashire	15	17	12	17	7	12	9	13	12	13	19	28	174	34·69	·20
Settle, The Terrace	Yorkshire, W.R.	16	17	18	18	9	13	10	16	12	17	22	28	196	44·21	·23
Meltham, Harewood Lodge ...	"	18	15	23	17	12	14	10	13	14	20	23	27	206	44·46	·22

	Yorkshire, E.R. ... 3	16	16	22	16	8	16	8	11	11	20	23	26	193	24.41	13
Hull, Pearson Park	3	16	16	22	16	8	16	8	11	11	20	23	26	193	24.41	13
Thirsk, Mount St. John	N.R. ... 2	13	13	19	14	10	11	7	12	9	18	25	24	175	25.39	15
Scarborough, Scalby .....	...	13	14	21	9	8	10	10	10	14	21	22	24	178	34.23	19
Barnard Castle, County School..	...	12	14	22	11	11	12	7	12	9	19	23	25	208	27.60	15
Haltwhistle, Bellister Castle...	1	18	15	21	18	10	14	9	17	12	21	25	28	208	39.17	19
Morpeth, Bothalhaugh.....	...	15	10	20	18	9	15	9	15	12	22	25	27	197	27.33	14
Duncheon Ghyll	5	15	10	20	18	9	15	9	15	12	22	25	27	197	27.33	14
Treherbert, Tyn-y-waun	2	21	19	15	16	13	15	16	15	14	13	25	31	213	125.81	59
Llanwrda, Dolaucothy	6	17	18	19	16	11	16	5	13	16	15	23	29	198	95.90	48
Trefgarne Hall	2	15	15	18	16	9	15	5	18	14	16	21	30	192	53.67	28
Birmingham W.W., Tyrmynydd	4	17	15	19	12	7	13	6	13	15	18	23	30	188	46.50	25
Lake Vyrnwy.....	1	13	17	23	15	10	15	9	17	15	16	24	30	204	59.14	29
St. Asaph, St. Beuno's College..	5	12	14	20	14	9	14	7	15	11	18	23	27	184	51.30	28
Abersoch.....	2	8	16	12	11	7	13	7	9	15	18	16	27	159	23.87	15
Llangefni	4	15	14	16	12	8	10	10	12	13	15	23	29	177	44.24	25
England & Wales	(Mean of 49 stations)...	8	13	13	10	3	12	9	8	17	13	20	21	147	37.60	26
		13	15	18	14	8	13	6	11	17	17	22	27	175	35.43	20
SCOTLAND.																
Garliestown, Galloway House...	4	12	16	11	14	14	9	12	9	7	11	22	22	159	36.04	23
Jardington [Dumfries]	5	15	19	9	16	14	12	13	13	10	12	20	28	181	39.44	22
Meggat Water, Cramilt Lodge...	2	20	19	22	15	14	18	15	15	14	18	24	31	232	49.09	21
Coldstream, The Hirsell	3	14	12	19	19	11	9	10	10	8	16	22	24	174	25.96	15
Drummore, Musselburgh	5	13	17	18	18	12	13	11	15	12	16	25	23	193	20.46	11
Hamilton, Laighstone Hall	5	17	19	14	17	13	10	14	14	14	13	19	30	194	37.87	20
Dalrymple, Bow Hill	5	20	22	15	17	14	14	13	15	16	15	21	31	213	52.64	25
Buchlyvie, The Manse	1	21	22	19	17	15	16	18	18	17	16	22	31	232	53.25	23
Rothsay, Glenburn	1	22	20	12	18	13	15	21	19	18	15	19	31	223	55.71	25
Glenleven, Kinlochleven	4	21	20	20	20	14	17	24	17	19	14	22	31	239	94.74	40
Campbeltown, Witchburn	10	16	21	13	13	13	14	22	15	17	16	19	29	208	48.38	23
Islay, Eallabus	14	21	25	14	14	12	14	25	16	24	19	20	31	235	49.89	21
Mull, Ulva.....	14	21	19	13	15	14	15	26	19	26	14	21	31	234	69.65	30
Cupar, Rankeillour	3	11	15	14	11	8	11	15	13	10	15	26	23	172	21.19	12
Aberfeldy, Dall Avon	11	17	17	19	15	8	12	17	17	13	10	22	27	194	33.89	17
Fettercairn, The Burn	1	13	15	22	16	9	10	16	13	8	14	26	24	186	29.77	16
Aberdeen, Cranford House	1	16	14	22	16	12	14	15	15	12	17	26	26	205	28.50	14
Strathdon, School House	2	16	18	23	23	10	17	16	19	9	17	24	24	216	31.20	14
New Deer, School House	4	16	16	20	21	12	14	13	16	13	17	27	23	208	30.99	15
Gordon Castle	2	13	18	19	20	12	13	17	17	13	16	21	20	201	26.98	13
Alvey Manse	3	13	14	16	17	8	16	11	17	14	14	20	19	179	26.44	15
Fort Augustus, St. Benedict's...	6	21	19	18	20	14	16	20	17	18	16	25	29	233	44.78	19
Loch Nevis, Inverie	12	24	22	13	16	11	17	24	19	25	15	18	30	234	95.00	41

TABLE II.—*Number of Rain Days in 1911—(continued).*

STATION.		COUNTY.	Jan.	Feb.	Mar.	Apr.	May.	June	July.	Aug.	Sep.	Oct.	Nov	Dec.	Total.	Total Rain-fall.	Amount per Rain-Day
																in.	in.
[82]																	
BRITISH RAINFALL, 1911.																	
SCOTLAND—(con.)																	
Skye, Dunvegan	Inverness	18	26	22	15	16	13	11	23	20	26	14	22	31	239	77.52	.32
Poolewe, Inverewe Gardens	Ross & Cromarty ...	8	19	16	17	13	12	14	19	12	22	15	16	24	199	58.84	.30
Invershin	Sutherland	1	12	16	17	16	13	14	17	9	14	13	18	15	174	30.29	.17
Loch Stack, Ardochullin	"	5	24	22	19	24	10	20	23	18	27	17	22	26	252	67.73	.27
Thurso, Buckies	Caithness	3	15	19	24	18	13	16	21	16	26	18	23	25	234	35.14	.15
Scotland	(Mean of 28 stations) ..	18	18	18	17	17	12	14	18	16	16	15	22	26	209	45.41	.22
IRELAND.																	
Skilbereen Rectory	Cork	4	18	17	20	16	14	12	10	15	15	19	22	29	207	52.54	.25
Mallow (Summer Hill)	"	7	11	15	19	15	9	14	11	17	13	18	22	28	192	39.96	.21
Darrynane Abbey	Kerry	4	18	20	23	16	20	18	15	20	16	21	24	31	242	55.19	.23
Waterford, Brook Lodge	Waterford	3	11	15	19	16	6	12	11	12	12	19	19	27	179	42.04	.23
Nenagh, Uighlands	Tipperary	1	10	12	15	14	9	11	13	16	11	15	19	27	172	32.22	.19
Cahir, Bengurragh	"	3	14	17	25	16	11	15	9	19	13	18	23	29	209	42.32	.20
Carrigaholt Castle	Clare	3	11	18	15	17	16	16	15	17	16	17	21	27	206	38.13	.19
Newmarket-on-Fergus, Fenloe ..	"	3	18	20	18	17	14	16	12	16	15	18	22	30	216	36.63	.17
Gorey, Courtown House	Wexford	4	8	13	16	11	6	8	11	14	11	21	20	25	164	35.83	.22
Abbey Leix, Blandsfort	Queen's County ...	2	10	17	16	17	13	15	13	19	14	20	22	26	202	37.49	.19
Dublin, FitzWilliam Square ..	Dublin	2	10	17	17	15	10	11	13	15	11	20	23	26	188	23.48	.13
Kells, Headfort	Meath	4	12	16	14	17	11	12	12	12	10	16	21	30	183	34.01	.19
Ballinasloe	Galway	5	17	19	19	15	13	14	14	16	13	17	21	26	204	38.45	.19
Crossmolina, Enniscoe	Mayo	2	18	19	20	17	11	15	19	22	19	23	26	31	240	51.36	.21
Cong, The Glebe	"	6	19	20	16	16	12	14	13	18	14	19	24	31	216	49.03	.23
Collooney, Markree Observatory	Sligo	2	17	19	13	14	10	16	17	20	17	19	18	28	208	42.30	.20
Mohill Rectory	Leitrim	5	13	18	16	15	11	13	15	16	13	14	18	29	191	36.44	.19
Seaforde	Down	2	11	16	13	16	10	11	12	12	9	15	22	23	170	34.14	.20
Bushmills, Dundarave	Antrim	3	12	21	14	15	11	11	22	15	15	13	22	26	197	31.10	.16
Antrim, Ardnaveigh	"	5	12	18	12	14	12	10	18	14	10	15	20	25	180	26.67	.15
Omagh, Edenfel	Tyrone	3	18	19	17	14	13	14	18	15	14	18	22	28	210	38.80	.18
Fanad, Tanney Rectory	Donegal	2	18	21	19	16	10	18	26	19	21	23	23	29	243	35.19	.15
Killybegs	"	5	20	19	17	16	10	16	17	16	18	20	22	30	221	55.19	.25
Ireland	(Mean of 23 stations) ..	14	14	18	17	15	11	14	15	16	14	18	22	28	202	39.50	.20
BRITISH ISLES	(" 100 ") ..	15	15	18	18	10	10	13	11	14	13	17	22	27	191	39.16	.21

BRITISH RAINFALL, 1911.

DROUGHTS IN 1911.

THE year 1911 was popularly believed to have been unparalleled for the number and length of its dry periods, and the following comparative table, based upon the number of Absolute and Partial Droughts at 100 well-distributed stations in the British Isles during the last 24 years shows that the belief was not without foundation.

In order to preserve uniformity, we continue to make use of the old definitions, which run—

The ABSOLUTE DROUGHT is a period of *more than* 14 consecutive days no one of which is a rain day.

The PARTIAL DROUGHT is a period of *more than* 28 consecutive days the mean rainfall of which does not exceed .01 in. per day.

All the droughts at the 100 selected stations are quoted in the lists on pp. [91]–[97], but in order to avoid waste of space the names of those stations at which no droughts occurred have been omitted. A complete list of the 100 stations will be found in the Table of the Number of Rain Days on pp. [80]–[82]. The last line but one in the table on p. [84] summarises the list of droughts, giving the number of instances of both absolute and partial droughts, the mean and maximum duration, and the number of stations which failed to record any drought during the year. Similar summaries of the lists formed in previous years provide a means of comparison. It will be observed that, during the 24 years over which the comparison extends, in no year save 1887 was so large a number of absolute droughts recorded, while the number of partial droughts is greater than in that memorable year. The number of instances in 1911 was considerably more than double the average in the case of absolute droughts, and little short of three times the average in the case of partial droughts. The mean duration both of absolute and partial droughts differed little from the average, but as in each year all the droughts counted exceed the minimum length laid down by the definition, so that failure to attain that duration excludes shorter periods of dry weather, the column does not afford a perfect indication of the comparative duration of dry periods in each year. The longest absolute drought in 1911 was one of 32 days' duration from May 15th to

June 15th at Brighton. Several previous years, notably 1893, had instances of more prolonged absolute droughts ; in fact, from the point of view of duration the droughts of 1911 fall very far short of

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.	
1887	160	21	34	4	116	40	74	18
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
1910	32	16	24	70	23	33	42	78
Mean	62	18	26	53	49	37	55	61
1911	137	19	32	20	137	36	75	19
Diff.	+75	+1	+6	-33	+88	-1	+20	-42

NOTE.—The values previous to 1910 have been increased to the equivalent of 100 stations for ready comparison.

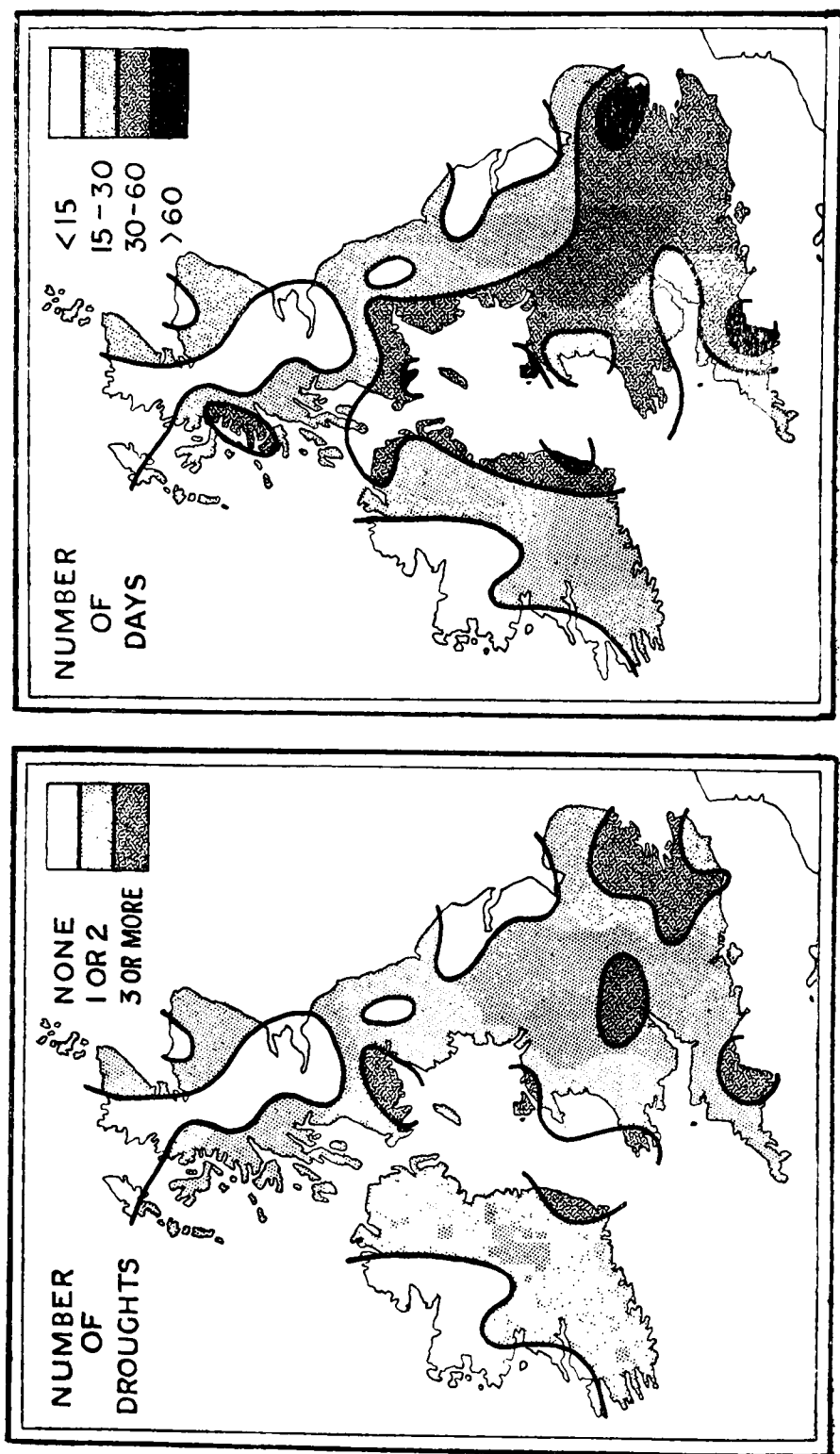
the great spring drought of that year. The same applies even more notably to the partial droughts, the longest recorded in 1911 having been one of 75 days from June 30th to September 12th at Totland Bay, in the Isle of Wight, whereas in 1893 a partial drought of 114 days' duration from March 1st to June 22nd took place at Hailsham, the same drought lasting for 112 days at Dorking and Corfe Castle. The number of stations at which no partial drought was recorded in

1911 was the smallest yet observed by the narrow margin of one. Several years had an equally small number in the case of absolute droughts, though none had less. Except for two isolated stations in the north of England, the only areas without either absolute or partial droughts were a narrow strip on the west coast of Ireland and a small part of the north-west of Scotland.

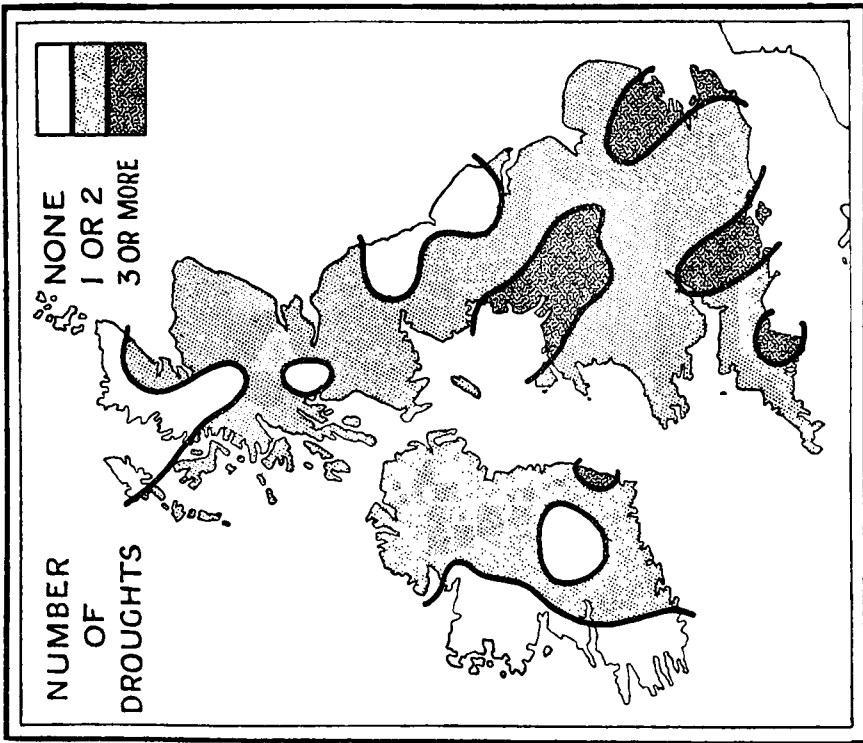
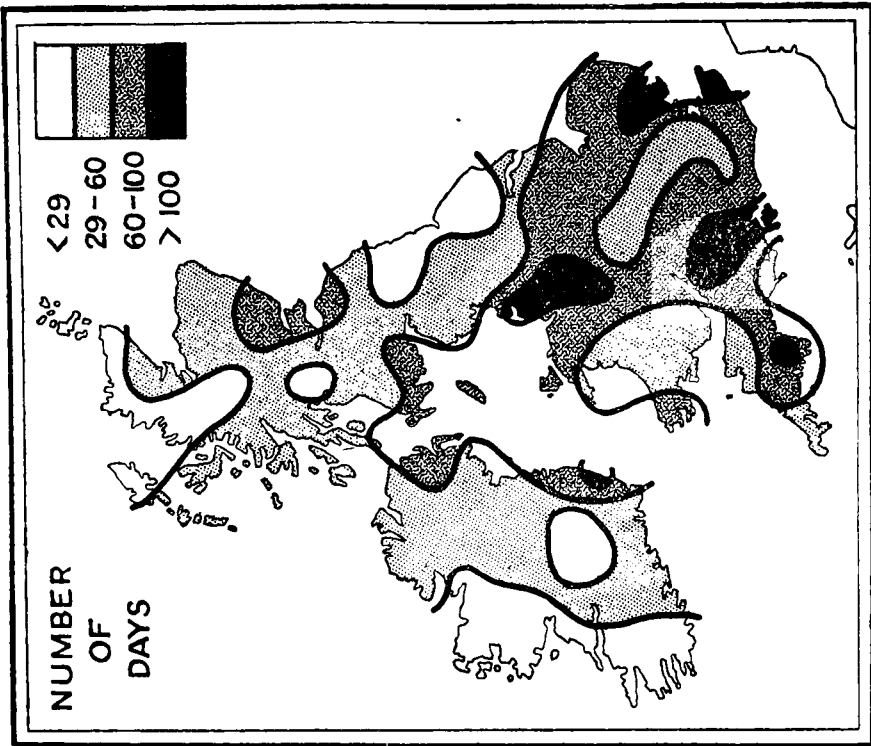
For several years we have been in the habit of illustrating the section of *British Rainfall* which deals with droughts with a sketch map indicating by appropriate signs the number and distribution of such phenomena during the year. The large number of instances of droughts during 1911, however, renders this method inconvenient. We have, therefore, indicated on the little maps on the two following pages the frequency of absolute and of partial droughts separately. The duration of the droughts is also a matter of importance, since it is clear that one continuous drought of 31 days' duration is a phenomenon more worthy of note than two periods of 15 rainless days separated by one rainy one, although the latter would figure on the map as two droughts and the former as one only. In the second little map we therefore indicate the frequency in terms of duration in days, all days being counted which fell within periods designated as forming droughts by the definitions cited at the beginning of this section. Similar maps have been constructed both for absolute and for partial droughts. It will be seen that the only areas which escaped absolute droughts lay in the west of Ireland, the centre and north-west of Scotland, and the north-east of England. Three or more absolute droughts took place around the Irish Sea and in the south of England. At a few isolated spots within this area as many as 60 days during the year were involved in absolute drought periods. The distribution of partial droughts is very similar, much the same districts having been immune. The areas with 100 or more days included were extensive, and the map gives a very fair indication of the districts which suffered most severely in respect of droughtiness during the year.

The droughts of 1911 fall into four main groups, namely, (1) the Winter Drought of January—February, (2) the Spring Drought of March—April, and (3 and 4) the two Summer Droughts of May—June and of July. The last-mentioned extended into August, and even occasionally into September in the south of England. Each of these four periods was marked by the occurrence of partial droughts over extended areas, and in each case the partial drought was

ABSOLUTE DROUGHTS IN 1911.

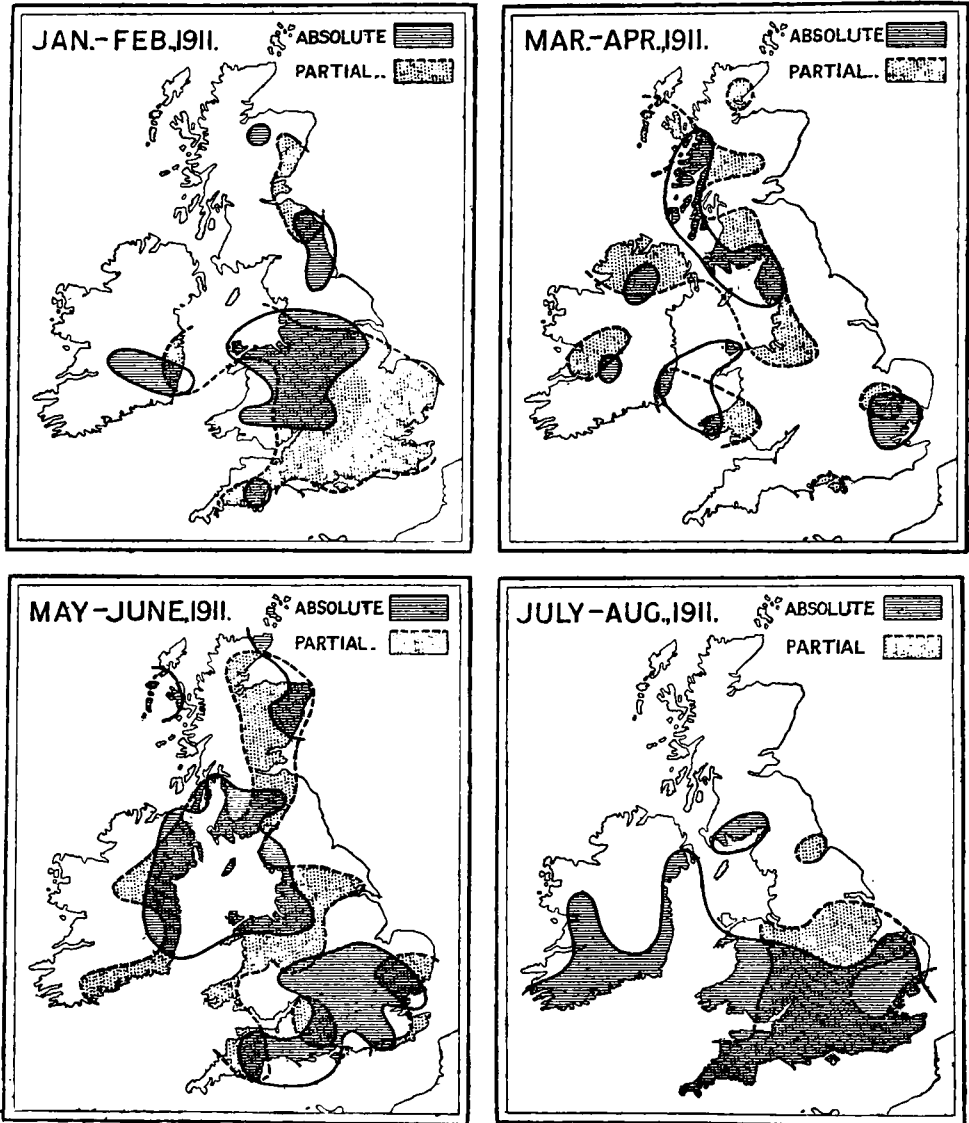


PARTIAL DROUGHTS IN 1911.



associated with an absolute drought. The districts affected may readily be seen by the accompanying sketch maps, on each of which is indicated by a solid line the limit of the absolute drought and by a broken line that of the partial drought.

THE DROUGHTS OF 1911.



1. The Drought of January—February.—As a partial drought this affected practically the whole of England south of the Humber, the only exception being part of the Devon-Cornwall peninsula. It also appeared on the east coast of Ireland and the east coast of Scotland. Its duration was nowhere more than 40 days

except in Essex, where it reached 44 days at Shoeburyness ; it commenced everywhere within a day or two of January 12th. The absolute drought was more limited in its extent, affecting chiefly the north of Wales and the north-west Midlands of England.

2. The Drought of March—April.—This drought, which was recorded only at a few stations in the normally drier parts of the country, was almost entirely confined to regions where droughts are of extremely rare occurrence, namely, the western coast of Scotland, the north-west of England, and the north of Ireland, where it left its mark unmistakably on the maps of the rainfall during March given in a later section. The duration of the partial drought was, generally speaking, from about March 12th to April 13th or 14th. The absolute drought was less pronounced on the whole, the area affected falling almost entirely within that of the partial drought, but it was extremely severe at several stations in the west of Scotland, reaching the remarkable duration of 30 days at Ulva and at Inverie on Loch Nevis. At Garliestown and at Campbelltown one rain day, March 29th, broke what would have been a still longer absolute drought into two shorter ones, both long enough to be placed on record.

3. The Drought of May—June.—The most widespread, though probably not the most severe drought of the year, began as a partial drought in most districts about the middle of May, though at a few stations principally in the north of England, Wales and South Ireland it commenced as early as the beginning of that month. The date of termination was more uniform, being everywhere on or about June 15th. The partial drought was felt at isolated places only in the south and east of England, but the whole of the west coast of England and Wales from the Bristol Channel northwards into Scotland as far as Kintyre was affected, as was also the east coast of Ireland and the eastern half of Scotland. The absolute drought occurred over most of the south-east of England, occupying a large part of the Midlands which escaped the partial drought. It also took place in a curiously compact and roughly circular area surrounding the Irish Sea, reaching its greatest severity in Anglesey, where two periods, April 1st to 17th, and May 4th to 22nd, inclusive, were without rain. A few stations in the north-east of Scotland and one in Skye also recorded the absolute drought.

4. The Drought of July—August.—Although considerably more limited in its extent, the great summer drought of 1911 un-

doubtedly gave more character to that droughty year than did the winter and spring droughts, on account of its coincidence with the great heat which marked the summer months. An absolute drought occupying roughly the first three weeks of July, but extending in parts of Wiltshire throughout that month, was felt over England and Ireland south of the 53rd parallel of latitude. It also extended to the coast stations on the west of the Irish Sea. In the south-east of England and also at one station on Dartmoor the July absolute drought was followed after a short break by another which lasted generally from about August 2nd to 19th; this latter drought also appeared in the south-west of Scotland. The partial drought was less widespread, being confined to England south of the Humber and Dee. It reached its greatest degree of intensity in the south-east, where over a considerable area it lasted for more than 50 days. A spell of dry weather in the early part of September, which brought absolute droughts to two stations in this part of the country, coalesced at Totland Bay with the previous drought, producing the remarkable period of 75 days from June 30th to September 12th during which only .70 in. of R was recorded. We have had occasion to study with rather more detail than is usually possible the incidence of droughts over the Thames Valley as a whole, and material exists for carrying a comparison back to the year 1883. The duration of the absolute drought in this area was 20 days from July 3rd to 22nd, during which time no tributary of the Thames above Teddington received so much as .01 in. of R with which to replace the constant natural drainage of the river, and the particularly heavy losses by evaporation which were taking place at the time. There are four instances on record, in 29 years, of more prolonged absolute droughts, viz.: 24 days in May and June, 1899; 25 days in June and July, 1887; 26 days in February, 1891; and 30 days in March and April, 1893. It will be noted, however, that the 1911 drought occurred later in the season than any of these, on which account it probably constituted an equally trying time for the river.

We have given as the frontispiece to this volume a diagram illustrative of the occurrence of droughts and rain spells during the year. The persistence of the four great droughty periods described above can be clearly followed. The diagram is divided by horizontal lines indicating successive periods of 10 days, and each vertical column represents the station named upon it. The blue portions of the column run through the number of consecutive days for which the

rain spells lasted. The red rectangles represent partial droughts and the thick red lines absolute droughts in the same way. The complete change in the conditions of the year's weather which took place during the late autumn and the beginning of the winter is very conspicuous on the diagram.

Droughts in 1911.

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Rainfall.
ENGLAND & WALES.			Days			Days	in.
St. Pancras (Camden Square) ...	Apr. 10	Apr. 24	15	Jan. 12	Feb. 13	33	·25
<i>London—2.</i>	June 30	July 23	24				
	Aug. 2	Aug. 18	17				
Hythe (Hillcrest Road)	July 1	July 23	23	Jan. 12	Feb. 9	29	·26
<i>Kent—1.</i>	July 31	Aug. 19	20	May 14	June 13	31	·17
				June 27	Aug. 19	54	·52
Tonbridge (Beech Hurst)	July 1	July 23	23	Jan. 12	Feb. 20	40	·36
<i>Kent—4.</i>	Aug. 2	Aug. 19	18	June 30	Aug. 19	51	·50
Brighton (Ditchling Rd., Preston)	May 15	June 15	32	May 4	June 15	43	·34
<i>Sussex—3.</i>	July 2	July 23	22	June 30	July 28	29	·22
	Aug. 29	Sept. 12	15				
Totland Bay (Aston House)	May 31	June 15	16	Jan. 12	Feb. 9	29	·23
<i>Hampshire—1.</i>	July 1	July 24	24	Mar. 22	Apr. 24	34	·33
				June 30	Sept. 12	75	·70
Petersfield (Ditcham Park).....	July 1	July 23	23	Jan. 12	Feb. 9	29	·27
<i>Hampshire—5.</i>	Aug. 4	Aug. 19	16	June 26	July 24	29	·29
Basingstoke (Sherborne St. John)	May 31	June 15	16	Jan. 12	Feb. 17	37	·37
<i>Hampshire—8.</i>	July 2	July 25	24	June 27	Aug. 20	55	·51
	Aug. 29	Sept. 12	15				
Newport Pagnell (The Croft) ...	June 1	June 15	15	Jan. 12	Feb. 16	36	·28
<i>Buckinghamshire—5.</i>	July 2	July 18	17				
Oxford (Magdalen College)	June 1	June 15	15	Jan. 12	Feb. 19	39	·35
<i>Oxfordshire—3.</i>	July 2	July 28	27	July 1	Aug. 4	35	·31
Cambridge (Botanic Gardens).....	Apr. 10	Apr. 24	15	Jan. 13	Feb. 20	39	·38
<i>Cambridgeshire—2.</i>	May 20	June 12	24	Mar. 23	Apr. 24	33	·32
	July 3	July 24	22	May 15	June 15	32	·21
Shoeburyness	May 15	May 29	15	Jan. 12	Feb. 24	44	·39
<i>Essex—3.</i>	July 3	July 23	21	May 15	June 15	32	·22
	Aug. 2	Aug. 19	18	June 24	Aug. 19	57	·41

Droughts in 1911—(continued).

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
ENGLAND & WALES—(con.)			Days			Days	in.
Colchester (Hill House, Lexden). <i>Essex—5.</i>	Apr. 11 May 29 July 3 Aug. 2	Apr. 25 June 13 July 23 Aug. 19	15 16 21 18	Jan. 13 May 15 June 26	Feb. 22 June 15 Aug. 19	41 32 55	·40 ·07 ·54
Beccles (Sotterley Hall) <i>Suffolk—3.</i>	July 3	July 23	21	Jan. 12 May 15	Feb. 10 June 15	30 32	·24 ·28
Swaffham (The Paddocks) <i>Norfolk—4.</i>	July 3	July 23	21	Jan. 13 June 30	Feb. 10 Aug. 20	29 52	·19 ·44
Salisbury Plain (Shrewton)..... <i>Wiltshire—3.</i>	May 27 July 1	June 14 July 28	19 28	Jan. 12 May 11 June 30	Feb. 17 June 15 Aug. 20	37 36 52	·28 ·25 ·43
Winterbourne Steepleton <i>Dorsetshire—3.</i>	May 30 July 1	June 14 July 28	16 28	June 30	Aug. 23	55	·43
Ashburton (Druid House) <i>South Devon—4.</i>	Jan. 25 May 12 May 30 July 1 Aug. 7	Feb. 9 May 28 June 14 July 28 Aug. 23	16 17 16 28 17	Jan. 12 May 4 June 30	Feb. 13 June 15 July 28	33 43 29	·28 ·33 ·02
Morwenstow Vicarage..... <i>Cornwall—I.</i>	July 1	July 16	16	May 14 June 30	June 15 July 28	33 29	·22 ·06
St. Austell (Trevarna)..... <i>Cornwall—2.</i>	July 1	July 28	28	Jan. 12 June 30	Feb. 13 July 28	33 29	·21 ·05
Angersleigh (Leigh Court) <i>Somerset—3.</i>	July 1 Aug. 7	July 16 Aug. 23	16 17	Jan. 12 June 30	Feb. 17 Aug. 1	37 33	·27 ·26
Simonsbath <i>Somerset—5.</i>	May 27 July 1	June 14 July 16	19 16	May 14	June 15	33	·11
Clifton (Pembroke Road) <i>Gloucestershire—5.</i>	July 1	July 25	25	Jan. 12 May 14 June 30	Feb. 16 June 17 Aug. 1	36 35 33	·35 ·30 ·20
Stow-on-the-Wold <i>Gloucestershire—7.</i>	Jan. 24 June 1 July 2	Feb. 9 June 15 July 22	17 15 21	Jan. 12 July 2	Feb. 17 Aug. 1	37 31	·25 ·28
Hereford (Holmer Hall) <i>Herefordshire—I.</i>	Jan. 22 May 31 July 1	Feb. 9 June 15 July 22	19 16 22	Jan. 12 June 25	Feb. 22 July 29	42 35	·40 ·27

Droughts in 1911—(continued).

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
ENGLAND & WALES—(con.)			Days			Days	in.
Shifnal (Neachley)	Jan. 25	Feb. 9	16	Jan. 9	Feb. 17	40	·33
<i>Shropshire—4.</i>	July 1	July 18	18	May 4	June 16	44	·24
				June 30	Aug. 1	33	·33
Mayfield House [Ashbourne].....	Jan. 13	Feb. 9	28	Jan. 9	Feb. 14	37	·33
<i>Staffordshire—5.</i>				May 15	June 16	33	·27
				June 30	July 28	29	·22
Hampton-in-Arden(Hampton Manor)	May 31	June 15	16	Jan. 12	Feb. 17	37	·34
<i>Warwickshire—4.</i>	July 3	July 18	16				
Market Harborough (Rose Hill)..	June 1	June 15	15	Jan. 13	Feb. 17	36	·32
<i>Leicestershire—2.</i>	July 1	July 18	18	June 30	Aug. 10	42	·42
Boston	None			Jan. 13	Feb. 17	36	·30
<i>Lincolnshire—3.</i>				June 26	Aug. 2	38	·35
Worksop (Hodsock Priory)	Jan. 20	Feb. 13	25	Jan. 13	Feb. 20	39	·29
<i>Nottinghamshire—5.</i>				June 25	Aug. 1	38	·36
Northwich (Highfield).....	Jan. 23	Feb. 9	18	Jan. 11	Feb. 13	34	·22
<i>Cheshire—2.</i>	June 1	June 15	15	Mar. 13	Apr. 19	38	·36
				May 4	June 18	46	·44
St. Michaels-on-Wyre Vicarage...	Jan. 25	Feb. 9	16	Jan. 11	Feb. 12	33	·31
<i>North Lancashire—5.</i>	June 1	June 15	15	Mar. 11	Apr. 18	39	·35
				May 4	June 16	44	·44
Settle (The Terrace)	June 1	June 15	15	May 15	June 15	32	·32
<i>Yorkshire, West Riding—2.</i>							
Meltham (Harewood Lodge)	Jan. 28	Feb. 13	17	May 15	June 15	32	·29
<i>Yorkshire, West Riding—8.</i>							
Hull (Pearson Park)	None			Apr. 29	May 29	31	·24
<i>Yorkshire, East Riding—3.</i>							
Scarborough (Scalby)	April 7	Apr. 24	18	None			
<i>Yorkshire, North Riding—5.</i>							
Barnard Castle (County School)...	Jan. 28	Feb. 12	16	June 26	Aug. 3	39	·39
<i>Durham—1.</i>							
Morpeth (Bothalhaugh)	Jan. 24	Feb. 9	17	None			
<i>Northumberland—5.</i>							
Dungeon Ghyll	Mar. 17	Apr. 5	20	Mar. 15	Apr. 14	31	·29
<i>Westmorland—2.</i>	June 1	June 15	15				

Droughts in 1911—(continued).

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
ENGLAND & WALES—(con.)			Days			Days	in
Treherbert (Tyn-y-waun) <i>Glamorgan—6.</i>	July 3	July 26	24	June 30	July 28	29	·21
Llanwrda (Dolaucothy) <i>Carmarthen—2.</i>	Jan. 27 July 1	Feb. 13 July 20	18 20	Mar. 15	Apr. 17	34	·34
Treffgarne Hall..... <i>Pembroke—4.</i>	Apr. 2 May 17 July 1	Apr. 16 May 31 July 20	15 15 20	Mar. 16 May 4	Apr. 17 June 15	33 43	·30 ·41
Birmingham W.W. (Tyrmynydd) <i>Radnor—1.</i>	July 3	July 18	16	May 4	June 15	43	·40
Lake Vyrnwy <i>Montgomery—5.</i>	Jan. 26 July 4	Feb. 14 July 18	20 15	None			
St. Asaph (St. Bueno's College).. <i>Flint—2.</i>	Jan. 21 May 16	Feb. 9 May 30	20 15	Jan. 9 Mar. 13 Apr. 30 July 2	Feb. 17 Apr. 24 June 15 July 31	40 43 47 30	·35 ·42 ·47 ·27
Abersoch <i>Carnarvon—4.</i>	July 3	July 18	16	May 4	June 15	43	·32
Llangefni <i>Anglesey.</i>	Jan. 25 Apr. 1 May 4 May 24	Feb. 9 Apr. 17 May 22 June 15	16 17 19 23	Jan. 10 May 4	Feb. 13 June 16	35 44	·32 ·27
SCOTLAND.							
Garliestown (Galloway House) ... <i>Wigtown—4.</i>	Mar. 13 Mar. 30 June 1 Aug. 7	Mar. 28 Apr. 14 June 15 Aug. 23	16 16 15 17	Mar. 5 May 13	Apr. 17 June 15	44 34	·41 ·31
Jardington [Dumfries]..... <i>Kirkcudbright—5.</i>	Mar. 18 Aug. 7 Oct. 3	Apr. 3 Aug. 23 Oct. 18	17 17 16	Mar. 12 May 16	Apr. 16 June 15	36 31	·28 ·31
Meggat Water (Cramilt Lodge)... <i>Selkirk—2.</i>	June 1	June 15	15	May 15	June 15	32	·32
Coldstream (The Hirsell)..... <i>Berwick—3.</i>	Jan. 25	Feb. 9	16	Jan. 12	Feb. 12	32	·32
Drummore [Musselburgh] <i>Haddington—5.</i>	None			Jan. 12 May 15	Feb. 13 June 16	33 33	·32 ·25

Droughts in 1911—(continued).

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
SCOTLAND—(con.)			Days			Days	in.
Hamilton (Laighstone Hall) <i>Lanark—5.</i>	None			Mar. 12	Apr. 14	34	·34
Dalrymple (Bow Hill)..... <i>Ayr—5.</i>	June 1	June 15	15	Mar. 12	Apr. 14	34	·18
Buchlyvie (The Manse) <i>Stirling—I.</i>	Mar. 30	Apr. 13	15	None			
Rothsay (Glenburn) <i>Bute—I.</i>	May 25	June 12	19	May 15	June 15	32	·29
Glenleven (Kinlochleven) <i>Argyll—4.</i>	None			Mar. 13	Apr. 12	31	·31
Cambeltown (Witchburn) <i>Argyll—10.</i>	Mar. 13 Mar. 30	Mar. 28 Apr. 14	16 16	Mar. 12 May 15	Apr. 14 June 15	34 32	·22 ·32
Islay (Eallabus) <i>Argyll—14.</i>	Mar. 14	Mar. 29	16	Mar. 12	Apr. 14	34	·27
Mull (Ulva) <i>Argyll—14.</i>	Mar. 14	Apr. 12	30	Mar. 12	Apr. 13	33	·16
Cupar (Rankeillour) <i>Fife—3.</i>	None			Jan. 12 May 14	Feb. 14 June 15	34 33	·31 ·30
Aberfeldy (Dall Avon) <i>Perth—11.</i>	None			Mar. 19 May 4	Apr. 16 June 15	29 43	·29 ·35
Fettercairn (The Burn) <i>Kincardine—I.</i>	May 27	June 12	17	Jan. 13 May 15	Feb. 12 June 16	31 33	·29 ·31
Aberdeen (Cranford House) <i>Aberdeen—I.</i>	May 28	June 11	15	May 16	June 16	32	·28
Strathdon (School House) <i>Aberdeen—2.</i>	May 16	June 3	19	Jan. 13	Feb. 11	30	·30
New Deer (School House) <i>Aberdeen—4.</i>	May 23	June 7	16	May 15	June 16	33	·32
Gordon Castle <i>Elgin or Moray—2.</i>	None			May 16	June 18	34	·30
Alvey Manse..... <i>Inverness—3.</i>	Jan. 28	Feb. 11	15	May 15	June 12	29	·23

Droughts in 1911—(continued).

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
SCOTLAND—(con.)			Days			Days	in.
Loch Nevis (Inverie) <i>Inverness—12.</i>	Mar. 14	Apr. 12	30	Mar. 13	Apr. 13	32	·07
Skye, Dunvegan <i>Inverness—18.</i>	May 26	June 17	23	Mar. 15	Apr. 14	31	·24
Invershin <i>Sutherland—1.</i>	Oct. 5	Oct. 19	15	Mar. 15 May 16	Apr. 12 June 16	29 32	·29 ·29
Thurso (Buckies) <i>Caithness—3.</i>	May 23	June 7	16	None			
IRELAND.							
Skibbereen Rectory.. <i>Cork—4.</i>	June 30	July 18	19	None			
Mallow (Summer Hill) <i>Cork—7.</i>	June 30	July 18	19	May 8	June 14	38	·34
Darrynane Abbey <i>Kerry—4.</i>	July 2	July 16	15	None			
Waterford (Brook Lodge) <i>Waterford—3.</i>	June 30	July 18	19	May 4	June 14	42	·42
Nenagh (Highlands) <i>Tipperary—1.</i>	Jan. 23 Mar. 31	Feb. 8 Apr. 14	17 15	None			
Cahir (Bengurragh) <i>Tipperary—3.</i>	July 2	July 18	17	None			
Newmarket-on-Fergus (Fenloe)... <i>Clare—3.</i>	July 2	July 18	17	Mar. 12	Apr. 16	36	·35
Gorey (Courtown House) <i>Wexford—4.</i>	Jan. 24 Mar. 31 May 15 July 4	Feb. 8 Apr. 16 June 14 July 18	16 17 31 15	Jan. 11 Mar. 19 May 4	Feb. 12 Apr. 16 June 15	33 29 43	·32 ·24 ·31
Abbey Leix (Blandsfort)..... <i>Queen's County—2.</i>	Jan. 24	Feb. 10	18	None			
Dublin (FitzWilliam Square)..... <i>Dublin—2.</i>	May 16 July 4	June 14 July 18	30 15	Jan. 11 May 14	Feb. 13 June 14	34 32	·29 ·13
Kells (Headfort) <i>Meath—4.</i>	May 26	June 14	20	May 14	June 14	32	·21

Droughts in 1911—(continued).

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.			
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.	Amount.
IRELAND—(con.)			Days			Days	in.
Ballinasloe.....	None			Mar. 19	Apr. 16	29	·28
Galway—5.							
Cong (The Glebe).....	July 4	July 18	15	None			
Mayo—6.							
Mohill Rectory	None			May 14	June 15	33	·30
Leitrim—5.							
Seaforde	May 24	June 15	23	May 14	June 15	33	·13
Down—2.	Aug. 7	Aug. 22	16				
Bushmills (Dundarave).....	May 26	June 15	21	Mar. 12	Apr. 15	35	·24
Antrim—3.							
Antrim (Ardnaveigh)	May 26	June 15	21	Mar. 8	Apr. 14	38	·37
Antrim—5.				May 15	June 15	32	·15
Omagh (Edenfel)	Mar. 31	Apr. 14	15	Mar. 12	Apr. 15	35	·35
Tyrone—3.							
Fanad (Tamney Rectory)	None			Mar. 12	Apr. 15	35	·34
Donegal—2.							
Killybegs	None			Mar. 10	Apr. 14	36	·36
Donegal—5.							

RAIN SPELLS IN 1911.

SINCE 1903 we have devoted a section of *British Rainfall* to Rain Spells with the object of throwing into contrast with droughts the periods of consecutive rainfall days during each year. The definition,

A RAIN SPELL is a period of *more than* 14 consecutive days, every one of which is a rain day,

inverts that of the Absolute Drought, only the fact that the average number of rain days in the British Isles is 204, or considerably more than half the number of days in the year, makes it probable that the frequency of rain spells should always be greater than that of absolute droughts.

The rain spells of 1911 were, however, more frequent than a study of the number of rain days and the droughts during the year might lead one to expect, and we see by the comparative table that only 1903 and 1910, both memorable for persistence of rainy conditions, gave higher values during the nine years for which the data are

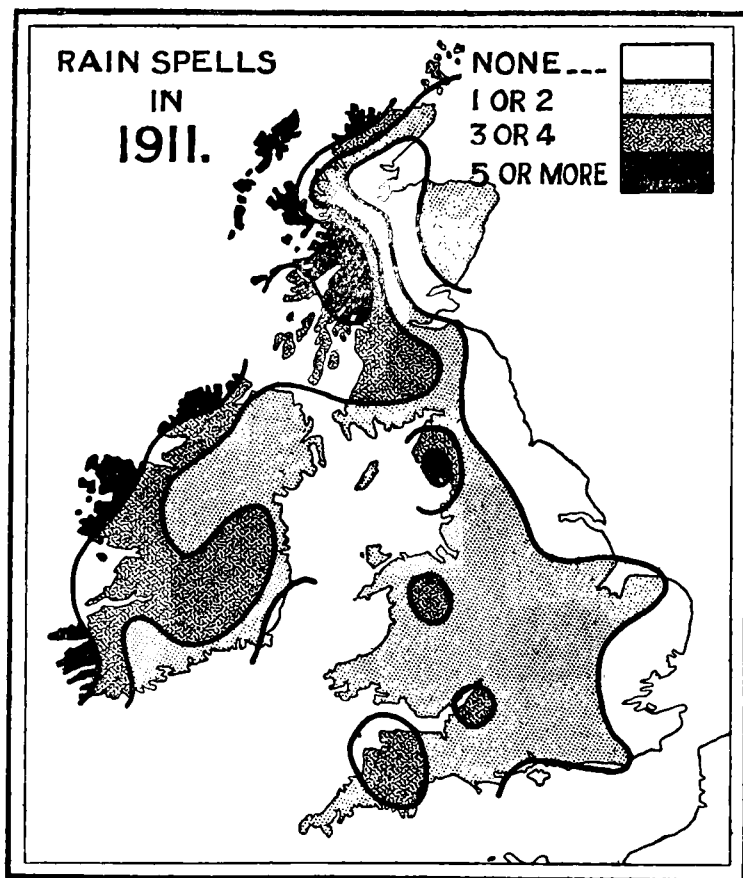
Comparative Table of Rain Spells at 100 Stations.

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
1911...	185	22	·29	39	·15	19	50	23	8

NOTE.—The values previous to 1910 have been increased to the equivalent of 100 stations for comparison.

available. The mean duration and the mean rain per day have never been higher in that period, but the longest spell of the year, that of 39 days from February 11th to March 21st at Buckies, has been exceeded for length in each year except 1904.

The accompanying map of the distribution of rain spells shows that, broadly speaking, only the east coast of England and part of the eastern half of Scotland escaped rain spells during the year. The line which separates those parts of the country with one or two spells from those with three or more, as usual, practically divides the normally rainy districts from the normally drier ones, though the small number of spells in Wales is an anomalous feature of the year. A narrow strip of the west coast of Ireland and the north-west coast of Scotland had as many as five rain spells. In England this distinction was enjoyed only by the Lake District. The frontispiece compares the rain spells and droughts.



The only rain spell in the spring months by any means widespread commenced in most of the western counties about the middle of February, though in Scotland rather earlier, and it extended into March. Its duration was more than 30 days over the north-west coast of Ireland and the county of Argyll. The mean rate of fall of

rain was high for a spring rain spell, reaching the remarkable figure of $\cdot99$ in. at Dungeon Ghyll, where $28\cdot70$ in. fell during the 29 days over which the spell extended.

A few stations in Scotland and Ireland experienced a rain spell during April, and locally certain periods in the late summer fell under the definition, one or two of the most westerly spots even recording a rain spell during the progress of the great July drought in England, but the only other important spells of the year took place



during its closing 10 weeks. These may be divided into two groups, the first comprising the rain spell of November, the second that of December. The November rain spell, lasting from the end of October to about the third week of November, visited the south-west of England, the south and west of Ireland, North Wales, the English Lakes, and a narrow margin on the east coast of Scotland. It exceeded 30 days in length in the extreme south-west. The mean rate of fall was $\cdot28$ in. per day, the only notably high rate being $\cdot94$ in. at Dungeon Ghyll, where $21\cdot70$ in. fell in 23 days.

The rain spell of December occupied in some places the whole of that month, which was one of the most persistently rainy months on record in this country. It is probable that in most places where it occurred the spell continued into 1912, but in the absence of full information the determination of the precise date on which it ended must be left for next year. The east coast stations of Great Britain and those in the north of Scotland and the north-east of Ireland failed to record this rain spell, as also did one station in the west of Ireland, the latter in a somewhat technical manner only, a single rainless day falling by chance in the middle of a month otherwise extremely rainy. With the exception just mentioned, western Ireland and part of western Scotland had generally speaking rain on every day in December ; the duration of the rain spell also exceeded 30 days in the English Lakes, in central Wales and on Exmoor. The mean rainfall per day during this spell was $\cdot 31$ in., varying from less than $\cdot 20$ in. in the English Midlands and the east of Ireland to $\cdot 84$ in. at Treherbert in Glamorganshire. No fewer than ten of the one hundred stations recorded more than 10 in. of rain during this spell, four of these being in England, two in Wales, three in Scotland, and one in Ireland. (See map opposite).

As in former volumes we append a table in which are brought together all instances of rain spells during which the mean rate of rainfall reached or exceeded the high figure of $\cdot 40$ in. per day. The list is unusually long, containing no fewer than 25 entries, of which 12 are due to the December rain spell. It is noteworthy, and attention has been drawn to a similiar feature in previous years, that Ireland, where rain spells are usually more frequent than in any other part of the United Kingdom, is represented by only a single entry in the table, whereas an English station so far east as Petersfield had a mean fall of $\cdot 44$ in. per day during the December spell. Dungeon Ghyll, where two rain spells during the year had a mean fall approaching 1 $\cdot 00$ in., easily stands out as the most prominent station, but the great fall of 19 $\cdot 25$ in. in 23 days during December, at Treherbert, is, taking into account the very much lower average rainfall at that place, by no means a contemptible second.

In the lists of rain spells the particulars of a rain spell which began in December, 1910, and continued into January, 1911, are included in italics, but not counted, as in each case there were rain days enough in the December, 1910, portion to secure notice in last year's volume.

Rain Spells of a Mean Rate of .40 in. or more per day in 1911.

Div.	Station.	Began.	Ended.	Lasted.	Total Fall.	Rain per Day.		
						Max.	Min.	Mean.
				days.	in.	in.	in.	in.
II.	Petersfield	Dec. 6	Dec. 27	22	9·58	1·18	·01	·44
V.	Ashburton	" 2	" 27	26	16·76	1·60	·02	·64
"	St. Austell	Nov. 30	" 27	28	11·44	1·40	·01	·41
"	Angersleigh.....	Dec. 8	" 27	20	9·14	1·40	·06	·46
"	Simonsbath	Oct. 18	Nov. 19	33	14·60	1·21	·01	·44
"	"	Nov. 28	Dec. 31	34	14·89	1·27	·01	·44
X.	Dungeon Ghyll ...	Feb. 12	Mar. 12	29	28·70	4·19	·01	·99
"	" "	Apr. 12	Apr. 29	15	9·05	1·48	·02	·60
"	" "	June 16	July 3	18	7·98	1·55	·02	·44
"	" "	Oct. 29	Nov. 20	23	21·70	4·85	·01	·94
"	" "	Nov. 26	Dec. 31	36	22·38	1·91	·01	·62
XI.	Treherbert	Feb. 12	Mar. 6	23	11·19	2·78	·01	·49
"	"	Dec. 8	Dec. 30	23	19·25	3·06	·06	·84
"	Tyrmynydd.....	Nov. 26	" 29	34	14·54	1·70	·01	·43
"	Lake Vyrnwy.....	Oct. 29	Nov. 19	22	9·80	1·55	·02	·45
XIV.	Dalrymple	Feb. 12	Mar. 3	20	9·05	1·60	·02	·45
XV.	Kinlochleven	" 10	" 14	33	17·54	3·03	·01	·53
"	"	Apr. 13	May 7	25	12·02	1·23	·01	·48
"	"	Nov. 30	Dec. 31	32	15·92	1·23	·04	·50
"	Campbeltown	Dec. 4	" 19	16	6·64	1·43	·01	·42
"	Mull, Ulva	Nov. 27	" 31	35	14·00	1·46	·01	·40
XVIII.	Inverie	Feb. 12	Mar. 13	30	16·77	2·28	·02	·56
"	"	Sept. 17	Oct. 2	16	6·71	1·58	·03	·42
"	"	Dec. 15	Dec. 31	17	8·57	1·57	·02	·50
XIX.	Ardchullin	" 13 (1910)	Jan. 2	21	8·49	1·96	·02	·40
XXII.	Cong	Feb. 15	Mar. 3	17	6·92	·87	·03	·41

Table of Rain Spells, 1911.

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES.			Days	in.	in.	in.	in.
Brighton (Ditchling Road)..... <i>Sussex—3.</i>	Dec. 12	Dec. 28	17	4·35	·76	·02	·26
Petersfield (Ditcham Park) ... <i>Hampshire—5.</i>	Dec. 6	Dec. 27	22	9·58	1·18	·01	·44
Basingstoke (Sherborne S. John) <i>Hampshire—8.</i>	Dec. 12	Dec. 28	17	4·59	·73	·01	·27
Newport Pagnell (The Croft)... <i>Buckinghamshire—5.</i>	Dec. 13	Dec. 28	16	2·55	·51	·01	·16

Table of Rain Spells, 1911—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES—(con.)			Days	in.	in.	in.	in.
Oxford (Magdalen College) ... <i>Oxfordshire—3</i>	Dec. 6	Dec. 27	22	4·33	·59	·01	·20
Swaffham (The Paddocks) <i>Norfolk—4</i>	Dec. 12	Dec. 29	18	2·22	·40	·01	·12
Salisbury Plain (Shrewton) ... <i>Wiltshire—3.</i>	Dec. 8	Dec. 27	20	7·20	·81	·05	·36
Winterbourne Steepleton <i>Dorsetshire—3.</i>	Feb. 14 Dec. 6	Feb. 28 Dec. 28	15 23	2·68 8·08	·80 ·90	·01 ·01	·18 ·35
Ashburton (Druid House) <i>South Devonshire—4.</i>	Feb. 14 Oct. 29 Dec. 2	Feb. 28 Nov. 20 Dec. 27	15 23 26	2·90 7·87 16·76	·70 1·31 1·60	·02 ·02 ·02	·19 ·34 ·64
Morwenstow Vicarage <i>Cornwall—I.</i>	Feb. 14 Mar. 8 Oct. 18 Dec. 8	Mar. 6 Mar. 22 Nov. 20 Dec. 31	21 15 34 24	3·27 2·13 7·90 5·12	·62 ·65 ·71 ·67	·01 ·01 ·01 ·02	·16 ·14 ·23 ·21
St. Austell (Trevarna)..... <i>Cornwall—2.</i>	Oct. 29 Nov. 30	Nov. 19 Dec. 27	22 28	5·01 11·44	·70 1·40	·03 ·01	·23 ·41
Angersleigh (Leigh Court)..... <i>Somerset—3.</i>	Dec. 8	Dec. 27	20	9·14	1·40	·06	·46
Simonsbath <i>Somerset—5.</i>	Feb. 12 Oct. 18 Nov. 28	Mar. 6 Nov. 19 Dec. 31	23 33 34	7·32 14·60 14·89	1·47 1·21 1·27	·01 ·01 ·01	·32 ·44 ·44
Clifton (Pembroke Road) <i>Gloucestershire—5.</i>	Feb. 14 Oct. 29 Dec. 8	Mar. 1 Nov. 13 Dec. 28	16 16 21	2·64 4·51 6·19	·58 ·97 ·86	·02 ·01 ·02	·17 ·28 ·29
Stow-on-the-Wold <i>Gloucestershire—7.</i>	Dec. 6	Dec. 28	23	6·23	·86	·01	·27
Hereford (Holmer Hall) <i>Herefordshire—I.</i>	Oct. 29 Dec. 6	Nov. 13 Dec. 27	16 22	2·15 5·99	·48 ·93	·01 ·01	·13 ·27
Shifnal (Neachley) <i>Shropshire—4.</i>	Oct. 29	Nov. 12	15	2·33	·63	·01	·16
Mayfield House [Ashbourne] ... <i>Staffordshire—5.</i>	Dec. 13	Dec. 31	19	3·51	·86	·01	·18
Hampton-in-Arden (Hampton Manor) <i>Warwickshire—4.</i>	Oct. 29 Dec. 13	Nov. 13 Dec. 30	16 18	2·08 4·41	·40 ·85	·01 ·01	·13 ·25
Market Harborough (Rose Hill) <i>Leicestershire—2.</i>	Dec. 13	Dec. 28	16	2·74	·49	·01	·17

Table of Rain Spells, 1911—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
ENGLAND & WALES—(con.)			Days	in.	in.	in.	in.
Boston <i>Lincolnshire—3.</i>	Nov. 7	Nov. 23	18	1·94	·34	·01	·11
Northwich (Highfield)..... <i>Cheshire—2.</i>	Dec. 13	Dec. 30	18	3·03	·43	·01	·17
St. Michaels-on-Wyre Vicarage <i>North Lancashire—5.</i>	Feb. 18	Mar. 5	16	2·92	·86	·02	·18
Settle (The Terrace)..... <i>Yorkshire, West Riding—2.</i>	Feb. 13	Mar. 6	22	6·60	1·03	·01	·30
Meltham (Harewood Lodge) ... <i>Yorkshire, West Riding—8.</i>	Feb. 14 Dec. 13	Mar. 4 Dec. 29	19 17	7·18 4·67	·98 ·60	·03 ·02	·38 ·27
Barnard Castle (County School) <i>Durham—1.</i>	Oct. 23	Nov. 8	17	3·46	1·02	·01	·20
Haltwhistle (Bellister Castle)... <i>Northumberland—2.</i>	Oct. 29	Nov. 19	22	6·41	1·40	·03	·29
Dungeon Ghyll <i>Westmorland—2.</i>	Feb. 12 Apr. 15 June 16 Oct. 29 Nov. 26	Mar. 12 Apr. 29 July 3 Nov. 20 Dec. 31	29 15 18 23 36	28·70 9·05 7·98 21·70 22·38	4·19 1·48 1·55 4·85 1·91	·01 ·02 ·02 ·01 ·01	·99 ·60 ·44 ·94 ·62
Treherbert (Tyn-y-waun) <i>Glamorganshire—6.</i>	Feb. 12 Dec. 8	Mar. 6 Dec. 30	23 23	11·19 19·25	2·78 3·06	·01 ·06	·49 ·84
Llanwrda (Dolaucothy) <i>Carmarthenshire—2.</i>	Feb. 14 Dec. 12	Mar. 6 Dec. 31	21 20	3·84 7·70	·50 1·70	·02 ·02	·18 ·39
Treffgarne Hall..... <i>Pembrokeshire—4.</i>	Oct. 18 Dec. 6	Nov. 21 Dec. 31	35 26	11·75 8·20	·80 1·05	·02 ·03	·34 ·32
Birmingham W. W. (Tyrmynydd) <i>Radnorshire—1.</i>	Feb. 14 Nov. 26	Mar. 6 Dec. 29	21 34	6·18 14·54	·84 1·70	·02 ·01	·29 ·43
Lake Vyrnwy <i>Montgomeryshire—5.</i>	Feb. 15 Oct. 29 Dec. 8	Mar. 6 Nov. 19 Dec. 29	20 22 22	7·30 9·80 6·38	·87 1·55 ·72	·02 ·02 ·02	·37 ·45 ·29
St. Asaph (St. Beuno's College) <i>Flintshire—2.</i>	Dec. 13	Dec. 29	17	2·18	·55	·01	·13
Abersoch <i>Carnarvonshire—4.</i>	Dec. 8	Dec. 31	24	6·83	1·41	·03	·28
Llangefni <i>Anglesey.</i>	Nov. 3	Nov. 19	17	4·62	·67	·03	·27

Table of Rain Spells, 1911—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
SCOTLAND.			Days	in.	in.	in.	in.
Garliestown (Galloway House). <i>Wigtown—4.</i>	Apr. 21	May 8	18	4·22	·86	·02	·23
Jardington [Dumfries].....	Feb. 12	Mar. 1	18	4·44	·79	·06	·25
<i>Kirkcudbrightshire—5.</i>	Apr. 15	Apr. 29	15	3·71	·48	·02	·25
Meggat Water (Cramilt Lodge) <i>Selkirkshire—2.</i>	Feb. 12	Mar. 3	20	6·62	1·31	·01	·33
	Apr. 15	Apr. 29	15	4·65	·70	·07	·31
	Nov. 30	Dec. 31	32	9·30	1·02	·01	·29
Drummore [Musselburgh] <i>Haddingtonshire—5.</i>	Oct. 23	Nov. 7	16	3·10	·56	·01	·19
Hamilton (Laighstone Hall) ... <i>Lanarkshire—5.</i>	Feb. 12	Mar. 3	20	6·84	1·45	·02	·34
	Apr. 14	Apr. 29	16	2·66	·38	·03	·17
	Dec. 13	Dec. 31	19	2·66	·44	·02	·14
Dalrymple (Bow Hill).....	Feb. 12	Mar. 3	20	9·05	1·60	·02	·45
<i>Ayrshire—5.</i>	Apr. 14	Apr. 29	16	4·77	·74	·01	·30
	Nov. 27	Dec. 31	35	9·93	1·03	·01	·28
Buchlyvie (The Manse) <i>Stirlingshire—I.</i>	Feb. 9	Mar. 8	28	10·07	2·05	·01	·36
	Apr. 14	May 8	25	5·61	·74	·01	·22
	Nov. 30	Dec. 31	32	7·16	·65	·02	·22
Rothsay (Glenburn) <i>Buteshire—I.</i>	Feb. 10	Mar. 3	22	8·40	1·57	·02	·38
	Apr. 14	May 4	21	5·77	·77	·01	·27
	July 23	Aug. 7	16	3·57	·65	·01	·22
	Nov. 30	Dec. 31	32	9·26	1·15	·01	·29
Glenleven (Kinlochleven) <i>Argyll—4.</i>	Feb. 10	Mar. 14	33	17·54	3·03	·01	·53
	Apr. 13	May 7	25	12·02	1·23	·01	·48
	June 16	July 7	22	5·24	1·84	·01	·24
	July 15	Aug. 8	25	6·98	·98	·01	·28
	Nov. 30	Dec. 31	32	15·92	1·23	·04	·50
Campbeltown (Witchburn)..... <i>Argyll—10.</i>	Feb. 12	Mar. 12	29	6·39	·83	·01	·22
	July 23	Aug. 7	16	2·71	·68	·01	·17
	Dec. 4	Dec. 19	16	6·64	1·43	·01	·42
Islay (Eallabus).....	Feb. 5	Mar. 13	37	7·52	·67	·01	·20
<i>Argyll—14.</i>	July 15	Aug. 7	24	3·37	·51	·02	·14
	Sept. 16	Oct. 2	17	2·61	·46	·01	·15
	Dec. 1	Dec. 31	31	8·46	1·07	·01	·27
Mull (Ulva)	Feb. 12	Mar. 13	30	9·78	1·16	·02	·33
<i>Argyll—14.</i>	July 14	Aug. 9	27	4·02	·61	·01	·15
	Aug. 23	Sept. 8	17	3·97	1·00	·01	·23
	Nov. 27	Dec. 31	35	14·00	1·46	·01	·40
Fettercairn (The Burn) <i>Kincardineshire—I.</i>	Nov. 7	Nov. 23	17	2·40	·56	·01	·14
Aberdeen (Cranford House) ... <i>Aberdeenshire—I.</i>	Nov. 7	Nov. 27	21	4·27	·76	·01	·20

Table of Rain Spells, 1911—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
SCOTLAND—(con.)			Days	in.	in.	in.	in.
Strathdon (School House) <i>Aberdeenshire—2.</i>	Feb. 16	Mar. 2	15	2·35	·70	·01	·16
New Deer (School House) <i>Aberdeenshire—4.</i>	Nov. 3	Nov. 28	26	4·70	·80	·01	·18
Gordon Castle <i>Morayshire—2.</i>	Feb. 12	Feb. 26	15	1·90	·42	·01	·13
Fort Augustus (St. Benedict's) <i>Inverness-shire—6.</i>	Feb. 12	Mar. 13	30	9·59	1·14	·02	·32
	Nov. 27	Dec. 13	17	3·28	·49	·01	·19
	Dec. 16	Dec. 31	16	2·91	·48	·03	·18
Loch Nevis (Inverie) <i>Inverness-shire—12.</i>	Dec. 11 (1910)	Jan. 1	22	7·44	1·48	·01	·34
	Feb. 12	Mar. 13	30	16·77	2·28	·02	·56
	June 16	July 7	22	8·41	1·48	·01	·38
	July 14	July 30	17	4·41	·99	·04	·26
	Sept. 17	Oct. 2	16	6·71	1·58	·03	·42
	Dec. 15	Dec. 31	17	8·57	1·57	·02	·50
Skye (Dunvegan) <i>Inverness-shire—18.</i>	Dec. 10 (1910)	Jan. 1	23	6·14	·77	·01	·27
	Jan. 13	Jan. 29	17	3·07	·62	·01	·18
	Feb. 8	Mar. 5	26	10·00	1·18	·01	·38
	Aug. 24	Sept. 8	16	5·68	·88	·01	·36
	Sept. 17	Oct. 3	17	4·12	·90	·01	·24
	Nov. 28	Dec. 31	34	12·51	·99	·02	·37
Poolewe (Inverewe Gardens) ... <i>Ross & Cromarty—8.</i>	Feb. 28	Mar. 15	16	4·39	·72	·05	·27
Loch Stack (Ardchullin) <i>Sutherland—5.</i>	Dec. 13 (1910)	Jan. 2	21	8·49	1·96	·02	·40
	Jan. 5	Jan. 19	15	4·01	1·25	·05	·27
	Feb. 12	Mar. 16	33	12·22	1·24	·01	·37
	Apr. 11	Apr. 26	16	4·93	·97	·01	·31
	July 14	July 29	16	4·91	1·10	·02	·31
	Sep. 15	Oct. 5	21	6·40	1·38	·04	·30
Thurso (Buckies) <i>Caithness—3.</i>	Feb. 11	Mar. 21	39	5·72	·55	·01	·15
	July 14	July 29	16	2·68	·90	·01	·17
IRELAND.							
Skibbereen Rectory <i>Cork—4.</i>	Feb. 13	Mar. 3	19	4·70	·82	·02	·25
	Oct. 16	Nov. 18	34	12·25	1·41	·01	·36
	Nov. 27	Dec. 13	17	4·97	·90	·02	·29
Mallow (Summer Hill) <i>Cork—7.</i>	Oct. 25	Nov. 18	25	7·03	1·93	·01	·28
	Nov. 28	Dec. 27	30	9·47	1·20	·02	·32

Table of Rain Spells, 1911—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
IRELAND—(con.)			Days	in.	in.	in.	in.
Darrynane Abbey..... Kerry—4.	Dec. 2 (1910)	Jan. 1	31	6·22	·73	·02	·20
	Feb. 9	Mar. 3	23	4·64	·91	·01	·20
	Apr. 17	May 14	28	5·77	·65	·01	·21
	Jun. 15	July 1	17	2·25	·47	·02	·13
	July 23	Aug. 8	17	4·39	1·45	·01	·26
	Sep. 19	Oct. 4	16	4·19	·64	·01	·26
	Oct. 17	Nov. 20	35	11·94	1·28	·01	·34
	Nov. 27	Dec. 31	35	10·87	1·00	·02	·31
Waterford (Brook Lodge) Waterford—3.	Oct. 17	Nov. 8	23	4·98	·93	·01	·22
	Nov. 29	Dec. 20	22	7·54	1·20	·02	·34
Nenagh (Highlands)..... Tipperary—I.	July 23	Aug. 6	15	3·85	1·86	·01	·26
	Oct. 28	Nov. 17	21	5·90	1·10	·03	·28
	Dec. 2	Dec. 27	26	5·46	·55	·03	·21
Cahir (Bengurragh) Tipperary—3.	Feb. 13	Mar. 13	29	5·18	·63	·01	·18
	Oct. 25	Nov. 19	26	7·76	1·21	·01	·30
	Nov. 28	Dec. 27	30	7·49	·82	·03	·25
Carrigaholt Castle Clare—3.	Feb. 13	Mar. 3	19	2·76	·44	·02	·15
	Apr. 15	May 4	20	2·95	·62	·02	·15
	Oct. 28	Nov. 18	22	6·78	1·25	·10	·31
Newmarket-on-Fergus (Fenloe) Clare—3.	Feb. 11	Mar. 3	21	3·38	·64	·01	·16
	Oct. 18	Nov. 20	34	7·77	1·12	·01	·23
	Dec. 1	Dec. 30	30	6·77	·73	·01	·23
Abbey Leix (Blandsfort)..... Queen's County—2.	Feb. 13	Mar. 5	21	3·38	·44	·01	·16
	Apr. 17	May 4	18	3·98	·55	·01	·22
	Oct. 16	Nov. 9	25	4·90	·67	·01	·20
	Dec. 12	Dec. 27	16	4·65	1·21	·01	·29
Dublin (Fitz William Square)... Dublin—2.	Nov. 26	Dec. 10	15	1·68	·36	·01	·11
Kells (Headfort) Meath—4.	Apr. 15	May 4	20	3·72	·70	·01	·19
	Oct. 25	Nov. 9	16	3·89	1·22	·02	·24
	Nov. 29	Dec. 30	32	5·98	·96	·01	·19
Ballinasloe Galway—5.	Feb. 15	Mar. 5	19	4·50	·65	·01	·24
	Dec. 13	Dec. 29	17	2·99	·55	·02	·18
Crossmolina (Enniscoe) Mayo—2.	Feb. 16	Mar. 16	29	6·35	·72	·02	·22
	Apr. 15	May 7	23	5·74	1·07	·03	·25
	June 21	July 6	16	2·42	·64	·03	·15
	Sep. 19	Oct. 8	20	2·76	·48	·01	·14
	Oct. 19	Nov. 9	22	8·46	1·08	·06	·38
	Nov. 27	Dec. 31	35	8·37	1·20	·01	·24
Cong (The Glebe)..... Mayo—6.	Feb. 15	Mar. 3	17	6·92	·87	·03	·41
	Apr. 13	Apr. 28	16	2·65	·42	·02	·17
	Nov. 27	Dec. 31	35	8·53	·82	·01	·24

Table of Rain Spells, 1911—(continued).

STATION & COUNTY.	Began.	Ended.	Lasted.	Total Rain.	RAIN PER DAY.		
					Max.	Min.	Mean
IRELAND—(con.)			Days	in.	in.	in.	in.
Collooney (Markree Observat'ry)	Feb. 12	Mar. 3	20	4·65	·63	·03	·23
Sligo—2.	June 19	July 4	16	2·51	·51	·02	·16
Mohill Rectory	Feb. 12	Mar. 3	20	4·26	·51	·01	·21
Leitrim—5.							
Seaforde	Apr. 15	Apr. 29	15	2·32	·37	·03	·15
Down—2.							
Bushmills (Dundarave)	Feb. 12	Mar. 12	29	5·04	·54	·01	·17
Antrim—3.	July 16	July 30	15	2·42	·41	·05	·16
Antrim (Ardnaveigh)	July 23	Aug. 6	15	2·27	1·05	·02	·15
Antrim—5.							
Omagh (Edenfel)	Feb. 12	May 3	20	4·78	·64	·02	·24
Tyrone—3.	July 23	Aug. 6	15	3·73	·60	·06	·25
Fanad (Tamney Rectory)	Dec. 9	Jan. 1	24	2·82	·34	·01	·12
Donegal—2.	(1910)						
	Feb. 12	Mar. 15	32	5·24	·94	·01	·16
	Apr. 15	Apr. 29	15	2·68	·60	·02	·18
	July 14	Aug. 7	25	3·28	·44	·01	·13
	Sep. 19	Oct. 5	17	1·74	·38	·01	·10
	Oct. 18	Nov. 9	23	5·61	·55	·02	·24
Killybegs	Feb. 12	Mar. 15	32	8·45	·69	·02	·26
Donegal—5.	Apr. 14	Apr. 29	16	3·86	·79	·01	·24
	June 18	July 6	19	3·59	·54	·01	·19
	Nov. 30	Dec. 19	20	4·75	·94	·01	·24

REPRESENTATIVE RECORDS OF DAILY RAINFALL IN 1911.

As an illustration of well-kept daily records of rainfall, and as showing the nature of the data from which particulars of rain days, droughts and rain spells are compiled, we give, as before, a series of ten representative records. It is necessary to remind our readers that these are not put forward as the ten best or most important records, for there are hundreds of others equally good and equally important.

REGISTER OF RAINFALL IN 1911

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	·04	...	...	·57	...	...	...	·03	...	...	...	...	1
2	·24	...	...	·27	·18	...	...	...	...	...	·15	·11	2
3	...	·01	...	...	·15	...	...	...	...	...	·10	·06	3
4	·05	·01	·07	·09	...	...	...	...	·01	·03	·14	·22	4
5	·02	...	...	·07	...	...	...	...	...	·20	·01	·18	5
6	·32	...	·17	...	...	...	...	...	...	...	...	·18	6
7	·04	...	...	·02	...	...	...	...	...	·14	·26	·20	7
8	·15	...	·17	...	...	...	...	...	...	...	·23	·23	8
9	·12	...	·02	·03	...	...	...	...	...	...	...	·01	9
10	·04	·12	·10	...	...	...	...	...	...	...	·07	·43	10
11	·25	...	...	...	·41	...	...	...	...	...	·68	...	11
12	·03	...	·47	...	·08	·05	...	...	·04	...	·40	...	12
13	...	...	·09	...	·13	...	...	...	·41	·36	·01	·22	13
14	...	·10	·01	...	·23	...	...	...	...	...	...	·37	14
15	...	·06	·22	...	...	...	...	...	...	·02	·06	·01	15
16	...	...	...	...	...	·66	...	...	...	...	·37	·02	16
17	...	...	·07	...	...	·03	...	...	...	...	·26	·12	17
18	...	·17	·02	...	...	·24	...	...	...	...	·50	·16	18
19	...	...	...	...	·02	·24	...	·10	·18	·09	·23	·05	19
20	...	·02	·02	...	...	...	...	·22	·06	·07	...	·48	20
21	...	·10	...	...	...	...	...	·06	·01	·44	...	·08	21
22	·08	...	·04	...	...	·01	...	...	...	·06	...	·37	22
23	...	·08	·09	...	...	·92	...	...	·26	...	·03	·11	23
24	...	·15	·02	...	...	·04	·03	·01	...	1·10	...	·24	24
25	...	·06	·01	·07	...	·16	·14	...	·01	·05	...	...	25
26	...	·01	·04	·27	...	·15	·02	...	...	·12	·03	·29	26
27	...	·39	·09	...	...	...	...	...	·12	...	·08	·08	27
28	...	·20	...	·25	·03	...	·89	·05	...	...	·01	...	28
29	...	...	...	·10	...	·19	·09	...	·20	·26	...	...	29
30	...	...	...	·06	·07	...	...	·01	·01	·18	...	...	30
31	...	...	...	...	·50	...	...	...	...	...	...	...	31
Totals	1·38	1·48	1·72	1·80	1·80	2·69	1·17	·48	1·31	3·12	3·62	4·22	Totals
Totals from Jan. 1	1·38	2·86	4·58	6·38	8·18	10·87	12·04	12·52	13·83	16·95	20·57	24·79	Totals from Jan. 1
Rain Days	12	14	18	11	10	11	5	7	11	14	19	23	Total 155

Average of 54 years 25·08 in.

REGISTER OF RAINFALL IN 1911

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	·14	...	...	·10	·34	...	·01	·07	...	·03	·05	·12	1
2	·12	...	...	·08	·11	...	...	·15	...	·21	·13	·14	2
3	·01	...	·03	·01	·32	...	...	·03	·05	...	·19	·14	3
4	...	...	·14	·02	·01	...	...	1·37	...	·07	·19	·48	4
5	·90	...	·32	...	...	...	...	·10	...	·02	·16	·07	5
6	·03	...	·08	...	...	...	...	·01	...	·05	·22	·86	6
7	·17	...	...	·04	...	...	...	...	...	...	·81	·11	7
8	·05	...	·28	...	...	...	...	...	...	...	·17	·40	8
9	·09	·09	...	...	...	...	...	...	...	...	·22	·45	9
10	·05	·05	·96	...	·01	...	...	...	...	·01	·30	·29	10
11	·66	...	·07	...	...	...	...	·11	·27	·02	·42	·17	11
12	·01	...	·72	...	...	...	...	·15	·55	...	·16	·22	12
13	·05	...	·17	...	...	...	...	...	·08	...	·22	·07	13
14	...	·32	·07	...	...	...	...	...	...	·05	·20	·47	14
15	...	·11	·04	...	...	·18	...	...	...	...	·38	·07	15
16	...	·02	·01	...	...	·78	...	...	...	...	·02	·17	16
17	...	·07	·50	·09	...	·14	...	...	...	...	·28	·33	17
18	...	·30	·19	·23	...	·03	...	...	...	...	·04	·19	18
19	...	·01	·02	·05	...	·02	...	...	·93	·10	·03	·63	19
20	...	·05	·10	·12	...	·04	...	·02	·56	1·05	·12	·72	20
21	·03	·12	·37	·01	...	·09	·02	...	·06	·18	·05	·40	21
22	·01	·08	·03	·08	...	·20	...	...	·96	·14	...	·26	22
23	·03	·08	...	·01	...	·01	...	·43	·04	·51	·10	·22	23
24	·04	·25	...	...	...	·29	...	·06	...	·43	...	·21	24
25	·04	·01	...	·24	...	·03	...	...	·10	·46	...	·17	25
26	...	·24	·02	·50	...	...	...	·24	·01	·42	...	·27	26
27	...	·68	·05	·03	...	·01	...	·19	·01	·34	...	·14	27
28	...	·09	·05	·48	...	...	·03	·01	·12	·03	·04	·01	28
29	...	...	·10	·34	·01	·46	·40	...	·36	·26	...	...	29
30	...	...	...	...	...	·04	·12	...	·06	·20	·45	·08	30
31	...	...	...	...	...	...	·37	...	...	·07	...	...	31
Totals	2·43	2·57	4·32	2·43	·80	2·32	·95	2·94	4·16	4·65	4·95	7·86	Totals
Total from Jan. 1	2·43	5·00	9·32	11·75	12·55	14·87	15·82	18·76	22·92	27·57	32·52	40·38	Total from Jan. 1
Rain Days	17	17	22	17	6	14	6	14	15	21	24	29	Total 202

Average of 18 years 39·94 in.

REGISTER OF RAINFALL IN 1911

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	·04	...	·02	·04	...	...	...	·03	...	...	·01	·02	1
2	·01	...	·01	·31	·27	...	...	·12	...	·04	·18	·13	2
3	...	...	·01	...	·18	...	...	...	·01	...	·04	·04	3
4	·01	...	·18	·01	...	...	...	...	·01	·02	·16	·41	4
5	·03	...	·02	·02	...	...	...	·56	...	·06	·17	...	5
6	·17	...	·12	...	...	...	...	...	...	·04	·01	·65	6
7	·03	...	·01	·01	...	...	...	...	...	...	·34	·01	7
8	·04	...	·22	...	...	...	...	...	...	...	·02	·60	8
9	·23	...	·06	...	...	...	...	·01	...	...	·05	·47	9
10	·09	·04	·16	...	·37	...	...	...	...	...	·02	·25	10
11	·36	·04	·01	...	·01	...	...	...	...	...	·50	·17	11
12	...	...	·94	...	·01	...	...	·03	...	...	·09	·35	12
13	...	...	...	...	...	...	...	...	·22	·48	·01	·39	13
14	...	·09	...	...	...	...	...	...	...	·01	·01	·98	14
15	...	·07	·04	...	...	·07	...	...	...	...	·27	·14	15
16	...	...	...	...	...	·27	...	...	...	...	·43	·38	16
17	...	·05	·01	...	...	·09	...	...	...	...	·12	·48	17
18	...	·22	·07	·10	...	·19	...	...	...	·02	·06	·40	18
19	...	·17	...	·05	...	·13	...	...	·11	·13	·05	·44	19
20	·03	·03	·14	·05	...	...	...	...	·48	·04	...	·65	20
21	·01	·27	·03	·07	...	...	...	·90	·09	·50	...	·22	21
22	·11	·01	·14	·02	...	...	...	...	·02	·33	...	·49	22
23	·01	·05	·11	·01	...	·16	...	...	·10	·10	·03	·10	23
24	...	·16	...	...	...	·75	...	·03	...	·50	...	·18	24
25	...	·08	·01	·16	...	·10	...	·27	·03	·08	...	·14	25
26	...	·08	...	·27	·08	...	...	·01	...	·10	·01	·34	26
27	...	·31	·11	·09	...	...	...	·13	·13	·03	·01	·20	27
28	...	·31	...	·27	...	...	...	·13	...	...	·04	...	28
29	...	...	...	·79	...	·22	·05	...	·17	·36	...	...	29
30	...	...	...	...	·05	·10	...	·02	...	·15	·08	·02	30
31	...	...	...	...	...	...	...	...	...	·09	...	...	31
Totals	1·17	1·98	2·42	2·27	·97	2·08	·05	2·24	1·37	3·08	2·71	8·65	Totals
Totals from Jan. 1	1·17	3·15	5·57	7·84	8·81	10·89	10·94	13·18	14·55	17·63	20·34	28·99	Totals from Jan. 1
Rain Days	14	16	21	16	7	10	1	12	11	19	24	27	Total 178

Average of 15 years..... 30·31 in.

REGISTER OF RAINFALL IN 1911

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.
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	
1	...	...	...	...	·01	...	·01	·08	...	...	...	...	1
2	·14	...	...	...	·02	...	...	·04	...	...	·02	·02	2
3	·01	...	...	...	·09	...	...	·06	...	·07	·06	·01	3
4	·02	...	·12	·07	...	...	...	·01	·09	·10	·16	·24	4
5	...	...	·01	·09	...	...	...	·06	...	·09	...	...	5
6	·17	...	·01	·01	...	...	...	·06	...	·09	·34	·65	6
7	...	...	·02	...	...	...	...	...	...	...	·06	...	7
8	·12	...	·08	...	...	...	...	...	·03	...	·07	·33	8
9	...	...	...	...	...	·05	...	...	...	...	...	·01	9
10	...	...	...	...	...	...	...	...	...	...	...	·47	10
11	·24	...	...	...	...	...	...	·04	...	...	·28	...	11
12	·17	...	·12	...	·03	...	...	...	·31	...	·11	·01	12
13	...	...	·17	...	...	·03	...	...	...	...	·03	·55	13
14	...	·02	·06	...	·08	...	·02	...	...	...	...	·55	14
15	...	·04	·16	...	...	...	...	...	...	·03	...	·05	15
16	·01	...	·03	...	...	·03	·01	...	...	·02	·14	·04	16
17	...	...	·01	·01	...	·28	...	...	...	...	·03	·13	17
18	...	·16	...	...	...	...	...	...	...	·01	·38	·04	18
19	·01	·02	...	...	...	·09	·05	·01	·10	·15	·52	·08	19
20	...	·03	...	·04	...	...	·01	·45	·08	...	...	·26	20
21	...	·13	·01	...	...	...	...	·11	...	·32	·07	...	21
22	...	·01	...	·02	...	...	...	·06	...	·23	·02	·25	22
23	...	·11	·06	...	...	·78	...	·05	·42	·01	·01	·05	23
24	...	·06	·03	·01	...	1·13	...	...	...	·16	...	·11	24
25	...	·06	·01	·08	...	·02	...	...	·07	...	·03	·09	25
26	...	...	...	·05	·38	...	...	...	...	·29	·38	·34	26
27	...	·08	·13	·07	...	...	...	·62	·25	·01	...	·02	27
28	...	·06	·01	·16	...	...	...	...	...	...	·06	·05	28
29	...	...	·01	·01	...	...	·05	...	·14	·12	·01	·01	29
30	...	...	...	·01	·19	·11	...	...	·03	·30	...	...	30
31	...	...	·08	...	·03	...	...	...	...	·05	...	...	31
Totals	·89	·78	1·13	·63	·83	2·52	·15	1·65	1·52	2·05	2·78	4·36	Totals
Total from Jan. 1	·89	1·67	2·80	3·43	4·26	6·78	6·93	8·58	10·10	12·15	14·93	19·29	Total from Jan. 1
Rain Days	9	12	19	13	8	9	6	13	10	17	20	24	Total 160

Average of 36 years..... 24·23 in.

REGISTER OF RAINFALL IN 1911

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	...	...	2·41	...	·90	...	·02	·06	·11	...	1·57	1·05	1
2	·12	...	·26	...	1·73	...	·10	·36	...	·07	·28	1·92	2
3	...	...	1·20	...	2·57	...	·06	·01	...	...	3·34	·83	3
4	...	...	·04	...	·10	...	...	2·50	...	...	1·64	·75	4
5	1·03	...	·15	...	...	...	...	1·64	...	...	·35	·69	5
6	·77	...	·04	·01	...	...	...	·92	...	...	·60	2·08	6
7	1·06	·03	·12	...	·10	...	...	...	...	...	·84	...	7
8	·43	·02	·45	...	...	...	...	...	...	...	·87	1·38	8
9	...	...	...	...	...	...	...	...	...	...	...	1·86	9
10	3·43	...	·89	...	...	...	...	...	·06	...	...	3·19	10
11	·40	...	·14	...	...	...	...	...	·02	...	·13	·61	11
12	...	·17	·20	...	·01	...	...	...	·69	...	·38	...	12
13	·10	1·00	...	...	·66	...	...	...	...	...	1·16	·13	13
14	·12	1·67	·03	...	...	...	...	...	...	...	2·36	1·10	14
15	·15	1·61	·12	·27	...	...	...	...	...	...	1·47	·46	15
16	·31	2·02	·09	·23	...	·53	·22	...	...	...	·68	1·30	16
17	·10	·34	·01	·08	...	1·00	·16	...	...	...	·96	·38	17
18	...	3·65	...	·76	...	·47	...	...	...	...	·07	2·00	18
19	...	·26	...	1·13	...	·06	...	...	2·15	·83	·04	1·32	19
20	...	·72	...	1·38	...	·12	1·19	·19	·44	·12	...	·52	20
21	...	3·00	...	1·48	...	2·54	·23	...	...	·77	...	·59	21
22	...	1·34	...	1·00	·05	·77	...	...	...	·20	...	·02	22
23	·74	·52	...	·39	2·02	·18	...	...	1·63	1·09	...	·96	23
24	1·53	·33	...	1·35	·34	2·14	·01	·30	·04	·46	...	·95	24
25	·70	1·20	...	2·16	...	·20	·13	·10	...	·11	...	·56	25
26	·01	·10	...	·36	·13	·03	·17	1·40	·02	·38	·10	·29	26
27	·17	1·95	...	·70	...	·20	·30	·44	·75	...	·52	·16	27
28	...	·64	...	·96	...	·75	·05	·20	·47	...	·10	1·11	28
29	...	...	...	·38	...	1·65	...	·30	·77	·7·00	...	·75	29
30	...	...	...	·01	...	·10	·07	...	·15	1·90	·62	...	30
31	...	...	...	...	·05	...	·02	1·51	...	·23	...	·04	31
Totals	11·17	20·57	6·15	12·65	8·66	10·74	2·73	9·93	7·30	13·16	18·08	27·00	Totals
Total from Jan. 1	11·17	31·74	37·89	50·54	59·20	69·94	72·67	82·60	89·90	103·06	121·14	148·14	Total from Jan. 1
Rain Days	17	19	15	17	12	15	14	14	13	12	21	28	Total 197

Average of 31 years..... 130·07 in.

REGISTER OF RAINFALL IN 1911

Kept at Bala, Eryl Aran, in the County of Merioneth,

Lat. 52° 54' 35" N. Long. 3° 36' 10" W.

BY MRS. BURTON.

RAIN GAUGE... { Diameter, 8 in.
 Height of top above Ground, 1 ft.
 " " " Sea Level, 600 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	...	...	·86	...	·05	...	·16	·19	...	...	·79	·31	1
2	...	...	·02	...	·27	...	·02	·11	...	·16	·07	·31	2
3	...	...	·09	...	1·39	...	·03	·23	·04	...	·66	·34	3
4	...	...	·16	...	·12	...	...	1·51	·06	...	1·09	·86	4
5	·37	...	·08	·04	...	...	...	·76	...	·07	·09	...	5
6	·23	...	·11	...	...	...	...	·45	...	...	·77	1·16	6
7	·07	...	...	...	...	...	...	...	...	...	·69	...	7
8	·61	...	·23	...	...	...	...	...	...	...	·30	1·40	8
9	·02	...	·02	...	...	...	...	...	...	...	·50	·67	9
10	·47	·22	·15	...	...	...	...	...	...	...	·08	·93	10
11	·46	...	...	...	·02	...	...	·02	·02	...	·27	·19	11
12	...	...	·73	...	...	...	...	...	1·76	...	1·10	·05	12
13	...	...	·04	...	...	...	...	...	...	...	·36	·26	13
14	·02	·24	·13	...	...	...	...	...	...	...	·31	·25	14
15	...	·41	·30	...	...	...	...	...	...	·04	·39	·21	15
16	...	·65	·02	·06	...	·47	...	...	...	...	·15	·19	16
17	...	·12	...	...	...	·57	...	·03	...	...	·76	·90	17
18	...	·90	...	·41	...	·21	...	...	...	...	·07	1·23	18
19	...	·13	...	·54	...	·13	·33	...	·67	·05	·16	·60	19
20	...	·14	...	·51	...	·03	·04	1·73	·19	·16	·02	·05	20
21	...	1·05	...	·16	...	·15	·23	·02	·11	·24	·03	·18	21
22	·02	·31	...	·22	...	·08	...	...	...	·81	·03	·37	22
23	·04	·75	...	...	·29	·46	...	·06	·12	·39	...	·34	23
24	·24	·23	...	·13	·03	·65	...	·09	·17	·23	...	·48	24
25	·17	·31	...	·60	...	·02	...	·20	·77	·43	...	·13	25
26	...	·31	...	·54	...	·02	...	·32	·19	·26	·06	·12	26
27	·02	1·20	·17	·74	...	...	...	1·10	·75	...	·11	·14	27
28	...	·46	...	·12	...	·45	...	·12	...	...	...	·18	28
29	...	...	...	...	...	·21	·60	...	·55	1·40	...	·22	29
30	...	...	...	...	...	·06	·02	...	·03	·74	·07	...	30
31	...	...	·14	...	·15	...	...	...	...	·16	...	·02	31
Totals	2·74	7·43	3·25	4·07	2·32	3·51	1·43	6·94	5·43	5·14	8·93	12·09	Totals
Total from Jan. 1	2·74	10·17	13·42	17·49	19·81	23·32	24·75	31·69	37·12	42·26	51·19	63·28	Total from Jan. 1
Rain Days	13	16	16	12	8	14	8	16	14	14	25	28	Total 184

Average of 46 years..... 53·29 in.

REGISTER OF RAINFALL IN 1911

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	·10	...	·10	...	·12	...	·24	·08	·03	·02	·02	·01	1
2	·03	...	·08	·02	·03	...	·03	·02	...	·06	...	·08	2
3	·05	...	·10	·07	·28	...	...	·07	...	·12	·15	·07	3
4	·11	...	·02	·03	...	...	·03	...	...	·01	·20	·16	4
5	·26	...	·02	...	...	...	...	·14	...	·06	·07	·03	5
6	·06	·05	·05	...	·05	...	·06	...	...	...	...	·34	6
7	·01	·01	·03	...	...	...	·08	...	...	...	·33	...	7
8	...	...	...	...	·05	...	...	...	·30	·04	·10	·20	8
9	·19	...	...	·03	...	...	...	·30	...	...	·20	·33	9
10	·20	...	·05	...	...	...	...	...	...	...	·03	·72	10
11	·21	...	...	...	...	...	...	...	·02	...	·12	·08	11
12	·01	·05	·27	·10	·36	·06	...	·02	·03	...	·52	...	12
13	...	·20	·28	...	·21	·02	...	...	·02	...	·04	·09	13
14	...	·16	·15	...	·65	...	·04	...	·01	...	·18	·28	14
15	...	...	·12	·02	·66	...	·03	...	...	...	·76	·92	15
16	...	·01	·05	·05	...	·05	·32	...	...	...	·53	·22	16
17	...	·15	·06	·06	...	·31	·02	·09	...	...	·08	·17	17
18	...	·09	·03	·07	...	·03	·25	·04	...	...	·20	·29	18
19	...	·10	·03	·03	...	...	·12	·08	·18	·10	·09	·16	19
20	...	·08	05	...	...	·12	·10	·02	...	·01	·30	·30	20
21	...	·20	...	...	...	·04	...	...	...	·34	·25	·02	21
22	·11	...	...	...	·09	·05	...	·08	...	·01	·12	...	22
23	·02	...	...	...	...	·02	...	...	·21	1·24	·07	·25	23
24	...	·03	04	·05	...	1·45	·02	·04	...	·38	·01	·10	24
25	·02	·16	·04	·24	...	·05	·05	...	·08	·09	·02	...	25
26	·15	...	·22	·20	·05	·02	...	·02	...	·06	·06	...	26
27	·02	·02	·12	·20	·01	...	...	...	·02	·08	·26	·08	27
28	...	...	...	·05	...	·04	...	...	...	...	...	·34	28
29	...	...	·01	·03	...	...	·10	·01	·04	·48	...	·73	29
30	...	...	...	...	...	·03	...	...	·11	...	·02	·08	30
31	...	...	...	...	...	...	...	·10	...	·01	...	·08	31
Totals	1·55	1·31	1·92	1·25	2·56	2·29	1·49	1·11	1·05	3·11	4·73	6·13	Totals
Total from Jan. 1	1·55	2·86	4·78	6·03	8·59	10·88	12·37	13·48	14·53	17·64	22·37	28·50	Total from Jan. 1
Rain Days	16	14	22	16	12	14	15	15	12	17	26	26	Total 205

Average of 25 years..... 31·65 in.

REGISTER OF RAINFALL IN 1911

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	...	...	1·13	...	·81	...	·35	·18	·80	·04	·85	·77	1
2	...	...	·76	·10	·85	...	·05	·30	·32	·22	·73	·75	2
3	...	...	·52	...	·55	...	·41	·15	...	...	2·14	·38	3
4	...	...	·06	...	·40	...	·19	·08	·16	·02	1·65	·05	4
5	·92	...	·33	...	·01	·04	·49	·25	·13	...	1·81	·90	5
6	·23	...	·11	...	·46	...	·54	·63	·14	...	·55	1·34	6
7	·95	...	·12	...	·68	...	·42	·81	·13	...	·82	·29	7
8	·61	...	·73	...	...	...	...	...	·28	...	·28	·36	8
9	·23	·10	·12	...	...	...	...	·05	...	...	·08	·25	9
10	1·27	·90	·86	...	...	...	...	...	...	...	...	·38	10
11	...	...	·53	...	...	...	...	...	·28	...	...	·90	11
12	·34	·37	·20	...	...	...	...	...	·04	...	·12	·17	12
13	·50	1·34	·02	·07	·41	·05	...	...	·04	...	·21	·27	13
14	·62	·65	·02	·69	·16	...	...	...	...	...	·53	...	14
15	·63	1·44	...	1·00	...	...	·31	...	...	...	·82	...	15
16	·27	1·65	...	·20	...	·32	·29	...	...	...	1·53	·82	16
17	·69	2·28	...	1·15	...	·20	·73	·04	·22	...	·06	·89	17
18	·05	·28	...	·34	...	·18	·53	...	·82	...	·04	1·04	18
19	·05	·15	...	·68	...	·12	·20	·14	1·22	·20	·07	·80	19
20	...	·43	...	·80	...	·30	·38	·03	·21	·03	·02	·37	20
21	·27	3·09	...	2·00	...	1·30	·35	·03	·03	·15	...	·65	21
22	...	2·17	...	1·06	1·24	·36	·44	...	·04	·25	...	·14	22
23	·80	1·55	...	1·09	...	·04	·48	...	·34	·93	...	·83	23
24	1·75	·29	...	·98	·03	·21	·16	1·45	·15	·11	...	·88	24
25	·92	·95	...	·68	·11	·24	·24	·70	·27	·03	...	·48	25
26	1·70	·23	...	·33	...	·02	·46	·25	1·15	...	...	·45	26
27	·43	·44	...	...	...	·52	·47	·10	·77	...	·24	·40	27
28	...	·43	...	·09	...	·59	·16	·91	·40	·07	·70	·39	28
29	...	...	...	·30	..	·90	·26	·52	·12	1·65	·03	1·14	29
30	...	...	·05	...	...	·28	·11	·21	·02	1·08	·34	·21	30
31	...	...	...	...	...	...	...	2·70	...	1·03	...	·36	31
Totals	13·23	18·74	5·56	11·56	5·71	5·67	8·02	9·53	8·08	5·81	13·62	16·66	Totals
Total from Jan. 1	13·23	31·97	37·53	49·09	54·80	60·47	68·49	78·02	86·10	91·91	105·53	122·19	Total from Jan. 1
Rain Days	20	19	15	17	12	17	23	20	24	14	22	29	Total 232

Average of 41 years..... 110·79 in.

REGISTER OF RAINFALL IN 1911

Kept at Dunmanway, The 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	·01	...	·02	·07	1·15	...	...	·10	·05	·01	·54	·44	1
2	...	...	·04	·01	1·10	·31	...	·70	...	...	·04	·40	2
3	...	...	·43	...	·40	...	...	·02	·08	...	·46	·42	3
4	·06	...	...	...	·01	...	...	·52	...	...	·75	·67	4
5	·53	..	·25	...	...	...	...	·42	...	...	·42	·05	5
6	·01	...	·02	...	...	...	...	·02	...	...	·16	1·45	6
7	·05	...	·27	·05	·33	...	...	...	...	...	·67	·50	7
8	·50	...	·13	...	·09	...	...	·02	...	...	·24	·22	8
9	...	·30	·61	...	...	...	...	...	...	...	·05	·77	9
10	·66	·01	·56	...	...	...	...	...	·09	...	·28	·34	10
11	·02	...	·33	...	...	...	...	·10	1·15	...	·57	·07	11
12	...	...	·28	...	·21	...	...	·02	·08	·01	·20	·37	12
13	...	·60	·02	...	·81	·01	...	...	...	·23	1·67	·35	13
14	...	·35	...	...	·74	...	...	...	...	·81	2·04	·03	14
15	·02	·16	...	...	·01	·84	...	...	...	...	·17	·25	15
16	·12	·09	...	...	...	·02	...	...	...	·02	·39	·72	16
17	...	·21	·52	·49	·16	·11	...	·03	...	·07	·05	·59	17
18	...	·24	·84	·40	...	...	...	·17	·01	·06	·38	·44	18
19	...	·08	·09	·06	...	·01	·27	·17	·18	·32	·05	·80	19
20	...	·54	...	·87	...	·02	·17	·12	·29	·88	...	·23	20
21	·17	·52	·06	·50	...	·30	·01	...	·17	·72	...	·38	21
22	·04	·50	·26	·16	...	·04	...	...	·39	·10	...	·92	22
23	·04	·25	...	...	·07	·35	...	·50	·06	·21	...	·61	23
24	·02	·70	...	·70	·07	·01	·02	...	·13	...	...	·32	24
25	·02	·09	...	·20	·19	...	·79	·01	1·17	·44	...	·36	25
26	·01	·78	...	·64	...	...	·48	·18	·18	·60	...	·40	26
27	...	·62	...	·18	...	...	·04	·23	·02	·09	...	·04	27
28	·01	·21	·07	·40	...	·07	...	·06	...	·23	·20	·01	28
29	·07	...	·05	·30	...	·12	1·15	...	·24	1·60	·17	·21	29
30	...	...	·44	...	...	...	·22	...	...	·02	·10	·01	30
31	...	...	·02	...	...	...	·30	...	...	·03	...	·04	31
Totals	2·36	6·25	5·31	5·03	5·34	2·21	3·45	3·39	4·29	6·45	9·60	12·41	Totals
Total from Jan. 1	2·36	8·61	13·92	18·95	24·29	26·50	29·95	33·34	37·63	44·08	53·68	66·09	Total from Jan. 1
Rain Days	18	18	21	15	14	13	10	18	16	19	22	31	Total 215

Average of 7 years..... 55·73 in.

REGISTER OF RAINFALL IN 1911

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	...	·04	·02	·44	...	·19	·20	·04	·05	·27	·16	1
2	...	...	·02	...	·37	...	·03	·11	...	·14	·16	·15	2
3	...	...	·49	...	·26	...	·22	·06	...	...	·41	·03	3
4	·02	...	·04	...	·05	...	·28	·22	...	...	·52	·33	4
5	·60	...	·24	...	·02	...	...	·42	...	...	·23	...	5
6	·06	...	·11	...	·21	...	·03	·03	...	...	·26	·49	6
7	·16	·06	·12	...	·20	...	·02	...	...	·04	·17	·04	7
8	·07	...	·09	...	·07	...	...	...	...	...	·31	·76	8
9	·04	·17	·04	...	...	...	...	...	...	...	...	·20	9
10	·70	...	·05	...	...	...	...	...	...	...	...	·64	10
11	·06	·04	·03	...	...	...	...	...	·17	...	·23	·02	11
12	...	·22	·07	...	...	...	...	...	·03	...	·04	...	12
13	·02	·24	...	...	1·23	...	...	...	·06	...	·49	·66	13
14	·04	·07	...	...	·13	...	...	...	·02	...	·29	·38	14
15	·05	·10	·03	·13	·03	...	...	...	...	·03	·30	·08	15
16	·03	·02	...	·09	...	·36	...	...	·03	...	·85	·52	16
17	·02	·06	·15	·14	...	·28	·15	·13	...	...	·05	·19	17
18	...	·84	...	·23	...	·06	·02	·02	...	·30	·19	·05	18
19	...	·06	...	·03	...	·26	·09	·18	·15	·21	·02	·23	19
20	...	·27	...	·11	...	·03	·19	...	...	·48	·02	·02	20
21	·06	·13	...	·03	...	·35	·18	...	·04	·35	...	·05	21
22	·10	·38	...	·40	...	·09	...	...	·47	·16	...	...	22
23	·05	·18	...	·10	·03	...	·04	·62	·05	·02	...	·76	23
24	·18	·19	...	·15	...	·18	·19	·09	·05	·09	...	·15	24
25	·06	·15	...	·34	·47	·04	·50	·03	·03	·08	...	·26	25
26	...	·16	...	·22	...	...	·08	·10	·03	·25	...	·09	26
27	·04	·15	...	·17	...	...	·20	·28	·08	...	·14	·16	27
28	...	·13	...	·32	...	...	·06	·25	·13	·17	·06	·46	28
29	...	...	·17	·04	...	·11	·32	·22	·29	·63	...	·24	29
30	...	...	·02	...	...	·10	·15	·04	·02	·22	·05	·19	30
31	...	...	·21	...	...	...	...	·24	...	·06	...	·02	31
Totals	2·38	3·62	1·92	2·52	3·51	1·86	2·94	3·24	1·69	3·28	5·06	7·33	Totals
Total from Jan. 1	2·38	6·00	7·92	10·44	13·95	15·81	18·75	21·99	23·68	26·96	32·02	39·35	Total from Jan. 1
Rain Days	20	20	17	16	13	11	19	18	17	17	21	28	Total 217

Average of 35 years..... 41·01 in.

THE DURATION OF RAINFALL IN 1911.

THE number of records from self-recording rain gauges has increased, but the distribution is unsatisfactory. We have never received a record from Ireland, and those which formerly came from Scotland have disappeared. We regret to learn that ill-health has compelled Mr. Bisset to discontinue his hyetograph at Inch; but he has handed over his instrument to Mr. Smith, of Crathes, whose meteorological station thus becomes one of the best furnished in Scotland, and we look forward with pleasure to his records.

None of the 15 records in England and Wales which we published last year has failed, and we are able to add four new complete records—at Walton-on-the-Hill, Surrey; Cranford, Northamptonshire; Mayfield House, near Ashbourne, Staffordshire; and Aber Clwd, in the Grwyne Fawr Valley, in Breconshire. In addition to these there is an imperfect record commenced in June at the Hampstead Observatory. One of the new gauges is of the Halliwell pattern, one is a new and simplified form of Casella's balanced-bucket type, and three are Negretti and Zambra's hyetographs. We give the monthly totals for all the twenty gauges in the usual form; but we are not able to say how far the durations vary in consequence of the different degrees of sensitiveness of the machines, or what the effect of the observer's personal equation in counting the number of hours may be. Although a Halliwell rain gauge is kept at work at Camden Square alongside the Casella standard gauge, the record of the former has only been utilized in case of the breakdown of the latter. It is evident, however, that the Halliwell is the more sensitive instrument; its more open scale and the finer line it draws perhaps enables the exact moment of the commencement and conclusion of a shower to be fixed more easily; but we think it begins to work when a smaller amount has fallen. Mr. Walker's very careful measurements with three separate patterns at Thirsk are most useful in showing what differences may be expected between good instruments, carefully attended to and interpreted by skilled observers. His durations for the same rainfall were 607·3, 563·2 and 544·9 hours respectively, or expressing the smallest by 100 the relative durations come out as 111, 103, 100. The Halliwell gauge gave the largest value, as it did last year, but the Lander and Newey

gauges have changed places, the former was the lower in 1910, the latter in 1911.

The rate of rainfall per hour varied from ·057 in. at Twyford and Mill Hill to ·041 in. at Mayfield House, Ashbourne ; the mean for the 19 complete records being ·051 in.

Comparison of Amount, Duration and Intensity of Rainfall, and Number of Rain Days at Camden Square in 1911 with the Average for 30 years, 1881-1910.

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	114	·057	100	152	94
1882	27·14	113	480·7	113	·056	98	165	102
1883	24·40	101	393·5	93	·062	109	164	101
1884	20·35	85	336·8	79	·060	105	150	93
1885	26·64	111	470·0	110	·057	100	165	102
1886	27·01	112	427·2	100	·063	111	176	109
1887	19·21	80	300·3	71	·064	112	140	86
1888	27·74	115	435·7	102	·064	112	173	107
1889	23·85	99	428·5	101	·056	98	169	104
1890	21·23	88	409·5	96	·052	91	161	99
1891	28·15	117	490·3	115	·057	100	178	110
1892	22·61	94	372·5	88	·061	107	158	98
1893	19·80	82	388·0	91	·051	89	148	91
1894	27·94	116	477·7	112	·058	102	185	114
1895	21·47	89	380·0	89	·057	100	137	85
1896	23·52	98	404·3	95	·058	102	159	98
1897	22·86	95	371·2	87	·062	109	164	101
1898	<i>m</i> 17·69	73	<i>m</i> 298·5	70	·059	104	140	86
1899	22·54	94	337·5	79	·067	118	144	89
1900	23·28	97	366·3	86	·064	112	174	107
1901	22·17	92	310·2	73	<i>M</i> ·071	125	<i>m</i> 128	79
1902	20·84	87	352·5	83	·059	104	162	100
1903	<i>M</i> 38·10	158	<i>M</i> 688·5	162	·055	96	179	110
1904	20·65	86	491·8	116	<i>m</i> ·042	74	160	99
1905	22·97	95	456·4	107	·050	88	162	100
1906	24·26	101	420·4	99	·058	102	163	101
1907	23·01	96	418·8	98	·055	96	175	108
1908	23·67	98	500·7	118	·047	82	157	97
1909	26·75	111	576·5	136	·046	81	<i>M</i> 190	117
1910	25·36	105	491·2	115	·052	91	186	115
Average.	24·10	100	425·4	100	·057	100	162	100
1911	24·79	103	473·0	111	·052	91	155	96
Difference from average	+ ·69	+ 3	+ 47·6	+11	- ·005	- 9	- 7	- 4

Duration of Rainfall at Hampstead Observatory, London, in 1911.

Negretti & Zambra's Hyetograph. 451 feet above sea level.

MR. E. L. HAWKE, F.R.Met.Soc.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January.....	1·27	...	...	14	·09	...
February	1·43	...	...	14	·10	...
March	1·64	...	...	19	·09	...
April	1·78	...	...	14	·13	...
May	1·32	...	...	10	·13	...
June	2·19	45·4	·048	13	·17	3·5
July	·76	7·8	·097	6	·13	1·3
August.....	·78	12·0	·065	7	·11	1·7
September	1·49	26·0	·057	11	·14	2·4
October	3·15	40·6	·078	14	·23	2·9
November!.....	3·62	70·1	·052	17	·21	4·1
December	4·55	106·7	·043	25	·18	4·3
Year	23·98	...	...	164	·15	...

Duration of Rainfall at Camden Square, London, in 1911.

Casella's Standard Recording Rain Gauge. 111 feet above Sea Level.

DR. H. R. MILL, F.R.Met.Soc.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	1·38	44·4	·031	12	·12	3·7
February	1·48	39·2	·038	14	·11	2·8
March	1·72	59·1	·029	18	·10	3·3
April	1·80	35·1	·051	11	·16	3·2
May	1·80	22·8	·079	10	·18	2·3
June	2·69	39·6	·068	11	·24	3·6
July	1·17	5·5	·213	5	·23	1·1
August.....	·48	9·2	·052	7	·07	1·3
September	1·31	25·1	·052	11	·12	2·3
October	3·12	39·8	·078	14	·22	2·8
November	3·62	62·8	·058	19	·19	3·3
December	4·22	90·4	·047	23	·18	3·9
Year	24·79	473·0	·052	155	·16	3·1

*Duration of Rainfall at Park Hill House, Stanhope Road, Croydon,
Surrey, in 1911.*

265 feet above Sea Level.

MR. BALDWIN LATHAM, M.Inst.C.E., F.R.Met.Soc.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	1·39	37·5	·037	16	·09	2·3
February	1·21	29·5	·041	15	·08	2·0
March	1·90	66·4	·029	18	·11	3·9
April	2·10	36·2	·058	13	·16	3·0
May	1·05	25·2	·042	8	·13	3·1
June	2·20	38·2	·058	10	·22	3·8
July	·45	5·4	·083	6	·07	0·9
August	1·02	11·8	·087	6	·17	2·0
September	1·20	18·3	·066	10	·12	1·8
October	4·07	48·9	·083	16	·25	3·1
November	4·25	67·4	·063	21	·20	3·2
December	6·28	114·7	·055	25	·25	4·6
Year	27·12	499·5	·054	164	·17	3·1

Duration of Rainfall at Hedgecroft, Walton-on-the-Hill, Surrey, in 1911.

Negretti & Zambra's Hyetograph. 570 feet above Sea Level.

MR. G. R. CROMPTON, F.R.Met.Soc.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	1·66	52·5	·032	15	·11	3·5
February	1·72	54·9	·031	14	·12	3·9
March	1·92	75·1	·026	18	·11	4·2
April	2·10	39·7	·053	13	·16	3·1
May	2·64	29·1	·091	12	·22	2·4
June	2·77	41·5	·067	11	·25	3·8
July	0·48	7·6	·063	7	·07	1·1
August	0·86	11·4	·075	7	·12	1·6
September	1·12	23·5	·048	9	·12	2·6
October	4·77	49·4	·097	16	·30	3·1
November	5·09	83·7	·061	22	·23	3·8
December	7·55	149·9	·050	27	·28	5·6
Year	32·68	618·3	·053	171	·19	3·6

Duration of Rainfall at Timsbury, Hants, in 1911.

Negretti & Zambra's Tipping Bucket Recording Rain Gauge.
90 feet above Sea Level.

MR. WILLIAM MATTHEWS, M.Inst.C.E.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	1·15	34·8	·033	10	·11	3·5
February	1·39	65·0	·021	13	·11	5·0
March	2·40	56·4	·043	15	·16	3·8
April ..	1·36	49·6	·027	13	·10	3·8
May	1·93	19·5	·099	10	·19	1·9
June	1·83	38·8	·047	11	·17	3·5
July	·10	1·5	·067	1	·10	1·5
August ..	·44	15·7	·028	11	·04	1·4
September	1·39	22·8	·061	9	·15	2·5
October	2·58	47·8	·054	14	·18	3·4
November	3·78	76·5	·049	20	·19	3·8
December	9·31	152·7	·061	27	·34	5·7
Year	27·66	581·1	·048	154	·18	3·8

Duration of Rainfall at Twyford, Hants, in 1911.

Negretti & Zambra's Tipping Bucket Recording Rain Gauge.
139 feet above Sea Level.

MR. WILLIAM MATTHEWS, M.Inst.C.E.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January ..	1·23	36·3	·034	9	·14	4·0
February	1·53	47·5	·032	11	·14	4·3
March	2·36	47·4	·050	11	·21	4·3
April	1·67	39·2	·043	10	·17	3·9
May	2·35	23·2	·101	10	·23	2·3
June	1·63	33·4	·049	11	·15	3·0
July	·15	2·3	·065	1	·15	2·3
August	·40	11·6	·035	9	·04	1·3
September	·89	20·3	·044	7	·13	2·9
October	4·58	48·7	·094	17	·27	2·9
November	4·19	72·9	·057	17	·25	4·3
December	9·82	155·0	·063	26	·38	6·0
Year	30·80	537·8	·057	139	·22	3·9

Duration of Rainfall at Mill Hill, Middlesex, in 1911.

Negretti and Zambra's Hyetograph. 380 feet above Sea Level.

MRS. H. R. MILL, F.R.Met.Soc.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	1·40	46·4	·030	14	·10	3·3
February	1·59	37·4	·043	12	·13	3·1
March	1·67	44·5	·038	16	·10	2·8
April	1·84	27·3	·067	16	·12	1·7
May	1·46	16·8	·087	10	·15	1·7
June	2·32	39·4	·059	12	·19	3·3
July	1·55	7·9	·196	6	·26	1·3
August	·65	12·9	·050	11	·06	1·2
September	1·44	23·5	·061	8	·18	2·9
October	3·24	41·3	·078	16	·20	2·6
November	3·56	60·2	·059	21	·17	2·9
December	4·79	93·2	·051	26	·18	3·6
Year	25·51	450·8	·057	168	·15	2·7

Duration of Rainfall at Woodford House, Cranford, Northamptonshire, in 1911.

Negretti and Zambra's Hyetograph. 262 feet above Sea Level.

MR. E. N. PLEVINS, F.R.Met.Soc.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	·85	32·9	·026	12	·07	2·7
February	1·07	26·9	·040	14	·08	1·9
March	1·50	43·1	·035	15	·10	2·9
April	·79	14·6	·054	13	·06	1·1
May	1·97	21·6	·091	8	·25	2·7
June	1·33	34·1	·039	11	·12	3·1
July	·47	2·5	·188	3	·16	0·8
August	2·68	15·7	·171	11	·24	1·4
September	1·12	23·8	·047	9	·12	2·7
October	1·99	35·9	·056	17	·12	2·1
November	2·32	46·0	·050	20	·12	2·3
December	3·44	78·9	·044	26	·13	3·0
Year	19·53	376·0	·052	159	·12	2·4

Duration of Rainfall at Melbury Reservoir, Parkham, Devon, in 1911.

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.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	2·94	62·8	·047	18	·16	3·5
February	4·69	109·9	·043	16	·29	6·9
March	2·42	62·3	·039	16	·15	3·9
April	3·58	75·3	·047	16	·22	4·7
May	1·48	25·2	·059	7	·21	3·6
June	4·43	73·3	·060	14	·32	5·2
July	·68	7·3	·093	6	·11	1·2
August	3·47	86·5	·040	17	·20	5·1
September	4·01	74·2	·054	14	·29	5·3
October	6·20	110·0	·056	18	·34	6·1
November	8·25	162·1	·051	25	·33	6·5
December	11·19	184·6	·061	31	·36	6·0
Year	53·34	1033·5	·052	198	·27	5·2

Duration of Rainfall at Swainshill, Credenhill, Herefordshire, in 1911.

Electrically recording Tipping Bucket Rain Gauge.

266 feet above Sea Level.

MR. B. G. RONALDS.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	·46	13·7	·034	7	·07	2·0
February	1·02	24·6	·041	12	·09	2·1
March	1·65	*35·0	·047	17	·10	2·1
April	·74	20·3	·036	11	·07	1·8
May	1·05	14·2	·074	7	·15	2·0
June	2·18	27·7	·079	9	·24	3·1
July	·40	1·6	·250	4	·10	0·4
August	1·73	20·0	·087	10	·17	2·0
September	1·61	26·2	·062	11	·15	2·4
October	1·76	31·0	·057	16	·11	1·9
November	2·66	68·2	·039	20	·13	3·4
December	6·73	115·5	·058	24	·28	4·8
Year	21·99	398·0	·055	148	·15	2·7

* Partly estimated.

*Duration of Rainfall at Mayfield House [near Ashbourne], Staffordshire,
in 1911.*

Casella's Recording Rain Gauge. 374 feet above Sea Level.

MR. GRAHAM C. LAWSON.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	1·18	33·5	·035	9	·13	3·7
February	2·64	61·5	·043	15	·18	4·1
March	1·64	47·0	·035	15	·11	3·1
April	2·05	56·9	·036	14	·15	4·1
May	1·01	14·2	·071	6	·17	2·4
June	2·50	58·6	·043	14	·18	4·2
July	·38	10·8	·035	6	·06	1·8
August	1·68	30·4	·055	12	·14	2·5
September.	2·33	52·7	·044	11	·21	4·8
October	2·28	49·8	·046	16	·14	3·1
November	2·71	90·9	·030	22	·12	4·1
December	5·42	123·4	·044	27	·20	4·6
Year	25·82	629·7	·041	167	·15	3·8

Duration of Rainfall at Hodsock Priory, Notts, in 1911.

Halliwell Recording Gauge. 56 feet above Sea Level.

LT.-COL. H. MELLISH, F.R.Met.Soc.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	·89	20·6	·043	9	·10	2·3
February	·78	17·7	·044	12	·06	1·5
March	1·13	35·1	·032	19	·06	1·8
April	·63	19·3	·033	13	·05	1·5
May	·83	15·2	·055	8	·10	1·9
June	2·52	39·8	·063	9	·28	4·4
July	·15	4·4	·034	6	·03	0·7
August	1·65	22·0	·075	13	·13	1·7
September	1·52	20·0	·076	10	·15	2·0
October	2·05	38·4	·053	17	·12	2·3
November	2·78	61·4	·045	20	·14	3·1
December	4·36	76·4	·057	24	·18	3·2
Year	19·29	370·3	·052	160	·12	2·3

Duration of Rainfall at Hesketh Park, Southport, Lancashire, in 1911.

Halliwell Recording Gauge. 39 feet above Sea Level.

MR. J. BAXENDELL, F.R.Met.Soc.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	·80	27·3	·029	9	·09	3·0
February	2·85	62·1	·046	17	·16	3·7
March	1·16	42·2	·027	11	·11	3·8
April	2·54	45·8	·055	11	·23	4·2
May	1·48	19·9	·074	6	·25	3·3
June	2·31	45·8	·050	14	·17	3·3
July	·35	6·5	·054	8	·04	0·8
August	3·62	42·5	·085	13	·28	3·3
September	4·65	58·2	·080	16	·29	3·6
October	2·40	45·4	·053	15	·16	3·0
November	3·16	63·5	·050	20	·16	3·2
December	5·06	106·7	·047	28	·18	3·8
Year	30·38	565·9	·054	168	·18	3·4

Duration of Rainfall at Huddersfield Cemetery, Yorkshire, in 1911.

Halliwell Recording Gauge. 410 feet above Sea Level.

MR. J. FIRTH.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	1·58	63·3	·025	18	·09	3·5
February	4·48	79·3	·056	16	·28	5·0
March	1·78	59·5	·030	24	·07	2·5
April	1·86	60·6	·031	18	·10	3·4
May	1·84	28·5	·065	13	·14	2·2
June	3·17	58·4	·054	14	·23	4·2
July	0·54	9·3	·058	9	·06	1·0
August	2·30	31·6	·073	10	·23	3·2
September	2·81	52·3	·054	14	·20	3·7
October	3·14	82·7	·038	21	·15	3·9
November	4·47	98·8	·045	23	·19	4·3
December	4·68	114·1	·041	26	·18	4·4
Year	32·65	738·4	·044	206	·16	3·6

Duration of Rainfall at Mount St. John, Thirsk, Yorkshire, in 1911.

Halliwell Recording Gauge. 542 feet above Sea Level.

MR. A. J. WALKER, F.R.Met.Soc.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	1·64	46·8	·035	12	·14	3·9
February	·93	30·6	·030	13	·07	2·4
March	1·86	59·1	·032	19	·10	3·1
April	1·39	30·4	·046	13	·11	2·3
May	·96	22·1	·043	11	·09	2·0
June	3·34	59·1	·057	10	·33	5·9
July	·78	14·4	·054	7	·11	2·1
August	2·95	45·5	·065	13	·23	3·5
September	2·51	47·2	·053	10	·25	4·7
October	2·18	61·0	·036	18	·12	3·4
November	3·98	85·7	·046	26	·15	3·3
December	4·24	105·4	·040	24	·18	4·4
Year.....	26·76	607·3	·044	176	·15	3·5

Duration of Rainfall at Mount St. John, Thirsk, Yorkshire, in 1911.

Newey Recording Gauge. 542 feet above Sea Level.

MR. A. J. WALKER, F.R.Met.Soc.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	1·64	39·3	·042	12	·14	3·3
February.....	·93	31·9	·029	13	·07	2·5
March	1·86	50·8	·037	19	·10	2·7
April	1·39	27·1	·051	13	·11	2·1
May	·96	21·0	·046	11	·09	1·9
June	3·34	61·0	·055	10	·33	6·1
July	·78	13·0	·060	7	·11	1·9
August	2·95	40·3	·073	13	·23	3·1
September	2·51	41·3	·061	10	·25	4·1
October	2·18	52·3	·042	18	·12	2·9
November	3·98	76·7	·052	26	·15	3·0
December	4·24	90·2	·047	24	·18	3·8
Year.....	26·76	544·9	·049	176	·15	3·1

DURATION OF RAINFALL.

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Duration of Rainfall at Mount St. John, Thirsk, Yorkshire, in 1911.

Lander Recording Gauge. 542 feet above Sea Level.

MR. A. J. WALKER, F.R. Met. Soc.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	1·64	34·6	·047	12	·14	2·9
February	·93	26·4	·035	13	·07	2·0
March	1·86	45·9	·041	19	·10	2·4
April	1·39	27·5	·051	13	·11	2·1
May	·96	22·3	·043	11	·09	2·0
June	3·34	60·7	·055	10	·33	6·1
July	·78	13·9	·056	7	·11	2·0
August	2·95	46·4	·064	13	·23	3·6
September	2·51	49·3	·051	10	·25	4·9
October	2·18	62·9	·035	18	·12	3·5
November	3·98	79·2	·050	26	·15	3·0
December	4·24	94·1	·045	24	·18	3·9
Year	26·76	563·2	·048	176	·15	3·2

Duration of Rainfall at Percy Park, Tynemouth, Northumberland, in 1911.

Negretti & Zambra's Hyetograph. 92 feet above Sea Level.

MR. J. E. BURNETT, F.R. Met. Soc.

1911.	Rainfall	Duration.	Rate per hour.	Number of rain days.	Rain per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	1·55	34·9	·044	11	·14	3·2
February	·83	21·8	·038	11	·08	2·0
March	1·78	37·7	·047	18	·10	2·1
April	1·51	36·4	·041	18	·08	2·0
May	·93	11·1	·084	11	·08	1·0
June	5·04	60·9	·083	13	·39	4·7
July	·68	8·7	·078	7	·10	1·2
August	2·78	45·3	·061	14	·20	3·2
September	2·39	38·8	·062	12	·20	3·2
October	2·18	35·6	·061	20	·11	1·8
November	3·37	56·3	·060	23	·15	2·5
December	2·80	48·0	·058	19	·15	2·5
Year	25·84	435·5	·059	177	·15	2·5

Duration of Rainfall at Cray Reservoir, Breconshire, in 1911.

Halliwell Recording Gauge. 1,030 feet above Sea Level.

MR. R. H. WYRILL, M.Inst.C.E.

1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	3·54	111·0	·032	18	·20	6·2
February	7·18	167·0	·043	18	·40	9·3
March	3·62	97·3	·037	16	·23	6·1
April	4·17	129·7	·032	17	·25	7·6
May	2·21	58·0	·038	10	·22	5·8
June	4·93	110·3	·045	16	·31	6·9
July	·71	27·0	·026	11	·06	2·5
August	7·12	98·0	·073	16	·45	6·1
September	3·60	91·7	·039	15	·24	6·1
October	5·33	132·0	·040	19	·28	6·9
November	10·51	215·5	·049	22	·48	9·8
December	17·44	337·0	·052	31	·56	10·9
Year	70·36	1574·5	·045	209	·34	7·5

*Duration of Rainfall at Aber Clyd, Black Mountains,
Breconshire, in 1911.*

Halliwell Recording Gauge. 1,880 feet above Sea Level.

THE REFEREES under the Abertillery and District Water Board Act.

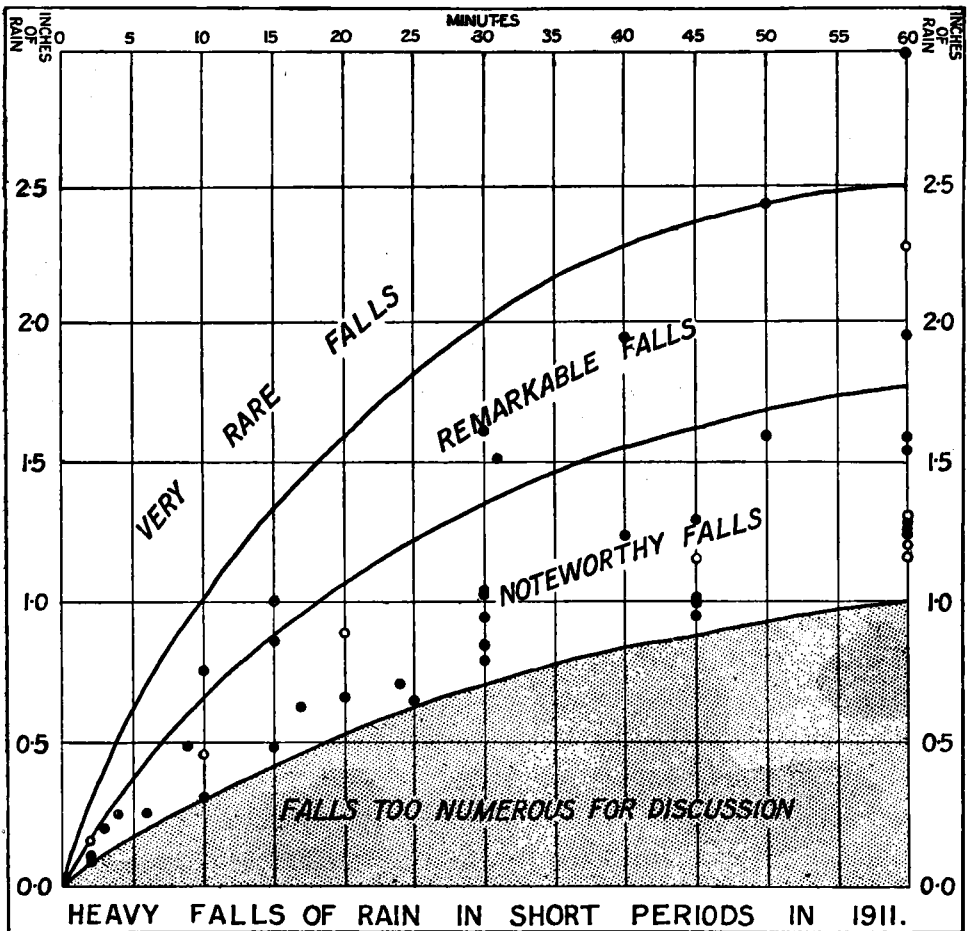
1911.	Rainfall.	Duration.	Rate per hour.	Number of rain days.	Rate per rain day.	Duration per rain day.
	in.	hours.	in.		in.	hours.
January	·92	*23·2	·040	13	·07	1·8
February	2·81	78·0	·036	17	·17	4·6
March	2·61	81·4	·032	18	·14	4·5
April	2·42	68·0	·036	18	·13	3·8
May	2·68	31·4	·086	9	·30	3·5
June	4·55	71·1	·064	15	·30	4·7
July	1·16	8·5	·136	7	·17	1·2
August	3·50	60·4	·058	14	·25	4·3
September	3·78	75·7	·050	15	·25	5·0
October	4·50	85·8	·052	20	·22	4·3
November	7·20	157·8	·046	24	·30	6·6
December	12·72	182·1	·070	27	·47	6·7
Year	48·85	923·4	·053	197	·25	4·7

* Partly estimated.

HEAVY RAINS IN SHORT PERIODS.

It is always a matter of some difficulty to judge to what extent fluctuations in the length of the list of Heavy Rains in Short Periods may be attributed to variations in the frequency of such phenomena from year to year. So small a fraction of the remarkable rain storms which occur is likely to be put on record with a degree of accuracy, both as to time and amount, sufficient for our purpose, that the number of instances which are quoted can hardly be expected to bear any definite ratio to the whole. Another difficulty is that rain storms sufficiently heavy to be worth quoting are almost always of a very local nature, so that if the part of the country in which one of them occurs is thinly inhabited, the chance of its being measured is small. On the other hand, when a thunderstorm like that of May 31st, 1911, chances to fall upon so densely populated an area as that of London, observations are sure to be numerous. The 80 falls included in the list were spread over no fewer than 25 dates. Of these dates only one, October 13th, lay outside the five months from May to September. Three dates call for special attention on account of the number of records quoted, namely, May 31st, July 29th, and August 21st. Each of these dates represented the termination of a short spell of days notable for remarkably heavy thunderstorms affecting remarkably small areas, and nearly all the records marked with one or two crosses in the list, in order to call attention to their exceptional intensity, fell within these spells. The May group commenced with the 26th, when the heaviest downpour took place at Fareham, in Hampshire. Of the three records at Fareham, two can claim the distinction of "very rare," designated by two crosses, and the third receives a single cross. Of these one only, that of 3·00 in. in one hour at The Mount, Fareham, is quoted in the special table of very rare falls during the last 34 years, which is confined to those extending over one hour or less. It forms the fourth known instance of 3·00 in. or more of rain falling within an hour in the British Isles. May 27th produced one remarkable fall of 2·61 in. in 1 hour 30 minutes at Rumleigh, in South Devon; it is probable that the actual fall was greater, as the rain gauge overflowed and a neighbouring station reported the day's rainfall as 3·00 in. without giving the duration.

Two falls on May 31st were worthy of note. The measurement of 2·44 in. in 50 minutes at Epsom gives the second addition to the list of very rare falls, and that of 3·54 in. in 2 hours 45 minutes at Basing House, near Banstead, is also notable. A special article in the first part of this volume treats at some length of this thunder-storm. The second group of heavy rainfalls, those of the last few days of July, give four instances of remarkable falls, the most noteworthy of which was 2·26 in. in an hour on July 28th at Barrington Grove, on the borders of Oxfordshire and Gloucestershire. The August storms gave two records at Malton on the 20th, 1·61 in. in 30 minutes at The Leat House and 1·51 in. in 31 minutes at



Broughton Rise. Of the former the observer writes that enormous quantities of hail fell, a great deal of which would naturally escape the gauge, so that the rainfall was in reality greater than stated.

We give as usual a diagram on which the heavy falls of sufficient interest to be worth quoting and of not more than an hour's duration

have been plotted. Entries to which it has been thought advisable to affix a ?, not, it should be observed, on account of known inaccuracy, but merely of uncertainty, have been indicated in the diagram by means of a ring instead of a solid circle.

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
1911	May 31	II.	Epsom, Ashley Road	2·44	0 50	2·93
1901	July 29	"	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
1911	" 26	"	Fareham, The Mount	3·00	1 0	3·00

* Did not appear in *British Rainfall*.

TABLE II.—*Rainfall of very rare Intensity lasting for one hour or less—(continued).*

Year.	Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
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

TABLE III.—*Heavy Rains in Short Periods in 1911.*

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
Aug. 21 ...	IX.	Huddersfield, Cemetery	·15	... 2?	4·50?
„ 28 ...	„	„ „ „	·10	... 2	3·00
July 29 ...	II.	Heathfield, The White Cottage	·08	... 2	2·40
May 14 ...	IX.	Huddersfield, Cemetery	·20	... 3	4·00
June 17 ...	„	„ „ „	·20	... 3	4·00
July 25 ...	„	„ „ „	·25	... 4	3·75
May 31 ...	I.	St. Pancras, Camden Square... ..	·25	... 6	2·50
July 29 ...	III.	Watlington, Pyrton Hill	·49	... 9	3·27
„ 28 ...	I.	St. Pancras, Camden Square... ..	·75	... 10	4·50 x
„ 29 ...	II.	Detling, The Croft	·46	... 10?	2·76?
May 11 ...	VI.	Cirencester, Dollarward House	·30	... 10	1·80
July 29 ...	V.	Antony Vicarage	1·00	... 15	4·00 x
Aug. 30 ...	VI.	Mickleton, Bank House	·88	... 15	3·52 x
„ 5 ...	VIII.	Southport, Hesketh Park.....	·48	... 15	1·92
Sept. 8 ...	VII.	Croxton Kerrial	·62	... 17	2·19
May 11 ...	II.	Maplederswell	·89	... 20?	2·67?
July 26 ...	IV.	Capel St. Mary	·65	... 20	1·95
Aug. 19 ...	I.	Lewisham, Limes Grove	·70	... 24	1·75
May 26 ...	III.	Wimpole Hall	·64	... 25	1·54
Aug. 20 ...	IX.	Malton, The Leat House	1·61	... 30	3·22 x
June 17 ...	„	Pickering	1·03	... 30	2·06
Aug. 30 ...	VI.	Mickleton, Bank House.....	1·02	... 30	2·04
„ 20 ...	VII.	Spilsby, Ashby Road.....	·95	... 30	1·90
May 10 ...	II.	Oakley Rectory	·85	... 30	1·70
July 29 ...	III.	Assenton	·79	... 30	1·58
Aug. 20 ...	IX.	Malton, Broughton Rise	1·51	... 31	2·92 x
„ 21 ...	II.	Beenham House	1·94	... 40	2·91 x
July 29 ...	XXI.	Rathmines, Ormond Road ...	1·23	... 40	1·85
„ „ ...	„	Donnybrook, Belmont Avenue	1·29	... 45	1·72
May 31 ...	II.	Hadlow Place	1·15	... 45?	1·53?
„ „ ...	V.	Launceston, Hexworthy	1·01	... 45	1·35

TABLE III.—*Heavy Rains in Short Periods in 1910—(continued).*

Date.	Div.	Station.	Amount.	Duration.	Rate per hour.
			in.	hr. min.	in.
July 21 ..	„	Corsley, Sturford Mead.....	·99	... 45	1·32
„ 29 ...	XX.	Clonmel, Bruce Villa	·95	... 45	1·27
May 31 ...	II.	Epsom, Ashley Road.....	2·44	... 50	2·93xx
July 29 ...	XX.	Enniskeen, Kilcoleman.....	1·59	... 50	1·91
May 26 ...	II.	Fareham, The Mount	3·00	1 0	3·00xx
July 28 ...	VI.	Barrington Grove	2·26	1 0?	2·26? x
Aug. 21 ...	II.	Englefield Green, Harvest Rd.	1·95	1 0	1·95 x
June 3 ...	III.	Baldock	1·59	1 0	1·59
Aug. 21 ...	V.	Wroughton, Burderop Park...	1·59	1 0	1·59
„ 30 ...	VI.	Northleach, Leygore Manor...	1·52	1 0	1·52
May 11 ...	IV.	Epping, The Hemnalls	1·30	1 0	1·30
July 29 ...	XXI.	Rathmines, Leinster Road ...	1·30	1 0	1·30
May 31 ...	III.	Potters Bar, Little Heath.....	1·29	1 0?	1·29?
Aug. 21 ...	V.	Cholderton Rectory	1·29	1 0	1·29
May 31 ...	I.	Lewisham, Limes Grove	1·25	1 0	1·25
„ „ ...	„	Southwark Park	1·24	1 0	1·24
Oct. 13 ...	VI.	Whitminster	1·20?	1 0?	1·20?
May 31 ...	II.	Betchworth, The Holmes	1·15?	1 0	1·15?
Aug. 21 ...	V.	East Harptree, Harptree Court	2·23	1 6	2·03 x
May 13 ...	XXI.	Longford	1·07	1 10	·92
July 26 ...	V.	Nordrach-on-Mendip	1·74	1 15	1·39
May 27 ...	„	Beer Alston, Rumleigh	2·61	1 30	1·74 x
Oct. 13 ...	XI.	Jersey, St. Aubins, Belle Vue	2·09	1 30	1·39 x
Aug. 21 ...	V.	Stratford-sub-Castle	2·01	1 30	1·34 x
May 31 ...	III.	Watford, Bushey Hall Road...	1·59	1 30	1·06
„ 13 ...	„	Broxbourne, Stafford House...	1·37	1 30	·91
„ 31 ...	II.	Banstead, Burgh Heath	1·75	1 45	1·00
July 28 ...	III.	Ponders End, Bylock Hall ...	2·75	1 55	1·43 x
May 13 ...	IX.	Haxby, Moorlands	3·25	2 0	1·63xx
„ 26 ...	II.	Fareham, Cams Hall	3·22	2 0	1·61xx
„ „ ...	„	„ Roche Court	2·92	2 0	1·46 x
„ 11 ...	IV.	Arkesden, Wood Hall	2·52	2 0?	1·26?x
„ 13 ...	XX.	Fota Island	2·49	2 0?	1·25?x
Aug. 21 ...	V.	Collingbourne Kingston	2·00	2 0	1·00
May 13 ...	XI.	Llandilo, Cae-glas	1·96	2 0	·98
„ 31 ...	II.	Bletchingley House	1·94	2 0	·97
„ 26 ...	„	Hartley Wintney	1·75	2 0	·88
„ 31 ...	„	Sutton Sewage Works	1·75	2 0?	·88?
June 1 ...	V.	Launceston, Landue	1·75	2 0?	·88?
May 31 ...	III.	Harrow, Bessborough Road...	3·19	2 30?	1·28?x
„ „ ...	II.	Sutton, Camborne Road	2·39	2 30?	·96?
June 18 ...	XX.	Glanmire, Lota Lodge	2·21	2 30	·88
May 31 ...	II.	Epsom, Ashley Road.....	2·86	2 40	1·07 x
„ „ ...	„	Banstead, Basing House	3·54	2 45?	1·29?x
Oct. 13 ...	XI.	Jersey, St. Aubins, Belle Vue	3·00	3 0	1·00 x
Aug. 5 ...	X.	Windermere, Brockhole	2·11	3 0	·70
Sept. 25 ..	XX.	Shanagarry, Kinoith	2·00	3 0	·67
May 26 ...	II.	Barton Stacey, Moody's Down	1·70	3 0	·57
June 3 ...	XXI.	Moate, Coolatore	1·57	3 30	·45

HEAVY FALLS ON RAINFALL DAYS IN 1911.

THE number of records available for this section is 4,127, an increase of 233 over the previous year, and for the first time the number exceeds 4,000. We regret, however, that in 874 cases we have not received full returns of the daily rainfall for the year, but have been obliged to rely on the Observer's summary, which gives the fall of the wettest day in each month. We are well aware that rainfall observers are by the nature of their voluntary work trained in habits of accuracy above the average of mankind ; but the best of human beings are but human after all, and our trained assistants do pick out instances, not a few every year, of the wrong day being selected as the wettest from a daily return, so it is only natural to expect that a few slips have been made by those Observers also who do not send in the full return. It is only when the daily figures are received that we are able to be sure that the returns are accurate, or that we are able to detect with certainty the signs of decay in rain gauges that are going wrong. As the years have gone on we have gradually extended our studies of wet days so as to take account of many interesting cases which are not the maximum falls of the year, and even in mapping maximum falls we have gone to the edges of the rain instead of staying our hand near the centre of the splash. In mapping the outlying regions of a heavy fall it is necessary to use the full daily return, as the figure we have to put down may even be 0. It is a great satisfaction to find that the number of full returns is increasing more rapidly than the total number of returns, so that though our work is thereby increased, the reward for that work is increased also in fuller and more accurate maps.

Except for the wider field into which these improved maps lead us, the statistical treatment of the maximum falls remains in the form Mr. Symons gave it, though we feel that the time is not far distant when another step forward may be possible in this direction also. Meanwhile we may repeat our annual statement that the maximum fall on a rainfall day at every station is extracted, and these figures are averaged and compared with the average of all previous years and with the total annual rainfall. Space does not permit us to print all the figures, so a selection is made and we set out all that

reach or exceed 2·50 in. and those which, although smaller, form 7·5 per cent. or more of the total rainfall of the year.

The heavy falls of 1911 require the following modifications to be made in the list of the greatest rainfall ever recorded in each county given in Pt. I. of *British Rainfall, 1910*, pp. 31-36.

Wiltshire ...	<i>substitute</i>	Conholt Park ...	Aug. 21, 1911 ...	3·50 in.
LANCASHIRE	<i>add</i>	Skelwith Fold ...	Oct. 29, 1911 ...	4·40 ,,
York W.R.	<i>add</i>	Kingsdale Head ...	Oct. 29, 1911 ...	4·87 ,,
CUMBERLAND	<i>add</i>	Seathwaite ...	Oct. 29, 1911 ...	7·00 ,,
	<i>also</i>	Grange ...	Oct. 29, 1911 ...	5·06 ,,
Carnarvon ...	<i>add</i>	Lake Eigiau ...	June 24, 1911 ...	5·12 ,,
Berwick ...	<i>substitute</i>	Duns ...	June 24, 1911 ...	3·30 ,,
Lanark ...	<i>substitute</i>	Kype Reservoir ...	Oct. 29, 1911 ...	3·70 ,,
Stirling ...	<i>insert</i>	Glenorchard ...	Feb. 17, 1911 ...	3·20 ,,

No record of as much as 3·00 in. in one day had previously been received from Stirlingshire.

On this occasion we have to print 172 falls of over 2·50 in. and 145 falls of less than that amount but more than 7·5 per cent. of the annual total; the whole number quoted being 317, nearly three times as many as had to be dealt with for 1910, though 1911 was a much drier year when judged by total rainfall.

Part I.—The Chronicle.

January 10th.

The wettest day at about a dozen of the wet stations in the west of Scotland; two stations have to be quoted.

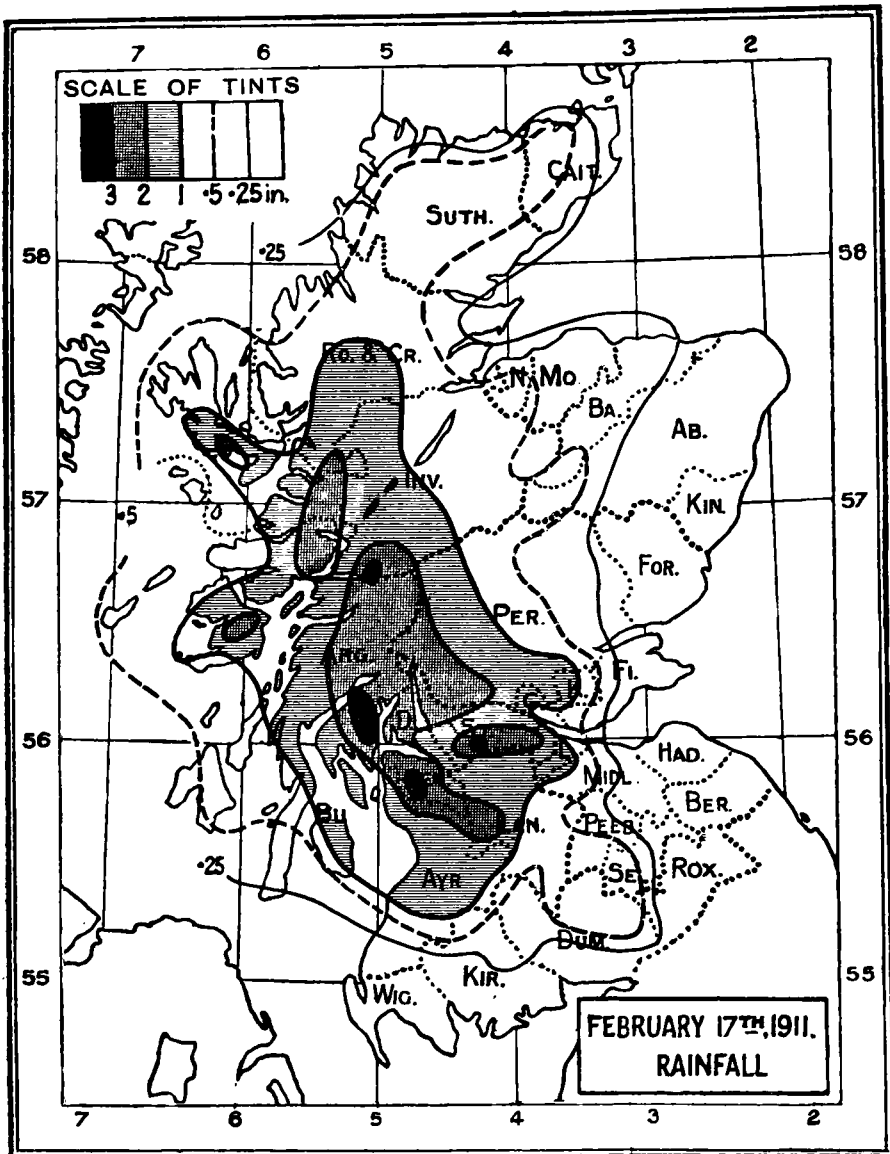
XIV.	Shaws W.W. (Mansfield)	2·83 in. or 3·5 per cent.
XV.	Mull (Glenconnel).....	3·19 ,, 2·4 ,,

February 17th.

Another wet day in the west of Scotland, where about 65 stations had their maximum fall, and 17 of these reached substantial figures, seven of them exceeding 3·00 in. The rain accompanied a small secondary depression following in the rear of a cyclone, the centre of which passed north-eastwards off the north-west of Scotland, the falls thus lying on the right hand side of the track, and closely resembling the normal distribution of annual rainfall.

The accompanying map shows the compact character of the fall, the whole of Scotland east of Langholm, Edinburgh and Banff having less than a quarter of an inch of rain, while the amount increased

very rapidly to the westward, the half-inch line completely encircling the west of Scotland and the Inner Hebrides with one large area where more than one inch fell lying within it. The area with more than two inches lay over the part of the Highlands which is normally the wettest, and there seems to be no doubt that if more rainfall



stations existed the number of records exceeding three inches would have been greater and their extent larger. Taking the map as drawn and considering the mainland of Scotland and the Inner Hebrides only the measurements give :—

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
More than 3 inches	278	3·28	912
2—3 inches	2402	2·54	6100
1—2 „	5535	1·49	8247
·50—1 inch	5674	·75	4257
·25—·50 inch	6440	·43	2796
Less than ·25 in.....	6962	·17	1200
Total	27291		23512

The general rainfall of the 8,215 square miles with more than 1·00 in. of rain was 1·86 in., and the general rainfall of the whole country ·86 in. The total volume of water which fell on Scotland on this one day was 23,512 square-mile-inches or 340,460 million gallons.

XIV.	Lochwinnoch (Garthland)	3·12 in. or 4·4 per cent.
„	Glengarnock Chemical Works	2·55 „ 4·3 „
„	Shaws W.W. (Compensation Reservoir)	2·80 „ 4·1 „
„	„ „ (Loch Thom).....	2·77 „ 3·8 „
XV.	Strathblane (The Manse).....	2·60 „ 4·1 „
„	Torrance (Glenorchard)	3·20 „ 7·0 „
„	Glenleven (Kinlochleven)	3·03 „ 3·2 „
„	Dalmally (Glenorchy Manse).....	2·60 „ 3·2 „
„	Tarbert (Bunawe Cottage)	2·65 „ 3·8 „
„	Loch Fyne (Furnace)	3·08 „ 3·7 „
„	Strachur	2·95 „ 3·6 „
„	Dunoon (Castle Gardens)	2·90 „ 3·5 „
„	„ (Reservoir)	2·90 „ 3·2 „
„	Loch Eck (Benmore).....	3·93 „ 4·2 „
XVI.	Glendevon (Glenquey Reservoir)	3·30 „ 5·8 ? „
XVIII.	Glenleven (Kinlochmore).....	3·58 „ 3·5 „
„	Skye (Kilmarie, Straithaird)	2·50 „ 2·4 „

February 21st.

The maximum fall for the year occurred at half-a-dozen stations in Yorkshire and Argyllshire; one of them happened to be in what is probably the wettest glen in Scotland, and this alone is noticeable.

XVIII.	Loch Quoich (Glenquoich)	3·09 in. or 2·5 per cent.
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February 27th.

The wettest day at more than 50 stations, chiefly in Wales, three of which yielded remarkable falls. Another was so very remarkable that we have written to the Observer suggesting various tests to apply to the figure of 6·71 in. recorded at Bwlch, and in the absence of a reply we think it prudent to omit the figure.

XI.	Llantrisant (Talygarn).....	2·62 in. or 4·8 per cent.
„	Porth (Cemetery Road)	2·56 „ 3·6 „
„	Rhondda W.W.(Llyn Fawr Reservoir)..	3·08 „ 3·3 „

May 1st.

Only one station in the British Isles recorded a maximum fall, but that was the wettest station in Mull.

XV. Mull (Knock) 3·09 in. or 3·1 per cent.

May 11th.

About 15 stations towards the east of England had their maximum fall in thunderstorms which had occurred in places on the previous day also, but only one fall of any magnitude was reported.

IV. Arkesden (Wood Hall)..... 2·52 in. or 9·6 per cent

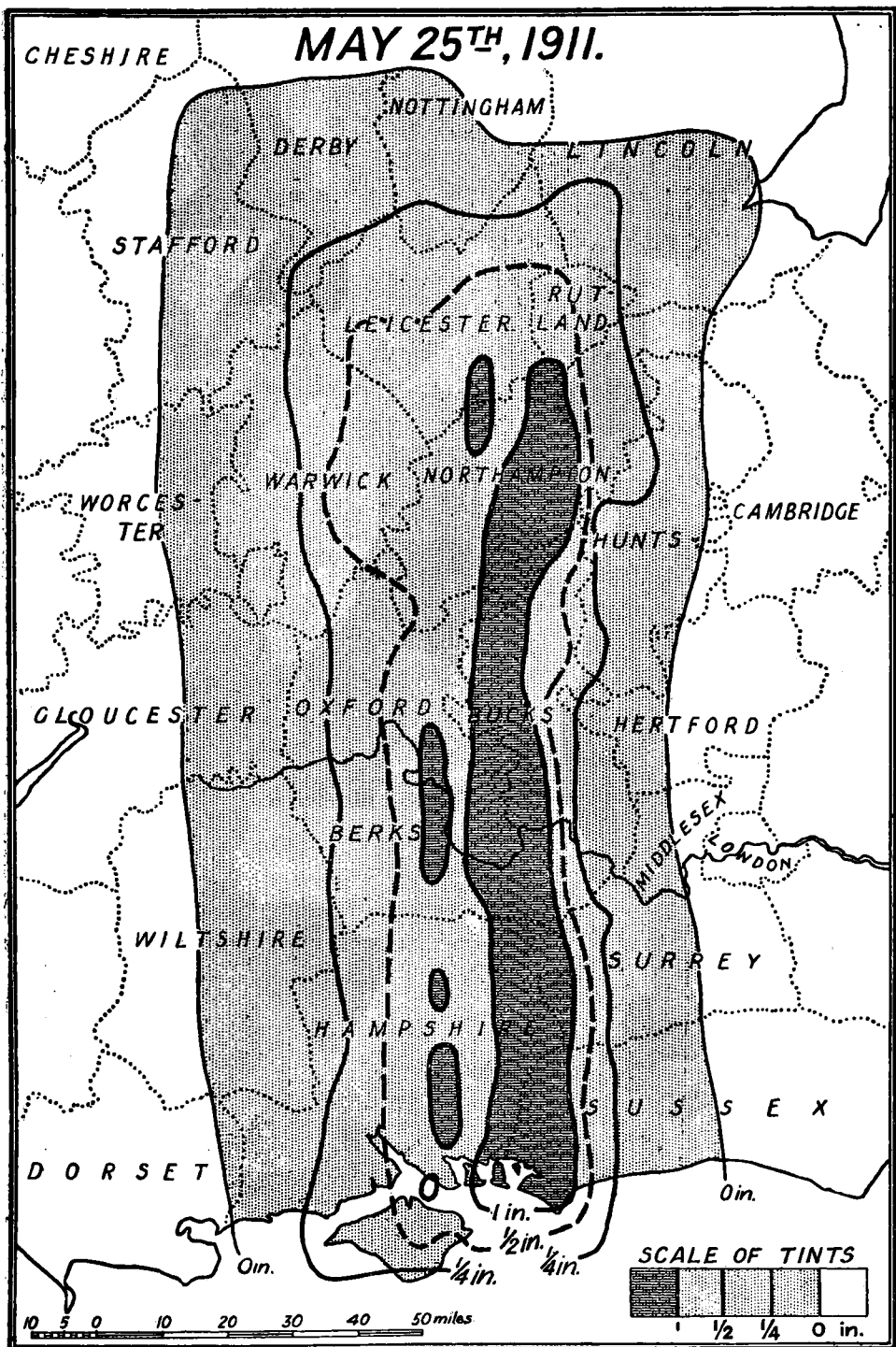
May 13th.

Thundery conditions continued in many parts of England and Ireland, and about 30 stations, mainly in the west of England and in Ireland, had their wettest day of the year. Only one of these deserves notice, but it was very remarkable.

IX. Haxby (Moorlands) 3·25 in. or 14·2 per cent.

May 25th—27th.

A series of severe thunderstorms brought maximum falls to more than 200 stations, chiefly in the south and centre of England. On the 25th the falls were moderate in amount, none of them reaching 2 inches, and it was only at the driest stations that the percentage reached the limit to quote. Notwithstanding this, the distribution of the rain was most interesting, and we have prepared a map, as it furnishes one of the best examples of a symmetrical thunderstorm rain. The whole of England was dry except a block of the central part of the country running due north for 180 miles (to Matlock) from a base of 80 miles in length on the English Channel, extending from Bournemouth to Brighton. The rain exceeded one-quarter of an inch in a central strip 45 miles wide which reached almost to Nottingham ; it exceeded half-an-inch in an inner central strip averaging 25 miles wide and reaching to Leicester, and in the centre of all there was a band 20 miles wide on the whole and not quite reaching Leicester, the greater part of which had more than one inch. The eastern side of the central core was a perfectly continuous ribbon of country 130 miles long and averaging 10 miles in breadth, over the whole of which the rainfall exceeded 1·00 in. ; the western side consisted of four narrow patches also with more



than 1.00 in., about 5 miles wide and lying about 4 miles from the central ribbon. The areas were as follows:—

	Area. sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
More than 1 inch	1581	1·27	2003
·50—1 inch	2530	·79	1995
·25—·50 inch.....	2538	·37	949
Less than ·25 inch.....	6538	·12	785
Total.....	13187		5732

The total amount of precipitation from the thunderstorms of this day was thus 5,732 square-mile inches or 82,998 million gallons. The general rainfall of the whole area on which rain fell was ·43 in.

On the 26th the whole of England and Wales was traversed by north and south-running bands of rain produced by thunderstorms. More than an inch fell in half-a-dozen small isolated patches along a line from Portland to Ludlow in the west, and also in four patches stretching from Portsmouth and Brighton to Newark in the east, the two rainy tracts being separated by a narrow rainless belt. In the hearts of the wet patches near Ludlow and Portsmouth rain fell with great intensity, several falls of more than 2·00 in. and some of more than 3·00 in. being recorded. The irregular and discontinuous rain-patches of the 26th were characteristic of the common summer thunderstorm distribution, and it does not seem necessary to reproduce the map which was drawn.

The stormy conditions continued on the 27th, but in fewer places.

May 25th.

II.	Finchampstead (West Court).....	1·85 in.	or 7·5 per cent.
„	Wokingham (Staverton)	1·97 „	7·7 „
III.	Winslow (Norden House)	1·64 „	7·6 „
„	Thame (Tythrop House) ...	1·74 „	7·7 „
„	Orlisbury Hall.....	1·46 „	8·0 „

May 26th.

II.	Fareham (Cams Hall) ..	3·22 in.	or 10·1 per cent.
„	„ (The Mount)	3·13 „	9·8 „
„	„ (Roche Court)	2·92 „	8·3 „
V.	Winterbourne Herringstone	2·85 „	7·8 „
VI.	Tenbury (St. Michael's)	2·06? „	7·6? „
„	„ (Rochford Rectory)	3·06 „	11·2 „
„	Stockton-on-Teme (Eardiston)	1·88 „	8·5 „
VII.	Stubton [Newark].....	2·14 „	9·6 „
„	Claypole	1·54 „	7·5 „

May 27th.

V.	Bere Alston (Mount Tamar)	3·00 in.	or 6·6 per cent.
„	„ „ (Rumleigh)	2·61? „	5·7? „

May 31st.

The fact that about 50 stations in the immediate neighbourhood of London registered their maximum falls on this day and that five of these appear below, of which four exceed 3·00 in., is all that requires to be said in this place, as this thunderstorm rain is dealt with in a special article in Part I.

II.	Chipstead (Nepicar)	3·00 in.	or 9·6 per cent.
„	Banstead (The Hall).....	3·59 „	10·9 „
„	„ (Basing House).....	3·54 „	10·7 „
„	Sutton (Camborne Road).....	2·40 „	8·5 „
III.	Harrow (Bessborough Road Dépôt)	3·19 „	11·0 „

June 4th.

Sporadic falls yielded only one which exceeded the limits.

VII.	Annesley (Selston W.W.)	1·49 in.	or 7·7 per cent.
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June 17th.

Thunderstorm rains brought falls exceeding an inch to a series of large patches running in parallel rows from the coast of Wales and Cumberland in a north-easterly direction. In many years the map which has been drawn would have been published ; but 1911 has had so many falls of greater interest that we have been compelled to leave it out. Maximum falls were recorded at about 75 stations, but only two are worth quoting.

VI.	Sarnesfield Rectory	2·15 in.	or 9·3 per cent.
VIII.	Great Harwood	2·53 „	5·2 „

June 23rd—24th.

A typical cyclonic rain of the type which used to be considered characteristic of winter conditions, until the frequency of its occurrence in summer was detected by our investigations, affected the east and north of England and south of Scotland, and brought maximum falls to nearly 800 stations, of which 130 have to be quoted.

This was in point of area and intensity the most remarkable fall of the year, and we have mapped it in detail. As the local thunderstorm of May 31st descended with a deluge on Epsom Heath immediately after the races for Derby Day had been concluded, so on this occasion heavy rain began to fall in London just after the Royal Progress through the streets which took place on the 23rd, the day after the coronation of King George and Queen Mary.

The traces of recording rain gauges are available from Camden Square, Mill Hill, Thrapston, Hodsock Priory, Thirsk and Tynemouth ; the positions of these stations are shown by crosses on the map of

the rainfall of June 23rd-24th taken together. These are reproduced on a uniform scale in the accompanying diagram, which shows that the rain, once it had fairly started, at all stations was continuous, except from 9 a.m. to 11 p.m. on the 24th at Thrapston. Subject to any error of the time scale, the rain seemed to have been observed first at Thirsk at 4.30 p.m. on the 23rd, and at Hodsock Priory, near Worksop, at 6.10 p.m.

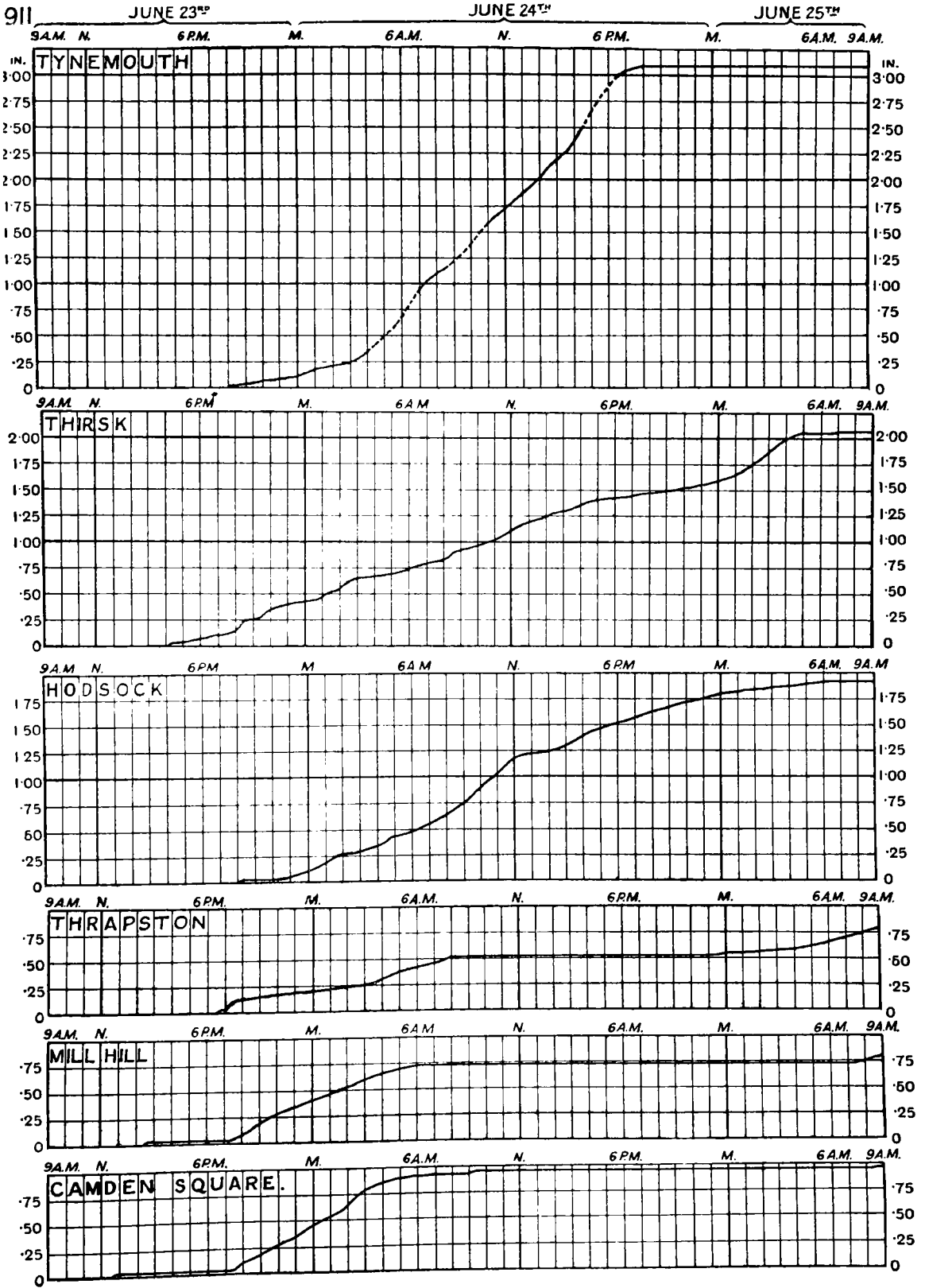
It began at Camden Square and Mill Hill between 7.10 and 7.20 p.m., and ceased at 9 a.m. on the 24th; but farther north the rain continued to fall steadily at an almost uniform rate. Rain began at Aberdeen at 3 p.m. on the 24th, but stopped at 2 a.m. on the 25th. At Thirsk the rain stopped at 6 a.m., and at Tynemouth it went on to 9 a.m. on the 25th.

So far as we can judge from the weather charts of the Weekly Weather Report, the wind along the whole of the east of Great Britain was southerly throughout the 23rd, varying at points between S.S.W. and S.S.E. On the morning of the 24th the rain ceased in the south simultaneously with a shift of wind to the westward, and the commencement of the rain at Aberdeen seemed to follow the setting in of a definite northerly wind; and at 6 p.m., when the cyclonic centre was off Northumberland, the winds north of that point were northerly, inclining to N.N.E., and south of that point south-westerly, the rain lasting longest nearest the central line which separated the two winds. (See rain map of 24th.)

So far as the information we have received enables us to judge, the rainfall appears to have been continuous all along the coast, and similar in character to the memorable three-days' shower in the Thames valley in June, 1903. (See *British Rainfall* 1903, pp. 19—30.) At Morpeth 3.45 in. fell between midnight on the 23rd and midnight on the 24th, though of course the continuous fall was shared between two rainfall days. We devote three maps to the full representation of this fall, the first giving the amount recorded in the rainfall day commencing 9 a.m. on the 23rd, the second giving the amount on the rainfall day beginning at 9 a.m. on the 24th, and the third the total rainfall which was measured on the two days. In each case the map has been completed for the whole of Great Britain.

It will be noticed that no rain fell in the north of Scotland on the 23rd, that more than a quarter of an inch began on the south of the Firth of Forth and did not reach the west coast at any point. More

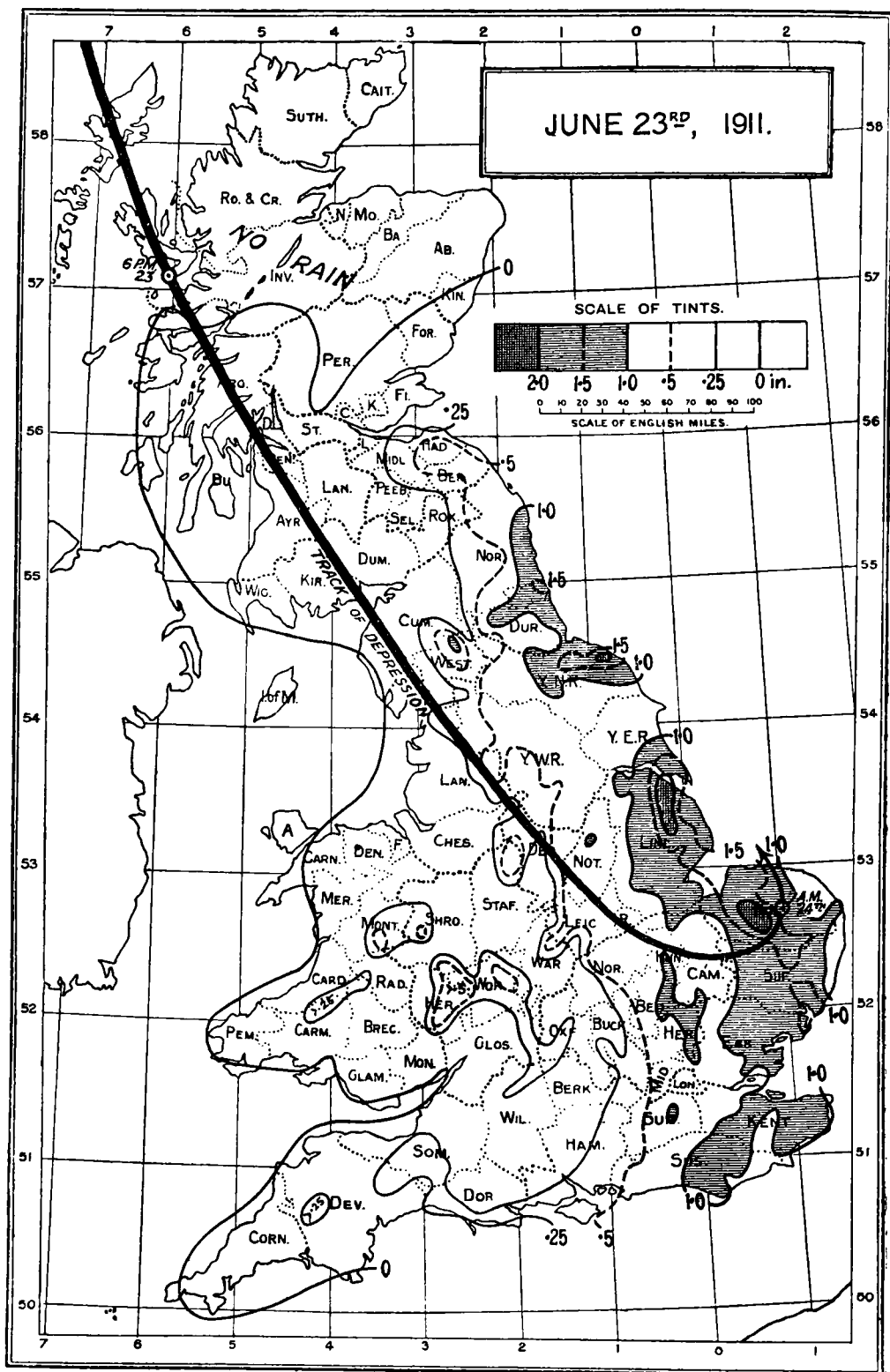
TRACES OF RECORDING RAIN GAUGES, JUNE 23-24.

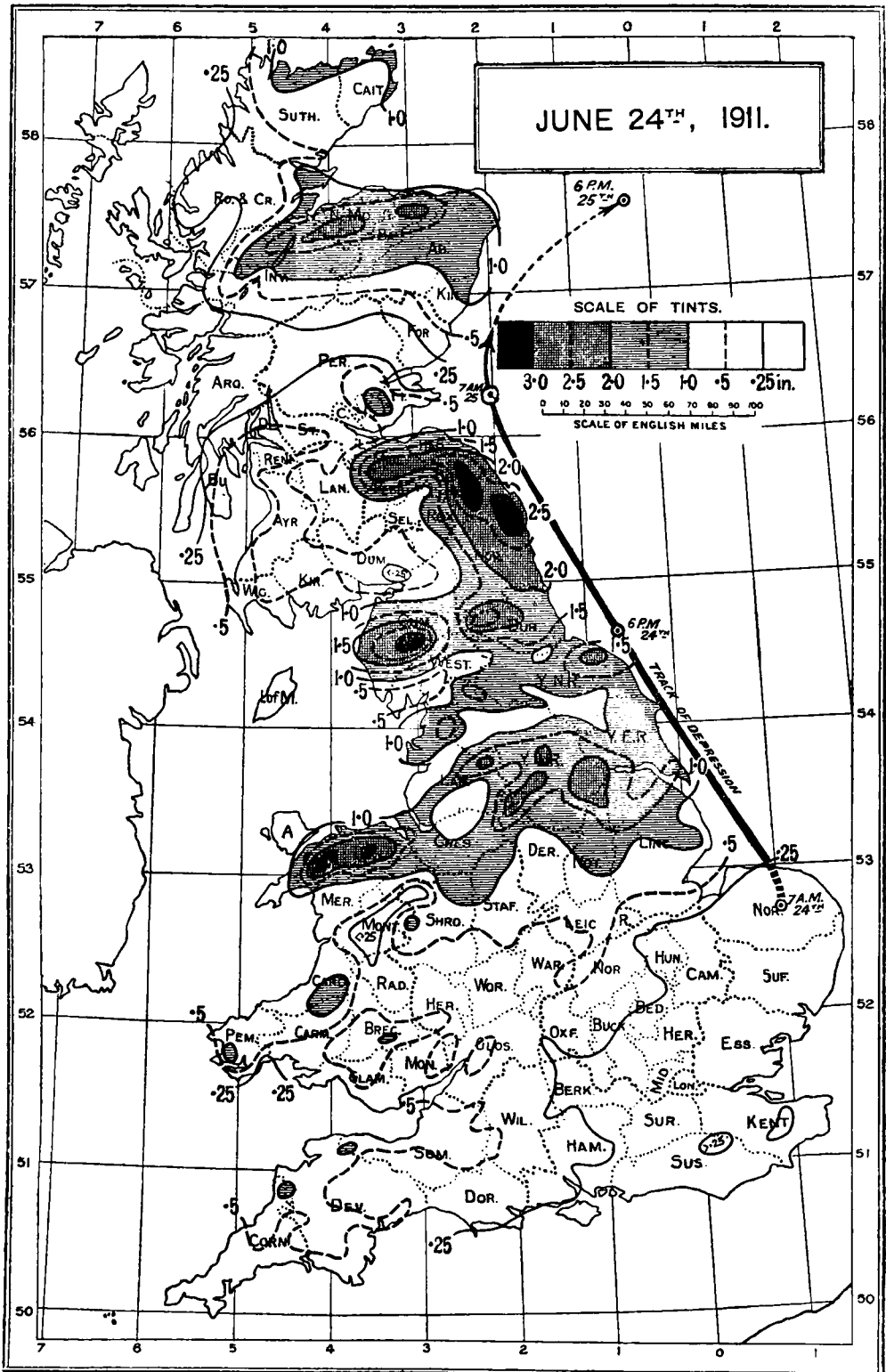


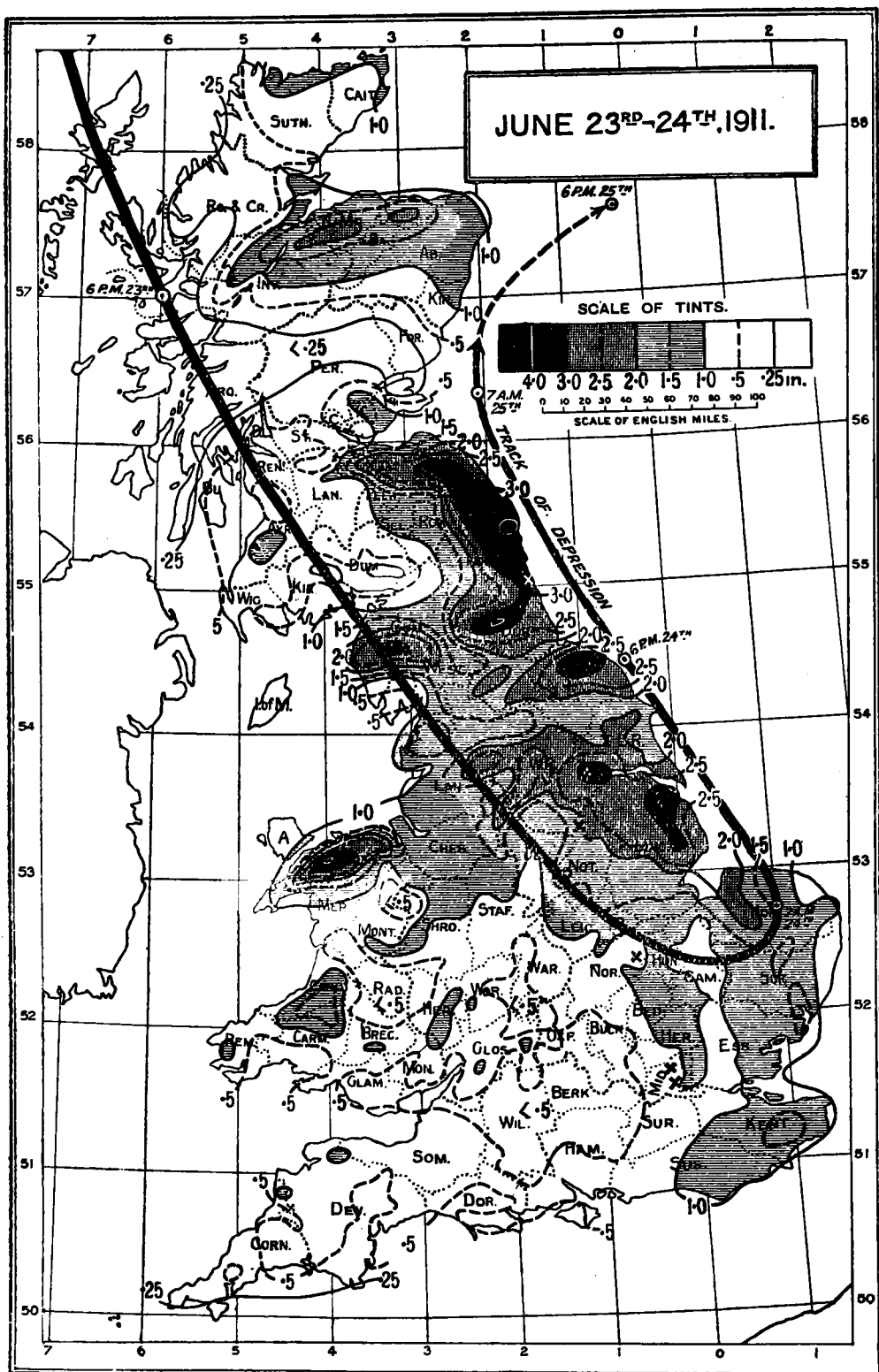
than half an inch fell everywhere to the east of a line from the Isle of Wight through Leeds to Haddington, and the rainfall exceeded an inch along a broad but rather irregular strip of the east coast from Northumberland to Sussex and Kent, with a gap in Yorkshire. Within this area three patches, situated near Swaffham, Market Rasen and Whitby, had more than two inches.

We may picture the rain as beginning within a few hours of the same time along the line from north to south, but while rain ceased in the south after twelve hours' duration, it continued and grew heavier in the north. This is brought out by the map of the 24th, which shows that less than a quarter of an inch fell in the whole of that day in the south-east of England, east and south of a line from Portland to Peterborough and thence to Cromer. But more than half an inch fell everywhere north of a line from Haverfordwest to Hunstanton, as far as the Lowland Plain of Scotland, north of which two separate large areas with more than half an inch stretched inland from the east coast without reaching to the west. A great area with more than one inch of rain stretched through the north of England and Wales into the south of Scotland, nearly cut into four separate pieces by long tongues running in from the west coast, on which there was a lighter fall. Each of these great lobes included separate patches arranged in line from east to west with more than two inches of rain, and in some cases with more than three inches. The isolated wet areas in the north of Scotland similarly contained stretches with more than an inch of rain, and one of them separate areas with more than two inches.

We have so frequently pointed out that heavy rain splashes often lie on the left-hand side of the track of a depression and in advance of the centre, that our readers will not be surprised to see that on the evening of the 23rd the centre of a cyclone passed from a point near the island of Rum at 6 p.m. southwards and eastwards, and was situated at 7 a.m. on the 24th near Norwich and at 9 a.m. it was probably in the Wash. Between the two fixed points given by the Meteorological Office we have drawn a possible track, though there is nothing to indicate that the turning-point is where we place it; it might quite as reasonably be drawn farther to the south, as the rate of advance of the centre was obviously much more rapid on its southward than on its northward track; but possibly the conditions were complicated by a secondary depression in the western Channel. The map of the 24th shows that the centre of the depression was off







Whitby at 6 p.m. on the 24th (at this time it was rapidly growing deeper) and off the Firth of Forth at 7 a.m. on the 25th, after which it disappeared towards the north-east. Here again the heavy rain lay entirely to the left of the track and in advance of the centre, the tendency for the wettest areas to run at right-angles to the track being very clearly shown. It is worth noticing that the wettest areas farthest from the track show a decided relation to the high land, maxima occurring over the Snowdon district, the Lake District and parts of the Pennines. But it is equally worth noticing that near the track no such relationship appears; the heaviest splashes of all in Durham, Northumberland and Berwickshire lying on the low ground where normally the rainfall is very small. We are well aware that we are only touching the fringes of the subject of the relation of rainfall to barometric conditions, and that until we can get maps of pressure corresponding in detail and accuracy with the maps of precipitation we cannot do justice to the question. Speaking generally, the wind during the two days was southerly and south-easterly on the east coast and north-westerly or northerly on the west coast.

The combined map of the two days shows the wet region lying in the bight of the cyclone track, and enables us for the first time to measure the total precipitation brought by an individual meteorological episode upon the surface of Great Britain.

The measurements are as follows. It must be remembered that by far the largest quantity of rain fell during the slow northward progress of the cyclone.

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
More than 4 inches	104	4·04	420
3—4 inches	2432	3·42	8312
2—3 ,, 	8060	2·45	19753
1—2 ,, 	26023	1·36	35505
·50—1 inch	27413	·73	20147
·25—·50 inch	16121	·42	6694
Less than ·25 inch	7365	·14	1064
Total	87518		91895

The general rainfall on the 36,619 square miles with more than 1 in. of rain was 1·75 in., and that of the whole of Great Britain 1·05 in., corresponding to 91,895 square-mile inches or 1,330,644 million gallons of water, or nearly $1\frac{1}{2}$ cubic miles.

* June 23rd.

IV.	Bradwell-on-Sea (Bradwell Hall)	1.37 in.	or 7.5 per cent.
"	Trimley (The Avenue)	1.87 "	8.0 "
"	Ipswich (Woolverstone Park).....	1.74 "	7.9 "
"	Felixstowe	1.72 "	7.9 "
"	Diss (Council School)	1.82 "	7.9 "
"	Watton	2.20 "	8.0 "
"	Swaffham.....	2.08 "	8.1 "
"	" (The Paddocks)	2.21 "	7.6 "
"	Sporle	2.19 "	7.5 "
VII.	Kirmond	2.75 "	9.5 "
"	Waltham Hall Gardens	2.02 "	7.9 "
"	Irby-on-Humber.....	2.10 "	7.7 "
"	Grimsby (Abbey Road)	1.85 "	7.9 "
"	Brocklesby Park	2.28 "	8.6 "

June 24th.

VII.	Lincoln (Boultham)	1.38 in.	or 7.7 per cent.
"	Willingham-by-Stow	1.64 "	7.9 "
"	Lincoln (Doddington Hall)	1.47 "	7.5 "
"	Gainsborough (N. Sandsfield).....	2.07 "	10.5 "
"	Crowle (North Level Engine).....	2.09 "	10.2 "
"	Bulwell (Watnall Reservoir)	1.80 "	7.6 "
"	Bulcote (Corporation Farm)	1.47 "	7.5 "
"	Ollerton (Thoresby Gardens)	1.86 "	7.6 "
"	Scrooby.....	1.53 "	8.2 "
"	The Gardens [Bawtry Hall]	1.58 "	8.4 "
"	Bawtry (Hesley Hall)	1.47 "	8.1 "
VIII.	Colne (Cemetery Grounds)	2.64 "	5.6 "
IX.	Tickhill.....	1.98 "	9.1 "
"	Doncaster (Wadworth Hall)	2.05 "	9.0 "
"	Rotherham (Thrybergh)	1.50 "	7.8 "
"	Doncaster (Firsby Reservoir).....	1.62 "	8.1 "
"	Mexborough	1.59 "	9.2 "
"	Bolton-upon-Deane	1.56 "	8.1 "
"	Doncaster (Hexthorpe Hall)	1.84 "	8.8 "
"	" (Pumping Station).....	1.91 "	8.6 "
"	Silkstone (Champany Hill Reservoir) ..	1.71 "	8.2 "
"	Barnsley (Jordan Hill).....	1.74 "	8.3 "
"	Cawthorne	2.03 "	7.6 "
"	Cudworth (Lund Lane Sewage Works) ..	1.70 "	8.3 "
"	Doncastor (Wyndthorpe).....	2.10 "	10.9 "
"	Kirk Bramwith	2.11 "	9.7 "
"	Hemsworth Hall	1.82 "	9.7 "
"	Ackworth School	1.96 "	9.9 "
"	" (Hillthorpe).....	1.95 "	10.3 "
"	" (Nostell Priory)	2.10 "	10.1 "
"	Goole (Swinefleet)	2.71 "	10.6 "
"	"	2.40 "	11.1 "
"	Wakefield (Woolley Park Gardens).....	1.95 "	9.0 "
"	Walton (Willington Lodge)	1.96 "	10.1 "
"	Horbury (Highfields)	2.22 "	9.8 "
"	Wakefield	1.67 "	8.4 "
"	" (Field Head)	1.89 "	9.6 "
"	" (Stanley Grange)	1.84 "	9.4 "
"	Batley (Woodwell Dépôt)	1.78 "	7.6 "

IX.	Ardsey Reservoir.....	1·85 in.	or 9·2 per cent.
„	„ (Jaw Hill Filters).....	1·76 „	9·5 „
„	Leeds (Wortley Reservoir).....	2·03 „	9·0 „
„	„ (Knoctrop).....	1·86 „	8·6 „
„	„ (Holbeck W. W. Depôt).....	2·12 „	9·5 „
„	„ (Museum).....	2·28 „	10·2 „
„	„ (Woodhouse Moor).....	2·32 „	9·9 „
„	„ (Weetwood Reservoir).....	2·22 „	10·3 „
„	„ (Allerton Hill).....	2·41 „	10·6 „
„	Adel (Lawns Wood).....	2·25 „	8·8 „
„	Bingley, East Morton.....	2·08 „	7·5 „
„	Adel (Eccup, East).....	2·15 „	8·0 „
X.	Wearhead Station.....	2·66 „	5·0 „
„	Weardale W. W. (Tunstall Res.).....	2·57 „	7·8 „
„	„ „ (Waskerley).....	2·94 „	8·7 „
„	Fence Houses (Chilton Moor).....	1·80 „	7·6 „
„	Chester-le-Street (Biddick Hall).....	2·16 „	8·0 „
„	Ryhope Pumping Station.....	1·98 „	7·7 „
„	Sunderland (West Hendon House).....	1·99 „	7·5 „
„	„ (Claxheugh Grove).....	1·93 „	7·7 „
„	„ (Southwick Cemetery).....	2·01 „	7·7 „
„	Consett Park Farm.....	2·47 „	9·1 „
„	Newcastle (Leazes Park).....	2·16 „	8·0 „
„	„ (Wellburn, Jesmond).....	2·02 „	7·6 „
„	North Shields (Dockwray Square).....	2·57 „	9·8 „
„	Tynemouth (Percy Park).....	2·15 „	8·3 „
„	Whittle Dean Filters (Newcastle W. W.).....	2·06 „	7·7 „
„	Redewater (Catcleugh).....	2·79 „	5·8 „
„	Scots Gap (Wallington).....	2·57 „	6·8 „
„	Morpeth (Bothalhaugh).....	2·49 „	9·1 „
„	„ (Cockle Park).....	2·10 „	7·7 „
„	Acklington (Broomhill Colliery).....	2·24 „	8·6 „
„	Rothbury (Cragside).....	2·78 „	8·0 „
„	Flotterton.....	2·78 „	9·0 „
„	Felton (Newton-on-the-Moor).....	1·96 „	7·5 „
„	Alnwick Castle.....	2·60 „	8·6 „
„	Howick Hall.....	3·01 „	10·1 „
„	Beal (Barmoor Castle).....	2·58 „	9·2 „
„	Glanton (Glanton Pike Gardens).....	3·14 „	9·9 „
„	Ilderton (Lilburn Cottage).....	2·91 „	10·3 „
„	Wooler (Doddington Vicarage).....	3·05 „	10·3 „
„	Milfield (Flodden).....	2·76 „	11·2 „
„	Berwick-on-Tweed (Church Street).....	2·01 „	8·6 „
„	Keswick (Deer Close).....	2·91 „	4·3 „
„	„ (The Bank).....	3·10 „	5·0 „
„	Cockermouth (Whinfell Hall).....	2·76 „	4·3 „
„	„ (Shatton Hall).....	2·73 „	6·0 „
„	Threlkeld (Blencathra Sanatorium).....	3·65 „	6·1 „
„	Bassenthwaite (Mirehouse).....	3·50 „	6·3 „
„	„ (Higham).....	3·30 „	6·5 „
„	Cockermouth (Broughton Grange).....	2·72 „	6·0 „
XI.	Cilcain.....	2·31 „	10·1 „
„	Bodfari (Henblas).....	2·69 „	10·7 „
„	„ (Cae Gwyn).....	2·56 „	10·2 „
„	St. Asaph (St. Beuno's College).....	2·30 „	9·6 „
„	Llanefydd (Plas Uchaf Res.).....	2·60 „	10·0 „
„	„ (Glascoed Reservoir).....	2·30 „	8·2 „
„	Llangynhafal (Plas Draw).....	2·05 „	7·7 „

XI.	Denbigh (Asylum).....	2.52 in. or 8.8 per cent.
„	„ (Garn)	3.13 „ 10.2 „
„	Trefnant (Maes Elwy).....	1.97 „ 8.1 „
„	Lake Cowlyd (Gors-y-Llithrig)	3.25 „ 4.4 „
„	„ „ (Ffrith Fawr)	3.26 „ 4.1 „
„	„ „ (Carreg Wen)	3.33 „ 3.9 „
„	Lake Eigiau	5.12 „ 6.2 „
XII.	Kelso (Springwood Park).....	2.01 „ 8.0 „
„	„ (Broomlands)	2.00 „ 8.4 „
XIII.	Coldstream (The Hirsell)	3.10 „ 11.9 „
„	Marchmont House	2.71 „ 8.6 „
„	Duns Castle.....	3.30 „ 11.3 „
„	„ (Manderston)	2.86 „ 8.8 „
„	Moorfoot Hills (Rosebery)	2.80 „ 9.1 „
„	„ (Edgelaw)	2.72 „ 8.7 „
„	Loanhead (Elmswood)	2.01 „ 8.2 „
XVII.	Ardclach (Glenferness).....	2.90 „ 8.9 „
XVIII.	Loch Ness (Aberchalder).....	2.68 „ 8.2 „
XIX.	Strath More (Altnacaillich)	2.72 „ 4.2 „

July 25th.

This day rarely passes without a severe thunderstorm in the south-east of England, but on this occasion, though about 30 places got their largest daily fall for the year, none was large enough to find a place here. The fall was very interesting all the same, as it served to break the long July drought in the east, and a map was made of it which we may describe though we cannot reproduce it. Rain fell to the eastward of a line drawn from Hurst Castle on the Solent to Hunstanton on the Wash, and westward of a nearly parallel line drawn from Brighton to Brightlingsea, covering a tract of country measuring 200 miles by 50. Near the western side of the rainy area, and parallel to it, there was a narrow spindle-shaped tract running for 120 miles from the Isle of Wight to near Saffron Walden, in which more than half an inch of rain fell over a breadth of from 8 to 15 miles. At intervals along its length there were six long narrow patches with more than one inch ; and near the east side of the rainy track there was a shorter parallel line of patches with more than half an inch of rain, the whole closely resembling the storm of May 25th.

July 28th.

The heavy thunderstorm rains of this and the following day brought maximum falls to about 70 stations in England and Ireland, and broke up the long drought in most parts of the country.

III.	Ponders End (Bylock Hall)	2.75 in. or 10.2 per cent.
„	„ „	2.75 „ 10.2 „
IV.	Chingford (Sewardstone Lodge)	1.82 „ 7.6 „
„	Loughton (High Beech Reservoir)	2.35 „ 8.3 „
VI.	Little Barrington (Barrington Grove)...	2.26 „ 8.2 „

August 4th and 5th.

Wales and the west of England had heavy rain, about 65 stations recording their maximum reading for the year, and six are quoted below. The large rainfalls in the Snowdon district are worthy of note.

August 4th.

VIII.	Duddon Valley (Seathwaite Vic.).....	2·54 in.	or 3·1 per cent.
XI.	Snowdon (Pen-y-Gwryd)	3·68 „	2·9 „
„	Lake Cowlyd (Llethyr Gwyn)	3·11 „	3·6 „
„	Pwllheli (Bodfean Hall)	3·00 „	6·2 „
„	Snowdon (Llyn Llydaw Intake)	4·46 „	3·3 „
„	„ („ „ Copper Mill) ...	4·95 „	3·0 „

August 5th.

XI.	Festiniog (Morwynion Lake).....	2·50 in.	or 3·3 per cent.
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August 20th—21st.

Violent thunderstorms of an unusually local character accompanied the passage of a depression across the south of England. The areas of heavy rain were so numerous, small, and widely separated that it was found impossible to make a satisfactory map of them on either day ; but about 50 stations had their maximum fall on the 20th, and about 120 stations on the 21st, all parts of England and Wales being affected by the storms. Only one requires to be quoted for the 20th, but 23 for the 21st, amongst which there are three remarkable figures exceeding 3·00 in. The large rainfall of 3·35 in. at Elan Village, near Rhayader, is possibly an under-estimate, as the bottle in the Snowdon gauge was found nearly full of water, and the funnel also, though there was no water in the outer can. It appears as if the funnel fitted the can so tightly that air could not escape to allow all the water to enter, and thus it is possible that the funnel may have lost something by overflowing.

August 20th.

XI.	Bagillt (Dee Bank Lead Works)	1·95 in.	or 8·6 per cent.
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August 21st.

II.	Englefield Green (Harvest Road)	2·25 in.	or 8·4 per cent.
„	Beenham House.....	2·18 „	8·8 „
III.	Thrapston (Islip)	1·59 „	8·2 „
„	„ (Drayton House).....	1·64 „	8·0 „
„	Aldwinkle St. Peter Rectory.....	1·61 „	8·3 „
„	Barnwell (Lilford Hall)	2·13 „	10·6 „
„	Oundle	1·36 „	8·1 „
„	Great Gidding Rectory	1·43 „	8·3 „

III.	Chatteris (Holwood Farm)	1·55 in.	or 7·8 per cent.
IV.	Kelvedon (White Barn)	1·60 „	7·8 „
V.	Stratford-sub-Castle (Manor House).....	2·04 „	7·9 „
„	Ludgershall (Conholt Park)	3·50 „	10·7 „
VI.	Much Dewchurch (Bryngwyn)	2·60 „	8·0 „
„	Hereford (Breinton Court)	2·01 „	8·6 „
„	„ (White Horse Street).....	2·03 „	7·7 „
„	„ (Quarry House)	2·24 „	8·5 „
„	„ (Broadlands).....	2·00 „	8·1 „
„	„ (Holmer Hall)	1·79 „	7·9 „
„	Bridgnorth (Aldenham Park).....	2·38 „	11·2 „
„	Much Wenlock (Willey Park)	1·90 „	8·0 „
XI.	Rhondda (Pont Lluest Wen Res.)	2·51 „	4·0 „
„	Birmingham W. W. (Elan Village)	3·35 „	5·9 „
„	Glynceiriog	3·38 „	7·9 „

August 31st.

Maximum falls occurred at about a dozen stations in the west of Scotland, eight of which have to be quoted in the following list ; four of the falls exceeded 3·00 in.

XV.	Morvern (Kingairloch).....	3·10 in.	or 2·7 per cent.
„	Ardgour House	2·57 „	2·3 „
„	Loch Fyne (Furnace)	2·50 „	2·7 „
„	Inveraray (Newtown)	2·50 „	3·0 „
„	„ Castle Gardens	2·80 „	2·9 „
XVIII.	Loch Quoich (Kinlochquoich)	3·11 „	2·5 „
„	Loch Arkaig (Achnacarry).....	3·15 „	3·5 „
„	„ (Glen Dessary)	3·43 „	2·7 „

September 11th.

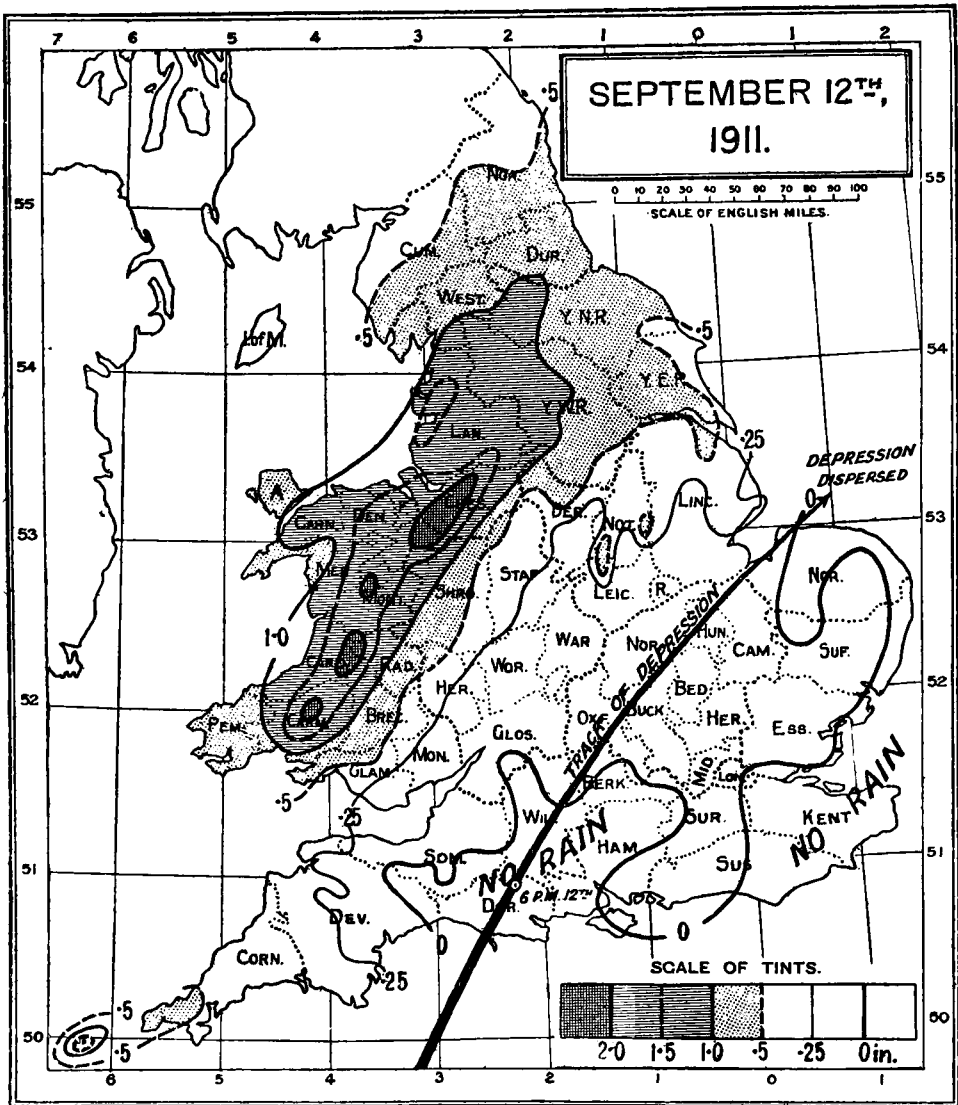
A solitary instance in the far west of Ireland.

XX.	Kenmare (Derreen)	2·58 in.	or 3·4 per cent.
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September 12th.

A shallow depression crossed the south of England from Weymouth to the Wash, and was accompanied by thundery conditions and heavy showers in Scilly, Wales and Lancashire. On the right on the track there was either no rain or showers yielding less than one-tenth of an inch. The line, to the west of which more than a quarter of an inch of rain fell, ran from Devonshire to Derbyshire parallel with the track and 65 miles west of it, and then struck east. The half-inch line was nearly parallel, about 15 miles further west, and a continuous belt, nearly 50 miles wide, with more than one inch of rain, ran from the shores of Carmarthen Bay for 230 miles to the north-north-east as far as Barnard Castle in Durham. Within this more than one and a half inches of rain fell from Carmarthen, through Wales and South Lancashire, to Bolton, and along the central line falls exceeding

two inches occurred at intervals. It is quite possible that this may have been a continuous belt 125 miles long and from 5 to 10 miles wide, for there are so few stations where rainfall is recorded daily in the wilder parts of Wales that data are lacking for stretches of twenty miles or more, but it seems more reasonable, bearing in mind the habit of very heavy splashes to assume the form of a line of separate



areas, to draw them as we have done in the accompanying map. Special attention may be directed to the most northerly splash of over 2 inches, the northward, westward and eastward limits of which are clearly defined by observations. It illustrates the independence of storm rain of the configuration of the land, as uniform rain

exceeding 2 inches was recorded amongst the mountains of North Wales, and continuously across the low flat plain of Cheshire to near Wigan; more than $1\frac{1}{2}$ inches fell on the first slopes of the Forest of Rossendale, but then the fall rapidly diminished as the height of the land increased, while a large patch with more than $1\frac{1}{2}$ inch occurred along the flat sandy shore between Southport and Lytham. Over the Lake District mountains there was less than an inch of rain.

	Area, sq. miles	General Rainfall, inches.	Volume of Rain, sq. miles \times inches.
More than 2 inches	624	2·11	1317
1—2 inches	8592	1·36	11721
·50—1 inch	11363	·76	8580
·25—·50 „	9424	·38	3591
Less than ·25 inch	19713	·09	1820
No rain.....	8592	·00	0
Total.....	58308		27029

The general rainfall over the whole of England and Wales was ·46 in., a total precipitation of 391,900 million gallons. At more than 160 stations in Wales and the north of England this was the wettest day of the year, and we quote below 19 falls which come within our limits by their percentages of the annual total, though only one of these exceeds 2·50 in.

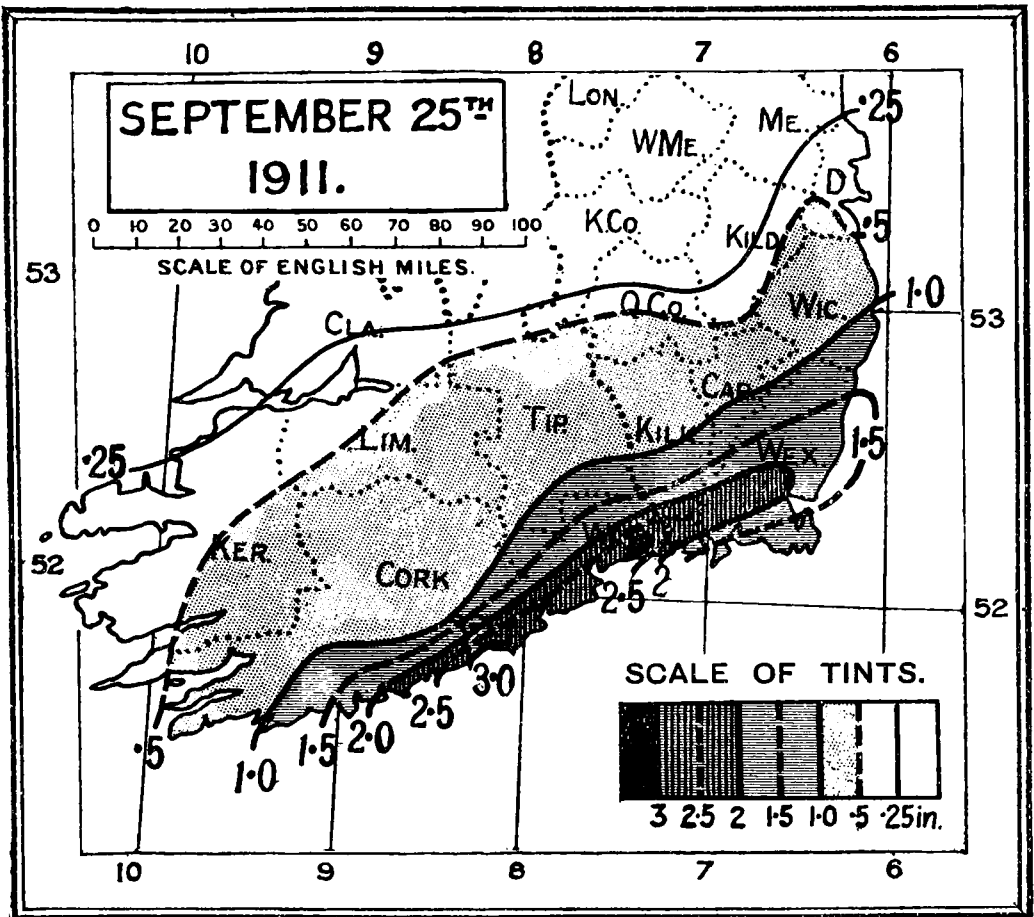
VIII.	Runcorn (Weston Point).....	1·95 in.	or 7·8 per cent.
„	Duddon School	2·20 „	10·3 „
„	Tarporley (Willington Hall)	1·78 „	8·5 „
„	Frodsham (Helsby)	2·33 „	9·2 „
„	„ (Simonsdelf)	2·52 „	10·3 „
„	Hooton Water Works	1·68 „	7·8 „
„	Aldford.....	2·21 „	9·7 „
„	Eaton Hall Gardens.....	2·42 „	11·5 „
„	Eccleston	2·26 „	10·8 „
„	Chester (Sewerage Works)	2·30 „	11·1 „
„	„ (Christleton Hall) ..	2·28 „	10·2 „
„	„ Water Works	1·58 „	8·8 „
„	Neston (Vine House)	1·58 „	7·9 „
„	Warrington (Howley Yard).....	2·07 „	7·6 „
XI.	Prestatyn (Edlestone House).....	2·11 „	8·6 „
„	Erbistock House	2·03 „	8·3 „
„	Wrexham (Pack Saddle Res.)	2·27 „	8·6 „
„	Gresford (Trewythen)	2·35 „	11·0 „
„	Ruthin (Llanbedr Hall)	1·87 „	7·6 „

September 25th.

A small secondary depression which formed over the south of the Irish Sea brought very heavy rain of the cyclonic type to the south of Ireland, where about 25 stations reported their maximum fall. Two stations in South Wales had also maximum falls, though these

did not nearly reach 2 inches and need not be considered. The only two Irish falls exceeding 2·50 in. are quoted below.

A very light rainfall was general over Ireland, but falls above a quarter of an inch were sharply localized in the south, the area with more than one inch being a narrow strip along the coast between Cape Clear and Wicklow, as shown in the accompanying map.



	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches.
More than 3 inches	29	3·00	87
2—3 inches	635	2·34	1483
1—2 „	2646	1·46	3862
·50—1 inch	6220	·75	4665
·25—·50 „	3332	·38	1255
Total	12862		11352

The general rainfall of the area with more than 1 in. (which measured 3310 sq. miles) was 1·64 in., and that of the area with more than ·25 in. was ·88 in.

XX.	Roches Point	3.00 in.	or 7.5 per cent.
„	Knockaderry	3.05 „	6.5 „

October 13th.

Thunderstorms broke over many parts of the south of England, and about 20 stations recorded maximum falls, three of which have to be quoted, and one in the Channel Islands was of notable amount.

IV.	Bury St. Edmunds (Fornham St. Martin)	1.62 in.	or 7.5 per cent.
XI.	Jersey, St. Aubins (Railway Station)...	2.42 „	7.6 „
„	„ „ (Belle Vue).....	3.00 „	9.6 „

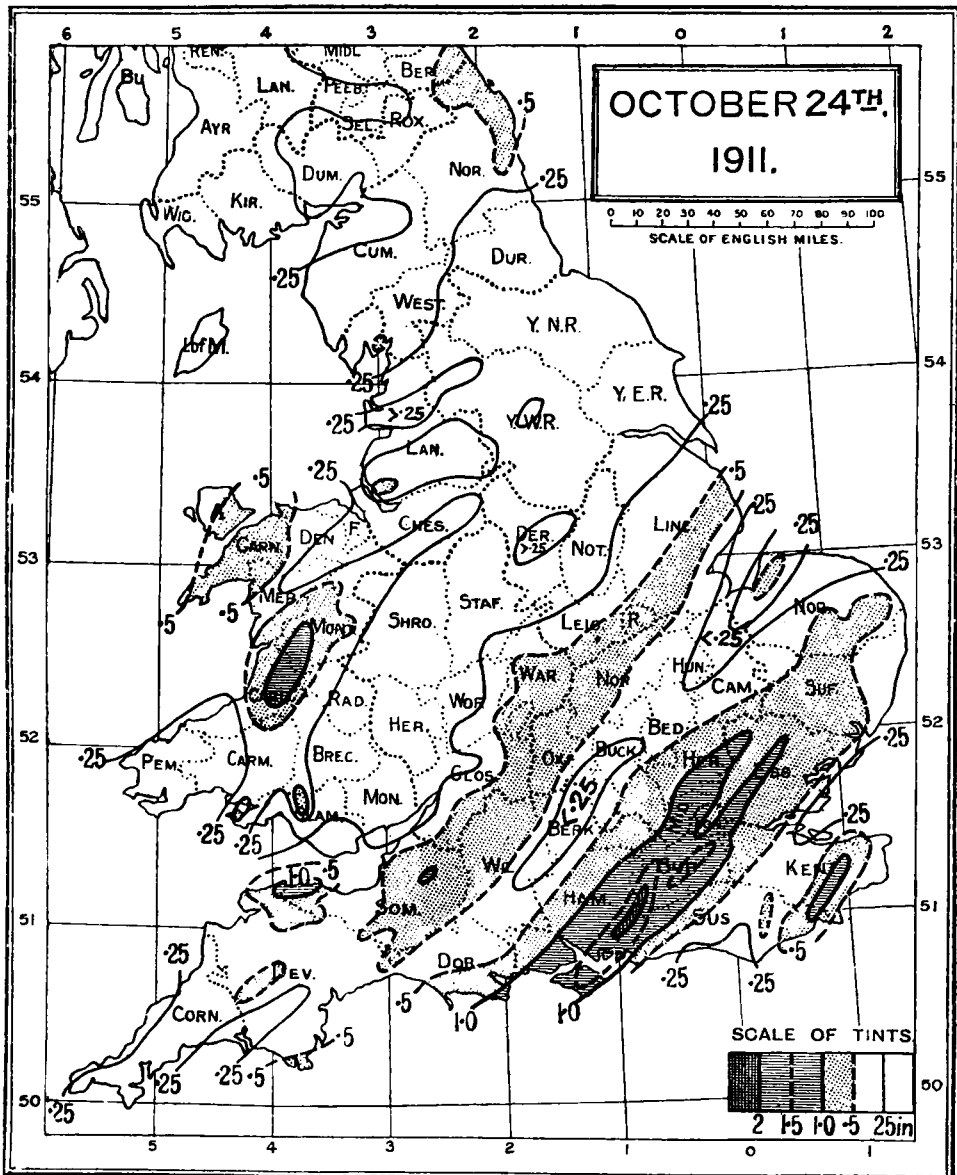
October 24th.

Though there was not enough rain reported anywhere to yield an entry for quotation, no less than 400 stations in the south and east of England found this day the wettest in the year. At a few stations in Sussex more than 2 inches of rain fell, and a broad strip running north-eastward from the Isle of Wight to Essex had more than an inch of rain. Although we have not calculated the volume of rain, we think it worth while to produce the map, for it shows the ground plan of a moderately wet day in a very instructive way, forming a series of parallel strips of greater and less rainfall, the succession of which is brought out by tinting all areas with more than half-an-inch. This rain fell while a depression was crossing the lowest part of Scotland from the Clyde to the Forth, and it is an example of the heavy rainfall lying on the right, and very far to the right of the track. The weather chart for 7 a.m. has a suggestion of a secondary depression in the south of Ireland, and it seems not impossible that this may have had more to do with the rain in the east of England than the large shallow cyclone which crossed Scotland.

October 29th.

This day, on which the raininess of a wet October culminated, had the distinction of producing the highest daily readings recorded in 1911 in the wettest part of the country. A large and deep depression, passing far to the north of Scotland, brought a steady and strong south-westerly wind over Ireland and the west of Great Britain, the wet districts lying far to the right of the track. It is noteworthy that, on this occasion, the distribution of rainfall as shown by the map was not of the type familiar in storm rains, but

resembled rather the average distribution of rainfall for a month. The whole of the east of England and most of the east of Scotland had less than half an inch, and a large part less than quarter of an inch. Falls exceeding an inch occurred over the whole of the west of



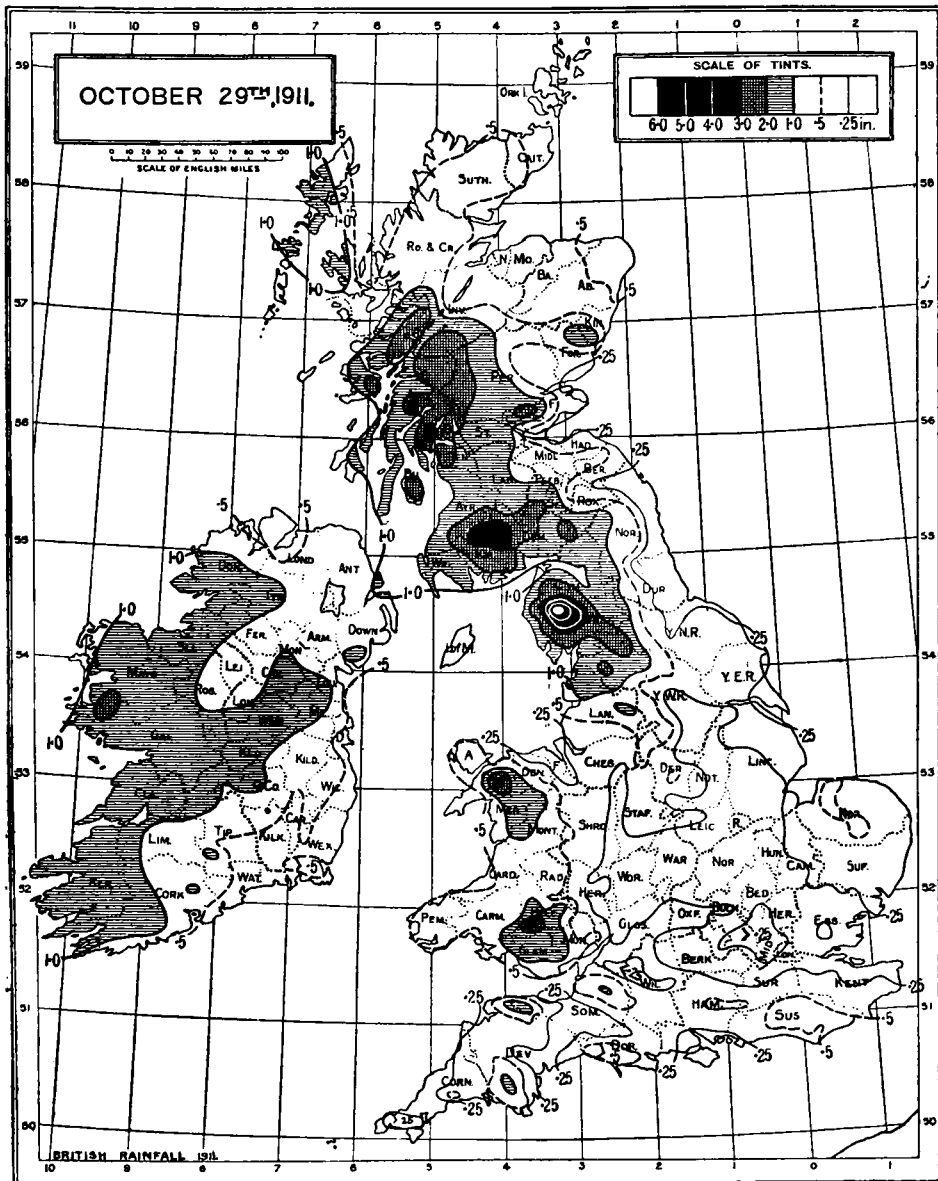
Ireland, on Dartmoor, Exmoor, and the Mendip Hills in the south-west of England, in the mountainous regions of South Wales and North Wales, in the Lake District and the Pennines, over the whole of the west of Scotland south of Skye, and in the hills of Kincardine-

shire. It is also noteworthy that the low plains bordering the great inlets of the west coast received little rain ; there was less than an inch on the plain inland from the Solway, less than a quarter of an inch on the plain of Cheshire inland from the Mersey and Dee, and also on the low land inland from the Bristol Channel. In fact, the distribution of rain could be accounted for if we were to suppose the wind to be blowing horizontally in from the Atlantic without any ascensional motion due to cyclonic circulation, and dependent on the mechanical uplift as it was forced along the slopes of the rising land for the fall of temperature, which caused condensation to take place. It must be remembered in studying this remarkable map that the data for England and Wales are far more abundant than those for Scotland and Ireland, and that, consequently, the lines in the southern portion of Great Britain are very accurately placed, and the areas deduced from them similarly precise. But in the west of Ireland and the Highlands of Scotland, daily records are so few and far between that the lines are of a general character, and large areas with very high rainfall may have existed without anything to show it. The observations in the north of Scotland were also hampered by much of the precipitation falling as snow, a fact that always leads to irregularities in measurement. We have, therefore, separated the three countries in our calculations, the main results of which are as follows :—

England and Wales.

	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles x inches
More than 6 inches	34	6·50	222
5—6 inches	68	5·50	375
4—5 „	170	4·52	768
3—4 „	307	3·41	1048
2—3 „	1126	2·49	2800
1—2 „	4742	1·43	6777
·50—1 inch	10338	·70	7253
·25—·50 „	23303	·36	8301
Less than ·25 inch	18220	·22	3991
Total	58308		31535

The general rainfall of England and Wales was ·54 in. It may be mentioned that in the Lake District the rainfall exceeded 4 inches over about 272 square miles and exceeded 5 inches over about 102 square miles.

*Scotland.*

	Area, sq. miles	General Rainfall, inches.	Volume of Rain, sq. miles x inches
More than 3 inches	500	3·20	1602
2—3 inches	3604	2·34	8421
1—2 „	8850	1·48	13120
·50—1 inch.....	8743	·69	6048
·25—·50 „	7315	·36	2663
Less than ·25 inch	178	·24	43
Total	29190		31897

The general rainfall over the whole of Scotland for this day comes out at 1·09 in. ; but the quantity of rain which fell was almost

certainly much greater than this, as many thousand square miles where a very high rainfall probably occurred are not represented by rain gauges.

<i>Ireland.</i>	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles \times inches.
More than 2 inches	211	2·01	424
1—2 inches	15552	1·29	20013
·50—1 inch	13270	·77	10274
Less than ·50 inch	3406	·43	1453
Total	32439		32164

The general rainfall for Ireland comes out at ·99 in. ; but, as in the case of Scotland, these figures can only be viewed as approximations, and are probably too low.

Taking the British Isles as a whole, we may arrive at something very near the total precipitation by combining the foregoing tables into the following :—

<i>British Isles.</i>	Area, sq. miles.	General Rainfall, inches.	Volume of Rain, sq. miles \times inches.
England and Wales.....	58308	·54	31535
Scotland	29190	1·09	31897
Ireland	32439	·99	32164
Total	119937		95596

The general rainfall of the British Isles on this day was ·80 in. ; and that of the 35,164 square miles with more than 1 inch was 1·58 in. The total volume of water which fell in the 24 hours on the land surface of the British Isles was certainly not less than 1,384,222 million gallons, or $1\frac{1}{2}$ cubic miles, of which nearly one-third fell in each of the three great divisions, the exact percentages being: England and Wales 33·0, Scotland 33·4, and Ireland 33·6.

The number of stations which recorded their maximum falls was 260, and of these the 56 quoted below exceeded 2·50 in., 37 exceeded 3·00 in., and 10 exceeded 4·00 in., while two reached the enormous figure of 5·06 in. (at Grange in Borrowdale), and 7·00 in. at Seathwaite. The 7 inch fall at Seathwaite was exceeded amongst recorded rainfall data once only at the same station, where 8·03 in. fell on November 12th, 1897, and twice at Ben Nevis Observatory (7·29 in. on October 2nd, 1890, and 7·74 in. on February 6th, 1894), so that it comes fourth in order of magnitude for the total fall of a rainfall day in the British Isles.

VIII.	Greenodd (Summerhill)	2·53 in.	or 4·0 per cent.
„	Finsthwaite Vicarage	2·57 „	4·2 „
„	Blawith Vicarage	2·54 „	4·1 „
„	Coniston (Holywath).	3·97 „	4·0 „
„	„ (Water Park)	2·83 „	4·3 „
„	Hawkshead (Tower Bank, Sawrey)	3·42 „	4·9 „
„	„ (Esthwaite Mount).....	3·90 „	5·4 „
„	Skelwith Fold [Ambleside].....	4·40 „	4·7 „
IX.	Ingleton (Kingsdale Head).....	4·87 „	6·3 „
„	Sedbergh (Dent Vicarage)	3·64 „	4·4 „
„	„ (Akay)	2·63 „	4·0 „
„	„ (Cemetery)	2·50 „	3·8 „
„	„ (Croasdale Beck).....	2·52 „	3·7 „
„	Slaidburn (Brennand)	2·50 „	3·5 „
„	„ (Whitendale)	2·50 „	3·6 „
X.	Borrowdale (Seathwaite).....	7·00 „	4·7 „
„	„ (Grange)	5·06 „	5·3 „
„	Keswick (The Bank).....	3·10 „	5·0 „
„	„ (Shu-le-crow)	3·43 „	5·1 „
„	„ (Crosthwaite School)	2·87 „	4·7 „
„	Cockermouth (Brandlingill)	2·94 „	4·6 „
„	Patterdale (Greenside Mine)	3·50 „	4·0 „
„	Bowness (Lindeth Howe).....	2·98 „	4·5 „
„	„ (Fallbarrow)	3·30 „	4·9 „
„	Windermere (Fellside).....	3·20 „	4·8 „
„	„ (Holehird)	3·83 „	5·0 „
„	„ (Brockhole).....	3·80 „	5·0 „
„	Ambleside (Wansfell)	4·03 „	4·8 „
„	„ (Skelwith Bridge).....	4·30 „	4·2 „
„	„ (White Crag)	3·95 „	4·7 „
„	„ (Gale House)	3·51 „	4·2 „
„	„ (Lesketh How)	3·55 „	4·0 „
„	Rydal (The Stepping Stones).....	4·25 „	4·5 „
„	Loughrigg (High Close)	3·88 „	4·1 „
„	„ (Silverthwaite)	3·80 „	4·4 „
„	Ambleside (Rydal Farm).....	4·17 „	4·7 „
„	Dungeon Ghyll	4·85 „	3·9 „
„	Grasmere (The Wray)	4·90 „	4·6 „
„	Kendal (Low Slack)	2·80 „	5·0 „
„	„ (Ellergreen)	2·72 „	4·5 „
XII.	Dalry (Glendarroch)	2·60 „	4·6 „
„	„ (Clenerie)	3·45 „	4·9 „
„	„ (The Old Garroch).....	3·23 „	4·8 „
„	Carsphairn (Shiel).....	3·08 „	3·9 „
„	„ (Knockgray).....	3·03 „	5·0 „
„	Kirkpatrick Durham (Glenlair).....	3·00 „	5·5 „
„	Corsock (Monybuie)	2·65 „	4·8 „
„	Moniaive (Jarbruck).....	3·09 „	5·2 „
XIV.	Strathaven (Kype Reservoir).....	3·70 „	7·3 „
„	New Cumnock (Ayr Sanatorium).....	2·79 „	4·8 „
XV.	Taynuilt (Barguilean)	2·65 „	3·2 „
„	Loch Awe (Cruachan)	3·20 „	3·2 „
„	Glen Aray (Ladyfield)	3·00 „	2·7 „
„	Dunoon (Redhurst)	3·16 „	3·6 „
„	Holy Loch (Ardnadam)	3·60 „	4·0 „
„	Lochgailhead (Nuthill).....	2·70 „	3·2 „

November 11th.

This was the wettest day of the year at about 220 stations in the south of England ; but there is nothing to quote, as the greatest fall was only 1·82 in., and the largest percentage about 5·0.

November 12th.

A typical winter cyclone brought maximum falls to about 20 stations, mainly in Wales, of which the only one to quote is—

XI. Birmingham W. W. (Abergwngu) 2·95 in. or 4·8 per cent.

November 16th.

A storm of rain, sleet or snow made about a dozen stations in the north of Scotland record their wettest day. Only one entry has to be given :—

XVIII. Spean Bridge (Spean Lodge) 2·53 in. or 3·6 per cent.

November 17th and 18th.

A typical winter cyclone passed into Ireland from the north-west on the 17th, and continuing across Wales and England on the 18th, turned north-eastward again in the Strait of Dover. There were two separate centres of comparatively heavy rain, though no very great number of stations yielded a maximum fall. On the 17th there were two to quote out of about 20 in the east of Scotland ; and on the 18th there were three to quote out of about 130 in the east of England. On that day more than an inch fell on two parallel strips running from the English Channel to the north coast of Norfolk, and it is worth reproducing the map of this detail of distribution. To the west the rain fell off to nothing in a broad belt between the Mersey and the Severn, but increased again to a trifle over an inch in the extreme south-west of Wales. The map has not been measured.

November 17th.

XVI.	Colinsburgh Manse	1·65 in.	or 8·1 per cent.
„	Carnbee (Ovenstone W. W.)	1·66 „	9·1 „

November 18th.

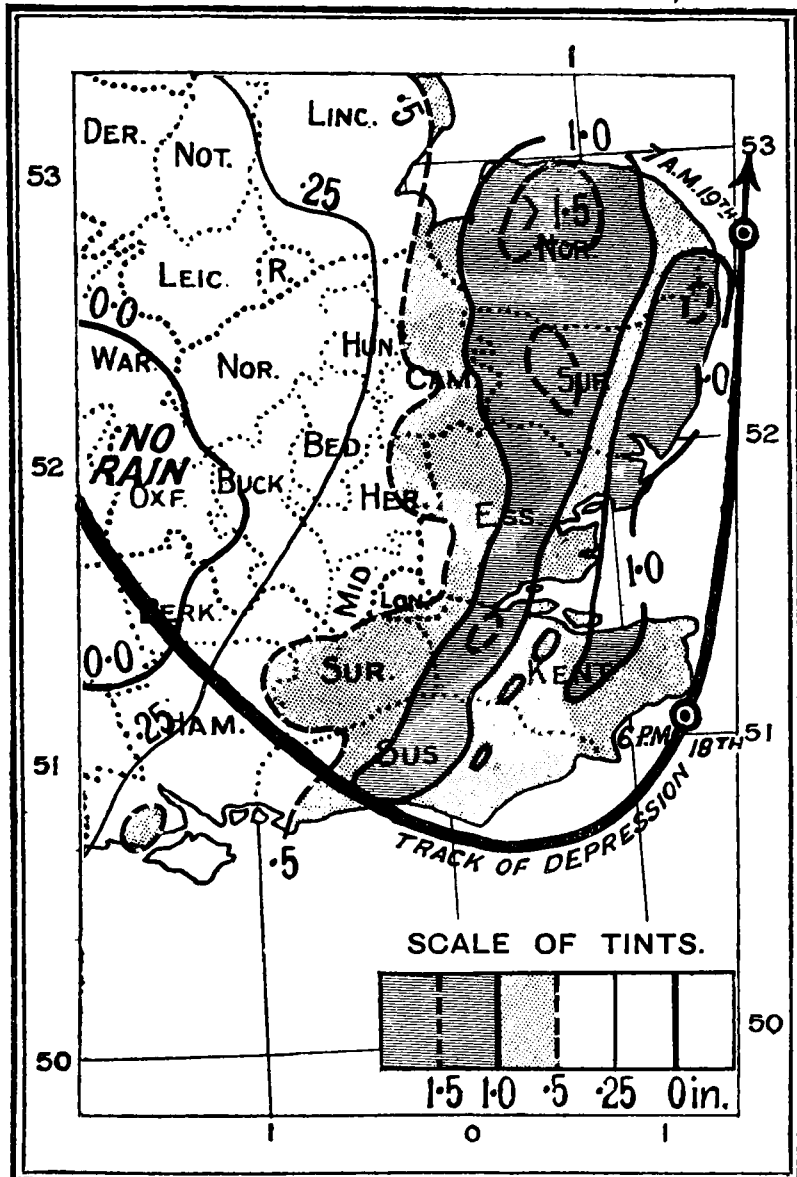
IV.	Westleton (St. Helena)	2·10 in.	or 9·2 per cent.
„	Beccles (Sotterley Hall)	1·63 „	7·6 „
„	Wrentham (Henstead Hall)	1·68 „	7·6 „

December 6th.

The extreme wetness of December was brought about rather by long-continued heavy rains due to a constant procession of cyclones of

no great rain-breeding power, than by such phenomenal falls as that of December 30th, 1900, which we are apt to consider as typical of the month. On this day there is only one maximum fall to quote, but moderate maxima occurred at more than 150 stations widely scattered

RAINFALL : NOVEMBER 18TH, 1911.



over the British Isles. A depression passed from the south-west of Ireland, where its centre lay, at 6 p.m. on the 6th to the English Channel, along which it moved eastward, the centre being off

Sidmouth at 7 a.m. on the 7th. By far the greater part of the country had less than half an inch of rain, but patches of more than an inch occurred in the west and along the south of Ireland, in Cornwall and Devon, Dorset and Sussex, in South Wales, very slightly in North Wales, more definitely on the Pennine Chain and in the Lake District, and widely though with small intensity in the Southern Uplands and the West Highlands of Scotland. Rainfall only exceeded 2 inches in a very small area in the Lake District and at two widely separated stations in Argyllshire. It is not necessary to reproduce the map which was drawn.

XV. Ardkinglas 2·64 in. or 3·3 per cent.

December 14th.

The maximum fall of the year* occurred at about 130 stations, mainly in the west and centre of England, and in Ireland, where the only record to be quoted was found. The conditions of the weather were confusing, one cyclone after another following a northerly track from the Bay of Biscay towards the polar regions, and the rain of this day fell while the centre of one such depression was passing from the Bay of Biscay to the middle of the Irish Sea, and the centre of its predecessor was travelling north-westward from a point midway between Ireland and Iceland.

XXIII. Newcastle (Tullymore Park) 2·95 in. or 5·3 per cent.

December 17th and 18th.

During these two days a strong south wind was blowing steadily over the British Islands, which lay between a centre of low pressure somewhere in the Atlantic and the high pressure over the Continent. The result was that much rain fell somewhat irregularly, and maximum falls were reported from about 30 stations, three of which, in Wales, yielded figures worth quoting.

December 17th.

XI. Glyncorrwg Colliery 2·69 in. or 2·9 per cent.

December 18th.

XI. Treherbert (Bute Colliery) 2·68 in. or 2·9 per cent.
 „ „ (Tyn-y-waun) 3·06 „ 3·2 „

Part II.—Abstract.

The cautionary remarks with which this Abstract has been prefaced in recent years will have prepared the thoughtful reader for the change that has been introduced on this occasion, and we need not conceal from him that the change will likely be a progressive one. It has been the immemorial custom to quote the 16 highest maximum falls and the 16 highest maximum percentages of the annual fall in a rainfall day, and to calculate the mean of each group for comparison with the means of the corresponding sixteens in previous years. This comparison was ineffectual for two reasons. In the first place, extreme values are always apt to be uncertain values. The risk of an extreme fall being in error is greater than that of an ordinary fall, and when the extreme approaches the unprecedented it has generally been inserted with some misgiving; had it been a little more extreme, the improbability of its occurrence would have led to its rejection. That we have often to reject as improbable to the verge of impossibility an extreme value does not mean that the Observer who reported it is untrustworthy, or even that he may have made a mistake. This year we have rejected five records because they were unduly large in certain months. In two cases we suggested that the gauge was of the Glaisher pattern, and that the outer cylinder had become detached from the funnel, and in both cases the Observers acknowledged that we were right, and ordered new gauges. In two cases we suggested that boys home from school had been surreptitiously filling up the rain gauge, and in both of these cases we were pleased to learn that we were probably right also, although the culprit had only confessed in one case. The fifth enquiry elicited no explanation; the Observer assured us that there was no possibility of a mistake having been made, the gauge was in perfect order, and no one had tampered with it. But if the record were accepted we should have to distrust the logical inductions from all rainfall records in all past time, and, rather than do this, we left the record out. A sixth case there was with regard to which we have so far obtained no reply to our enquiries, and, as it is exactly on the border-line, we leave it out also. If, therefore, we have made any mistake, it is not for want of thought and enquiry. In past years we have on one or two occasions admitted large figures that subsequently proved to be wrong, and we have omitted figures which subsequently proved to be right; but in these cases our data had been imperfect, and when an

Observer does not communicate the essential facts, we must decide as best we can on the data before us.

In the second place, when a number of rain gauges exist in a small area such as Snowdonia or the Lake District, a single heavy fall of rain is apt to give them all very high readings, whereas in equal and perhaps wetter areas in other parts of the country there may not be a single rain gauge to catch a heavy fall. The stoppage of Ben Nevis Observatory removed the station which gave the highest fall for many years ; the continuance of the Seathwaite record enables us to get that station at the top of the list now as frequently as in the old days before the Ben Nevis competition began. Thus the mean of the 16 highest falls may in one year apply merely to one district and in another year to sixteen widely separated points in all parts of the country.

In view of these uncertainties we have abandoned the comparison of the means of the sixteen highest values ; but in order to call attention to the most remarkable rainfalls of the year, and to reduce the risk of one district predominating, we give in Tables I. and II. the 20 largest falls in 24 hours recorded in 1911, and the 20 largest percentages which one day's rain made of the annual total.

Seathwaite with 7·00 in. easily heads the list. The value of 6·71 in. at Bwlch in South Wales would have come next if we had received confirmation of it before going to press. There remain one Snowdonian and one Lake District record exceeding 5 inches. Of the 20 entries, 15 belong to the Lake District on October 29th, 3 to Snowdonia, 1 to Yorkshire, and 1 to Scotland. In Table III. we compare on the left hand side the greatest daily rainfall recorded for each year since 1865, and we see that Seathwaite headed the list on 16 other occasions ; but only once with a higher fall. It is interesting, too, to observe that in no year has a fall exceeding 4 inches in 24 hours failed to be recorded somewhere in the British Isles.

Table II. gives the 20 highest percentages which the wettest day's rain formed of the annual total. The highest value quoted is 14·2 per cent., which has been exceeded, as the right hand side of Table III. shows, on 15 occasions in the 47 years since 1865. All the other entries range between 11·9 and 10·6, and they are reported from all parts of the country and for all the months in summer between May and September (except July). Eight of the instances are due to June 24th.

In Table IV. we retain touch with the traditional method of dealing

with maximum falls, by quoting the average of all the maximum falls for each year since 1865. This comparison is better grounded than that of the 16 largest falls, for, in recent years at least, the growth of observations has been fairly proportioned to the distribution. It is true that the regions of low total rainfall are over-represented and those of high rainfall under-represented, so that the mean of the total rainfall for the year is considerably lower than the truth ; but the disproportion seems to be maintained fairly steadily, and so the percentages and the average amount of the maximum falls may be compared. It appears that in 1911 the mean maximum daily fall was 4·2 per cent. of the annual total, while the average for 46 years is 4·5 ; and the mean amount was 1·38 in. for 1911, whereas the average is 1·45 in.

Table V. is also an old Table which we hope to improve upon next year. It shows the number of maximum falls which exceeded 2·00 and 3·00 in. respectively. The mere numbers cannot be fairly compared for past years, as the number of records has grown so rapidly, but the percentage of the total number is of some comparative value. It will be noticed that the number of 3-inch falls is far above the average, and the percentage of these has not been exceeded since 1903, the memorable wet year which competes with 1872 for the first place in our annals. The falls above 2·00 in. were by no means so remarkable, as their percentage has often been exceeded.

Summary of Maximum Falls in 1911.

	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...	3430	1·34	4·3	278	8·1	58	1·7
Scotland	467	1·63	3·6	116	24·9	27	5·8
Ireland	233	1·41	3·7	22	9·4	2	0·9
British Isles....	4130	1·38	4·2	416	10·1	87	2·1

The foregoing short summary gives more details regarding the maximum falls of 1911, separating the three kingdoms. We much regret to find that while the records available for this discussion in England and Wales have increased by five per cent. since last year, and those for Scotland by fifteen per cent., the records from Ireland

have diminished by one per cent., so that we are actually in a worse position this year than before with regard to the least known portion of the United Kingdom. The summary shows that a large proportion of the large maximum falls above 2·00 in., and especially above 3·00 in., is due to Scottish records. It is interesting to note that while only 8 per cent. of the maximum falls in England and $9\frac{1}{2}$ per cent. in Ireland exceeded 2·00 in., no less than 24·9 or one-quarter of those in Scotland did so.

Comparison of Maximum Falls.

	No. of Records.	Mean Amount.	Mean Percent- age.	Falls of 2·00 in. or more.	Per Cent. of Total.	Falls of 3·00 in. or more.	Per Cent. of Total.
		in.		No.		No.	
ENGLAND AND WALES—							
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
1911.....	3430	1·34	4·3	278	8·1	58	1·7
SCOTLAND—							
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
1911.....	467	1·63	3·6	116	24·9	27	5·8
IRELAND—							
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
1911.....	233	1·41	3·7	22	9·4	2	0·9

TABLE I.—*The Largest Maximum Falls in 1911.*

Date.	Div.	Station.	Depth.	Per Cent.	Total.
Oct. 29 ...	X.	Borrowdale, Seathwaite ...	7·00 in.	4·7	148·14 in.
June 24 ...	XI.	Lake Eigiau.....	5·12 ,,	6·2	82·88 ,,
Oct. 29 ...	X.	Borrowdale, Grange	5·06 ,,	5·3	94·52 ,,
Aug. 4 ...	XI.	Snowdon, Llyn Llydaw Copper Mill	4·95 ,,	3·0	164·84 ,,
Oct. 29 ...	X.	Grasmere, The Wray.....	4·90 ,,	4·6	105·53 ,,
„ „ ...	IX.	Ingleton, Kingsdale Head...	4·87 ,,	6·3	77·82 ,,
„ „ ...	X.	Dungeon Ghyll	4·85 ,,	3·9	125·81 ,,
Aug. 4 ...	XI.	Snowdon, Llyn Llydaw Intake..	4·46 ,,	3·3	137·10 ,,
Oct. 29 ...	VIII.	Skelwith Fold [Ambleside]..	4·40 ,,	4·7	93·38 ,,
„ „ ...	X.	Ambleside, Skelwith Bridge	4·30 ,,	4·2	101·59 ,,
„ „ ...	„	Rydal, The Stepping Stones	4·25 ,,	4·5	93·86 ,,
„ „ ...	„	Ambleside, Rydal Farm.....	4·17 ,,	4·7	89·25 ,,
„ „ ...	„	„ Wansfell	4·03 ,,	4·8	84·28 ,,
„ „ ...	VIII.	Coniston, Holywath	3·97 ,,	4·0	98·68 ,,
„ „ ...	X.	Ambleside, White Craggs...	3·95 ,,	4·7	83·46 ,,
Feb. 17 ...	XV.	Loch Eck, Benmore	3·93 ,,	4·2	94·16 ,,
Oct. 29 ...	VIII.	Hawkshead, Esthwaite Mnt.	3·90 ,,	5·4	72·74 ,,
„ „ ...	X.	Loughrigg, High Close	3·88 ,,	4·1	95·22 ,,
„ „ ...	„	Windermere, Holehird	3·83 ,,	5·0	76·07 ,,
„ „ ...	„	„ Brockhole ...	3·80 ,,	5·0	76·69 ,,

TABLE II.—*The Largest Maximum Percentages in 1911.*

Date.	Div.	Station.	Per cent.	Depth.	Total.
May 13 ...	IX.	Haxby, Moorlands	14·2	3·25 in.	22·91 in.
June 24 ...	XIII.	Coldstream, The Hirsell.....	11·9	3·10 ,,	25·96 ,,
Sept. 12 ...	VIII.	Eaton Hall Gardens	11·5	2·42 ,,	21·03 ,,
June 24 ...	XIII.	Duns Castle	11·3	3·30 ,,	29·33 ,,
May 26 ...	VI.	Tenbury, Rochford Rectory	11·2	3·06 ,,	27·41 ,,
June 24 ...	X.	Millfield, Flodden	11·2	2·76 ,,	24·59 ,,
Aug. 21 ...	VI.	Bridgnorth, Aldenham Park	11·2	2·38 ,,	21·33 ,,
June 24 ...	IX.	Goole	11·1	2·40 ,,	21·63 ,,
Sept. 12 ...	VIII.	Chester, Sewerage Works...	11·1	2·30 ,,	20·75 ,,
May 31 ...	III.	Harrow, Bessborough Rd. Depôt	11·0	3·19 ,,	28·86 ,,
Sept. 12 ...	XI.	Gresford, Trewythen.....	11·0	2·35 ,,	21·43 ,,
May 31 ...	II.	Banstead, The Hall.....	10·9	3·59 ,,	32·97 ,,
June 24 ...	IX.	Doncaster, Wyndthorpe.....	10·9	2·10 ,,	19·29 ,,
Sept. 12 ...	VIII.	Eccleston	10·8	2·26 ,,	21·01 ,,
May 31 ...	II.	Banstead, Basing House....	10·7	3·54 ,,	33·22 ,,
Aug. 21 ...	V.	Ludgershall, Conholt Park...	10·7	3·50 ,,	32·85 ,,
June 24 ...	XI.	Bodfari, Henblas.....	10·7	2·69 ,,	25·13 ,,
„ „ ...	IX.	Goole, Swinefleet.....	10·6	2·71 ,,	25·67 ,,
„ „ ...	„	Leeds, Allerton Hill	10·6	2·41 ,,	22·81 ,,
Aug. 21 ...	III.	Barnwell, Lilford Hall	10·6	2·13 ,,	20·10 ,,

TABLE III.—*Comparison of Maximum Fall and Maximum Percentage with those in previous years.*

Year.	ABSOLUTE HIGHEST RAINFALL.				ABSOLUTE HIGHEST PERCENTAGE.			
	Depth	Per cent.	STATION.	Div.	Per cent.	Depth	STATION.	Div.
	in.					in.		
1865	6·41	5·5	Seathwaite	10	13·0	4·40	Fleckney	7
1866	6·38	3·6	„	„	10·0	2·48	Burton	6
1867	4·78	17·7	Hartlip	2	17·7	4·78	Hartlip	2
1868	5·60	4·8	Camusinas	15	11·0	4·00	Tongue ...	19
1869	6·70	4·5	Seathwaite	10	10·0	3·40	Tillydesk	17
1870	6·00	17·1	Tongue	19	17·1	6·00	Tongue	19
1871	4·24	9·6	Melbury	5	11·5	3·62	Warter	9
1872	5·82	3·2	Seathwaite	10	10·0	3·70	Hillington Hall	4
1873	4·20	2·9	„	„	11·8	2·77	Oscott	6
1874	5·32	4·4	Bryn Gwynant	11	11·9	2·50	Welwyn	3
1875	5·33	9·7	Newport W.W.	„	13·2	3·95	Letheringsett	4
1876	4·50	5·5	Foffany	23	8·5	3·70	Cragside	10
1877	4·98	5·3	Skye, Portree	18	9·3	3·09	Wellington	6
1878	4·24	8·6	Springfield	11	11·8	3·90	Haverstock Hill	1
1879	4·05	4·1	Little Langdale	10	12·3	3·80	Cambridge, Merton V.	3
1880	4·75	3·9	Seathwaite	„	11·7	3·34	Marmont Priory Lock ..	„
1881	5·42	4·7	Sligachan	18	10·6	3·20	Aboyne Castle	17
1882	4·51	3·0	Seathwaite	10	9·1	2·80	Bothalhaugh	10
1883	5·27	9·0	Glen-na-Smoel	21	12·3	4·31	Skegness	7
1884	6·78	5·0	Seathwaite	10	13·8	2·66	Diss, Thelveton	4
1885	4·62	3·2	„	„	9·6	2·62	Beccles, Ellough	„
1886	4·20	9·9	Little Bredy	5	11·5	4·10	Leeds, Methley Park..	9
1887	4·93	13·0	Galway, Queen's Coll.	22	13·0	4·93	Galway, Queen's Coll.	22
1888	5·20	5·4	Wythburn Vicarage ...	10	11·8	3·24	Rothamstead	3
1889	4·45	16·5	North Ockendon	4	16·5	4·45	North Ockendon	4
1890	7·29	3·7	Ben Nevis Observatory	18	17·2	3·68	Slough, Langley	3
1891	6·14	4·2	Seathwaite	10	14·4	4·00	Montrose, Sunnyside..	16
1892	5·80	4·5	„	„	15·0	4·27	Flax Bourton	5
1893	4·96	3·5	„	„	16·2	4·48	Cranmer Hall	4
1894	7·74	5·1	Ben Nevis Observatory	18	11·1	3·56	Sidcup ..	2
1895	4·83	16·1	Mellington Hall	11	16·1	4·83	Mellington Hall	11
1896	4·59	3·7	Seathwaite	10	11·1	2·78	Barkby	7
1897	8·03	5·6	„	„	14·1	2·40	Chatteris, Horseway L.	3
1898	6·70	18·1	Angerton Hall	„	18·1	6·70	Angerton Hall	10
1899	5·21	5·6	Borrowdale, Grange...	„	14·6	3·10	Wallingford	2
1900	5·40	11·9	Ilkley, Cherry Bank...	9	13·1	4·50	Gilstead Filters	9
1901	5·66	5·7	Duncheon Ghyll	10	17·9	4·24	Maidenhead, The Firs	2
1902	5·92	3·8	Ben Nevis Observatory	18	15·5	3·51	Esher Sewage Works..	„
1903	4·78	2·2	„ „ „	„	12·8	4·41	Dartford, West Hill Ho.	„
1904	5·62	6·0	Skelwith Bridge	10	15·8	3·48	Leamington, Binswood Av.	6
1905	5·71	14·0	Glen-na-Smoel	21	14·9	3·98	Cofton Vicarage	5
1906	6·15	4·7	Seathwaite	10	11·9	2·50	Cambridge, Herschel Ho.	3
1907	4·86	9·4	Kingsbridge	5	12·5	3·40	Lincoln, St. Botolph's	7
1908	4·80	9·9	Treharris	11	16·0	3·45	Great Glenham	6
1909	6·46	5·7	Kinlochquoich	18	11·1	3·30	Tidworth Ho. [Ludgershall]	2
1910	4·51	3·4	Seathwaite	10	13·0	3·93	Wheatley, Waterstock	3
1911	7·00	4·7	„	„	14·2	3·25	Haxby, Moorlands ...	9

NOTE.—The maximum values in each column are printed in heavy type and the minimum in italic type.

TABLE IV.—*Comparison of the Mean of all the Maximum Falls of 1911 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	m 3·4	1·59	M 47	M 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	M 1·83	37	112	M 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	m 1·14	m 25	m 76	m 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	M 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 „
1910.....	3894	3·8	1·34	35	106	4·1 „
Average.	1920	4·5	1·45	33	100	4·4 „
1911.....	4130	4·2	1·38	33	100	4·2 „
Diff.....	+2210	—0·3	—·07	0	0	—0·2 „

TABLE V.—*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	..... 8	..... 0·6
3	1505	..... 170	..... 11·3	..... 23	..... 1·5
4	1691	..... 138	..... 8·2	..... 9	..... 0·5
5	1801	..... 179	..... 10·0	..... 24	..... 1·3
6	1718	..... 158	..... 9·2	..... 44	..... 2·6
7	1921	..... 52	..... <i>m</i> 2·7	..... 4	..... <i>m</i> 0·2
8	1974	..... 374	..... 18·9	..... 34	..... 1·7
9	1812	..... 170	..... 9·4	..... 24	..... 1·3
1890	2081	..... 345	..... 16·6	..... 54	..... 2·6
1	2218	..... 270	..... 12·2	..... 39	..... 1·8
2	2231	..... 470	..... 21·1	..... 81	..... <i>M</i> 3·6
3	2267	..... 183	..... 8·1	..... 29	..... 1·3
4	2321	..... 313	..... 13·5	..... 36	..... 1·6
5	2423	..... 249	..... 10·3	..... 31	..... 1·3
6	2465	..... 249	..... 10·1	..... 16	..... 0·6
7	2598	..... 275	..... 10·6	..... 62	..... 2·4
8	2691	..... 373	..... 13·9	..... 72	..... 2·7
9	2791	..... 283	..... 10·0	..... 43	..... 1·5
1900	2702	..... 641	..... <i>M</i> 23·7	..... 89	..... 3·3
1	2747	..... 497	..... 18·1	..... 68	..... 2·5
2	2832	..... 163	..... 5·8	..... 30	..... 1·1
3	2936	..... 625	..... 21·3	..... 83	..... 2·8
4	3093	..... 246	..... 8·0	..... 29	..... 0·9
5	3250	..... 280	..... 8·6	..... 45	..... 1·4
6	3365	..... 395	..... 11·7	..... 30	..... 0·9
7	3465	..... 118	..... 3·4	..... 21	..... 0·6
8	3596	..... 275	..... 7·7	..... 36	..... 1·0
9	3666	..... 558	..... 15·2	..... 69	..... 1·9
1910	3894	..... 318	..... 8·2	..... 33	..... 0·8
Aver.	2535	..... 293	..... 11·6	..... 40	..... 1·6
1911	4130	..... 416	..... 10·1	..... 87	..... 2·1
Diff.	+1595	..... +123	..... -1·5	..... +47	..... +0·5

MONTHLY RAINFALL, 1911.

WE dealt so fully with monthly rainfall in our last volume, where the average adopted for comparison was fully explained, that we are able on this occasion to treat the matter more concisely so far as the letterpress is concerned. The tables and maps are as full and detailed as before. It may be explained that the 300 stations for which monthly rainfall is quoted in the long table are selected so as to give the most nearly uniform distribution possible over the whole country. The means for each month afford an approximation to the general monthly rainfall of the four large divisions and of the British Isles as a whole. The map of total rainfall on the left-hand page for each month is compiled from the figures at about 2000 stations, and is drawn on a scale of 19 miles to an inch, copied by hand and generalized on the scale of 60 miles to an inch, and then reduced photographically to the published scale of 160 miles to an inch. The table of percentage of the average rainfall at 105 stations is the nearest approach to a uniform distribution over the country of stations with records yielding a trustworthy 35 years' average, and the means for each month afford the best available indication of the degree of excess or deficiency as compared with the average of the month's rainfall for the large divisions and for the British Isles. The maps on the right-hand page for each month were drawn from these data, and about 50 additional figures, on the scale of 60 miles to an inch and then photographed down to the scale of 160 miles to an inch as published. They are consequently much less detailed than the maps on the left-hand side ; but the percentage lines were drawn with reference not only to the percentage figures, but also to the total rainfall maps, by which means their accuracy is considerably improved. The letterpress is mainly a statement of what appears on the maps ; but a few words are added explanatory of the conditions of weather for the month as stated in the *Monthly Weather Report* of the Meteorological Office.

The first six months of the year were alternately dry and wet, the four months from July to October were all dry, and the last two months were wet for the British Isles viewed as a whole, the words

“dry” and “wet” being used in the sense of below and above the average rainfall. In England taken by itself eight months were dry, viz., January, March—May, and July—October, while February was practically the average, and June, November and December were wet. Of these months two stand out prominently, July by reason of its excessive dryness (only 18 per cent. of the average) and December by reason of its excessive wetness (192 per cent. of the average). We devote special attention to these two months in what follows.

In Wales six months were dry, January, March, May, July, August and October ; the other six were wet, and, as in England, July was excessively dry with less than a quarter of the average fall and December was excessively wet with more than twice the average fall.

In Scotland, also, six months were dry, viz., January, March, July—October, and the other six wet ; but the extremes were less marked, March being the driest month with 64 per cent. of the average, and February the wettest with 156 per cent.

In Ireland, too, six months were dry and six wet. The dry months were January, March, May, June, August and September, but April and July were practically normal as to the amount of rain. Here the driest month was January with 50 per cent., and the wettest December with 174 per cent.

January, with only half the average rainfall, was certainly a remarkable month for Ireland ; but the only two months which justify the labour of a systematic comparison with past extremes are the dry July and the wet December in England and Wales. Looking back through the fifty earlier volumes of *British Rainfall*, we found that July was conspicuously dry on three occasions, and on going more fully into the data we selected July, 1868 and 1869, as the nearest approaches to July, 1911. Maps of the total rainfall of these months were prepared, on the scale of 60 miles to an inch, from about 300 stations, and the general rainfall calculated. They are given on the opposite page on the scale of 220 miles to an inch, along with July, 1911, on the same scale for comparison. The relative dryness of the three months may be roughly compared as follows :—

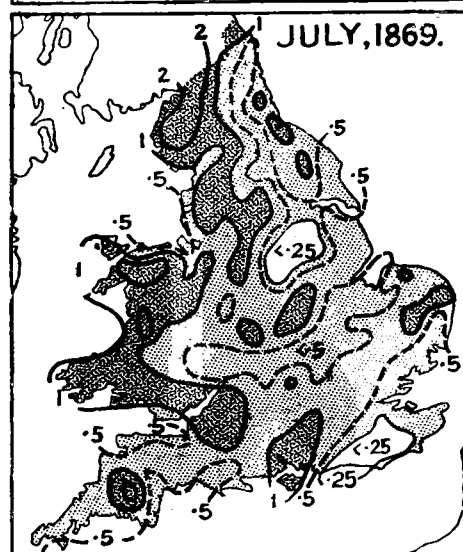
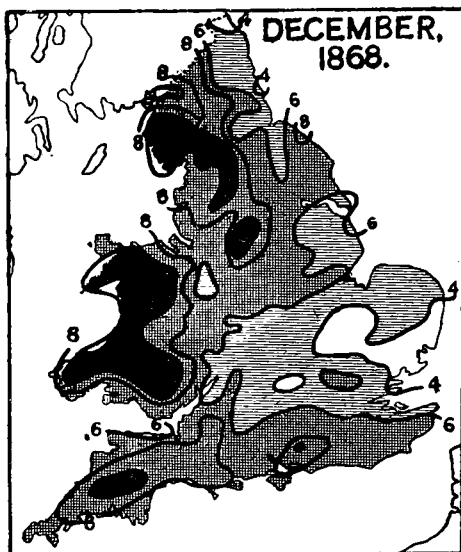
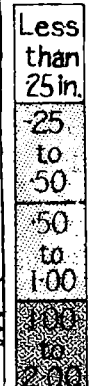
Area in square miles.				
July.	Over 1 inch.	·50 to 1·00 in.	·25 to ·50 in.	Less than ·25 in.
1868	12,930	20,488	14,490	10,400
1869	16,895	26,233	12,618	2,562
1911	9,222	19,455	16,466	13,165

By estimating the mean rainfall between the isohyets and

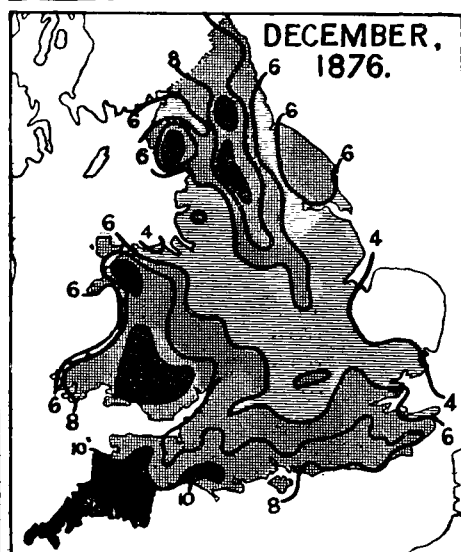


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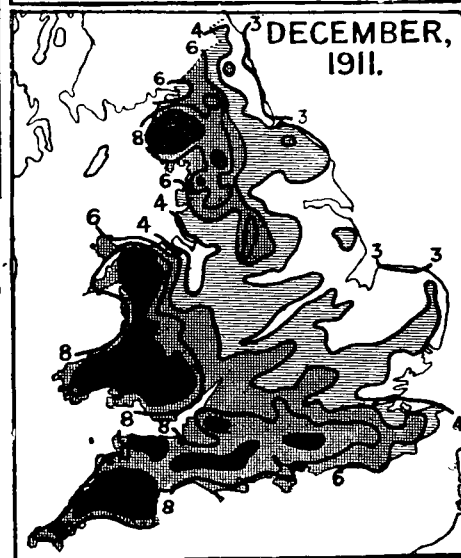
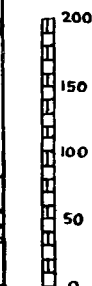
JULY



DEC.



MILES



computing in the usual manner the general rainfall of England and Wales on the four occasions comes out :—

July.	1868	1869	1911
Rainfall, inches	·75	·87	·61

It thus appears that July, 1911, was the driest month of that name for England and Wales since the records were sufficiently numerous to allow the comparison to be made, *i.e.*, during a period of 45 years. It was, however, by no means the driest month as February, 1891, September, 1910, and September, 1865, were each considerably drier, and there may be other cases.

With regard to wet Decembers the two most remarkable, in addition to that of 1911, were those of 1868 and 1876. It is interesting to see the coincidence of 1868 and 1911 in rainfall, for the two summers were very similar, both being hot and dry, while the last month of each year was also very warm and very wet. It cannot, however, be said that the two years ran parallel with each other, as in 1868 June was very dry and November had less than the average rainfall, while in 1911 June was wet and so was November.

The wetness of the three Decembers shown in the second column of little maps on p. [177] may be compared from the following :—

December.	Area in square miles.				
	Less than 4 in.	4 to 6 in.	6 to 8 in.	8 to 10 in.	More than 10 in.
1868	3,646	17,750	18,748	10,217	7,947
1876	3,885	18,693	16,205	12,935	6,590
1911	12,698	16,536	10,674	8,990	9,410

The estimation of the general rainfall made by measurements on the maps is :—

December.	1868	1876	1911
Rainfall, inches	7·39	7·24	7·03

December, 1868, seems to be the wettest on record for England and Wales; it had the smallest area with less than 4 inches of rain though December, 1911, had the largest area with more than 10 inches. It may very well be that the smaller number of rain gauges in the wetter parts of the country in the earlier years have prevented us from doing justice to the extent of the wettest areas, but in any case it is clear that December, 1911, was within a fraction of an inch of having the highest December rainfall on record.

It will be observed that in these comparisons we have dealt only with England and Wales, for in 1911 July was not the driest month nor December the wettest in Scotland, and in Ireland the rainfall of July was actually above the average.

TABLE I.—*Monthly Rainfall in 1911: the Average, 1875–1909, being taken as 100.*

MONTHLY RAINFALL.

[179]

Div.	Station.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
I.	St. Pancras, Camden Square ..	75	89	101	103	103	118	46	20	65	115	155	198	99
II.	Tenterden	71	70	118	107	45	95	7	50	63	143	158	221	103
"	Arundel, Patching	58	77	104	101	63	89	14	50	68	128	210	249	109
"	Fawley, Cadland	47	81	93	75	87	108	5	30	50	105	155	266	97
"	Basingstoke, Sherborne St. John	48	75	88	82	89	71	5	35	61	81	133	261	89
III.	Hitchin, Wratten	66	82	122	79	73	137	11	69	59	83	109	243	93
"	Oxford, Magdalen College.....	38	80	104	66	122	48	11	43	61	78	100	227	79
"	Wellingborough, Croyland Abbey	40	69	109	39	130	77	5	74	60	80	122	167	80
IV.	March	117	79	112	68	44	85	5	90	93	61	120	218	87
"	Shoeburyness	68	55	133	100	65	111	7	89	61	106	158	183	97
"	Braintree, Bocking	72	66	123	46	55	94	6	35	64	97	120	177	79
"	Rendlesham Hall.....	88	49	120	85	31	81	23	36	77	88	168	172	86
"	Bury St. Edmunds, Westley ..	102	60	142	77	42	140	14	62	85	108	158	184	97
"	Geldeston	116	88	144	52	42	127	25	21	97	75	120	183	89
"	Blakeney.....	88	108	129	58	48	143	12	65	78	89	145	120	89
V.	Bishops Cannings.....	45	95	114	54	41	73	2	64	40	59	99	208	76
"	Evershot, Melbury House	66	70	98	72	67	78	3	31	46	95	109	267	92
"	Sidmouth, Sidmount	33	69	111	73	46	101	23	26	61	102	126	265	91
"	Northam Vicarage	39	70	82	96	52	120	16	80	98	75	128	192	95
"	Falmouth Observatory	37	96	124	105	50	101	40	75	102	85	106	164	95
"	Altarnon	49	94	91	125	109	143	44	65	79	66	133	176	99
VI.	Chewton Mendip, The Priory ..	54	122	111	113	52	79	1	85	45	92	136	222	96
"	Stroud, Upfield	57	67	113	45	57	118	6	64	61	75	116	240	86
"	Leominster, Farm	35	75	104	68	77	77	18	44	78	57	110	273	86
"	Church Stretton, Wolstaston ..	24	112	83	81	45	115	20	46	89	89	140	194	87
"	Wolverhampton, Wrotesley ..	24	76	83	60	32	96	4	51	70	72	100	196	72
"	Coventry, Kingswood	39	69	102	42	39	80	7	56	69	79	95	176	72
VII.	Market Overton	67	89	108	50	109	92	10	55	84	91	103	201	88
"	Revesby	104	70	161	90	65	186	10	85	116	68	118	165	100
"	Lincoln, Doddington	71	58	80	69	66	144	13	47	81	68	121	187	83
"	Mickleover Manor	46	91	84	72	28	113	13	73	68	68	105	173	78
VIII.	Northwich, Highfield	42	123	67	99	28	107	15	87	112	88	89	171	86
"	Chatburn, Middlewood	52	208	53	112	75	157	21	63	112	87	119	150	99
"	Southport, Hesketh Park	31	138	55	138	70	102	12	97	130	64	100	163	93
IX.	Sheffield, Redmires Reservoir ..	52	146	75	90	34	97	8	66	89	70	111	158	83
"	Wetherby, Ribston Hall	71	108	70	61	56	166	18	78	109	85	151	185	96
"	Hull, Pearson Park.....	78	76	119	83	24	151	30	73	162	59	138	136	92

TABLE I.—*Monthly Rainfall in 1911: the Average, 1875–1909, being taken as 100—(continued).*

Div.	Station.	Jan.	Feb.	Mar.	Apl.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
IX.	Scarborough, Osgodby	81	48	91	37	46	244	45	114	154	61	129	165	101
X.	Darlington, Cleveland Parade ..	74	61	111	67	72	153	19	78	124	90	161	184	99
"	Newcastle, Town Moor	88	41	110	86	31	226	36	97	138	78	142	128	100
"	Howick Hall	131	41	97	84	31	294	28	94	103	107	105	133	103
"	Borrowdale, Seathwaite	83	188	58	183	115	155	31	87	65	104	133	178	114
XI.	Appleby, Castle Bank	58	146	64	97	67	145	37	65	122	83	157	204	104
"	Abergavenny, Larchfield	24	72	70	69	93	67	9	58	80	66	130	344	97
"	Neath	64	162	96	153	72	111	16	97	102	70	191	259	119
"	Cardiff, Ely	52	149	83	122	59	84	14	46	69	81	178	178	95
"	Castle Malgwyn	49	58	85	113	110	125	21	82	109	81	150	229	105
"	Haverfordwest Castle	64	88	101	98	68	88	22	100	79	110	140	238	106
"	Aberystwyth, Gogerddan	58	122	85	93	112	112	21	121	97	101	157	133	102
"	Birmingham W.W., Tyrmynydd ..	38	99	63	80	47	141	13	101	105	92	122	191	95
"	Bala	52	172	78	140	78	119	40	139	148	86	165	202	121
"	Llandudno	28	100	74	82	91	134	46	93	186	98	87	181	101
"	Holyhead	44	113	61	99	73	67	45	85	119	79	123	186	95
"	Douglas	53	151	38	122	61	120	73	49	55	87	115	147	90
XII.	Auchencairn, Torr House	75	197	32	155	129	98	72	59	70	81	132	174	105
"	Drumlanrig Castle	62	173	51	223	98	138	55	83	55	109	133	206	114
"	Canonbie, Byreburnfoot	63	195	51	198	105	115	36	99	107	110	132	171	113
XIII.	North Esk Reservoir	75	181	70	163	64	151	32	63	56	126	181	113	104
"	Marchmont House	58	88	96	76	34	215	27	43	56	105	170	168	94
XIV.	Airdrie, Hillend Reservoir	76	203	51	115	72	59	89	63	61	93	152	108	94
"	Girvan, Pinmore	72	162	37	166	91	119	78	51	58	93	96	214	104
"	Loch Thom	116	205	53	138	139	102	101	104	59	85	112	164	115
XV.	Inveraray, Newtown	102	218	53	197	141	107	119	132	62	69	140	145	122
"	Islay, Eallabus	83	154	42	152	132	69	121	59	68	85	123	148	102
"	Mull, Quinish	90	153	51	153	147	79	112	73	96	60	93	146	102
XVI.	Loch Leven Sluices	44	170	74	83	52	92	50	37	49	88	172	124	87
"	Balquhiddier, Stronvar	59	194	43	149	135	116	83	114	45	71	143	161	109
"	Blair Atholl	40	110	55	117	64	92	70	78	20	84	163	205	95
"	Dundee, Eastern Necropolis	31	58	55	40	40	43	40	34	39	49	108	164	60
XVII.	Fettercairn, The Burn	56	57	81	77	69	78	64	43	46	76	127	219	86
"	Braemar	49	122	94	104	73	88	53	31	23	64	184	260	97
"	Aberdeen, Cranford House	66	56	72	56	107	113	50	36	39	96	144	179	87
"	Keith Station	86	146	77	102	97	157	99	28	40	69	194	168	102
"	Cawdor	52	140	64	104	106	140	87	18	60	90	249	72	96

TABLE I.—*Monthly Rainfall in 1911: the Average, 1875–1909, being taken as 100—(continued).*

MONTHLY RAINFALL.														[181]
Div.	Station.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
XVIII.	Fort Augustus	54	162	83	136	82	94	59	113	73	53	198	98	101
	Fort William, Atholl Bank	83	182	72	179	154	87	107	116	101	52	149	108	112
	N. Uist, Lochmaddy	82	108	57	84	129	46	159	97	75	66	82	138	93
	Loch Torridon, Bendamph	94	144	85	173	108	133	158	95	118	31	101	113	108
XIX.	Stornoway	72	123	82	164	103	70	180	103	90	63	103	96	100
	Dunrobin Castle	78	111	76	124	105	50	76	29	62	59	134	88	83
	Thurso, Holborn Head	73	140	106	121	70	151	72	28	113	56	99	98	91
	Cork, The Palace	18	73	124	78	78	124	115	67	90	127	127	191	103
XX.	Valencia, Glanleam	57	89	97	103	134	73	111	76	100	137	148	164	109
	Killarney, District Asylum	30	75	67	104	179	138	107	40	109	97	131	175	102
	Waterford, Brook Lodge	44	82	88	96	58	124	108	69	139	109	109	213	106
	Nenagh, Castle Lough	43	126	51	94	119	89	128	58	83	116	170	182	106
XXI.	Miltown Malbay	54	101	71	94	121	75	81	53	93	103	119	163	95
	Gorey, Courtown House	39	73	61	94	61	55	80	71	127	119	122	273	102
	Abbey Leix, Blandsfort	53	113	70	124	81	67	137	80	68	99	140	205	104
	Dublin, Fitz William Square	30	51	84	69	62	87	115	28	49	132	114	179	85
XXII.	Moynalty, Westland	56	139	64	115	70	76	101	57	75	143	146	143	102
	Mullingar, Belvedere	68	135	76	97	95	112	89	50	75	95	162	158	106
	Tuam, Gardenfield	75	142	61	111	101	80	145	65	60	95	162	158	106
	Ballinasloe	64	153	73	92	99	85	89	66	87	142	149	153	105
XXIII.	Crossmolina, Enniscroe	46	100	75	119	71	106	137	63	62	97	150	134	97
	Markree Observatory	65	118	69	111	62	73	123	81	61	91	145	168	99
	Belturbet, Cloverhill	57	164	81	137	98	70	96	63	59	107	141	198	106
	Armagh Observatory	41	131	51	113	77	59	89	48	54	94	106	187	87
	Seaforde	33	135	57	88	74	98	32	51	36	121	100	212	88
	Donaghadee	52	84	48	133	73	97	56	77	57	99	120	184	91
	Bushmills, Dundarave	49	156	48	81	81	94	98	41	43	76	107	132	83
	Ballymena, Harryville	64	121	63	98	124	64	85	78	49	87	128	185	96
	Omagh, Edenfel	78	150	60	106	65	86	122	76	51	90	128	163	99
	Buncrana, Rockfort	50	114	67	103	50	80	100	54	48	67	114	140	83
	England (Mean of 43 Stations)	62	101	96	89	64	121	18	66	84	86	129	192	94
	Wales (" 10)	48	115	79	106	79	106	24	95	107	87	116	212	104
	Scotland (" 27)	75	156	64	137	103	104	87	74	69	75	136	146	102
	Ireland (" 23)	50	112	70	102	90	88	102	62	72	107	134	174	98
	British Isles (" 104)	62	123	77	108	83	107	58	70	79	87	133	175	98



January was a month of low rainfall. A few small areas bordering estuaries on the east coast of Great Britain and in the West Riding of Yorkshire had less than 1 inch ; and it is rather remarkable to find a much larger area in the centre and north-west of England with an equally low rainfall. As much as 2 inches fell only on very small isolated patches near the east and south coasts, in the middle of Wales, the Pennine Chain, Lake District, and the west of Scotland and Ireland ; and the only extensive area with more than 3 inches was in the west of Scotland. The atmospheric conditions throughout the greater part of the month were under the control of a series of strongly marked anticyclones, so that, except during the passage of



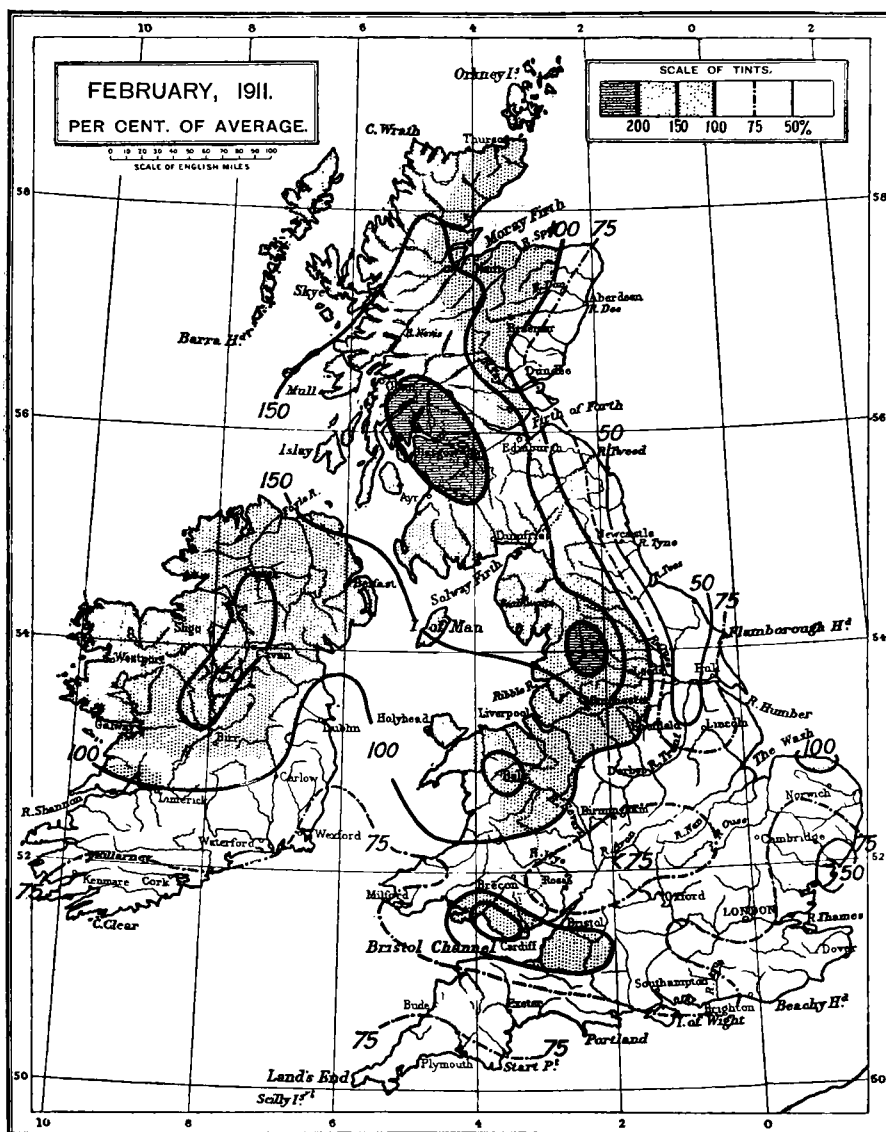
a very few cyclonic disturbances, there were no falls of rain that could be classed as heavy.

The percentage map shows that the rainfall was below the average everywhere except in a small area in Argyllshire and a somewhat larger tract in Lincoln and Norfolk, where the average was slightly exceeded. The driest parts of the country were in the valleys of the Severn and Wye and in the south of Ireland, where rather less than a quarter of the normal rainfall was recorded.

The deficiency in Scotland was only 25 per cent., and in England 38 per cent., of the average ; but in Wales it was 52 per cent., and in Ireland 50 per cent. ; and for the British Isles as a whole, 38 per cent.



February.—The distribution of rainfall was typical of a winter month. A high fall occurred on the high grounds of the west, the area with more than 10 inches being extensive in the west of Scotland, and small patches occurring in the Lake District, the Pennines, and Wales. On the other hand, there were narrow tracts with less than 1 inch of rain at various points along the east coast of Great Britain, and in the Vale of York and the Fen country. The precipitation came entirely in the latter part of the month, when the anticyclone, which had persisted since January, causing an absolute drought over a large area, gave way to a succession of cyclones passing on the familiar winter track to the north-east between Scotland and Iceland.



The natural result of this run of the cyclone centres was to give a rainfall much above the average in the north-west of the British Isles and much below the average in the east and south, thus increasing the natural contrast. The wettest parts of the country, where more than twice the average amount of rain fell, were in Argyllshire and Lanarkshire, and on the borders of Lancashire and Yorkshire. The driest parts, where less than half the average fell, were along the north-east coast of England and on the coast of Suffolk.

The excess of rainfall in England was only nominal; in Wales it was 15 per cent.; in Ireland, 12 per cent.; while in Scotland it was 56 per cent.; and for the British Isles as a whole, 23 per cent.



March.—The distribution of pressure during the greater part of the month was the opposite of that in February. An anticyclone held possession of the northern part of the British Isles, and a series of depressions passed across the south of England, easterly and north-easterly winds being the most frequent. The result was an unusually uniform distribution of rainfall. Less than an inch occurred only round the margins of the Moray Firth and the Firths of Tay and Solway, in the west of the Cheshire Plain, and in the middle of the West Riding of Yorkshire. More than 3 inches fell over the west of Scotland, Wales and Ireland, and in isolated patches in the east and south of Scotland, and the north, east and south of England; but



there was very little land with over 6 inches, and only one spot (in North Wales) with as much as 10 inches.

The result of this distribution was that the greater part of the east, centre and south of England, and part of the south of Ireland, had more than the average rainfall, while the north and west had less than the average, and in the south-west of Scotland, the Isle of Man, and the extreme north-east of Ireland there was less than half of the average fall.

The deficiency in England was only 4 per cent. ; but in Wales it was 21 per cent. ; in Ireland, 30 per cent. ; in Scotland, 36 per cent. ; and in the British Isles as a whole, 23 per cent.



April.—The first half of the month was anti-cyclonic, with no appreciable rainfall, but, during the second half, numerous cyclonic systems passed to the north-east across and beyond the north of Scotland, bringing a high rainfall to the north. Less than an inch of rain fell in an irregular belt extending across England from the north of Wales to the Wash and the Thames, and other equally dry districts were found along the shores of the Firths of Tay and Forth, and in Yorkshire and Durham. The greater part of England, had less than 2 inches, but the greater part of Wales, the north-west of England, and the west of Scotland had more than 3 inches and considerable areas more than 6 inches. The north and west of both



Great Britain and Ireland were wet, the rainfall in part of the Southern Uplands of Scotland being twice the average ; and the average was just exceeded in the south-eastern corner of England also. The driest area lay in the heart of England, where, from the Wash to the Bristol Channel and from Birmingham to Banbury the rainfall was everywhere less than half the average. It was equally dry at the mouth of the Firth of Tay.

There was a deficiency of 11 per cent in the rainfall of England, but an excess elsewhere, amounting to 6 per cent. in Wales, 2 per cent. in Ireland, 37 per cent. in Scotland, and 8 per cent. in the British Isles as a whole.



May.—The month was variable as regards weather, but free from great extremes. Over most of the country the latter half was nearly rainless ; but one of the most prominent features on the rainfall map, the area with more than 2 inches, and in places with more than 3 inches running due north from Portsmouth to Nottingham was the result of thunderstorms on the 25th, 26th and 31st. But for these the areas with less than an inch of rain along the south coast and extending inland from the Bristol Channel, the Mersey, the Wash and Thames, would have united and occupied the whole of England south of Lancashire. Beyond the line of the thunderstorms rainfall over 3 inches occurred in the west of Great Britain and in patches in Ireland.

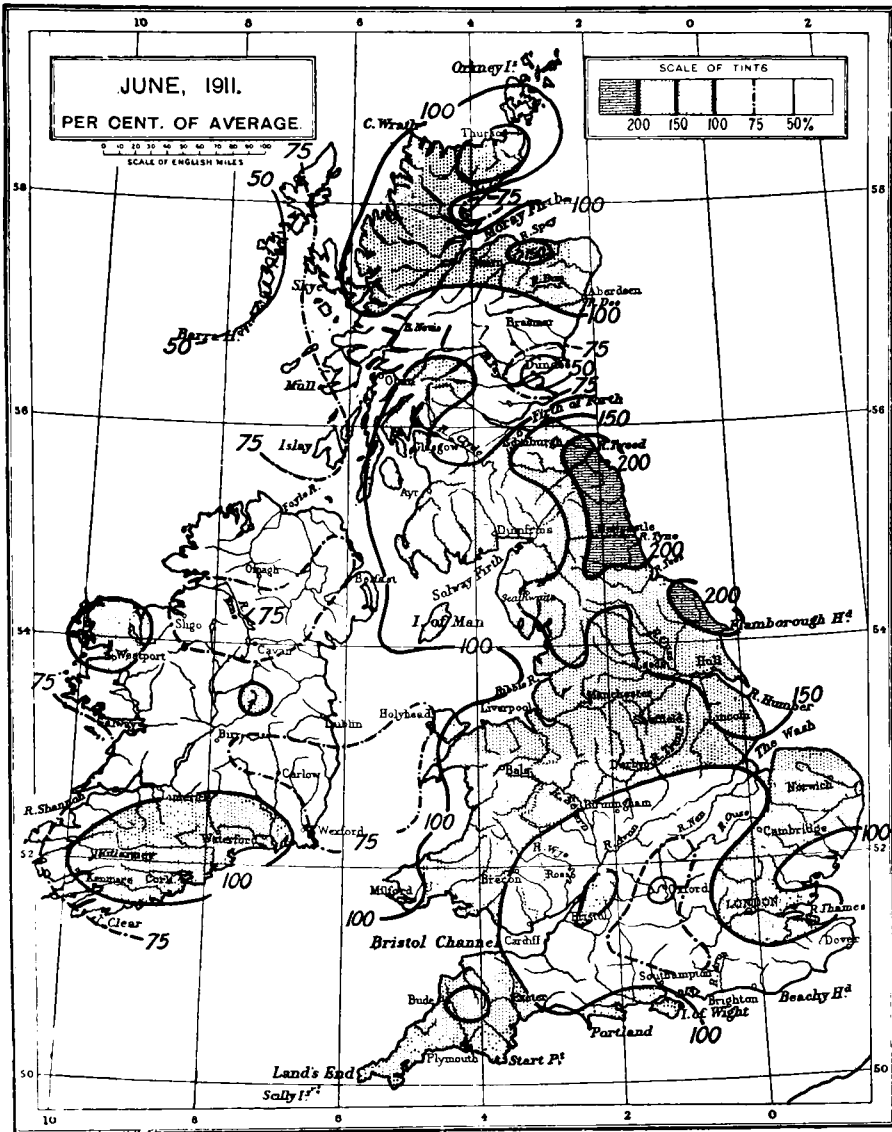


The rainfall exceeded the average over the thunderstorm tract in the middle of England, at one or two points in the extreme west of England and Wales, the west of Scotland and the south-west of Ireland. The greater part of England and the south-east of Scotland had less than 50 per cent. of the average fall, the driest areas being on the east coast in Northumberland and Suffolk where some stations had only 31 per cent. of the average.

There was an excess of rainfall for Scotland of 3 per cent. ; but a deficiency for England of 36 per cent. ; for Wales of 21 per cent. ; for Ireland of 10 per cent. ; and for the British Isles as a whole of 17 per cent.



June.—The first half of the month was nearly rainless, with fine anticyclonic weather; the second half very unsettled and wet. The most remarkable feature was the great rain, mainly on the east coast, on the 23rd and 24th, which is fully described on pp. [143]–[152], with three maps. More than 5 inches of rain fell on the east coast between Haddington and Durham, in the North Riding of Yorkshire, and in Lincolnshire, and in places there were more than 6 inches. More than 4 inches fell over a series of broad areas along the west coast, but from Caithness to the Isle of Wight the eastern and western wet bands were separated by drier country in which there was a comparatively short distance with more than 3 inches,



and nowhere as much as 4 inches. Least rain fell in the east of Scotland, north of the Firth of Tay, where less than 1 inch was recorded. There only was the rainfall less than half the average, but less than the average fell in the middle of Scotland, in all Ireland except the south and the north-west, and in the English midlands. The scene of the heaviest rainfall on 23rd-25th had more than twice the average rainfall at intervals along a broad coast strip from St. Abb's Head to Flamborough Head.

The excess of rainfall in England was 21 per cent. of the average, in Wales 6 per cent., in Scotland 4 per cent., while Ireland had a deficiency of 12 per cent., and the British Isles as a whole an excess of 7 per cent.



July.—The weather of the first half of the month was anticyclonic and practically rainless everywhere ; the latter part of the month was dry also in the south, but many cyclones passing to the north-east brought heavy rain in the west and north. The western half of Scotland north of the Clyde had more than 3 inches, and in the west more than 6, while the greater part of Ireland had more than 3 inches. The east of Scotland had less than 2 inches, and in the south less than an inch ; while in England and Wales a very large area had less than .25 in., and a notable patch in Wiltshire, where the absolute drought culminated, had no rain at all.

The greater part of Ireland and the extreme west of Scotland were



the only places where the average rainfall was reached ; and neither Ireland nor Scotland had any large area with less than half the normal rainfall. In England and Wales, on the other hand, no area with more than half the average appears, and only the western promontories, the extreme north and a narrow fringe along the east coast had more than a quarter. The whole of the centre of England had less than one tenth of the average rainfall. Fuller details are given on p. [176].

In Ireland there was an excess of 2 per cent., in Scotland a deficiency of 13 per cent., in Wales a deficiency of 76 per cent., and in England the nearly unprecedented deficiency of 82 per cent. The British Isles had a deficiency of 42 per cent., the month being the driest in the year.



August.—The weather was unsettled generally, especially in the west and north, where the rainfall of the month exceeded 3 inches, and in the West Highlands, the Lake District and Wales there were extensive areas with more than 6 inches. In the east of Ireland the rainfall was less than 2 inches, and much of the east of Scotland and the greater part of England also had less than 2 inches, while in the east of Scotland and the south and east of England less than 1 inch fell, the least rainfall being experienced in East Anglia, where two patches had less than half an inch.

With respect to the average, the month was dry in most places,

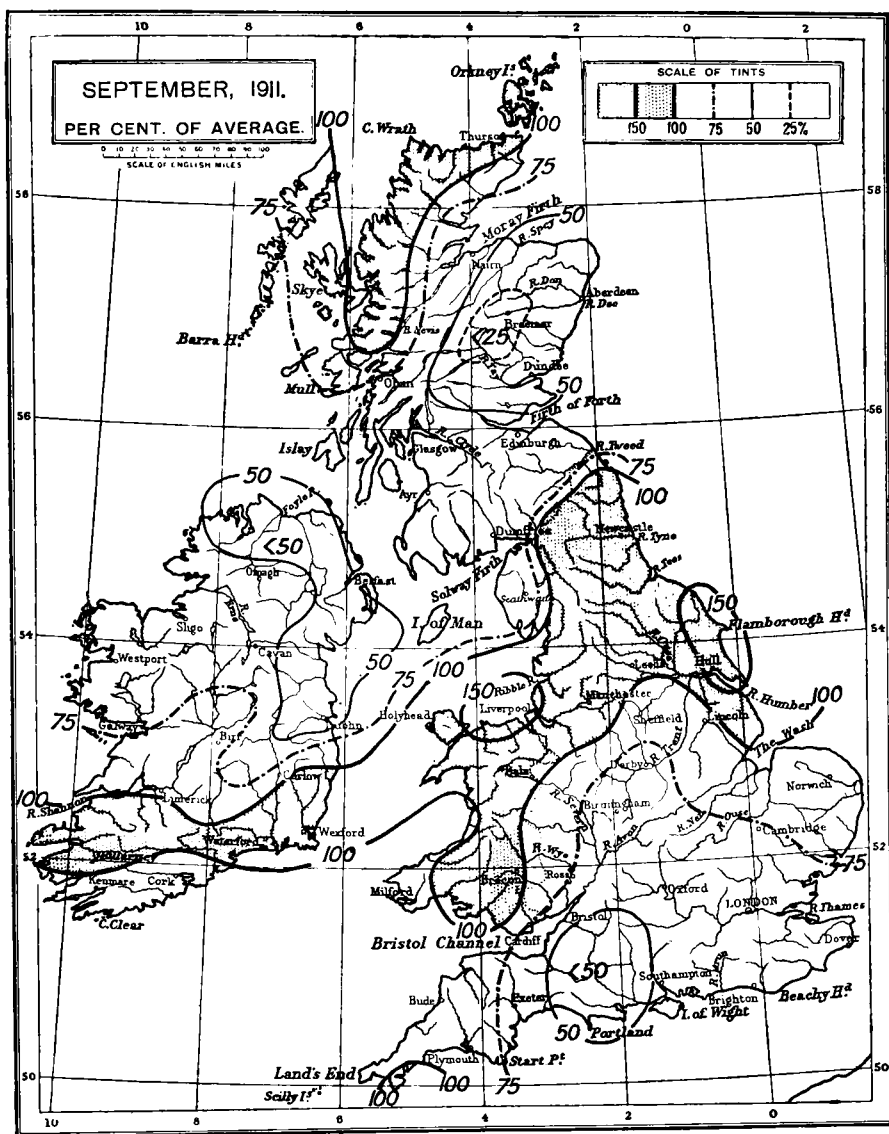


the only parts of the country with more than the average fall being Wales, part of the West Highlands, and some spots on the east coast of England. The driest part of the country was the east of Scotland, all of which had less than half the average rainfall, and the shores of the Moray Firth had less than one quarter. Several areas in Ireland and a broad strip of the south of England running from Devonshire to Suffolk also had less than 50 per cent. of the average.

Wales had a general deficiency of 5 per cent. ; Scotland of 26 per cent. ; England of 34 per cent. ; Ireland of 38 per cent. ; and the British Isles as a whole of 30 per cent.



September.—The early part of the month was dry with anti-cyclonic weather, but the passage of a shallow depression on the 12th, brought heavy thunderstorm rains to Wales and the north of England; and after that date the weather was unsettled and showery. Rainfall exceeding 3 inches for the month, occurred in a broad belt round the south and west of Ireland, and with a few breaks along the west of England, Wales and Scotland. On the east coast as much as 3 inches fell only in the East Riding and in Norfolk. The south coast and the interior of England, as far north as Yorkshire, had less than 2 inches of rain, and as little fell in the north-east of Ireland and in the east of Scotland. The only large area with less than 1 inch,



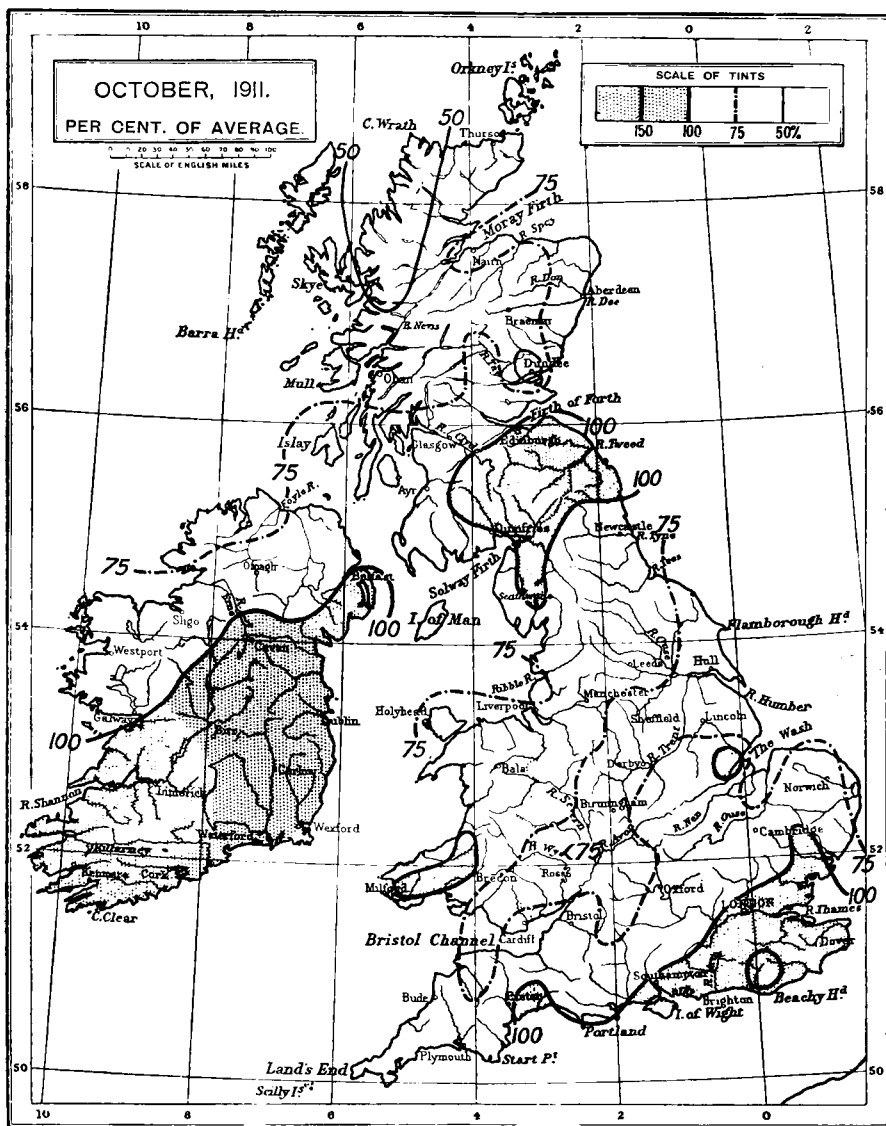
was in Aberdeenshire, Banffshire, and the immediate surroundings.

The average was exceeded in the extreme north-west of Scotland, and in a broad belt crossing the south of Ireland, and running from Wales to the North Sea coast between the Wash and the Tweed. Three areas had less than half the average rainfall, situated respectively in the north-east of Ireland, the east of Scotland, which was the driest, and the south of England.

The general rainfall of Wales, showed an excess of 7 per cent. ; that of England a deficiency of 16 per cent. : of Ireland a deficiency of 28 per cent., and of Scotland a deficiency of 31 per cent. The deficiency for the British Isles as a whole was 21 per cent.

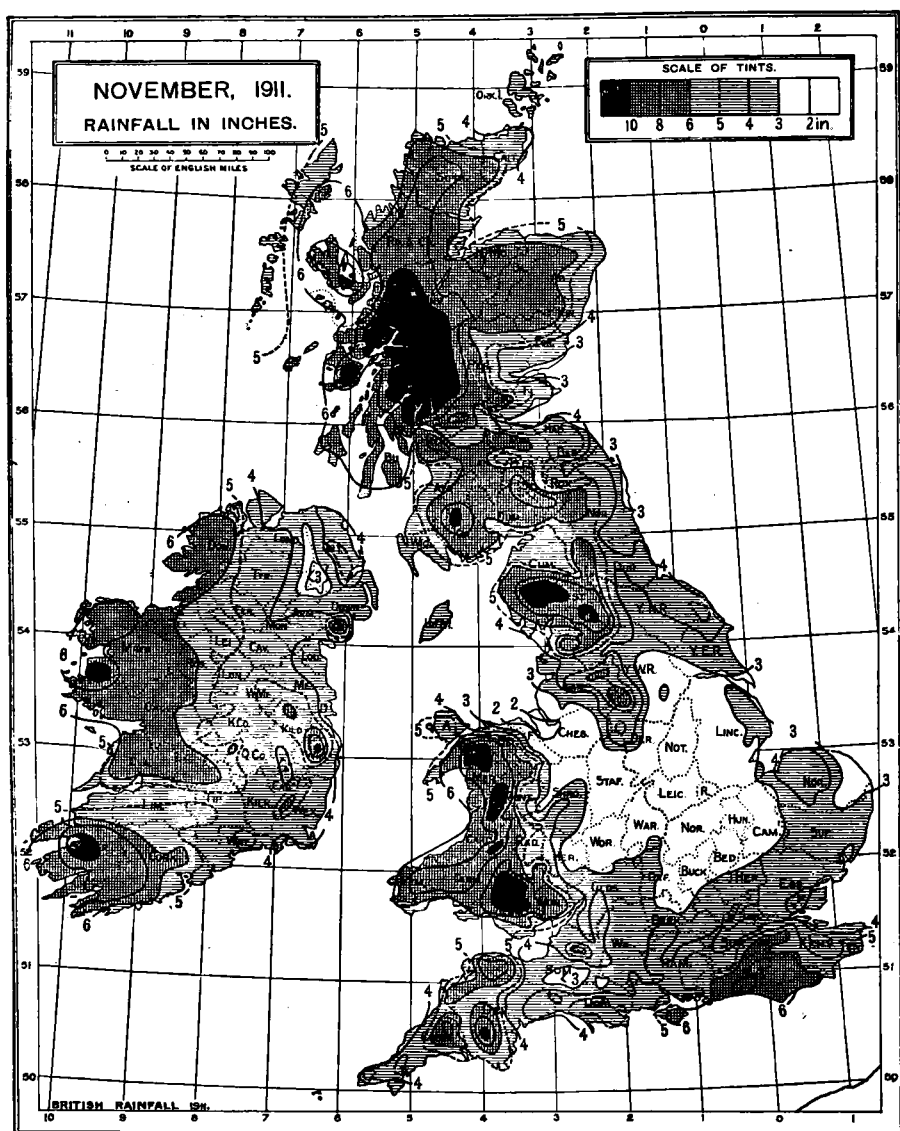


October.—As in so many of the months of this year, the first half was under anti-cyclonic conditions of pressure; but in the second half, the passage of a succession of cyclones from the Atlantic towards the continent, brought the typical rains and winds which have made October the month of highest rainfall in the year. The rainfall was fairly normal in its incidence, the largest amounts falling in the west and south, but an extensive area in Kent and Sussex, with more than 6 inches, was an unusual feature, though there was a marked absence of extensive areas with more than 8 inches in the wettest parts of the country. Less than 2 inches was found only at intervals along the east coast, and in detached areas in the middle of England.



The result of this arrangement, was that the wettest part of England was in the south-east, where 50 per cent. more than the average probably fell in Sussex, and the driest part was the extreme north-west of Scotland, where 50 per cent. less than the average was experienced. All Ireland, except the north, had more than the average rainfall, and there was a broad region on the borders in England and Scotland, where there was also some excess.

The British Isles as a whole, had a deficiency of rainfall, the defect being 13 per cent. The general rainfall of Scotland was 25 per cent. below the average ; that of England and of Wales about 13 per cent. below ; and that of Ireland, 7 per cent. above.

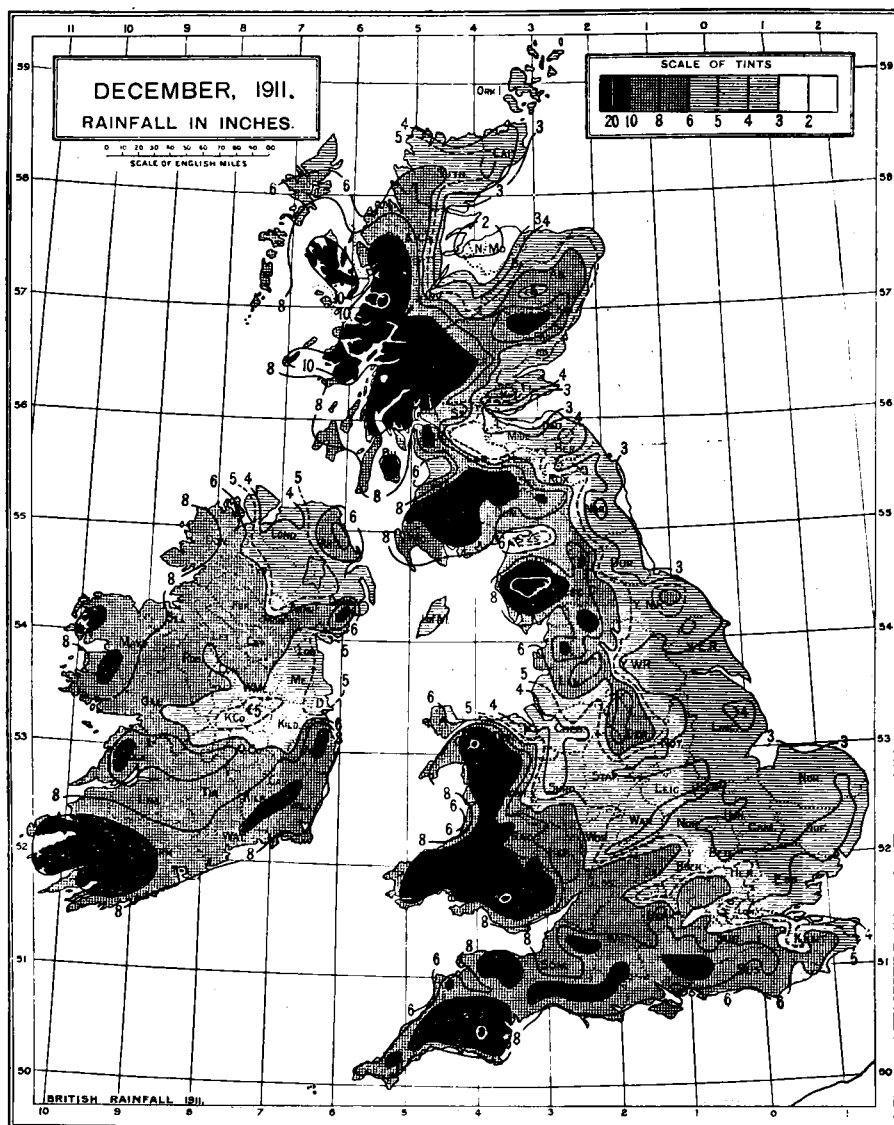


November.—A stormy month, with the frequent passage of deep cyclonic systems, but it is interesting that none of the tracks crossed the central part of Great Britain between the Forth and the Wash. The rainfall was high everywhere, the least, occurring in a narrow strip of the north of Ireland, and throughout the middle of England, being just under 3 inches. The greater part of Scotland, the west of Ireland, practically the whole of Wales, the Lake District, Exmoor, Dartmoor, Bodmin Moor, and the whole county of Sussex had more than 6 inches, while in the heart of most of these areas, the rainfall exceeded 10 inches.



The rainfall exceeded the average in all parts of the British Isles, except the Hebrides and a strip in the middle of England, extending inland and southward from the Mersey to Oxford, where it was slightly less. To the north, the south-west and the south-east of the dry belt, the excess of rainfall exceeded 50 per cent., and in Sussex, there was a patch on which more than twice the average amount of rain fell.

The general rainfall of Wales was 46 per cent. in excess of the average; that of Scotland 36 per cent.; Ireland 34 per cent., and England 29 per cent.; the general excess over the British Isles being 33 per cent.



December.—The wettest month of the year, and one of the wettest on record (see p. [177]). Throughout the month there was a confused succession of primary and secondary cyclones, and rain fell almost every day. Only round the Moray Firth and at a few points on the east coast was there less than 3 inches of rain. Almost the whole of Ireland and the west of Great Britain, with one break at the Mersey estuary, had more than 6 inches, and the 6 inch tinting will be seen to stretch across almost to the east coast in Aberdeenshire and again in Kent; while very extensive areas with more than 10 inches run round the west, south and east of Ireland, and take up more than half of the west and south of Great Britain. All of England, except



a strip in the north-east, and of Ireland, except in the north-west, had more than 50 per cent. excess of rainfall. A little of the south of Ireland and practically the southern half of England had more than twice the average fall ; and on the borders of Monmouth and Herefordshire the excess culminated in more than 200 per cent., there being almost $3\frac{1}{2}$ times the normal rainfall at one station. Only two patches of twice the normal rainfall occurred in Scotland, and round the Moray Firth there was considerably less than the average.

The excess in England was 92 per cent. and in Wales 112 per cent. In Ireland the excess was 74 per cent., but in Scotland only 46 per cent. ; for the British Isles as a whole it was 75 per cent.

MONTHLY RAINFALL AT 300 STATIONS IN THE BRITISH ISLES DURING 1911.

ENGLAND.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
I.	London	St. Pancras (Camden Sq.)	1.38	1.48	1.72	1.80	1.80	2.69	1.17	.48	1.31	3.12	3.62	4.22	24.79
II.	Surrey	Warlingham (Redvers Rd.)	1.82	1.85	2.30	2.37	1.77	2.33	.24	.48	1.43	5.04	5.43	8.00	33.06
"	"	Hazelhurst	1.74	2.32	2.48	2.24	1.79	2.39	.77	1.34	1.54	5.65	5.48	10.65	38.39
"	"	Woking (The Grange)	1.31	1.43	1.81	1.72	1.11	1.98	1.15	.82	1.14	3.02	3.64	6.15	25.28
"	Kent	Tenterden (View Tower)	1.51	1.33	2.30	1.89	.75	1.93	.15	1.20	1.42	4.99	4.85	6.13	28.45
"	"	Hythe (Hillcrest Road)	1.86	1.17	2.24	1.49	.80	2.54	.34	1.50	1.37	5.53	5.07	5.22	29.13
"	"	Margate Cliftonville	1.40	.83	2.26	.98	1.12	1.47	.33	.96	1.70	5.12	3.59	3.80	23.57
"	"	Ospringe (Lorenden)	1.40	1.09	2.38	2.10	.64	2.48	.31	1.51	1.64	5.65	4.19	5.83	29.22
"	"	Tonbridge (Beech Hurst)	1.27	1.32	2.45	2.43	1.21	2.24	.41	.52	1.58	4.73	5.50	6.14	29.80
"	Sussex	Arundel (Hatching)	1.49	1.68	2.02	1.84	1.13	1.90	.34	1.26	1.75	5.13	7.45	7.24	33.23
"	"	Balcombe (The Gables)	1.81	2.31	2.53	2.45	1.98	2.27	.34	2.09	1.77	4.94	8.06	8.46	39.01
"	"	Polegate (Alciston)	1.74	2.36	3.30	2.11	1.07	2.39	.38	.99	1.67	6.40	7.03	7.12	36.56
"	Hampshire	Totland Bay (Aston House)	1.16	1.40	1.91	1.45	1.18	1.48	.15	.50	1.22	5.21	5.07	6.68	27.41
"	"	West Dean	1.16	1.28	2.57	1.54	1.69	2.03	.09	.43	1.21	3.22	3.80	8.15	27.17
"	"	Bps. Waltham (Swanmore Ho.)	1.81	2.19	2.96	2.00	3.19	2.25	.23	.62	1.11	5.06	4.39	10.72	36.53
"	"	Basingstoke (Sherborne S.J.)	1.11	1.68	1.82	1.57	1.70	1.63	.11	.89	1.35	2.82	2.97	7.25	25.90
III.	Berkshire	Farnborough Rectory	1.24	2.13	2.16	1.19	1.44	1.98	.03	1.90	1.07	2.01	3.40	9.03	27.58
"	Hertfordshire	St. Albans (County Museum)	1.45	1.71	2.03	1.45	3.46	2.06	.55	.91	1.36	3.00	3.38	5.75	27.16
"	"	Royston (Therfield Rec.)	1.39	1.06	2.16	.84	1.69	2.68	.46	1.06	1.12	2.60	2.72	4.38	22.16
"	"	Slough (Upton)	1.12	1.54	1.53	1.69	1.19	1.81	.38	.47	1.11	2.37	3.26	5.61	22.08
"	"	Saunderton (Bledlow Ridge)	1.24	2.00	1.67	1.63	3.08	2.40	.54	.66	1.36	2.20	3.36	7.64	27.78
"	"	Buckinghamham	.89	1.49	1.90	1.40	2.29	.82	.43	1.60	1.37	2.51	2.62	4.35	21.67
"	Oxfordshire	Oxford (Magdalen College)	.68	1.29	1.51	1.10	2.21	1.08	.27	1.04	1.21	2.19	2.26	4.68	19.52
"	Northamptonshire	Lilbourne Vicarage	.94	1.66	2.14	.97	1.76	1.80	.22	1.99	1.34	2.18	2.41	3.96	21.37
"	"	Wellingboro (Croyland Abbey)	.76	1.17	1.84	.70	2.59	1.62	.12	1.77	1.29	2.08	2.72	3.55	20.21
"	Huntingdonshire	Huntingdon (Bosworth Ho.)	1.39	.97	1.59	.97	1.12	2.24	.26	1.31	1.56	1.78	2.72	3.57	19.48
"	Bedfordshire	Shillington	1.03	1.40	1.92	.83	1.30	2.25	.23	2.32	1.07	1.89	2.61	4.43	21.28
"	Cambridgeshire	Ely (The Palace)	1.44	1.06	1.65	1.06	1.75	2.79	.35	1.78	1.89	1.82	2.73	3.68	22.00
"	"	Wisbech (Monica Road)	1.89	1.09	1.96	.96	.64	2.43	.02	2.04	2.30	1.73	3.01	3.90	21.97
IV.	Essex	Grays Sewage Works	.80	.75	1.52	1.49	.77	1.83	1.10	1.34	.50	2.38	4.04	3.19	19.76
"	"	Epping (The Hemmalls)	2.01	2.03	2.25	1.45	2.48	3.01	1.64	.50	1.85	2.95	4.17	5.91	30.25

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
IV.	Essex	Southminster.....	1.20	.79	2.05	.94	1.00	2.16	.19	1.94	1.21	2.62	3.32	3.07	20.49
"	"	Braintree(Pocking,Fennes)...	1.13	.98	1.97	.76	.99	2.04	.15	.78	1.23	2.44	2.82	3.56	18.85
"	Suffolk	Clare (Hawkedon Rectory)...	1.65	1.26	2.67	1.35	1.57	3.40	.51	1.59	1.47	2.85	3.64	4.01	25.97
"	"	Ipswich(WoolverstonePk.)...	1.07	.69	1.92	1.26	.65	2.57	.51	.74	1.88	2.94	3.88	3.80	21.91
"	"	Aldborough(Aldringham Ho.)...	1.33	1.11	2.12	1.04	1.23	1.85	.49	.83	1.73	2.82	3.45	3.67	21.67
"	"	Walsham-le-Willows	1.40	1.33	2.71	1.17	1.49	3.68	.81	1.09	1.80	2.65	3.43	3.67	25.32
"	Norfolk	Gedleston [Beccles].....	1.77	1.24	2.26	.81	.75	2.25	.60	.46	2.06	2.12	2.98	3.79	21.09
"	"	Aylsham (Woodgate)	1.83	2.06	2.33	.93	1.42	2.58	.32	.42	2.29	2.83	3.94	3.07	24.02
"	"	Sandringham House	2.15	2.22	3.35	1.36	1.35	4.27	.28	1.33	3.22	3.73	4.24	3.93	31.43
"	"	Watton	1.89	2.00	2.94	1.30	1.04	4.72	.14	.57	2.60	2.36	4.01	3.95	27.52
V.	Wiltshire	Trowbridge (W.W., Biss)..	1.50	2.15	2.83	2.23	1.17	2.22	.06	1.36	.97	3.08	4.12	9.66	31.85
"	"	Mere (Charnage)	1.82	4.16	2.40	2.38	1.64	1.90	.11	1.06	1.19	2.69	3.68	8.75	31.78
"	"	Salisbury Plain (Shrewton)...	1.16	1.58	2.39	1.54	.99	2.01	.03	.92	1.58	2.58	3.29	8.77	26.84
"	"	Marlborough (Mildenhall)...	1.26	2.23	2.27	1.29	.91	2.08	.01	.84	.88	2.30	3.89	7.27	25.23
"	Dorsetshire	Swanage (R. Victoria Hotel)...	1.20	1.63	2.31	1.67	.47	1.50	.22	.71	1.62	5.33	4.97	7.49	29.12
"	"	Beaminster Vicarage	2.14	1.94	2.93	2.03	1.85	1.81	.13	.94	1.49	3.97	4.93	9.97	34.13
"	"	Horton Vicarage .....	.83	1.59	2.29	1.39	2.17	1.52	.15	.91	.96	3.47	3.74	7.45	26.47
"	South Devonshire...	Kingsbridge (Collapit Creek)...	1.37	2.21	3.81	1.59	.68	1.98	.76	.82	2.64	5.45	4.44	7.94	33.69
"	"	Princetown (H.M. Prison)...	4.07	7.50	6.74	5.96	2.35	5.15	1.20	6.77	4.42	8.15	11.91	23.94	88.16
"	"	Teignmouth (Den Gardens)...	.82	1.13	2.49	1.19	.61	2.44	.62	.62	1.45	3.71	4.01	9.68	28.80
"	"	Cullompton	1.23	2.34	2.35	2.41	1.72	2.22	.30	2.67	1.59	4.37	3.91	9.82	34.93
"	North	Chumleigh (Leigh House)...	1.41	2.10	1.88	2.42	.68	2.86	.27	1.94	2.20	3.87	5.43	6.73	31.79
"	"	Barnstaple(N.Devon,Athenium)...	1.51	1.96	1.90	1.99	1.22	2.85	.25	2.60	3.04	3.52	5.20	7.38	33.42
"	"	Okehampton (Oaklands)....	2.05	3.37	2.73	3.37	1.58	3.64	.33	1.76	2.95	5.10	6.66	12.43	45.97
"	"	St. Agnes	1.28	1.87	2.82	1.93	.79	2.04	1.01	2.01	2.64	3.03	3.86	8.29	31.07
"	Cornwall	Bodmin (Castle Hill)	2.15	2.70	4.10	2.64	1.22	3.82	1.33	2.36	2.96	4.64	7.00	13.93	48.85
"	"	Stratton (Poughill)	1.71	2.61	2.51	2.21	1.68	3.42	.55	3.73	2.86	3.23	5.11	6.64	36.26
"	"	Penzance (Morrag Garden)...	2.43	2.57	4.32	2.43	.80	2.32	.95	2.94	4.16	4.65	4.95	7.86	40.38
"	"	Altarnon Vicarage	2.79	4.65	4.10	4.70	3.40	4.42	1.74	3.10	3.52	4.62	8.14	13.04	58.22
"	Somersetshire	Street (Hind Hayes) .....	.78	1.91	2.03	2.08	1.47	2.06	.10	1.48	1.11	2.96	2.68	7.05	25.71
"	"	Holford(WoodlandsHouse)...	.95	1.82	2.72	1.62	1.37	2.18	.28	1.28	1.79	3.50	3.14	9.27	29.92
"	"	Winsford School	1.97	5.31	3.43	3.89	1.54	4.24	.40	2.03	2.85	5.24	7.69	11.74	50.33
"	"	Stroud (Upfield)	1.32	1.42	2.27	.94	1.19	2.87	.17	1.87	1.45	2.41	3.21	6.51	25.63
"	Gloucestershire	Mickleton (Bank House)....	.87	1.63	1.73	.99	.56	1.56	.07	2.43	1.53	2.01	2.11	5.36	20.85
"	"	Clifton (Pembroke Road)....	1.23	2.74	2.78	2.03	1.21	3.09	.09	1.80	1.61	2.89	4.73	7.34	31.54
"	"	Fairford (Hatherop Castle)...	1.05	1.56	2.00	1.27	1.47	2.05	.19	1.57	1.47	2.57	3.33	5.61	24.19
VI.	"	"													

ENGLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
VI.	Herefordshire	Ross (The Graig) ..	·67	1·13	1·53	·84	2·11	1·09	·25	1·59	1·14	1·77	2·75	7·57	22·44
	"	Leominster (Farm) ..	·79	1·46	1·90	1·26	1·85	1·90	·45	1·19	1·70	1·83	2·89	7·19	24·41
	Shropshire	Bishop's Castle Vicarage ..	·68	2·02	1·85	1·29	·94	2·55	1·15	1·64	2·36	3·07	3·54	6·35	27·44
	"	Much Wenlock (Willey Pk.)	·49	1·24	1·55	·81	·81	3·21	·41	2·96	1·97	1·95	2·91	5·54	23·85
	"	Oswestry (The Mount Res.)	·83	2·06	1·29	·80	·99	2·38	·78	3·37	2·85	3·91	3·66	4·97	27·89
	Staffordshire	Market Drayton (Old Springs)	·72	1·41	1·40	·75	·69	2·76	·46	2·13	1·65	2·50	2·64	4·51	21·62
	"	Shugborough ..	·75	1·63	1·73	·99	·66	2·93	·53	1·87	1·59	2·26	2·73	4·88	22·47
	"	Burton (Shobnall) ..	·67	1·38	1·25	1·03	·67	2·82	·53	1·42	1·39	1·47	2·13	3·88	18·64
	"	Mayfield Ho. [Ashbourne]	1·18	2·64	1·64	2·05	1·01	2·50	·38	1·68	2·33	2·28	2·71	5·42	25·82
	Worcestershire	Worcester (Belmont Road)	·72	1·33	1·64	·68	·42	1·47	·54	1·37	1·30	1·32	2·31	4·62	17·72
VII.	"	Dudley (Borough Cemetery)	·59	1·21	1·64	·74	·44	1·90	·22	2·08	1·58	2·12	2·66	4·92	20·10
	Warwickshire	Wormleighton Hall ..	·69	1·39	2·06	1·07	1·26	1·66	·21	1·80	1·57	2·17	2·73	4·42	21·03
	"	Hampton-in-Arden (Hampton Manor)	1·15	1·86	2·14	1·16	·86	2·06	·70	3·09	1·64	2·67	2·76	6·41	26·50
	Leicestershire	Loughboro' (Nan Pantou Res.)	·97	1·94	2·04	·99	1·03	2·14	·13	2·80	1·35	2·49	2·46	5·08	23·42
	"	Belvoir Castle ..	1·41	1·52	1·75	·79	2·43	2·16	·18	1·75	1·30	2·16	2·12	3·65	21·22
	Lincolnshire	Stamford (St. George's Sq.)	1·11	1·02	1·48	·80	1·25	1·56	·51	1·49	1·42	1·93	1·98	4·00	18·55
	"	Boston (Black Sluice, Skirbeck)	1·57	1·29	1·62	·68	·73	2·59	·13	2·73	1·95	2·77	2·84	3·83	22·78
	"	Sleaford (Rauceby Hall) ..	1·25	1·45	1·71	·74	·94	2·30	·41	1·36	1·30	1·96	2·69	3·92	20·03
	"	Willingham-by-Stow ..	1·19	·85	1·52	·98	1·06	3·40	·23	1·69	1·64	1·48	2·58	4·19	20·81
	"	Skegness ..	1·84	1·54	2·31	1·07	·74	3·14	·29	1·78	2·58	3·32	3·50	3·06	25·17
VIII.	"	Louth (Westgate) ..	2·01	1·51	2·68	1·43	1·08	3·89	·40	1·70	1·96	2·82	3·14	4·48	27·10
	"	Burton-upon-Stather Vic.	1·24	·98	1·20	1·35	·61	4·36	·39	1·84	2·78	1·70	2·49	3·50	22·44
	Nottinghamshire	Mansfield (West Bank) ..	1·40	1·16	1·49	·95	1·40	2·57	·10	1·67	1·28	2·06	2·43	5·44	21·95
	Derbyshire	Buxton (Devonshire Hospital)	2·00	4·11	2·80	3·51	1·37	2·83	·35	2·75	2·94	3·45	5·09	8·94	40·19
	"	Sandbach (Malkins Bank)	·71	1·50	1·17	1·18	·42	2·49	·58	1·79	2·37	2·23	1·79	3·59	19·82
	Cheshire	Frodsam (Helsby) ..	·51	1·75	·99	1·55	1·08	2·44	·61	3·04	4·55	2·47	2·19	4·10	25·28
	"	Manchester (Whitworth Pk.)	1·15	2·79	1·39	2·88	1·17	2·63	·99	2·73	3·48	2·36	2·80	5·00	29·37
	South Lancashire	Burnley (Swinden) ..	2·48	5·03	2·16	2·52	3·25	5·37	·47	2·50	3·76	4·06	4·96	8·76	45·32
	Central	Wigan Waterworks ..	1·13	2·90	1·14	3·10	2·31	3·45	·29	2·98	3·89	2·46	3·40	6·48	33·53
	"	Southport (Hesketh Park)	·80	2·85	1·16	2·54	1·48	2·31	·35	3·62	4·65	2·40	3·16	5·06	30·38
IX.	"	Broughton-in-Furness ..	2·39	6·84	1·76	3·76	3·09	3·10	1·74	5·40	5·64	4·65	6·00	9·63	54·00
	"	Morecambe ..	1·86	4·81	1·58	2·82	1·69	2·50	·92	3·85	4·44	5·49	5·80	7·70	43·46
	"	Garstang (Grizedale Intake)	1·36	4·47	2·06	3·04	1·43	3·70	·78	4·89	4·20	5·39	5·77	7·90	44·93
	Yorkshire, W.R.	Settle (Giggleswick School)	2·05	5·16	1·78	2·03	1·98	3·28	·62	2·62	3·65	5·26	5·72	8·11	42·26
	"	Doncaster (Wadworth Hall)	1·03	·95	1·18	·88	·86	3·42	·23	2·00	2·04	2·49	3·22	4·34	22·64
	"	Sheffield (Weston Park) ..	1·25	2·94	1·20	1·38	·99	2·11	·15	1·73	2·12	2·18	3·98	5·39	25·42
	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"

ENGLAND—continued.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
IX.	Yorkshire, W.R.	Meltham (Harewood Lodge)	2.85	6.11	2.83	2.86	2.12	3.80	.45	3.16	3.33	4.03	5.96	6.96	44.46
"	"	Garforth (Manor Farm)	.89	1.25	.83	1.45	2.55	3.51	.38	1.88	2.49	2.60	2.90	3.54	24.27
"	"	Ilkley (St. James' Road)	1.21	3.73	1.64	1.33	.92	3.00	.90	1.95	2.98	2.80	3.76	6.54	30.76
"	"	York (Mount Villas)	1.26	.90	1.24	1.00	1.59	3.17	1.36	1.74	2.69	2.41	3.42	3.76	24.54
"	E.R.	Birdsall Gardens	1.78	1.42	1.92	1.27	1.20	3.56	1.72	3.23	2.48	2.61	3.82	5.52	30.53
"	"	Patrington	1.39	.92	1.98	1.11	.61	4.10	.68	1.69	2.59	2.13	3.01	2.77	22.98
"	"	Market Weighton (Dalton Hall)	1.53	1.32	2.07	1.46	1.04	3.16	1.21	2.47	3.70	2.62	3.50	4.28	28.36
"	"	Bridlington	1.58	.94	2.09	1.01	1.09	3.55	.99	2.92	3.12	1.96	3.50	3.70	26.45
"	"	Leyburn (Bolton Hall)	2.02	2.91	2.08	1.24	1.29	2.64	.10	1.91	2.84	2.80	5.44	6.28	31.55
"	"	Thirsk (Mount St. John)	1.76	.88	1.87	1.41	.88	3.35	.76	2.87	2.41	2.01	3.91	3.28	25.39
"	"	Whitby (Mulgrave Castle)	1.72	1.18	1.36	.56	1.11	6.55	1.49	4.48	3.16	2.29	3.32	3.96	31.18
"	"	Middlesbrough (Ormesby)	1.18	1.03	2.30	1.18	.85	4.24	.90	3.10	2.03	2.14	3.99	2.89	25.83
X.	Durham	Barnard Castle (County School)	1.57	2.86	1.71	1.14	1.49	3.27	.28	1.73	1.77	2.85	4.61	4.32	27.60
"	"	Wearhead Station	3.05	6.81	4.22	3.22	1.62	5.07	.58	2.04	3.34	5.70	7.62	10.01	53.28
"	"	Ushaw (St. Cuthbert's College)	2.02	.82	2.05	1.27	.63	4.95	.46	2.47	1.98	2.82	3.84	4.00	27.31
"	Northumberland	Haltwhistle (Bellister Castle)	2.33	4.82	2.35	2.67	2.03	3.62	1.15	3.14	2.35	4.50	4.93	5.28	39.17
"	"	Corbridge (Howden Dene)	1.76	1.16	3.23	1.92	.97	4.04	1.00	1.99	3.11	2.94	3.29	3.28	28.69
"	"	Bellingham (High Green Manor)	2.04	2.89	3.60	2.46	1.72	3.94	.94	4.35	2.04	4.09	5.77	4.03	37.87
"	"	Morpeth (Bothalhaugh)	1.81	.78	2.22	1.48	.97	4.82	.70	2.65	2.55	2.85	2.78	2.90	26.51
"	"	Howick Hall	2.47	.74	2.08	1.44	.67	6.09	.75	2.76	2.33	3.62	2.98	3.79	29.72
"	"	Ilderton (Lilburn Cottage)	1.67	1.07	2.37	1.38	.67	5.44	.81	1.77	1.75	3.94	3.99	3.50	28.36
"	Cumberland	Penrith (Fir Bank, Fell Lane)	1.23	3.23	1.41	1.98	2.38	3.38	.34	2.33	2.96	3.04	4.01	7.67	33.96
"	"	Wigton (Brookfield)	1.65	4.11	1.07	3.55	2.05	3.15	.62	2.37	2.84	3.54	4.54	5.21	34.70
"	"	Borrowdale (Seathwaite)	11.17	20.57	6.15	12.65	8.66	10.74	2.73	9.93	7.30	13.16	18.08	27.00	148.14
"	"	Whitehaven (Irish Street)	2.29	4.52	1.08	3.51	3.15	4.43	.95	2.36	3.27	3.77	6.80	9.12	45.25
"	Westmorland	Kirby Stephen (Redman Ho.)	2.34	6.41	1.83	2.91	1.57	2.66	.95	3.38	2.61	4.38	6.72	8.47	44.23
"	"	Kendal (Crosthwaite Vic.)	2.52	6.81	1.86	3.75	2.68	3.46	.27	4.10	5.12	5.96	8.04	9.44	54.01
England. Mean of 130 stations			1.54	2.29	2.17	1.79	1.45	2.87	.53	2.00	2.20	3.31	4.15	6.31	30.61

MONMOUTH, WALES AND THE ISLANDS.

XI.	Monmouth	Abergavenny (The Chain)	.85	2.19	1.80	1.81	2.62	1.66	.24	1.55	2.11	2.78	5.35	13.74	36.70
"	"	Chepstow (Piercefield Park)	1.07	2.76	2.32	1.41	1.57	2.09	.25	2.24	1.49	2.89	5.68	7.30	31.07
"	Glamorgan	Neath	2.81	6.01	3.35	4.59	2.16	3.55	.63	4.86	4.27	3.96	9.44	13.86	59.49
"	"	Merthyr Tydfil (Mardy Hosp.)	1.71	5.17	2.15	2.47	2.13	3.63	.28	3.02	3.77	4.36	8.95	15.12	52.76

MONMOUTH, WALES AND THE ISLANDS—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XI.	Glamorgan	Cardiff (Penylan)	1.53	4.21	2.23	2.96	1.25	2.39	.13	2.83	2.05	3.73	6.00	8.32	37.63
"	Carmarthen	Carmarthen (The Friary)	2.39	3.47	3.01	3.07	3.04	3.84	.80	4.05	3.82	4.82	8.62	10.10	51.03
"	"	Llanwrda (Dolaucothy)	2.22	3.26	2.15	3.32	2.29	5.56	.46	4.16	4.74	5.23	7.18	13.10	53.67
"	Pembroke	Castle Malgwyn [Llechryd]	1.99	1.93	2.76	2.97	2.73	3.20	.62	3.05	3.62	4.50	7.21	11.33	45.91
"	"	St. David's	2.34	2.04	2.08	1.69	1.25	1.46	.51	4.09	2.75	4.00	4.81	9.04	36.06
"	"	Tenby (Bryn Hyfryd)	2.48	2.64	3.14	1.99	1.61	1.87	.82	3.10	2.94	4.42	4.97	9.28	39.26
"	Cardigan	Aberystwyth (N. Parade)	1.65	2.52	1.89	1.69	2.01	2.57	.83	5.56	2.97	4.94	5.62	5.29	37.54
"	"	Birmingham W.W. (Claerddu)	4.15	4.55	4.70	3.70	1.70	5.60	1.35	4.60	6.85	6.60	7.75	12.95	64.50
"	Brecon	Brecon (New Inn)	3.08	6.06	3.15	4.30	2.27	4.21	.30	4.67	3.50	6.16	8.99	18.18	64.87
"	"	Hay (Waunderwen)	.49	1.33	1.72	1.62	2.19	2.19	.34	1.30	2.11	2.52	3.43	9.02	28.26
"	"	Llandrindod Wells (Kimberley)	.91	2.48	1.80	1.66	1.38	2.91	.47	4.19	3.19	3.87	4.69	6.82	33.37
"	Radnor	Newtown (Gregynog)	.74	3.15	2.19	1.64	1.12	4.07	1.04	3.46	2.85	3.84	4.15	5.67	33.92
"	Montgomery	Bodfari (Henblas)	.65	1.59	1.12	.59	.48	3.90	.61	2.96	4.08	2.59	2.36	4.20	25.13
"	Flint	Gresford (Trewythen)	.50	1.74	1.11	.69	.66	.19	.43	2.19	4.19	2.29	2.69	4.75	21.43
"	Denbigh	Llanderfel (Palé Gardens)	1.78	6.21	2.51	3.48	1.54	3.48	1.26	5.00	3.43	4.77	7.92	10.04	51.42
"	Merioneth	Blaenau Ffestiniog (Oakley Qrs.)	5.38	13.52	5.84	10.51	3.84	4.68	2.74	9.93	7.47	8.52	13.40	11.83	97.66
"	"	Dolgelly (Bryntirion)	2.65	4.57	3.78	3.67	2.30	3.20	.87	7.19	5.12	4.64	8.01	10.70	56.70
"	"	Llandudno	.70	2.10	1.58	1.47	1.70	2.63	1.17	2.94	4.66	3.70	2.77	5.14	30.56
"	Carnarvon	Abersoch	2.68	3.19	2.30	2.54	1.53	2.44	1.01	3.61	4.98	4.77	6.48	8.71	44.24
"	"	Llanerchymedd Lliwydiarth Esgob.	1.77	2.65	2.24	2.28	1.47	2.53	.80	3.65	4.06	3.64	5.21	6.56	36.86
Wales.	Mean of 24 stations		1.94	3.72	2.54	2.76	1.87	3.08	.75	3.92	3.79	4.31	6.32	9.63	44.63
XI.	Isle of Man	Douglas	1.89	4.64	1.08	2.97	1.51	3.01	2.34	1.93	1.98	4.11	5.17	6.92	37.55

SCOTLAND.

XII.	Wigtown	Stoneykirk (Ardwell Ho.)	1.95	3.31	1.21	2.87	1.92	3.25	2.28	1.85	1.30	3.13	4.52	8.59	36.18
"	"	Garliestown (Galloway House)	2.64	4.03	.88	2.59	2.58	2.23	1.81	1.79	1.60	3.34	5.76	6.79	36.04
"	Kirkcudbright	Dalry (Glendaroch)	4.11	6.43	1.50	5.25	3.49	2.45	2.13	3.08	2.42	5.57	7.07	13.58	57.08
"	"	Dalbeattie (Little Richorn)	2.44	5.05	.91	3.83	4.13	3.04	2.28	2.58	2.36	4.46	7.09	8.83	47.00
"	Dumfries	Moffat (Auchen Castle)	3.08	7.98	1.85	4.97	4.01	3.03	2.17	3.45	2.56	5.09	6.83	9.12	54.14
"	"	Langholm (Ewes, Burnfoot)	3.01	6.58	2.87	5.23	3.41	3.57	1.72	3.58	2.56	4.50	6.81	8.74	52.08
"	"	Hawick (Wolfelee)	1.31	1.99	2.57	2.34	1.35	4.09	1.08	2.06	2.05	2.42	4.73	5.91	31.90
"	Roxburgh	Selkirk (The Hangingshaw)	1.43	2.50	2.63	2.67	1.66	1.78	.67	1.15	1.17	3.00	5.32	5.20	29.18
XIII.	Selkirk	Stobo (Dawyck Gardens)	1.31	4.78	2.86	4.00	1.93	2.57	.85	1.54	1.44	3.72	5.10	6.45	36.05
"	Peebles	Marchmont House	1.40	1.90	2.53	1.74	.86	5.11	.89	1.54	1.49	4.02	5.47	4.74	31.69
"	Berwick	Whittinghame Gardens	.85	.95	2.32	1.08	.90	3.26	1.17	.87	1.17	2.95	4.07	3.36	22.95

SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XIII.	Midlothian	West Calder (Addiewell) ...	2.74	4.99	1.86	2.45	1.90	2.60	1.59	.91	2.70	3.19	7.21	3.38	35.52
XIV.	"	Edinburgh (Blackford Hill)	.75	1.87	.90	1.00	1.07	2.50	.96	1.19	1.17	3.26	4.40	2.08	21.15
"	Lanark	Leadhills	4.34	7.07	2.64	9.20	5.20	3.76	4.35	4.23	3.55	4.49	6.50	15.45	70.78
"	"	Strathaven (E. Overton Ho.)	5.13	8.96	2.42	3.84	2.69	2.45	2.75	2.68	2.30	4.28	7.57	6.36	51.43
"	Ayr	Dalry (Mount Pleasant) ...	3.07	6.79	1.73	3.08	2.71	2.32	2.99	2.93	2.46	3.64	5.90	7.29	44.91
"	"	Mauchline (Catrine)	3.02	5.83	1.19	3.50	1.72	2.80	2.62	1.93	1.61	3.50	4.40	5.98	38.10
"	"	Maybole (Culzean Gardens)	2.90	5.30	1.25	3.35	2.05	3.15	2.45	1.95	2.10	2.80	4.85	7.56	39.71
"	"	Barrhill (Dochroyle) ...	2.60	4.60	.70	2.87	1.90	2.50	2.08	1.80	1.90	4.00	4.46	8.35	37.76
"	Renfrew	Glasgow (Queen's Park) ...	2.74	5.89	1.34	2.82	2.24	2.03	2.05	2.42	1.82	3.39	5.46	4.93	37.13
XV.	Dumbarton	Cardross (Kilmahew) ...	4.11	7.31	1.52	3.19	2.80	3.03	2.44	3.81	2.14	4.04	6.02	9.25	49.66
"	Stirling	Falkirk (Westbank) ...	2.52	6.23	2.41	2.24	1.33	1.31	2.24	2.42	1.35	3.78	5.74	4.19	35.76
"	"	Buchlyvie (The Manse) ...	5.22	8.68	2.38	3.47	3.58	3.07	3.13	4.09	2.43	3.40	7.16	6.64	53.25
"	Bute	Rothsay (Crichton Road)	4.03	7.94	2.04	4.19	3.73	2.84	4.36	4.62	2.98	4.42	7.29	9.55	57.99
"	"	Arran (Brodie U. F. Manse)	5.88	9.74	2.33	5.44	5.63	4.07	4.36	5.31	3.53	6.39	8.33	11.41	72.42
"	Argyll	Glenleven (Kinlochleven) ..	6.61	13.20	4.62	8.56	4.53	4.15	5.71	7.79	5.63	4.93	13.80	15.21	94.74
"	"	Taynuilt (Barguilean) ...	7.18	11.32	2.34	7.48	5.10	3.99	5.39	6.15	4.04	5.07	10.15	13.58	81.79
"	"	Loch Awe (Ford) ...	6.79	9.98	2.25	5.69	4.97	3.08	7.95	6.19	4.84	4.26	8.66	13.48	78.14
"	"	Musdale (Killem Manse)	2.65	4.59	1.12	2.69	2.68	1.42	3.87	2.30	2.19	2.94	3.76	6.97	37.18
"	"	Campbeltown (Witchburn)	3.44	5.59	1.48	3.06	2.90	2.33	3.50	2.56	3.52	4.54	6.03	9.43	48.38
"	"	Otter Ferry (Ballimore) ...	4.90	8.18	1.86	4.50	3.11	2.20	3.50	5.52	2.95	3.00	8.50	11.23	59.45
"	"	Lochgailhead (Nuthill) ...	7.16	12.37	3.16	6.32	3.81	4.52	5.51	7.26	3.01	5.64	10.79	14.78	84.33
"	"	Islay (Ardbeg) ...	3.03	5.32	1.59	3.08	2.79	1.90	4.70	2.95	2.26	2.75	5.23	6.00	41.60
"	"	Jura (Ardfin) ...	3.75	6.43	1.86	3.64	4.11	2.15	3.96	3.72	3.23	3.63	6.47	8.92	51.87
"	"	Iona	3.95	5.76	2.06	3.28	2.48	1.72	3.45	3.07	3.61	3.06	5.22	7.73	45.39
"	"	Mull (Quinish) ...	5.02	6.80	2.17	4.56	4.39	2.62	4.62	3.64	5.00	3.50	5.82	9.60	57.74
XVI.	Fife	Colinsburgh (Balcarres) ...	1.10	1.59	1.53	1.06	.73	1.93	1.43	.81	1.18	2.52	4.72	3.87	22.47
"	"	Kilmany (Mountquhanie) ..	.70	1.50	1.70	.30	.70	1.20	1.30	.10	.40	1.00	3.20	2.40	14.50
"	"	Balquhidder (Stronvar) ...	5.15	12.31	2.59	6.19	5.53	4.74	3.62	7.12	2.60	5.15	11.26	14.24	80.50
"	Perth	Glendevon (Tormaukin) ...	3.13	9.19	3.22	3.81	1.92	2.92	3.20	3.70	2.21	5.53	10.57	6.88	56.28
"	"	Crieff (Strathearn Hydro.) ..	1.26	4.17	1.11	2.10	1.68	2.11	2.35	2.43	1.17	3.48	6.93	6.76	35.55
"	"	Aberfeldy (Dall Avon) ...	1.02	3.63	1.47	2.55	1.64	2.69	1.55	1.92	.72	2.70	5.31	8.69	33.89
"	"	Glenlyon (Meggernie Castle)	3.83	8.92	2.36	5.69	3.05	2.98	2.60	5.48	2.29	4.39	10.84	12.39	64.82
"	"	Coupar Angus	.55	1.69	.99	.80	1.44	.72	1.47	1.59	1.00	1.71	3.58	5.48	21.02
"	"	Arbroath (Dishland Hill) ..	.78	1.08	.91	1.51	1.56	.87	1.06	.57	.88	2.34	3.50	3.64	18.70
"	Forfar	Glen Prosen (Pearse) ...	1.13	2.03	1.78	1.94	2.27	2.11	1.80	2.15	1.36	2.72	4.75	7.27	31.31
XVII.	Kincardine	Fettercairn (The Burn) ...	1.50	1.45	2.16	1.89	1.60	1.74	1.93	1.51	1.31	2.73	4.42	7.53	29.77

SCOTLAND—(continued.)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XVII.	Kincardine	Crathes (Pinewood).....	1·70	·87	1·93	1·40	2·57	1·78	1·83	1·21	·63	2·01	4·88	8·21	29·02
	Aberdeen	Braemar (Derry Lodge) ...	1·68	4·47	3·33	2·82	1·50	2·48	1·64	2·25	·60	2·68	7·70	5·92	37·07
	"	Aberdeen (Cranford House)	1·55	1·31	1·92	1·25	2·56	2·29	1·49	1·11	1·05	3·11	4·73	6·13	28·50
	"	Strathdon Schoolhouse ...	1·12	2·41	2·24	1·62	1·93	3·03	1·46	1·74	·55	2·95	6·79	5·36	31·20
	"	New Deer School House...	1·17	2·35	1·30	1·55	2·55	3·20	2·82	1·32	1·48	2·89	4·73	5·63	30·99
	"	Huntly (Cruchie)	1·69	1·81	1·92	1·35	2·58	2·96	2·31	1·10	1·41	2·72	5·65	4·38	29·88
	Moray	Gordon Castle	1·10	1·99	1·17	1·63	2·33	2·08	3·56	·76	1·17	2·26	5·68	3·25	26·98
	"	Grantown-on-Spey	1·24	3·50	2·57	1·91	1·37	3·85	1·96	1·46	1·06	2·99	6·56	2·80	31·27
	Nairn	Nairn (Achareidh)	·97	2·39	1·15	1·75	2·02	2·79	2·54	·79	1·28	2·47	5·44	1·81	25·40
	Inverness	Kingussie	1·51	4·47	2·12	1·61	·96	1·68	1·26	1·47	1·18	2·14	5·21	3·27	26·88
XVIII.	"	Fort Augustus (S. Benedict's)	3·02	6·81	3·13	3·01	1·94	1·94	1·76	3·99	2·58	2·21	8·91	5·48	44·78
	"	Loch Quoich (Glenquoich)	13·23	18·74	5·56	11·56	5·71	5·67	8·02	9·53	8·08	5·81	13·62	16·66	122·19
	"	Drumnadrochit	1·83	5·31	2·95	2·15	1·19	3·49	1·24	1·80	2·20	2·20	7·92	3·01	35·29
	"	Loch Shiel (Glenfinnan) ...	12·12	14·34	5·52	10·56	6·35	6·32	8·59	9·93	9·92	5·71	12·72	19·60	121·68
	"	Arisaig House	6·14	7·74	3·80	4·55	4·23	3·26	6·73	3·91	5·78	2·46	6·16	10·38	64·64
	"	Skye (Strathaird)	8·32	11·66	6·62	7·88	3·22	4·68	10·22	4·80	9·19	3·88	15·75	16·59	102·81
	"	" (Glendrynoch, L. Harport)	7·35	8·94	4·25	6·33	5·74	5·07	8·33	6·79	7·47	3·17	8·12	10·58	82·14
	"	Barra (Castle Bay)	5·98	8·73	3·53	6·91	4·46	3·02	6·71	7·63	5·74	4·34	8·76	11·71	77·52
	"	North Uist (Lochmaddy)...	2·69	3·14	1·10	3·39	1·82	1·75	3·64	2·70	2·95	3·10	3·45	6·20	35·93
	"	Evanton (Novar Gardens)...	4·14	4·07	2·04	2·19	3·38	1·27	5·23	3·89	3·21	3·37	4·25	7·74	44·78
XIX.	Ross and Cromarty	Ullapool (Inverpolly Lodge)	1·87	4·77	2·94	2·69	1·97	2·10	2·02	1·49	2·10	3·32	6·20	2·68	34·15
	"	Poolewe (Inverewe Gdns.)	4·43	5·31	3·17	4·97	2·71	2·61	5·84	3·20	5·30	2·80	5·86	4·09	50·29
	"	Applecross Gardens	5·27	5·98	5·97	4·65	2·30	3·76	5·94	4·08	6·72	2·36	5·40	6·41	58·84
	"	Glencarron Lodge	3·69	5·00	3·70	4·60	2·95	4·37	6·51	4·21	5·60	3·10	6·69	8·98	59·40
	"	Stornoway	8·39	12·99	4·72	7·04	3·93	5·45	7·44	5·57	9·64	3·20	9·02	10·18	87·57
	"	Invershin	3·65	5·16	3·17	4·32	2·63	1·70	5·29	3·92	3·60	3·40	5·72	5·74	48·30
	Sutherland	Dunrobin Castle	2·00	3·02	2·38	2·53	2·09	1·43	3·11	·99	1·93	1·99	5·95	2·87	30·29
	"	Tongue Manse	2·14	2·87	2·01	2·50	2·29	1·04	2·22	·78	1·56	1·86	4·37	2·71	26·35
	"	Loch Stack (Ardchullin)...	2·35	3·72	2·80	3·09	1·77	3·66	3·03	1·62	3·61	3·25	5·50	3·00	37·40
	"	Berriedale (Langwell)	5·95	8·12	4·93	5·41	2·64	4·07	6·64	4·39	8·67	3·22	7·75	5·94	67·73
"	Caithness	Thurso (Buckies)	2·05	3·25	2·10	2·55	1·80	1·85	2·65	2·20	2·05	2·60	5·00	4·65	32·75
	"		2·09	3·27	2·64	2·64	1·61	3·78	3·29	1·33	3·60	2·25	4·25	4·29	35·14
			3·41	5·72	2·40	3·68	2·72	2·85	3·35	3·09	2·90	3·42	6·58	7·55	47·67
Scotland. Mean of 79 stations															

IRELAND.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XX.	Cork	Skibbereen Rectory.....	2.07	4.61	4.47	3.58	2.72	2.26	2.57	2.49	5.35	5.08	7.94	9.40	52.54
"	"	Clonakilty (ShannonValeHo.)...	1.28	3.87	4.43	3.19	2.12	2.18	2.32	3.18	3.73	5.07	6.47	8.04	45.88
"	"	Dunmanway (The Rectory)	2.36	6.25	5.31	5.03	5.34	2.21	3.45	3.39	4.29	6.45	9.60	12.41	66.09
"	"	Midleton (Ballynacurra) ...	.91	2.31	3.18	2.33	1.17	1.99	2.75	2.50	3.12	4.23	4.58	8.64	37.71
"	"	Mallow (Summer Hill) ..	.91	2.51	2.73	2.18	1.71	1.61	3.00	3.29	2.79	4.30	5.59	9.34	39.96
"	"	Mitchelstown Castle	1.62	3.47	2.78	3.10	2.27	3.09	3.99	1.96	3.12	4.33	4.53	7.92	42.18
"	Kerry	Gap of Dunloe(Garrymeen)	4.00	10.00	5.00	8.50	8.00	4.50	6.20	5.20	5.60	11.50	10.50	16.00	95.00
"	"	Lough Carragh (Lickeen)..	3.00	7.39	4.04	6.36	5.51	2.92	4.77	4.34	5.35	7.84	12.14	16.38	80.04
"	"	Darrynane Abbey.....	2.86	4.33	3.88	3.61	2.72	2.47	4.09	2.89	4.76	6.25	6.87	10.46	55.19
"	"	Kenmare (Derreen).....	2.39	4.98	4.42	6.53	4.77	3.72	4.36	3.53	5.72	6.94	11.39	16.11	74.86
"	Waterford	Lismore Castle.....	1.80	2.80	3.34	2.98	1.23	2.26	3.51	3.02	3.56	3.82	4.73	8.83	41.88
"	"	Waterford (Brook Lodge)..	1.68	2.61	2.32	2.56	1.34	3.46	3.37	2.56	4.43	4.35	4.14	9.22	42.04
"	Tipperary	Nenagh (Highlands)	1.61	2.18	1.36	2.08	2.28	1.91	3.40	1.89	2.14	3.57	4.25	5.55	32.22
"	"	Clonmel (Bruce Villa)	1.39	2.42	2.49	3.13	1.08	1.69	4.87	1.89	3.01	3.40	4.44	9.16	38.97
"	"	Cashel (Ballinamona)	1.83	3.33	1.91	2.82	1.59	2.40	3.91	1.47	2.89	3.71	4.82	7.12	37.80
"	Clare	Miltown Malbay (Ballyvaskin)..	2.16	3.25	2.21	2.52	3.10	2.33	2.91	2.65	3.88	4.42	5.34	7.91	42.68
"	"	Carrigaholt Castle	1.94	2.57	2.28	1.90	2.24	2.68	1.93	2.09	3.05	4.33	5.36	7.76	38.13
"	"	Derravoher [Limerick] ..	1.72	2.92	1.52	1.62	2.30	1.74	2.65	1.47	2.96	3.58	4.39	6.26	33.13
"	"	Newmarket-on-Fergus (Carrigoran)..	2.36	3.80	1.89	2.37	2.71	2.12	2.50	2.45	3.63	3.60	5.41	7.11	39.95
"	"	Scariff (Woodpark).....	1.72	3.57	1.65	2.17	3.04	2.45	3.14	2.21	2.48	4.20	6.32	8.68	41.63
"	Wexford	Wexford (Bannaboo)	2.18	3.15	2.11	2.56	1.35	1.96	2.21	2.90	3.88	5.04	4.86	9.09	41.29
"	"	Enniscorthy (Ballyhyland)	1.95	3.10	2.18	2.63	1.74	2.70	4.03	2.51	5.03	5.19	5.32	10.82	47.20
"	"	Gorey (Courtown House)..	1.25	2.00	1.39	2.23	1.37	1.43	2.31	2.34	3.54	4.45	4.17	9.35	35.83
"	Kilkenny	Kilkenny (Lavistown Ho.)	1.45	2.34	1.35	2.65	2.38	1.47	4.24	1.77	2.57	3.60	4.33	6.17	34.32
"	"	Bray (Glendalough).....	3.14	5.50	3.37	5.28	2.82	3.44	3.66	2.41	3.04	7.36	11.45	11.56	63.03
"	"	Bray (Fassaroe)	1.07	2.35	1.55	2.34	1.14	2.56	2.74	1.69	1.31	6.85	5.88	10.02	39.50
"	"	Tullow (Hardymount).....	1.32	1.93	1.26	2.29	1.58	1.31	3.26	1.58	2.68	3.94	3.37	6.96	31.48
"	Queen's County	Abbey Leix (Blandsfort)...	1.68	2.88	1.82	3.14	1.97	1.72	4.09	3.15	2.00	3.48	4.58	6.98	37.49
"	King's County	Birr Castle.....	1.68	2.62	.96	1.61	1.26	2.22	2.80	2.34	1.67	4.08	4.04	5.11	30.39
"	"	Ballycumber (Moorock Lodge)	1.32	2.61	1.36	1.71	1.69	2.73	4.43	2.41	1.97	4.21	4.98	4.89	34.31
"	"	Monasterevan (MooreAbbey)	1.13	2.06	1.16	2.49	1.78	1.68	2.25	2.23	1.07	2.76	4.82	5.77	29.20
"	Dublin	Balbriggan (Ardgillan) ...	1.07	2.39	1.78	1.53	1.11	3.09	2.20	2.34	.81	3.75	3.45	4.51	28.03
"	Meath	Dunboyne (Stirling Clonee)	1.11	2.29	2.11	1.87	1.60	1.39	2.48	1.54	1.28	4.11	4.84	4.54	29.16
"	"	Athboy (Frankville).....	1.53	3.47	1.54	2.37	2.06	3.73	2.62	1.68	1.96	4.66	4.54	5.95	36.11
"	Westmeath	Mullingar (Belvedere).....	2.12	3.60	2.01	2.29	2.39	3.04	2.80	1.99	2.25	4.57	4.93	4.85	36.84

IRELAND—(continued)

Div.	County.	Station.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
XXI.	Westmeath	Castlepollard (Pakenham Hall)	1.65	3.47	1.71	2.59	1.94	3.44	2.60	2.26	1.61	3.43	4.02	6.09	34.81
"	Louth	Ardee (Lissrenny)	1.29	2.32	1.39	2.55	1.64	1.79	2.30	2.23	.92	3.85	3.47	5.72	29.47
"	"	Greenore	1.32	2.89	1.27	2.58	1.87	2.45	2.64	1.91	1.04	3.78	3.20	4.84	29.79
XXII.	Longford	Ballymahon (New Castle)	1.75	3.22	1.55	1.96	1.82	3.85	3.69	1.69	2.00	4.05	4.98	6.27	36.83
"	Galway	Tuam (Gardenfield)	2.98	4.49	1.96	2.87	2.85	2.31	4.56	2.88	2.13	3.75	6.93	7.39	45.10
"	"	Ballinasloe	2.14	3.83	1.94	2.19	2.56	2.39	2.74	2.61	2.60	4.53	5.36	5.66	38.45
"	Roscommon	Strokestown (Castlenode)	1.84	3.33	1.62	2.05	3.40	1.80	2.84	1.81	1.72	4.41	3.90	5.71	34.43
"	Mayo	Crossmolina (Enniscroe)	2.46	4.19	3.27	3.71	2.26	3.37	4.48	2.97	2.76	5.11	8.62	8.16	51.36
"	"	Westport (St. Helens)	2.38	4.72	2.78	2.99	2.12	3.55	2.73	3.33	2.56	4.41	6.35	10.01	47.98
"	"	Cong (The Glebe)	4.10	6.08	2.58	2.65	1.54	2.89	3.41	3.75	2.23	4.02	7.55	8.23	49.03
"	"	Dugort (Slievemore Hotel)	5.73	6.86	3.81	4.91	3.89	3.11	5.42	3.67	4.90	5.11	9.71	10.77	67.89
"	Sligo	Collooney (Markree Obs.)	2.53	3.77	2.31	2.80	1.75	2.27	4.14	3.47	2.23	3.94	5.82	7.27	42.30
XXIII.	Letrim	Mohill (Rectory)	1.84	3.63	1.93	2.30	2.44	1.60	3.03	2.90	1.89	3.04	5.19	6.65	36.44
"	Cavan	Killeshandra (Drom Mullac)	1.87	4.53	2.65	3.19	2.77	2.04	3.37	2.23	2.15	3.87	4.89	6.57	40.13
"	Fermanagh	Enniskillen (Portora)	1.84	4.04	1.72	2.63	1.50	1.55	4.04	1.85	1.73	3.19	5.03	7.65	36.77
"	"	Belleek	1.52	3.84	1.89	2.76	2.09	2.69	3.06	3.15	2.10	2.93	4.87	6.90	37.80
"	Monaghan	Dartrey [Cootehill]	1.75	3.73	2.09	3.45	2.46	2.17	3.14	1.66	1.48	3.36	4.48	6.67	36.44
"	Armagh	Armagh Observatory	1.06	2.78	1.18	2.33	1.86	1.52	2.71	1.68	1.49	2.69	3.02	5.27	27.59
"	Down	Seaford	1.12	3.78	1.62	2.44	2.01	2.83	1.06	1.85	1.18	4.41	3.85	7.99	34.14
"	"	Donaghadee	1.37	1.88	1.04	2.67	1.72	2.33	1.63	2.46	1.53	2.97	3.77	5.55	28.92
"	Antrim	Belfast (Queen's University)	1.90	3.08	1.58	2.93	2.72	2.08	1.95	2.80	1.53	3.74	5.04	6.35	35.70
"	"	Glenarm Castle	2.77	4.61	1.50	2.90	2.57	2.38	2.33	2.36	1.26	5.06	4.35	8.11	40.20
"	"	Bushmills (Dundarave)	1.55	3.98	1.31	1.69	1.91	2.41	3.23	1.68	1.50	2.72	4.03	5.09	31.10
"	"	Ballymena (Harryville)	2.38	3.62	1.92	2.52	3.51	1.86	2.94	3.24	1.69	3.28	5.06	7.33	39.35
"	Londonberry	Limavady (Drenagh)	1.57	3.52	1.52	2.39	1.11	1.03	3.64	2.02	1.55	2.20	3.99	4.17	28.71
"	Tyrone	Cookstown (Lissan)	1.74	3.21	1.38	1.89	2.16	1.74	2.65	2.21	1.63	2.97	4.95	5.00	31.53
"	"	Omagh (Edenfel)	2.71	4.01	1.78	2.66	1.72	2.42	4.09	3.21	1.73	3.39	4.70	6.38	38.80
"	Donegal	Buncrana (Rockfort)	1.76	3.18	2.09	2.53	1.30	2.22	3.44	2.22	1.67	2.85	4.70	5.92	33.88
"	"	Dunfanaghy (Horn Head)	1.68	4.04	1.76	2.17	1.04	2.07	2.23	2.92	2.34	2.97	5.52	7.40	36.14
"	"	Killybegs	3.93	5.87	2.80	3.86	2.15	2.73	4.72	4.23	3.96	5.04	7.25	8.65	55.19
"	"	Convoy	2.21	4.90	2.57	2.96	2.05	1.36	3.85	3.18	2.05	3.31	6.51	7.71	42.66
Ireland.	Mean of 66 stations		1.98	3.68	2.24	2.87	2.28	2.37	3.25	2.54	2.61	4.29	5.54	7.73	41.38
BRITISH ISLES.	Mean of 300 stations		2.16	3.62	2.27	2.61	2.00	2.77	1.90	2.56	2.60	3.64	5.27	7.22	38.62

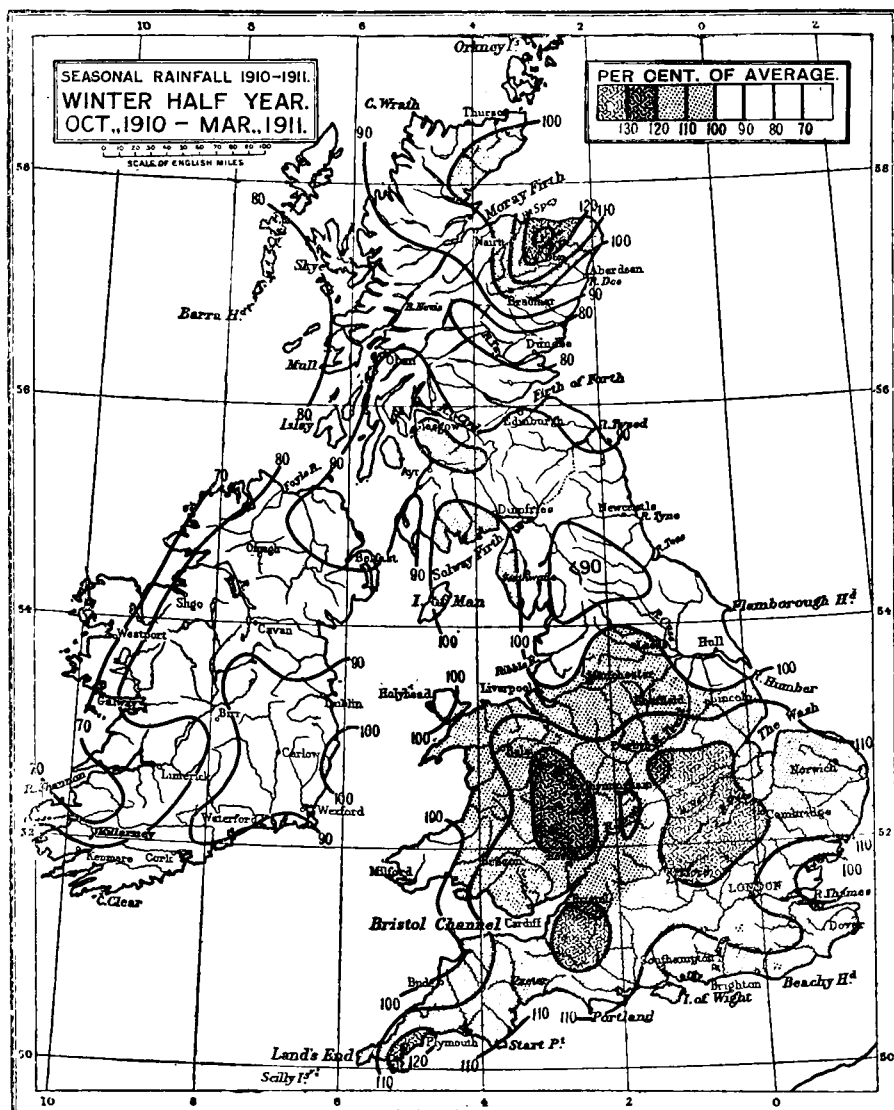
SEASONAL RAINFALL, 1910-11.

As the calendar year contains a complete summer half-year, but the odd halves of two separate winter half-years, one preceding, the other following the summer, we give in this section a supplementary account of the rainfall grouped so as to include in the twelve months a complete winter half-year followed by a complete summer half-year, the dividing line being taken between September and October, the nearest period to the autumnal equinox which can be adopted.

The Table which concludes this section gives for each half-year the total rainfall at 104 stations, the 35 years' average, and the difference from the average in inches and as a percentage. To this is added a final column giving the rainfall of the two half-years which make up what we term the seasonal year, expressed as a percentage of the average. The percentage values are plotted on three maps, on the same scale as the maps of monthly rainfall, representing, by lines drawn at intervals of 10 per cent., the relation to the average of the winter half-year, the summer half-year, and the seasonal year.

The map of the winter half-year, October, 1910—March, 1911, affords a most interesting contrast with that of the winter half-year, October, 1909—March, 1910, the regions that were then above the average being now below, and vice-versa. As will be seen the average rainfall was exceeded on the margins of the Moray Firth, especially on the south side, where the wettest area exceeded the average by more than 30 per cent.; and also over practically the whole of England and Wales south of Yorkshire, except Pembroke and a small portion of Essex, with a series of larger areas where the rainfall exceeded the average by more than 20 per cent. in the central area. The deficiency of rain was greatest in the west of Ireland, next in the east of Scotland round the Firth of Tay, and after that in the north of England. The general result for the six months was that in England there was an excess of 9 per cent., in Wales an excess of 6 per cent., in Scotland a deficiency of 9 per cent. and in Ireland a deficiency of 16 per cent. Combining all these the British Isles showed a deficiency of only 3 per cent., the result, in fact, being not greatly different from the average.

In the summer half-year from April to September, 1911, the succession of dry months ensured a small rainfall almost everywhere, but the west of Scotland received considerably more than the average, a considerable area in the extreme west of the mainland having an excess of more than 20 per cent. Small patches on the Borders, in North Wales, the east of Yorkshire and in Kerry, had just more than



the average. The greatest deficiency occurred in the east of Scotland where less than half the average rainfall fell in parts of Forfarshire and Fife, the driest station, Dundee, having only received 39 per cent. of its average. Next to this came the central area of England, the centre of the great July drought, where less than half the average

rainfall was received over nearly the whole of Dorsetshire and Wiltshire and considerable parts of Hampshire, Berkshire, Oxfordshire, Warwickshire, Worcestershire and Gloucestershire. In Ireland the driest area was the north-east where, however, the deficiency was not quite so great, not falling quite so low as 40 per cent. The general rainfall of Scotland was so nearly equalized between the wet



area in the west and the dry area in the east that it came out as having a deficiency of only 8 per cent. Wales had a deficiency of 14 per cent., and in England the deficiency was 28 per cent., or a loss of more than a quarter of the usual rainfall for the summer half-year. For the British Isles as a whole the deficiency was 18 per cent.

SEASONAL RAINFALL 1910-1911
YEAR
OCT..1910 - SEPT..1911.

SCALE OF ENGLISH MILES

PER CENT OF AVERAGE

110 100 90 80 70 60

Map showing Great Britain and Ireland with rainfall contours and place names. Key locations include: Oakeny H., C. Wrath, Thurso, 90, Moray Firth, R. Spey, 80, 70, 60, 50, 40, 30, 20, 10, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

Scotland the dry winter half-year on the west and in Aberdeenshire nearly neutralized the wet summer half-year, leaving only four small patches with just above the average rainfall. In the east, however, between Aberdeen and Edinburgh, both half-years were very dry and so for the seasonal year that part of Scotland shows a greater

deficiency than any other part of the British Isles, parts of Haddington, Fife, Forfar and Perth having less than 70 per cent. of the average rainfall, and Dundee only 54 per cent., an extremely rare thing for so long a period as twelve months. Wales was wet in the north in in each half-year and so appears wet for the year ; but in England the very dry summer half-year more than counterbalanced the fairly wet winter half-year, and the central parts of the country had rather less, while the east and west coast regions had somewhat more than 90 per cent. of the average year's rain. Cornwall was the only large area that had more than the average fall.

The general rainfall of England for the seasonal year, showed a deficiency of just 9 per cent., that of Wales only 3 per cent., of Scotland 8 per cent., of Ireland 16 per cent., and of the British Isles as a whole 10 per cent. The deficiency was practically equal to the excess of the previous seasonal year. It is interesting to notice that in Scotland and Ireland the deficiency of the two half-years was practically identical when each country is considered as a whole, and that it was only in England that the dryness of the summer half-year was to some extent balanced by the wetness of the previous winter half-year.

The seasonal year here dealt with is the same as the calendar year 1911, with the three months October—December, 1910, instead of the three decidedly wetter months October—December, 1911, and the differences which occur in successive years thus divided when compared with calendar years serve as a caution in dealing with secular or periodic changes in rainfall, reminding us that quite different sequences of wet and dry years may result in the same long period if the years are considered as twelve months reckoned from one month or from another.

Seasonal Rainfall, 1910-1911, in Relation to the Average, 1875-1909.

Div.	Stations.	Winter Six Months, October, 1910—March, 1911.				Summer Six Months, April — September, 1911.				12 Months, Oct., 1910—Sept., 1911. Per cent. of Average.
		1910-11. in.	Aver- age.	Difference from Average.	Per cent. of Aver.	1911. in.	Aver- age.	Difference from Average.	Per cent. of Aver.	
I.	St. Pancras, Camden Square.....	13.06	12.38	+ .68	105	9.25	12.73	— 3.48	73	89
II.	Tenterden	17.49	15.31	+ 2.18	114	7.34	12.33	— 4.99	60	90
"	Arundel, Patching	17.77	17.17	+ .60	103	8.22	13.31	— 5.09	62	85
"	Fawley, Cadland	19.48	17.89	+ 1.59	109	7.81	13.98	— 6.17	56	86
III.	Basingstoke, Sherborne St. John	17.39	15.86	+ 1.53	110	7.25	13.31	— 6.06	55	85.
"	Hitchin, Wratten	15.71	12.35	+ 3.36	127	8.88	12.81	— 3.93	69	98
"	Oxford, Magdalen College.....	14.46	11.98	+ 2.48	121	6.91	12.60	— 5.69	55	87
"	Wellingborough, Croyland Abbey	14.86	12.24	+ 2.62	121	8.09	12.93	— 4.84	63	91
IV.	March	12.56	10.71	+ 1.85	117	7.69	12.32	— 4.63	62	88
"	Shoeburyness	9.74	9.82	— .08	99	6.76	9.46	— 2.70	71	86
"	Braintree, Bocking	11.16	11.52	— .36	97	5.95	12.30	— 6.35	48	72
"	Rendlesham Hall	13.77	11.98	+ 1.79	115	6.34	11.70	— 5.36	54	85
"	Bury St. Edmunds, Westley.....	14.13	12.26	+ 1.87	115	8.95	13.14	— 4.19	68	91
"	Geldeston	13.90	11.91	+ 1.99	117	6.93	11.82	— 4.89	59	88
"	Blakeney.....	13.01	11.96	+ 1.05	109	7.75	11.87	— 4.12	65	87
V.	Bishops Cannings	18.31	15.70	+ 2.61	117	6.99	15.17	— 8.18	46	82
"	Evershot, Melbury House	26.41	22.27	+ 4.14	119	7.61	15.93	— 8.32	48	89
"	Sidmouth, Sidmount	19.44	17.49	+ 1.95	111	7.74	14.51	— 6.77	53	85
"	Northam Vicarage	20.55	20.78	— .23	99	11.42	14.77	— 3.35	77	90
"	Falmouth Observatory	34.74	26.14	+ 8.60	133	13.23	16.55	— 3.32	80	112
"	Altarnon	38.79	35.83	+ 2.96	108	20.88	23.14	— 2.26	90	101
"	Chewton Mendip, The Priory	30.14	24.28	+ 5.86	124	12.97	21.03	— 8.06	62	95
VI.	Stroud, Upfield	17.79	15.15	+ 2.64	117	8.49	14.66	— 6.17	58	88
"	Leominster, Farm	18.38	14.46	+ 3.92	127	8.35	14.08	— 5.73	59	94
"	Church Stretton, Wolstaston	20.64	16.57	+ 4.07	125	10.19	15.84	— 5.65	64	95
"	Wolverhampton, Wrottesley.....	14.47	12.64	+ 1.83	114	7.14	13.75	— 6.61	52	82
"	Coventry, Kingswood	15.60	14.59	+ 1.01	107	7.07	14.39	— 7.32	49	78
VII.	Market Overton	17.23	13.40	+ 3.83	129	8.85	13.70	— 4.85	65	96

Seasonal Rainfall, 1910-1911, in Relation to the Average, 1875-1909—(continued).

SEASONAL RAINFALL.

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Div.	Stations.	Winter Six Months, October, 1910—March, 1911.				Summer Six Months, April — September, 1911.				12 Months, Oct., 1910—Sept., 1911.
		1910-11.	Aver- age.	Difference from Average.	Per cent. of Aver.	1911.	Aver- age.	Difference from Average.	Per cent. of Aver.	
VII.	Revesby	14.71	12.59	+ 2.12	117	in. 11.28	in. 12.56	in. — 1.28	90	103
"	Lincoln, Doddington	11.49	11.42	— .07	101	8.18	12.17	— 3.99	67	83
VIII.	Mickleover Manor	15.14	12.75	+ 2.39	119	8.56	13.90	— 5.34	62	89
"	Northwich, Highfield	15.83	14.98	+ .85	106	11.60	15.70	— 4.10	74	89
"	Chatburn, Middlewood	24.28	23.39	+ .89	104	17.22	20.28	— 3.06	85	95
IX.	Southport, Hesketh Park	15.67	16.73	— 1.06	94	14.95	15.97	— 1.02	94	94
"	Sheffield, Redmires Reservoir	23.14	22.20	+ .94	104	11.93	19.11	— 7.18	63	85
"	Wetherby, Ribston Hall	13.36	13.31	+ .05	100	10.92	13.56	— 2.64	81	90
"	Hull, Pearson Park	12.65	13.17	— .52	96	11.29	13.25	— 1.96	85	91
"	Scarborough, Osgodby	13.39	14.17	— .78	94	12.97	12.23	+ .74	106	100
X.	Darlington, Cleveland Parade ..	11.38	12.59	— 1.21	90	10.72	13.18	— 2.46	81	86
"	Newcastle, Town Moor	13.48	13.92	— .44	97	13.77	14.02	— .25	98	98
"	Howick Hall	14.73	14.91	— .18	99	14.04	13.87	+ .17	101	100
"	Borrowdale, Seathwaite	75.99	76.47	— .48	99	52.01	53.01	— 1.00	98	99
"	Appleby, Castle Bank	15.54	18.62	— 3.08	83	13.43	15.79	— 2.36	85	84
XI.	Abergavenny, Larchfield	24.68	20.77	+ 3.91	119	10.29	16.34	— 6.05	63	94
"	Neath	31.59	27.60	+ 3.99	114	20.06	22.33	— 2.27	90	103
"	Cardiff, Ely	26.64	23.26	+ 3.38	115	11.74	19.02	— 7.28	62	91
"	Castle Malgwyn	25.09	26.02	— .93	96	16.19	17.68	— 1.49	92	94
"	Haverfordwest Castle	26.02	27.12	— 1.10	96	15.02	19.69	— 4.67	76	88
"	Aberystwyth, Gogerddan	25.83	24.58	+ 1.25	105	19.12	20.88	— 1.76	92	99
"	Birmingham W.W., Tyrmynydd ..	37.91	37.20	+ .71	102	20.08	24.86	— 4.78	81	93
"	Bala	35.83	31.10	+ 4.73	115	23.70	21.08	+ 2.62	112	114
"	Llandudno	17.46	16.56	+ .90	105	14.57	13.80	+ .77	106	105
"	Holyhead	18.46	19.96	— 1.50	92	12.41	15.06	— 2.65	82	88
"	Douglas	25.16	23.40	+ 1.76	108	13.74	18.15	— 4.41	76	94
XII.	Auchencairn, Torr House	29.00	25.53	+ 3.47	115	19.19	21.27	— 2.08	90	103
"	Drumlanrig Castle	23.46	25.17	— 1.71	93	18.59	18.54	+ .05	100	96

Seasonal Rainfall, 1910-1911, in Relation to the Average, 1875-1909—(continued.)

Div.	Stations.	Winter Six Months October, 1910—March, 1911.				Summer Six Months, April — September, 1911.				12 Months, Oct., 1910—Sept., 1911.	
		1910-11.	Aver- age.	Difference from Average.	Per cent. of Aver.	1911.	Aver- age.	Difference from Average.	Per cent. of Aver.	Per cent. of Average.	
XII.	Canonbie, Byreburnfoot.....	22·12	23·47	— 1·35	94	19·75	19·09	+ ·66	103	98	
XIII.	North Esk Reservoir	20·50	21·46	— ·96	96	14·60	18·29	— 3·69	80	88	
XIV.	Marchmont House	14·83	17·06	— 2·23	87	11·63	16·70	— 5·07	70	78	
	Airdrie, Hillend Reservoir.....	17·00	19·99	— 2·99	85	13·10	17·73	— 4·63	74	80	
"	Girvan, Pinmore	25·48	28·37	— 2·89	90	18·67	21·40	— 2·73	87	89	
"	Loch Thom.....	39·48	36·37	+ 3·11	109	29·00	28·10	+ ·90	103	106	
XV.	Inveraray, Newtown	39·56	40·92	— 1·36	97	33·58	27·75	+ 5·83	121	107	
"	Islay, Eallabus	25·07	28·38	— 3·31	88	19·19	20·41	— 1·22	94	91	
XVI.	Mull, Quinish.....	26·46	32·98	— 6·52	80	24·83	23·59	+ 1·24	105	91	
	Loch Leven Sluices	17·23	19·86	— 2·63	87	9·53	16·68	— 7·15	57	73	
"	Balquhiddy, Stronvar.....	37·17	45·08	— 7·91	82	29·80	28·69	+ 1·11	104	91	
"	Blair Atholl	14·41	17·91	— 3·50	80	10·38	14·44	— 4·06	72	77	
XVII.	Dundee, Eastern Necropolis	9·95	14·08	— 4·13	71	5·65	14·56	— 8·91	39	54	
	Fettercairn, The Burn.....	16·56	18·36	— 1·80	90	9·98	16·39	— 6·41	61	76	
"	Braemar, The Bank	19·64	19·11	+ ·53	103	9·19	15·82	— 6·63	58	83	
"	Aberdeen, Cranford House.....	16·41	17·32	— ·91	95	9·75	15·41	— 5·66	63	80	
"	Keith Station	22·53	16·05	+ 6·48	140	14·14	17·35	— 3·21	81	110	
XVIII.	Cawdor	13·45	14·77	— 1·32	91	11·72	14·56	— 2·84	81	86	
	Fort Augustus	22·75	27·84	— 5·09	82	15·22	16·69	— 1·47	91	85	
"	Fort William, Atholl Bank	38·11	46·72	— 8·61	82	35·00	29·08	+ 5·92	120	96	
"	Lochnaddy.....	21·94	28·38	— 6·44	77	19·17	19·55	— ·38	98	86	
"	Loch Torridon, Bendamph	45·81	51·38	— 5·57	89	41·83	32·55	+ 9·28	128	104	
"	Stornoway	26·01	30·03	— 4·02	87	21·46	18·37	+ 3·09	117	98	
XIX.	Dunrobin Castle	18·38	17·46	+ ·92	105	10·39	14·44	— 4·05	72	90	
	Thurso, Holburn Head.....	18·81	18·99	— ·18	99	12·00	13·72	— 1·72	87	94	
XX.	Cork, The Palace	19·97	22·43	— 2·46	89	14·69	16·23	— 1·54	91	90	
	Valencia, Glanleam	26·22	32·08	— 5·86	82	23·34	23·93	— ·59	98	88	
"	Killarney, District Asylum	22·68	33·49	— 10·81	68	22·82	21·32	+ 1·50	107	83	

Seasonal Rainfall, 1910-1911, in Relation to the Average, 1875-1909—(continued).

Div.	Stations.	Winter Six Months, October, 1910—March, 1911.				Summer Six Months, April - September, 1911.				12 Months, Oct., 1910—Sept., 1911.
		1910-11.		Difference from Average.		1911.		Difference from Average.		
		in.	in.	in.	in.	in.	in.			
XX.	Waterford, Brook Lodge.....	19.27	21.72	— 2.45	89	17.72	17.85	— .13	99	93
"	Nenagh, Castle Lough.....	15.73	21.46	— 5.73	73	16.61	17.97	— 1.36	92	82
"	Miltown Malbay	18.93	23.98	— 5.05	79	17.39	21.13	— 3.74	82	81
XXI.	Gorey, Courtown House	18.89	18.80	+ .09	100	13.22	16.19	— 2.97	82	92
"	Abbey Leix, Blandsfort	16.86	18.51	— 1.65	91	16.07	17.41	— 1.34	92	92
"	Dublin, Fitz William Square.....	13.62	13.84	— .22	98	9.31	13.84	— 4.53	67	83
"	Moynalty, Westland.....	16.46	19.17	— 2.71	86	13.77	18.02	— 4.25	76	81
"	Mullingar, Belvedere	16.82	18.37	— 1.55	92	14.76	17.78	— 3.02	83	87
XXII.	Tuam, Gardenfield.....	19.20	23.27	— 4.07	83	17.66	19.42	— 1.82	91	86
"	Ballinasloe	16.52	18.98	— 2.46	87	14.99	17.66	— 2.67	85	86
"	Crossmolina, Enniscroe	20.77	31.04	— 10.27	67	19.55	21.83	— 2.28	90	76
"	Markree Observatory	19.61	22.97	— 3.36	85	16.66	19.74	— 3.08	84	85
XXIII.	Belturbet, Cloverhill	15.15	17.24	— 2.09	88	13.92	16.50	— 2.58	84	86
"	Armagh Observatory	11.67	15.52	— 3.85	75	11.59	16.36	— 4.77	71	73
"	Seaforde	17.41	20.34	— 2.93	86	11.37	18.57	— 7.20	61	74
"	Donaghadee	14.84	16.17	— 1.33	92	12.34	15.53	— 3.19	79	86
"	Bushmills, Dundarave.....	17.72	19.72	— 2.00	90	12.42	17.84	— 5.42	70	80
"	Ballymena, Harryville.....	20.71	21.49	— .78	96	15.76	19.35	— 3.59	81	89
"	Omagh, Edenfel.....	17.84	20.45	— 2.61	87	15.83	18.93	— 3.10	84	85
"	Buncrana, Rockfort	17.37	22.04	— 4.67	79	13.38	18.85	— 5.47	71	75
	England (43 stations).....	18.64	17.11	+ 1.53	109	10.88	15.18	— 4.30	72	91
	Wales (10 ").....	26.95	25.42	+ 1.53	106	16.32	19.08	— 2.76	86	97
	Scotland (27 ").....	23.78	26.04	— 2.26	91	18.05	19.67	— 1.62	92	92
	Ireland (23 ").....	18.01	21.44	— 3.43	84	15.44	18.36	— 2.92	84	84
	British Isles (104 ").....	20.70	21.25	— .55	97	14.30	17.45	— 3.15	82	90

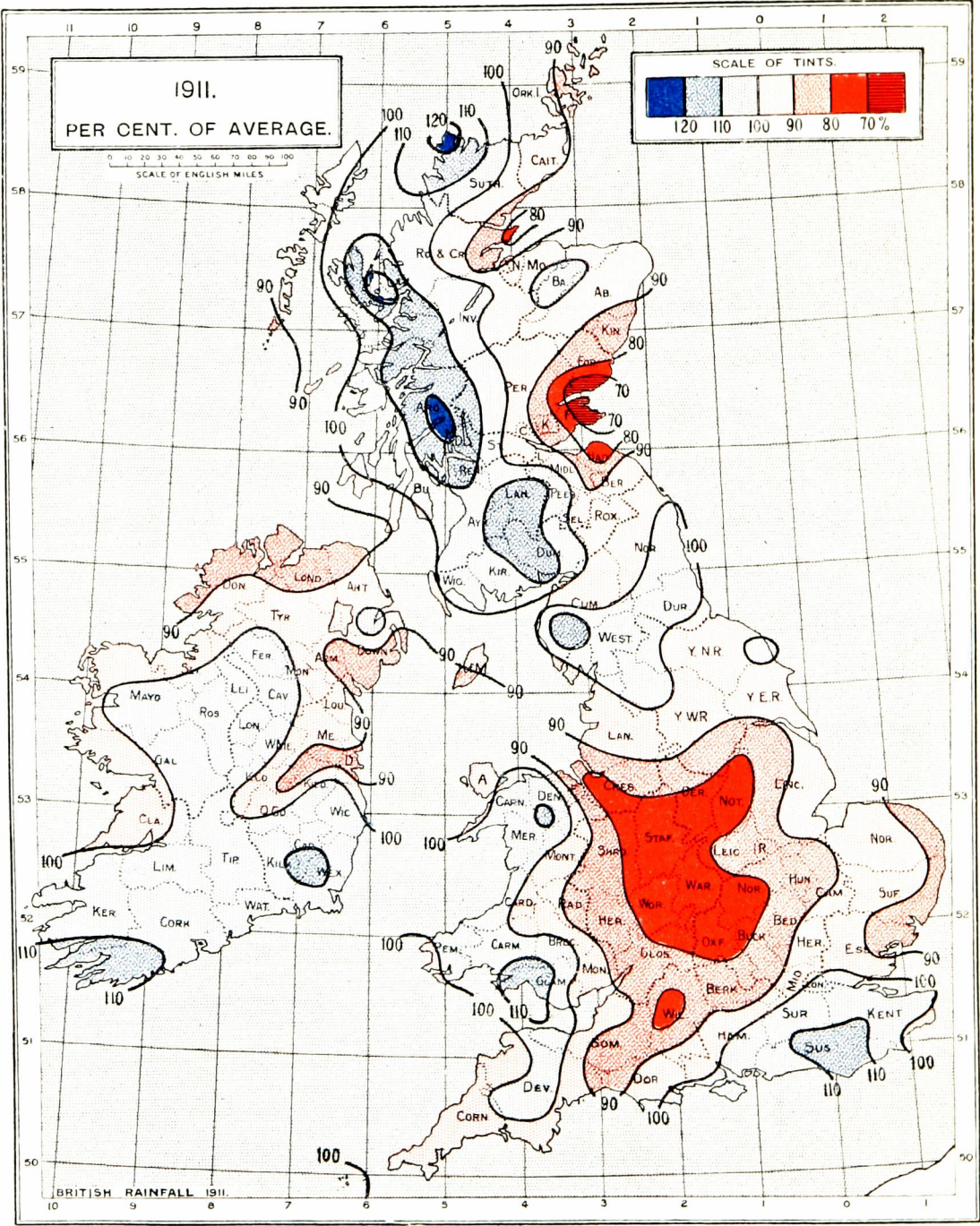
THE RELATION OF THE TOTAL FALL OF RAIN IN 1911 TO THE AVERAGE.

THE average used is that of the thirty-five years, 1875—1909, which may be taken as the same as that for a much longer period, and as representing the nearest practicable approach to the normal annual rainfall. The stations, the records of which are quoted in the Table at the end of this section, have, for the most part, been at work for the whole period; but in order to make an impartial distribution which will afford by the mean of all the figures the general rainfall of the year for the whole country and the principal divisions, it is necessary to include some rather shorter records, which have, however, been reduced to their equivalent for 35 years, and are distinguished by being printed in italics. It has always been found advisable to give also a shorter average for a recent period to allow Observers with short records to see how such an average compares with that of a long period, and thus the average for the ten years 1900—1909 is quoted in addition. In 32 cases the two averages are identical or within a quarter of an inch of each other, the proportion being largest in Ireland. In 75 cases the figure for the shorter average is the greater, and most of these occur in Scotland; while in the remaining 108 cases (most of them in England and Wales) it is considerably less.

From the 215 figures expressing percentage of the average fall in 1911, supplemented by a number of additional data, the coloured map has been prepared. The blue tint shows values in excess of the average, the tint being deepened for each additional 10 per cent., and the red shows values deficient from the average, the tint being deepened for each successive 10 per cent. of deficiency. The map is exactly comparable with those which have been published annually since 1906, though the number of the points from which it has been constructed has been increased and the general accuracy has been improved.

On examining the map, the eye is at once drawn to the great area of solid red in the middle of England, where the deficiency of rainfall was more than 20 per cent. of the average, and from which the

RELATION OF RAINFALL OF 1911 TO THE AVERAGE OF 1875-1909.



The area coloured Red had rainfall below the average, that coloured Blue had rainfall above the average.

amount of deficiency diminished outwards in all directions, until the average was reached on the north in the north of Lancashire, Yorkshire and the south of Durham, on the west in Wales and Devonshire, and on the south along the Channel from Dorset to Kent. On the east, the deficiency diminished to a line running from London to Norfolk, where it almost reached the average, and then increased again towards the coast of East Anglia. A closer examination, shows that a deficiency reasserted itself beyond the belt of country with more than the average. In particular we note that beyond the wet belt in the north of England, the deficiency increased throughout the east of Scotland, until, in the east of Fife and south of Forfarshire, it exceeded 30 per cent., diminishing again northwards, increasing slightly round the Moray Firth, and continuing with lessening intensity through Caithness to Orkney. The dry area in central England extended over Anglesey and the Isle of Man, to the north of Ireland, and thence to Kintyre and the Outer Hebrides, though the deficiency there, nowhere much exceeded 10 per cent. The wettest part of the country in relation to the local average, was the west of Scotland, where the average rainfall is also the highest. There was an excess of more than 10 per cent. throughout Renfrew, Dumbarton, the central part of Argyll and western Inverness, to the Isle of Skye and possibly along the coast northward to Cape Wrath, and in the middle of Argyll a patch with more than 20 per cent. lay in the same latitude and only 70 miles west of the patch round the Firth of Tay with a deficiency exceeding 30 per cent. The average rainfall at Inveraray is 68·67 in., and the average rainfall at Dundee is 28·64 in., or rather less than one half; but in 1911 the total rainfall at Inveraray was 83·62 in. or 22 per cent. above the average, and that at Dundee was only 17·08 in. or 40 per cent. below the average, so that the total fall at Dundee was just about one fifth of that at Inveraray. It is interesting to compare the six highest readings in the west of Scotland, all of which exceed 120 inches, with the six lowest readings in the east of Scotland, all of which fall short of 20 inches; while the general rainfall of Scotland was within about 1 per cent. of the average.

The wet areas in England, Wales and Ireland included only small portions with more than 10 per cent. of excess, the most important being in Sussex, where the wetness of December far outweighed the dryness of July. In the south of Ireland there were two small patches with just over 10 per cent. excess, a fact trivial in itself, but

interesting when considered in relation to the changes of the wet and dry areas from year to year. As an island, Ireland has even more than Scotland a rainfall regime of its own ; but notwithstanding this, there is usually apparent a close relationship in the succession of wet and dry seasons between southern Ireland and Wales, eastern Ireland and the north of England, and northern Ireland and the west of Scotland, the same effects being produced simultaneously on both sides of the Irish Sea. Taking Ireland by itself, and confining ourself to the last six years during which the coloured maps have been published, we see that in every year from 1906 to 1910 inclusive the south of Ireland was dry and the north of Ireland wet. In 1906, 1908 and 1909 deficiencies of 20 per cent. or more occurred in the south of Ireland, shifting in position from year to year ; but except at one point in 1907 the rainfall along the south coast was less than the average every year from 1906 to 1910, though in 1910 the deficiency was very slight. Now in 1911 we see that the rainfall of the whole south and most of the centre of Ireland is above the average, and in the south-west and south-east the excess is more than 10 per cent. The long-continued dryness has fairly given way. In the north of Ireland every year since 1906 has been wet (though in 1908 and 1909 the wetness did not extend along the whole of the north coast), but now for the first time in seven years the north of Ireland was dry in 1911, and the north coast strip had a deficiency of more than 10 per cent.

Turning to Scotland, we find the relationships less simple. Only once in the last six years (in 1907) has the east of Scotland, between Aberdeen and St. Andrews, had rainfall up to the average but the drought has not been so extensive nor so intense as in 1911. There has always been a contrast in the deviation from the average of the rainfall of the east and west, and this is beautifully illustrated in the comparison of 1910 and 1911. In 1910 the whole west of Scotland, from Buteshire to Ross was dry, a little below the average, and the whole east and central portion (except the shore strip, south of Aberdeen) was wet, and in parts very wet ; now, in 1911, the eastern half of the country was dry, or very dry, and the western half was wet. Entering into closer detail, it will be noticed that the western part of the Southern Uplands has been wet every year from 1906 to 1910, always with an excess of 10, and sometimes of 20 per cent., in sympathy with the equally persistent wet patch in the north-east of Ireland ; but in 1911 the north-east of Ireland has

become dry, and so, for the first time, is Kintyre, while a fringe with average rainfall appears on the Galloway coast, though the inland country still remains subject to the high rainfall which has persisted there for six years.

The conditions in England are still more complicated. In each year from 1906 to 1908 the greater part of the Devon-Cornwall peninsula suffered from a great deficiency of rain, similar to that in the south of Ireland. In 1910 Cornwall and Devon were excessively wet, southern Ireland only a little dry, and in 1911, when the south of Ireland was decidedly wet, Cornwall and Devon were, on the whole, rather dry. For the three years 1906-8, there were dry or very dry patches or bands along the whole east coast of England, separated by less dry or even slightly wet tracts in the Midlands from equally dry patches in the south-west ; but this relation broke down in 1909, when the east coast became wet and the west remained dry, and it was not restored in 1910, when the west was excessively wet and only the north-east slightly dry. In 1911 we find the great central dry patch which overlaps on the north-east the region which had been dry every year since 1906, except 1909, and on the south-west the region which had been very dry every year except 1910. We may note also that there has been a wet area with excess above 10 per cent. hovering over south-eastern England every year except 1908, when its place was taken by a patch that was only a little less dry than its surroundings. In 1906 this patch of more than 10 per cent. excess covered the Isle of Wight and part of Hampshire, in 1907 it moved north into Berkshire, in 1909 it spread between Dorset and Sussex, in 1910 it was part of the great wet area of the south of England from Cornwall to Kent, and in 1911 it lay over Sussex.

We have dwelt upon the wet and dry patches for three reasons ; first to impress the fact that no year is wet or dry over the whole country, but that there are in every year parts of the country which are wet and other parts which are dry ; second to impress the fact that some parts of the country have a succession of dry years while other parts of the country are having a succession of wet years, so that anyone wishing to establish cycles or sequences of weather must be prepared to face a somewhat complicated problem ; and third to call attention to the glimmering of symmetrical arrangement and orderly change of position in the areas of wet and dry, the study of which, irrespective of the amount of rain, offers some attraction though it suggests many difficulties to investigators.

Fascinating as the dimly suggested bearings of these local differences are to think over, we must leave them in order to indicate the place which 1911 occupies amongst other years with respect to its total rainfall. The abstract of the Table of 215 stations, which we give below, shows that England had a deficiency of 6 per cent., while Wales appears with an excess of 1 per cent. of total rainfall. The latter figure may be in error as the number of stations is very small, but there seems no reason to doubt that for England and Wales there was a deficiency on the year of 4 per cent. of rain, and it is rather surprising that the deficiency was not greater considering the widespread drought of the summer months. Scotland and Ireland balanced their wet and dry so closely that they are both practically at the average, Scotland coming out 1 per cent. above and Ireland 1 per cent. below. There thus remains the 4 per cent.

ABSTRACT.

COUNTRIES.	No. of Records utilized.	Average. 10 years 1900-09.	Average. 35 years 1875-1909.	1911.	Diff. from Average 1875-1909.	
					Amount.	Per cent.
		in.	in.	in.	in.	
England	96	30·99	31·91	30·14	1·77	— 6
Wales	17	45·58	46·15	46·52	·37	+ 1
England and Wales...	113	33·18	34·05	32·60	1·45	— 4
Isle of Man	1	41·35	41·55	37·55	4·00	— 10
Scotland	58	45·93	44·85	45·35	·50	+ 1
Ireland	43	41·09	40·86	40·54	·32	— 1
British Isles	215	38·25	38·36	37·65	·71	— 2

deficiency of England and Wales to spread over the British Isles which appear to have had a rainfall 2 per cent. below the average. As the averages we use fluctuate a little from year to year with the necessary changes in the list of selected stations, we made an attempt some time ago to compare the general rainfall of the constituent countries for each year with the general averages deduced from a preliminary map drawn in 1903, and on this we based the rough comparison which follows. In it the deficiency is given as 4 per cent. for England and Wales, Ireland and for the British Isles, and as 3 per cent. for Scotland. We are prepared to accept in preference the figures of the foregoing abstract and to view the year as having on the whole within 2 per cent. of the average rainfall ; and it is probable that the last column of the rough comparison should be amended by adding + 2 to every entry. As it is, however,

Rough Comparison of the Rainfall for 31 Years ; based on assumed average values.

ENGLAND & WALES.				SCOTLAND.			IRELAND.			BRITISH ISLES.				Corrected Values
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	
1911	32·60	1·32	— 4	45·35	1·50	— 3	40·54	1·74	— 4	37·65	1·60	— 4	— 4	

it shows that the slightly wet year 1910 has been followed by the still more slightly dry year 1911. In England the succession of two dry years followed by one wet which lasted from 1889 to 1909 may be changing to two wet years followed by one dry, or the sequence may be becoming irregular as seems to be the case for the British Isles as a whole.

**COMPARISON OF THE RAINFALL OF THE YEAR 1911
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 1911.	Difference from Average 1875-1909. Per Amount. cent
			in.	in.	in.	in.
I.	London	2 St. Pancras (Camden Square)	24·57	25·11	24·79	·32 — 1
II.	Surrey	5 Dorking (Denbies)	32·31	31·83	34·42	2·59 + 8
	"	6 Haslemere (Courts Hill).....	35·28	35·25	38·04	2·79 + 8
	" Kent	1 Tenterden	26·34	27·64	28·45	·81 + 3
	"	2 Margate	21·03	23·29	23·57	·28 + 1
	"	3 Selling (Harefield)	29·86	29·85	32·57	2·72 + 9
	"	4 Tonbridge (Beech Hurst).....	26·79	27·31	29·80	2·49 + 9
	" Sussex	1 Chichester (Westgate)	27·75	28·53	29·95	1·42 + 5
	"	3 Steyning	32·11	33·58	36·86	3·28 + 10
	"	5 Eastbourne (Wilmington Sq.)	28·66	30·49	35·54	5·05 + 17
	" Hampshire	1 Ventnor (Consumption Hos.)	28·84	29·35	29·31	·04 — 0
	"	8 Basingstoke (Sherborne St. John)	29·27	29·17	25·90	3·27 — 11
III.	Hertfordshire	1 Tring (Cowroast Lock)	28·73	28·89	25·19	3·70 — 13
	"	4 Hitchin (Wratten)	25·13	25·16	23·50	1·66 — 7
	" Buckingham ..	4 Slough (Langley)	23·52	24·18	22·04	2·14 — 9
	"	5 Buckingham (Adstock Fields)	24·25	25·96	21·67	4·29 — 17
	" Oxfordshire	3 Oxford (Magdalen College)...	23·31	24·58	19·52	5·06 — 21
	" Northampton	4 Wellingborough (Croyland Abbey)	23·32	25·17	20·21	4·96 — 20
	" Cambridgeshire ..	2 Cambridge (Quy Hall).....	22·00	23·11	21·29	1·82 — 8
	"	3 March	22·37	23·03	20·06	2·97 — 13
IV.	Essex	3 Shoeburyness	18·69	19·28	18·76	·52 — 3
	"	4 Chelmsford (High Street).....	22·66	23·02	20·75	2·27 — 10
	"	6 Langham Rectory	23·96	24·50	20·15	4·35 — 18
	"	7 Newport	24·06	24·92	24·09	·83 — 3
	" Suffolk	3 Rendlesham Hall.....	22·20	23·68	20·40	3·28 — 14
	"	5 Walsham-le-Willows	23·58	25·55	25·32	·23 — 1
	" Norfolk	1 Geldeston [Beccles]	22·74	23·73	21·09	2·64 — 11
	"	2 Worstead (Dilham)	25·67	26·37	23·05	3·32 — 13
	"	3 Blakeney	22·64	23·83	21·32	2·51 — 11
	"	4 Swaffham	24·61	26·42	25·77	·65 — 2
V.	Wiltshire	3 Bishops Cannings.....	29·49	30·87	23·39	7·48 — 24
	"	4 Landford (Northlands)	30·04	30·11	29·54	·57 — 2
	"	6 New Swindon	26·38	28·05	24·16	3·89 — 14
	" Dorset	1 Evershot (Melbury House) ...	37·70	38·20	35·20	3·00 — 8
	"	3 Wareham (South Street)	32·10	31·39	31·45	·06 + 0
	" South Devon ..	2 Devonport (Rowdens Res.)...	33·78	35·58	34·77	·81 — 2
	" ..	2 Polapit Tamar [Launceston]..	38·62	38·27	39·42	1·15 + 3
	" ..	4 Ashburton (Druid House) ...	48·68	51·64	51·58	·06 — 0
	" ..	6 Cullompton	33·22	35·18	34·93	·25 — 1
	" ..	7 Sidmouth (Sidmount)	30·58	32·00	29·13	2·87 — 9
	" North Devon ..	1 Lynton (Lee Abbey).....	37·90	37·92	41·32	3·40 + 9

ENGLAND—(continued).

DIV.	COUNTY and river-division.	STATION.	Average 00-09.	Average 1875- 1909.	Depth in 1911.	Difference from Average 1875-1909.	
						Per Amount.	cent
V.	North Devon	3 Okehampton (Oaklands).....	43·95	46·25	45·97	·28	— 1
"	" "	3 Northam Vicarage	34·13	35·55	32·69	2·86	— 8
"	Cornwall	2 Falmouth (New Observatory)	41·95	42·69	40·51	2·18	— 5
"	"	2 St. Austell (Trevarna).....	43·85	46·21	42·20	4·01	— 9
"	"	4 Scilly (St. Mary's)	30·44	32·36	34·23	1·87	+ 6
"	Somerset	2 Street.....	28·73	29·94	26·00	3·94	— 13
"	"	4 Holford (Woodlands House)	32·01	33·00	29·92	3·08	— 9
VI.	Gloucestershire ...	3 Stroud (Upfield)	29·03	29·81	25·63	4·18	— 14
"	"	5 Clifton (Pembroke Road) ...	32·43	34·88	31·54	3·34	— 10
"	Herefordshire	1 Ross (The Graig).....	26·65	28·78	22·44	6·34	— 22
"	"	1 Kington (Lynhales)	31·55	33·28	28·13	5·15	— 15
"	Shropshire	3 Church Stretton (Wolstaston)	31·74	32·41	28·33	4·08	— 13
"	"	4 Market Drayton (Buntingsdale)	29·39	28·57	22·28	6·29	— 22
"	Staffordshire	3 Wolverhampton (Wrottesley)	24·65	26·39	19·04	7·35	— 28
"	"	5 Cheadle (The Heath House)	32·10	32·65	23·80	8·85	— 27
"	Worcestershire	2 Stourport (Lincombe Lock)..	25·09	26·17	21·04	5·13	— 20
"	"	3 Northwick Park	28·99	29·15	21·36	7·79	— 27
"	Warwickshire	1 Coventry (Kingswood)	27·50	28·98	20·92	8·06	— 28
VII.	Leicestershire ...	4 Thornton Reservoir.....	25·73	26·44	22·73	3·71	— 14
"	"	4 Belvoir Castle	24·80	26·05	21·22	4·83	— 19
"	Rutland.....	3 Market Overton	26·74	27·10	23·77	3·33	— 12
"	Lincolnshire	3 Boston	23·21	23·35	22·78	·57	— 2
"	"	4 Louth (Westgate).....	27·30	28·74	27·10	1·64	— 6
"	"	5 Brigg	25·83	26·21	21·50	4·71	— 18
"	"	6 Lincoln (Doddington).....	22·63	23·59	19·46	4·13	— 17
"	Nottinghamshire ...	4 Eastwood Colliery	27·78	28·46	22·06	6·40	— 23
"	"	5 Worksop (Hodsock Priory)...	23·15	24·46	19·29	5·17	— 21
VIII.	Cheshire	1 Macclesfield (The Park)	33·58	34·73	29·96	4·77	— 14
"	"	1 Torrside Reservoir	42·95	44·46	41·49	2·97	— 7
"	"	4 Chester (Christleton Hall) ...	27·69	28·32	22·30	6·02	— 21
"	South Lancashire...	3 Bolton (Smithills Hall)	46·80	46·29	41·91	4·38	— 9
"	Central "	1 Stoneyhurst College.....	45·88	46·79	44·19	2·60	— 6
"	" "	3 Southport (Hesketh Park) ...	31·13	32·70	30·38	2·32	— 7
"	North "	2 Cartmel (Holker).....	46·93	44·31	44·61	·30	+ 1
"	" "	4 Wray Vicarage	43·74	44·34	47·90	3·56	+ 8
IX.	West Riding.....	7 Sheffield (Redmires Res.) ...	40·25	41·31	34·44	6·87	— 17
"	" "	9 Silsden Reservoir.....	26·93	29·91	29·61	·30	— 1
"	" "	11 Wetherby (Ribston Hall).....	28·10	26·87	25·90	·97	— 4
"	" "	11 Pateley Bridge (Castle Stead)	37·42	40·59	39·23	1·36	— 3
"	East "	2 Pocklington (Warter)	27·43	29·75	27·34	2·41	— 8
"	" "	3 Pattrington	22·40	24·05	22·98	1·07	— 4
"	" "	3 Lowthorpe (The Elms)	25·09	27·35	26·15	1·20	— 4
"	North "	1 Leyburn (Bolton Hall).....	31·72	32·79	31·55	1·24	— 4
"	" "	4 Scarborough (Osgodby)	24·09	26·40	26·77	·37	+ 1
"	" "	5 Guisborough (Lockwood Beck)	31·89	33·13	32·46	·67	— 2
"	" "	6 East Layton Hall.....	27·99	28·71	27·63	1·08	— 4
X.	Durham.....	2 Wear Dale W.W. (Waskerley)	32·19	32·04	33·74	1·70	+ 5
"	"	2 Sunderland (W. Hendon Ho.)	25·29	26·07	26·60	·53	+ 2
"	Northumberland ...	4 Hallington (Fawcett)	28·11	28·95	28·55	·40	— 1

ENGLAND—(continued).

DIV.	COUNTY and river-division.	STATION.	Average 00-09.	Average 1875- 1909.	Depth in 1911.	Difference from Average 1875-1909. Per Amount, cent
			in.	in.	in.	in.
X.	Northumberland ... 5	Rothbury (Crag-side)	33·66	34·24	34·58	·34 + 1
"	" ... 5	Howick Hall	29·69	28·78	29·72	·94 + 3
"	Cumberland 1	Carlisle (Spital Cemetery) ...	33·21	32·17	30·54	1·63 — 5
"	" 2	Borrowdale (Seathwaite).....	126·16	129·48	148·14	18·66 + 14
"	" 3	Whitehaven (Irish Street) ...	43·57	41·70	45·25	3·55 + 9
"	Westmorland 1	Appleby (Castle Bank)	35·15	34·41	35·90	1·49 + 4

WALES.

XI.	Monmouth 3	Abergavenny (Larchfield) ...	34·83	37·11	35·94	1·17 — 3
"	Glamorgan 4	Neath	50·75	49·93	59·49	9·56 + 19
"	" 5	Cardiff (Ely Pumping Station)	41·02	42·28	40·21	2·07 — 5
"	Carmarthen 2	Carmarthen (The Friary).....	47·85	48·80	51·03	2·23 + 5
"	" 2	Llanwrda (Dolaucothy)	55·89	56·60	53·67	2·93 — 5
"	Pembroke..... 1	Castle Malgwyn [Llechryd]...	43·54	43·70	45·91	2·21 + 5
"	" 3	St. Davids.....	37·72	36·75	36·06	·69 — 2
"	" 4	Pembroke (Stackpole Court)	37·83	40·26	39·97	·29 — 1
"	Cardigan 2	Aberystwyth (Gogerddan) ...	45·81	45·46	46·45	·99 + 2
"	Brecon 4	Nanthir Reservoir [Aberdare]	57·23	59·39	63·36	3·97 + 7
"	Radnor 1	Birmingham WW (Tyrmynydd)	59·27	62·06	59·14	2·92 — 5
"	Montgomery..... 5	Lake Vyrnwy (Bank Cynon Isaf)	54·83	55·33	53·84	1·49 — 3
"	Flint 1	Bagillt (Dee Bank Lead Wks.)	28·32	28·47	22·68	5·79 — 20
"	Merioneth..... 1	Llanderfel (Palé Gardens) ...	47·34	47·21	51·42	4·21 + 9
"	" 3	Tan-y-bwlch (The Gardens)..	62·93	62·25	64·16	1·91 + 3
"	Carnarvon 2	Llandudno.....	29·76	30·36	30·56	·20 + 1
"	Anglesey 1	Llanerchymedd (Llywdiarth Esgob)	39·66	38·57	36·86	1·71 — 4

ISLE OF MAN.

XI.	Isle of Man	Douglas (Borough Cemetery)	41·35	41·55	37·55	4·00 — 10
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SCOTLAND.

XII.	Wigtown 3	Stoneykirk (Ardwell House)..	38·52	36·40	36·18	·22 — 1
"	Kirkcudbright 3	Dalry (Glendarroch)	55·17	52·60	57·08	4·48 + 9
"	" 4	Auchencairn (Torr House) ...	48·94	46·80	48·94	2·14 + 5
"	Dumfries 3	Durrisdeer (Drumlanrig Gdns.)	46·22	43·71	49·86	6·15 + 14
"	" 4	Moffat (Ericstane).....	51·65	53·09	53·96	·87 + 2
"	Roxburgh 3	Hawick (Braxholme).....	32·27	33·80	32·06	1·74 — 5
XIII.	Selkirk 5	Galashiels (Stantling Craigs)	33·63	34·75	31·93	2·82 — 8
"	Peebles 3	N. Esk Reservoir [Penicuik]	39·94	39·75	41·20	1·45 + 4
"	Berwick..... 4	Marchmont House	32·52	33·76	31·69	2·07 — 6
"	Haddington 3	Whittingehame Gardens.....	30·82	29·60	22·95	6·65 — 22
XIV.	Lanark 1	Biggar (Cambus Wallace) ...	29·09	30·14	35·00	4·86 + 16
"	" 4	Airdrie (Hillend Reservoir)...	38·13	37·72	35·54	2·18 — 6
"	Ayr 3	Kilmarnock (North Craig Res.)	45·21	40·92	43·80	2·88 + 7
"	" 8	Girvan (Pinmore).....	53·19	49·77	51·52	1·75 + 4
"	Renfrew 2	Glasgow (Queen's Park)	38·60	35·97	37·13	1·16 + 3
"	" 3	Shaws W. W. (Loch Thom)...	67·46	64·47	73·93	9·46 + 15

SCOTLAND—(continued.)

DIV.	COUNTY and river-division.	STATION.	Average 00-09.	Average 1875- 1909.	Depth in 1911.	Difference from Average 1875-1909. Per Amount. cent
			in.	in.	in.	in.
XV.	Bute	1 Rothesay (Crichton Road) ...	54·65	52·10	57·99	5·89 + 11
	Argyll	2 Loch Sunart (Glenborrodale)	69·47	66·99	74·91	7·92 + 12
	.....	7 Kilmelfort (Arduaine)	59·13	57·60	62·92	5·32 + 9
	.....	9 Mull of Kintyre	46·02	41·42	36·74	4·68 — 11
	.....	11 Inveraray (Newtown)	71·25	68·67	83·62	14·95 + 22
	.....	14 Islay (Eallabus)	51·26	48·79	49·89	1·10 + 2
	.....	14 Mull (Quinish)	57·55	56·57	57·74	1·17 + 2
XVI.	Kinross	2 Loch Leven Sluice	36·70	36·54	31·70	4·84 — 13
	Fife	2 Colinsburgh (Balcarres)	32·78	33·37	22·47	10·90 — 33
	Perth	3 Balquhidder (Stronvar)	74·43	73·77	80·50	6·73 + 9
	.....	14 Blair Atholl	33·36	32·35	30·66	1·69 — 5
	.....	15 Blairgowrie (Ballintuim Ho.)	38·58	37·68	34·13	3·55 — 9
	Forfar	1 Kirriemuir (Lintrathen)	35·32	35·33	27·83	7·50 — 21
	.....	2 Dundee (Eastern Necropolis)	27·72	28·64	17·08	11·56 — 40
XVII.	Kincardine	1 Fettercairn (The Burn)	35·13	34·75	29·77	4·98 — 14
	Aberdeen	1 Braemar (Bank)	34·11	34·93	33·96	·97 — 3
	.....	1 Logie Coldstone (Loanhead).	32·72	30·67	28·40	2·27 — 7
	.....	1 Aberdeen (Cranford House)..	32·70	32·73	28·50	4·23 — 13
	.....	3 Ellon	30·42	30·58	28·91	1·67 — 5
	Banff	2 Keith Station	35·28	33·40	34·10	·70 + 2
	Elgin	3 Grantown-on-Spey	32·65	31·23	31·27	·04 + 0
	Nairn	2 Cawdor	29·38	29·33	28·25	1·08 — 4
XVIII.	Inverness	3 Kingussie	29·66	29·62	26·88	2·74 — 9
	.....	6 Fort Augustus (St. Benedict's)	45·19	44·53	44·78	·25 + 1
	.....	7 Glenquoich	115·15	109·34	122·19	12·85 + 12
	.....	9 Drumnadrochit	35·09	35·00	35·29	·29 + 1
	.....	13 Arisaig House	62·88	61·75	64·64	2·89 + 5
	.....	17 Fort William	77·59	75·80	84·90	9·10 + 12
	.....	18 Skye (Scalpay Island)	77·22	74·40	93·50	19·10 + 26
	.....	19 N. Uist (Lochmaddy)	43·81	47·93	44·78	3·15 — 7
	Ross & Cromarty	4 Strathpeffer	30·85	30·35	26·30	4·05 — 13
	.....	5 Fearn (Lower Pitkerrie)	23·49	23·19	18·35	4·84 — 21
	.....	7 Braemore House	61·89	60·02	55·99	4·03 — 7
	.....	8 Loch Torridon (Bendamph)	90·40	83·93	90·76	6·83 + 8
	.....	9 Glencarron	87·59	86·50	87·57	1·07 + 1
	.....	10 Stornoway	50·49	48·40	48·30	·10 — 0
XIX.	Sutherland	1 Invershin	34·19	33·17	30·29	2·88 — 9
	.....	2 Dunrobin Castle	33·07	31·90	26·35	5·55 — 17
	.....	4 Cape Wrath	35·88	39·58	49·46	9·88 + 25
	Caithness	2 Wick	31·35	29·88	27·41	2·47 — 8
	.....	3 Thurso (Holburn Head)	35·41	32·71	29·71	3·00 — 9
	Orkney	Shapinsay (Balfour Castle) ...	30·57	32·13	28·48	3·65 — 11

IRELAND.

XX.	Cork	7 Cork (The Palace)	36·74	38·66	39·76	1·10 + 3
	.....	9 Mallow (Summer Hill)	38·20	38·90	39·96	1·06 + 3
	Kerry	3 Valencia (Glanleam)	56·10	56·01	61·18	5·17 + 9
	.....	3 Killarney (District Asylum)..	50·48	54·81	56·14	1·33 + 2

IRELAND—(continued).

DIV.	COUNTY and river-division.	STATION.	Average 00-09.	Average 1875- 1909.	Depth in 1911.	Difference from Average 1875-1909. Per Amount, cent
			in.	in.	in.	in.
XX.	Kerry..... 4	Kenmare (Derreen)	70·26	68·27	74·86	6·59 + 10
	„ Waterford..... 3	Waterford (Brook Lodge) ...	40·12	39·57	42·04	2·47 + 6
	„ Tipperary 1	Nenagh (Castle Lough)	38·55	39·43	41·97	2·54 + 6
	„ „ 3	Clonmel (Bruce Villa)..	35·90	37·10	38·97	1·87 + 5
	„ „ 4	Roscrea (Timoney Park).....	36·50	36·00	37·07	1·07 + 3
	„ Clare 2	Miltown Malbay (Ballyvasken)	46·22	45·11	42·68	2·43 + 5
	„ „ 3	Carrigaholt Castle	36·97	36·60	38·13	1·53 + 4
	„ „ 3	Newmarket-on-Fergus(Carrigoran)	41·99	42·00	39·95	2·05 — 5
XXI.	Wexford 3	Enniscorthy (Ballyhyland) ...	42·13	42·70	47·20	4·50 + 11
	„ „ 4	Gorey (Courtown House) ...	33·34	34·99	35·83	·84 + 2
	„ Kilkenny 2	Kilkenny (Lavistown House)	30·92	31·15	34·32	3·17 + 10
	„ Wicklow 3	Laragh (Glendalough).....	58·10	58·70	63·03	4·33 + 7
	„ „ 4	Bray (Fassaroe).....	39·80	41·10	39·50	1·60 — 4
	„ Carlow 2	Carlow (Browne's Hill) ...	34·30	34·36	36·26	1·90 + 6
	„ King's County 1	Birr Castle.....	32·77	32·86	30·39	2·47 — 8
	„ Kildare 1	Monasterevan (Moore Abbey)	32·18	32·50	29·20	3·30 — 10
	„ „ 2	Straffan House	30·56	31·61	31·85	·24 + 1
	„ Dublin 3	Balbriggan (Ardgillan)	28·62	29·57	28·03	1·54 — 5
	„ Meath 4	Moynalty (Westland)	36·99	37·19	35·37	1·82 — 5
	„ Westmeath 1	Mullingar (Belvedere).....	35·89	36·15	36·84	·69 + 2
	„ Louth 2	Dundalk (Farncred).....	31·16	30·91	28·70	2·21 — 7
XXII.	Galway 3	Tuam (Gardenfield).....	44·06	42·69	45·10	2·41 + 6
	„ „ 5	Ballinasloe.....	37·08	36·64	38·45	1·81 + 5
	„ Mayo 2	Crossmolina (Enniscoe)	54·37	52·87	51·36	1·51 — 3
	„ „ 4	Westport (St. Helen's)	47·10	46·20	47·98	1·78 + 4
	„ „ 6	Cong (The Glebe)	49·78	48·90	49·03	·13 + 0
	„ Sligo 2	Collooney (Markree Obs.) ...	44·40	42·71	42·30	·41 — 1
XXIII.	Cavan 1	Belturbet (Cloverhill)	35·52	33·74	35·70	1·96 + 6
	„ Armagh 5	Armagh (Observatory).....	32·09	31·88	27·59	4·29 — 13
	„ Down 2	Seaford.....	39·47	38·91	34·14	4·77 — 12
	„ „ 4	Donaghadee	31·71	31·70	28·92	2·78 — 9
	„ Antrim 1	Belfast (Queen's University)..	35·89	33·81	35·70	1·89 + 6
	„ „ 3	Bushmills (Dundarave)	37·91	37·56	31·10	6·46 — 17
	„ „ 5	Ballymena (Harryville)	42·52	40·84	39·35	1·49 — 4
	„ Londonderry 5	Londonderry (Creggan Res.)	42·94	41·78	34·44	7·34 — 18
	„ Tyrone 3	Omagh (Edenfel)	42·30	39·38	38·80	·58 — 1
	„ Donegal 3	Dunfanaghy (Horn Head) ...	45·18	44·40	36·14	8·26 — 19
	„ „ 5	Killybegs	60·95	60·60	55·19	5·41 — 9
	„ „ 8	Convoy	48·64	45·94	42·66	3·28 — 7

EXTREMES OF RAINFALL IN 1911.

Greatest Rainfall, at The Sty, C, Cumberland.....	203·15 in.
Least Rainfall, at Bourne (Guthram), Lincolnshire	15·71 ,,

ENGLAND.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
X. The Sty, C.....	203·15	VII. Bourne (Guthram)	15·71
„ Borrowdale (Seathwaite).....	150·90	III. Melchbourne Park	16·19
„ Styhead Tarn	148·75	„ Whittlesea Mere	16·20
„ Mickleden	148·55	„ Peterborough (Westbourne Ho.)	16·81
„ Sprinkling Tarn.....	145·18	„ Cambridge (Herschel House) ..	16·97
„ Ullscarf	142·30	II. Abingdon (Caldecott House)....	16·99

MONMOUTH AND WALES.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
XI. Snowdon (Lluchfa) No. 4	175·13	XI. Hawarden Bridge	19·53
„ Blaenau Festiniog (Oakley Quarries)	97·66	„ Rhyl (Sewage Works)	20·63
„ Treherbert (Tyn-y-waun)	95·90	„ Gresford (Trewythen)	21·43
„ Rhondda WW (Llyn Fawr Res)	93·74	„ Hanmer (Gredington)	22·38
„ Taff Fechan (Neuadd Res.) No. 6	92·91	„ Dyserth Castle.....	22·41
„ Glyncoirwg Colliery.....	92·47	„ Overton (Fairleigh).....	22·54

SCOTLAND.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
XVIII. Loch Quoich (Loan)	177·35	XVI. Dundee (Eastern Necropolis) ..	17·08
XV. Mull (Glenconnel)	134·89	„ „ (Harbour)	17·21
XVIII. Loch Arkaig (Glen Dessary) ..	128·91	„ Carnbee (Ovenstone W.W.)	18·30
„ Achnashellach (Glenuaig)	126·55	„ Arbroath (Dishland Hill)	18·70
„ Loch Quoich (Kinlochquoich) ..	126·11	„ St. Andrews Water Works	18·95
„ „ „ (Glenquoich)	122·19	„ Scone (Lingwood)	19·07

IRELAND.

GREATEST.		LEAST.	
Div.	in.	Div.	in.
XX. Gap of Dunloe (Gearahameen)	95·00	XXI. Kingstown (People's Park)	21·70
„ Lough Caragh (Lickeen)	80·04	„ Dublin (Trinity College)	22·28
„ Kenmare (Derreen).....	74·86	„ „ (Pigeon House Road) ..	22·58
„ „ (Dunkerron Castle) ..	68·19	„ Malahide (The Green)	23·20
XXII. Dugort (Slievemore Hotel)	67·89	„ Dublin (Phoenix Park)	23·24
XX. Dunmanway (The Rectory)	66·09	„ Kingstown (Harbour Yard)	23·32

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, 1911.

PART III.

GENERAL TABLE

OF

TOTAL RAINFALL IN 1911,

AT MORE THAN

5000 STATIONS

IN

GREAT BRITAIN AND IRELAND,

WITH THE NAMES OF

THE OBSERVERS

OR OTHER AUTHORITIES FOR THE OBSERVATIONS.

COMPILED UNDER THE DIRECTION OF

HUGH ROBERT MILL,

Director of the British Rainfall Organization,

BY

CARLE SALTER,

Chief Assistant.

62, CAMDEN SQUARE, LONDON, N.W.

EXPLANATORY NOTE.

The counties are divided up into numbered areas, corresponding to the river-basins. A full description of these sub-divisions for England and Wales was given in a special article in Part I. of *British Rainfall, 1910*, and a similar article on the sub-divisions of Scotland and Ireland appears in Part I. of this volume, with detailed maps showing all the sub-divisions in each division (pp. 49—72).

The divisions in the General Table are shown on the map on p. [236]. 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; it is not intended to 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; T, that the height has been ascertained approximately from the Ordnance Survey maps; and B, that the altitude has been taken by the barometer.

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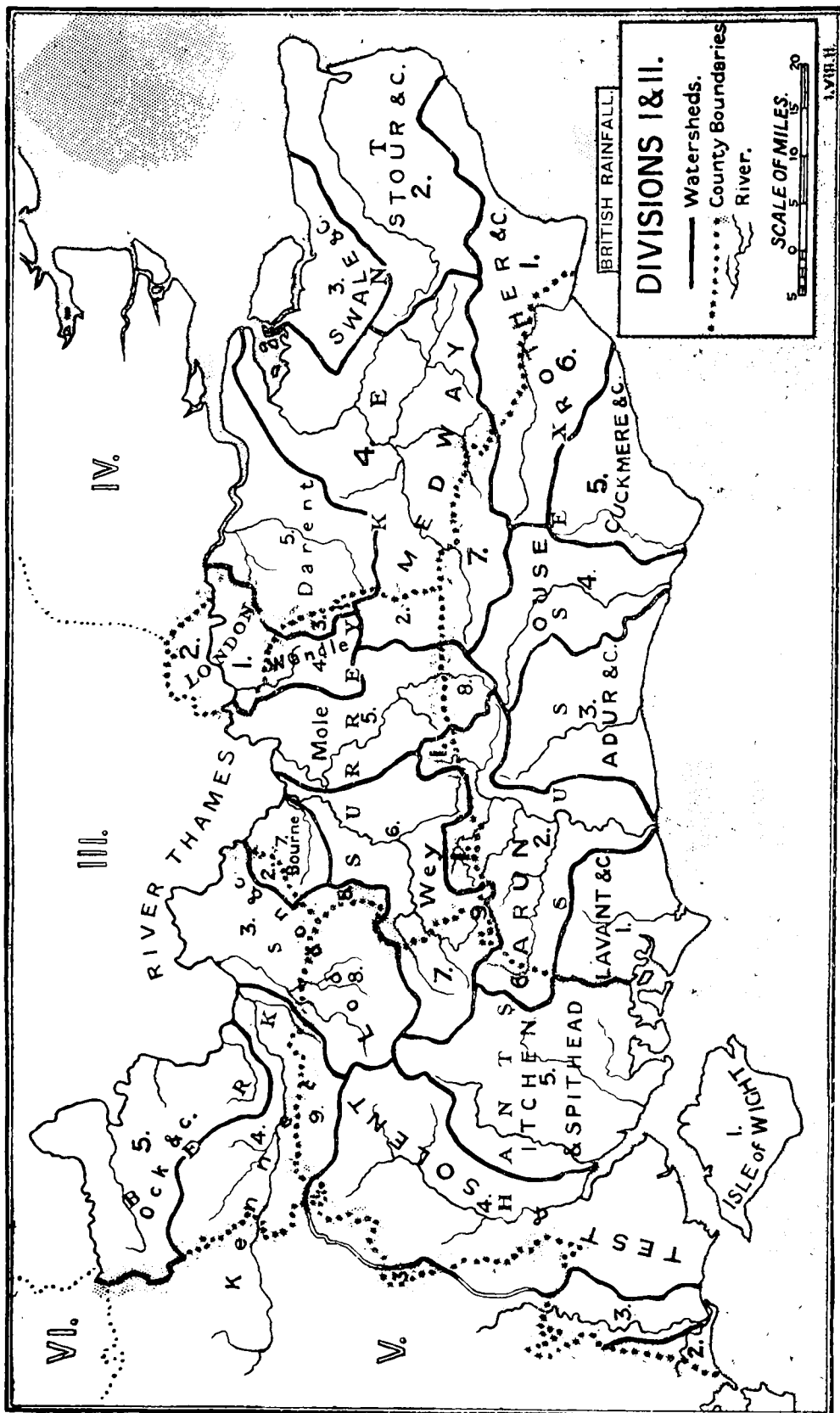
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Detailed Maps showing the sub-division of each county into River Basins are given in the General Table or in Part I., pp. 49—72.



ENGLAND AND WALES.

DIVISION I.—LONDON. (Area, 117 sq. mi.)

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
1.—THAMES—Right Bank Tributaries. 67 sq. mi.						
BERMONDSEY						
D Shad Thames Pumping Station	Sir M. Fitzmaurice, CMG	6	28 0	43 7	22·61	143
D LAMBETH (Brockwell Park).....	London County Council	8	1 3	140 7	26·93	139
D „ (Brixton Hill Res.) ...	Met. Water Board.....	5	3 2	115 7	23·28	152
D BATTERSEA (Battersea Park) ...	London County Council	5	9 8	23	22·56	139
D† „ (Water Works).....	Mr. F. J. Goldsworthy	5	3 6	21	22·41	136
D „ Nine Elms (Heathwall)	Sir M. Fitzmaurice, CMG	8	37 0	54 7	21·93	144
WANDSWORTH,						
D Lower Tooting (Longley Road)	Mrs. G. B. Latham ...	5	1 0	51 7	22·99	153
D† „ Streatham (Southwark W.W.)	Met. Water Board.....	5	4 1	120	21·18	151
D „ „ Hill Reservoir ...	„ „ „ „	5	3 1	197 7	22·82	152
D „ (Putney Heath Reservoir) ...	„ „ „ „	5	1 0	180 7	22·15	160
„ Wimbledon Pk. (Woodhouse)	Sir A. E. Bateman ...	5	1 1	150	24·37	143
§ „ Wandsworth Com. (Patten Rd)	F. C. Bayard, Esq. ...	5	1 0	100	21·83	...
„ Clapham Com. (Macaulay Rd.)	Miss A. H. Boyson.....	5	1 0	75 8	23·76	137
„ „ „ (The Chase) ...	H. N. Prentice, Esq....	5	1 5	70	22·27	...
D CAMBERWELL (Dulwich Wood Pk)	F. C. Bayard, Esq. ...	5	1 2	276	25·82	158
D§ „ Dulwich (Alley Park).....	W. Marriott, Esq. ...	5	1 0	171	24·16	154
D† „ Nunhead (Southwark W.W.)	Met. Water Board.....	5	1 0	173	22·56	165
† „ (The Green)	F. C. Bayard, Esq. ...	8	2 2	17	20·88	135
D DEPTFORD (Telegraph Hill).....	London County Council	5	9 6	135	21·01	133
D† „ (Kent Water Works)	Met. Water Board.....	5	1 0	20	21·95	127
GREENWICH						
D† (Deptford Pumping Station)	Sir M. Fitzmaurice, CMG	10	4 0	18 7	26·00	132
D† „ (Royal Observatory) No. 8	F. W. Dyson, Esq. F.R.S.	8	1 0	150 7	23·31	152
D† „ { „ „ } No. 6	„ „ „	8	0 5	150 7	23·66	155
† „ { „ „ } No. 7	„ „ „	8	0 5	155 7	23·02	154
† „ { „ „ } No. 5	„ „ „	8	10 0	165 7	23·34	158
† „ { „ „ } No. 4	„ „ „	8	21 6	176 7	21·00	154

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	1911	
		in.	ft.	in.	feet.	inches.	
1.—THAMES—Right Bank Tributaries—(con.)							
GREENWICH							
† (Royal Observatory) No. 3	F.W.Dyson, Esq.F.R.S.	8	38	4	193 T	19·22	150
LEWISHAM,							
Sydenham (Lethen Grange)	G. F. Chambers, Esq...	5	1	5	220 T	26·68	169
D ,, Forest Hill (Dartmouth Rd.)	F. C. Bayard, Esq. ...	5	1	0	220	23·80	133
D† ,, ,, (Barr Beacon)...	Met. Water Board.....	5	1	0	344 T	24·45	151
D† ,, (Limes Grove)	G. E. Dacey, Esq.	5	1	0	36 T	25·44	168
D WOOLWICH, Eltham (High St.).	Met. Water Board.....	5	1	0	245	24·63	141
D ,, Plumstead Com.(St.John's Rd.)	R. J. Allison, Esq.....	8	1	0	31 T	21·50	152
2.—THAMES—Left Bank Tributaries. 50 sq. mi.							
D§ PADDINGTON (Harrow Road) ...	C. W. Heinemann, Esq.	8	1	0	101 T	23·93	154
D† KENSINGTON (V. & A. Museum).	J. Storr, Esq.	8	0	6	27 T	22·85	157
D ,, (Holland House) ..	Mr. C. Dixon	5	4	0	68 T	22·97	159
D ,, (Addison Gardens) ..	G. H. M. Whish, Esq.,	5	1	1	23	22·90	158
D† ,, (Campden Hill) ..	Met. Water Board.....	8	1	0	142 T	26·42	158
D HAMMERSMITH (The Creek).....	Sir M.Fitzmaurice, CMG	8	20	0	35 T	22·74	155
FULHAM,							
D† Kensington (Edith Rd.)	G. Searle, Esq.	5	0	10	16 T	21·71	147
D CHELSEA (Lots Road)	Sir M.Fitzmaurice, CMG	8	33	6	54 T	20·64	155
D ,, (Paulton Square)	A. Hampton Brown, Esq.	5	1	0	21 T	21·79	156
D ,, (Pumping Station) ...	Sir M.Fitzmaurice, CMG	8	1	0	19 T	23·28	152
D ,, (Physic Garden)	W. Hales, Esq.	5	1	0	20	22·27	146
D ,, (St. Luke's Gardens) ..	T. W. E. Higgins Esq. CE	5	1	0	25 T	23·25	157
D WESTMINSTER (Grosvenor Wharf)	Mr. W. A. Cairns	4	28	0	48	21·05	146
D ,, (King's Scholars Pond)	Sir M.Fitzmaurice, CMG	8	11	6	31 T	27·06	145
D ,, (Winchester Street) ..	Mr. G. T. Osborn	5	8	0	21 T	21·54	148
D ,, ("							

DIVISION I.—LONDON—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1911	
		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	24.21	...
D " (St. Augustine's Rd.)	A. E. Payne, Esq.	5	1 0	150	24.51	151
STOKE NEWINGTON						
† (New River Filter Beds)	Met. Water Board	5	1 0	101	21.52	...
D† " " (" " Reservoirs)	" " "	5	4 0	105	23.71	162
D HACKNEY (Clapton Pond) .. (R)	Norman Scorgie, Esq. CE	8	2 6	70	24.06	143
D† HOLBORN (Stone Yard)	E. F. Spurrell, Esq. ...	5	12 0	89	25.26	139
D† FINSBURY (New River Head) ...	Met. Water Board	5	3 8	100	23.93	159
CITY OF LONDON (Guildhall) ...	F. Sumner, Esq., C.E..	8	51 0	95	24.81	...
" " " (" ") ...	" " "	8	2 6	46	23.05	...
§ SHOREDITCH (Old Street)	Roy. Meteorological Soc.	5	1 0	70	23.62	156
D STEPNEY (Mile End)	J. Metson, Esq.	5	10 0	50	25.48	141
D POPLAR, Isle of Dogs (Stewart Rd.)	Sir M. Fitzmaurice, CMG	8	1 0	15	22.53	151
" (Island Gardens)	London County Council	5	4 6	...	21.42	...
D " (Old Ford)	Met. Water Board	8	0 9	19	21.20	152
D " (" " Penstocks) ...	Sir M. Fitzmaurice, CMG	8	1 0	35	21.13	139
D WOOLWICH (N. Woolwich Pumpg. Sta.)	" " "	8	0 9	12	20.40	134
" (Barking Outfall) ...	" " "	8	0 6	6	18.74	148

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.	
		Diameter	Height Above Ground	Height Above Sea Level	1911		
		in.	ft.	in.	feet.	inches.	
SURREY. (Area, 725 sq. mi.)							
1.—ARUN. 45 sq. mi.							
+ Haslemere (Clammer Hill)	Col. Farquhar Glennie..	5	1	0	400	35·72	154
Dunsfold (Durfold)	Miss Billiter	5	1	0	225 T	30·28	...
Chiddingfold (Rovehurst).....	G. L. Halahan, Esq. ...	5	1	0	230 T	31·98	...
Dunsfold Rectory	Rev. W. H. Winn.....	5	1	0	170 T	31·13	...
d Oakwood Vicarage.....	Rev. Canon J. Shearme	5	0	9	285 T	31·41	149
d Abinger (Joldwynds, Holmbury)	Mr. F. Cornish	5	1	0	550	34·15	144
2.—MEDWAY. 50 sq. mi.							
d Lyden Croft [Edenbridge]	Surg.-Gen. C. Planck ..	8	1	0	212 A	30·38	151
3.—THAMES—Darent. 22 sq. mi.							
Chelsham (Fairchildes).....	A. S. Daniell, Esq. ...	8	1	0	600 T	33·02	...
" " " " " " " " " " " "	Mr. G. T. Mansfield ...	5	0	10	600 T	31·13	...
d Addington (Hares Bank).....	F. C. Bayard, Esq. ...	8	1	0	331 A	27·89	159
d+ " Hills Reservoir.....	" " " " " " " " " " " "	8	0	9	473 A	27·25	163
d South Norwood (Woodvale).....	E. " " " " " " " " " " " "	5	1	0	216	23·79	156
d " " (Holmesdale Road).....	E. A. Martin, Esq.....	5	1	0	200	25·50	158
d " " (Apsley Road).....	W. H. Cullis, Esq.....	5	1	2	125	24·54	...
d Norwood (Auckland Road)	Miss J. Cooper	5	1	5	230 T	22·70	148
d Penge (Anerley Town Hall).....	H.W.Longdin,Esq.C.E.	5	1	6	120 T	24·31	139
4.—THAMES—Wandle. 71 sq. mi.							
d§ Upper Gatton.....	F. Druce, Esq.	5	1	0	601	31·79	158
d Caterham Reservoir	A. E. Cornwall-Walker,Esq.	5	1	0	705 A	33·59	145
d Chaldon Rectory	F. C. Bayard, Esq. ...	5	1	0	542	33·86	146
d Chipstead (Eyhurst)	D. Morphew, Esq.....	5	0	11	538	32·02	169
d " (Nepicar)	F. C. Bayard, Esq. ...	5	1	0	550	31·26	155
d Caterham (Ashfield)	A. Malden, Esq.....	5	1	6	610	31·69	156
d " Asylum.....	F. C. Bayard, Esq. ...	5	1	0	610 A	33·29	156
d " Valley (Bradenhurst).....	Henry Haes, Esq.	5	1	0	600 B	34·41	168
d Warlingham (The Larches)	Mrs. B. F. Harris	5	1	0	615	35·30	179
d§ " (Redvers Road) ..	R. H. Curtis, Esq.....	8	1	0	610 T	33·06	166
d " (Egremont)	H. Rogers, Esq.....	8	1	0	614 B	34·28	157
Caterham Valley (Mount Vernon)	M. Ll. Evans, Esq. ...	5	0	10	550	33·83	149
d " " Dépôt	A. E. Cornwall-Walker, Esq.	5	1	6	431 A	33·45	153
d Banstead (Burgh Heath)	Capt. E. R. Taylor.....	5	1	0	571 T	33·31	161
d " " " " " " " " " " " "	W.VauxGrahamEsqCE	5	1	0	570 A	34·68	147
d Chipstead (How Green Reservoir)	" " " " " " " " " " " "	5	1	0	528 A	32·59	146
d Kenley (Elmhurst)	Mrs. Jay Jones	5	0	8	430 T	31·24	166
d " (Hazelea)	F. C. Bayard, Esq. ...	5	1	0	281 A	24·59	150
d " (Shord Hill)	A. Wildy, Esq.	5	0	10	450	29·94	166
d " Pumping Station.....	A E. Cornwall-Walker, Esq.	5	1	0	264 A	29·60	151
d Purley (Riddlesdown Road) No.1	J. Edmund Clark, Esq.	5	1	0	365 T	30·02	164
d " " " " " " " " " " " "	" " " " " " " " " " " "	5	1	0	365 T	29·70	164
d " (Pumping Station)	A. E. Cornwall-Walker,Esq.	5	1	0	215 A	28·68	156
Sanderstead (Beechwood Road)..	E. Alexander, Esq. ...	5	0	10	370	27·21	...
d South Croydon (Avondale Road)	Dr. G. J. Hinde, F.R.S.	5	1	0	225 T	27·90	172
d Wallington (Cotswold).....	F. C. Bayard, Esq. ...	5	4	1	140 A	26·24	172
d " " " " " " " " " " " "	" " " " " " " " " " " "	8	1	0	140 A	25·55	170
d Carshalton (Sewage Works).....	Baldwin Latham EsqCE	5	1	0	118 A	22·55	142

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		1911
		in.	ft.	in.	feet.	inches.	
SURREY—(con.)							
4.—THAMES—Wandle—(con.)							
D Beddington (Foxley Lane)	F. C. Bayard, Esq. ...	5	1	0	350	28.38	164
D „ (Sewage Farm)	„ „ „ ...	5	1	0	129	21.89	153
D§ „ (Riverside).....	Miss Rostron	5	1	0	120	25.41	156
D Croydon (Waddon New Road)...	G. Corden, Esq.....	5	1	0	146	25.38	163
D „ (Park Hill Rise).....	H.F.Parsons, Esq., M.D.	5	1	3	240	24.52	153
D „ („ „ House).....	Baldwin Latham Esq CE	8	1	0	265 7	27.12	162
D Beddington Corner (Millgreen Rd)	F. C. Bayard, Esq. ...	5	4	0	80	25.39	152
Thornton Heath (Thornton Lodge)	H. Wyndham, Esq. ...	5	0	9	172 7	25.43	...
D Wimbledon (Kingston Road) ...	H. A. Marshall, Esq....	5	1	0	54 7	25.74	162
D „ Park (Park View)..	S. Single, Esq.	5	1	0	150	24.50	154
D „ (Sewage Works)....	C. H. Cooper, Esq., C.E.	5	1	0	55 7	21.46	138
5.—THAMES—Mole & c. 229 sq. mi.							
Newdigate (Cudworth)	R. J. Wallis, Esq.....	5	1	0	270 ?	32.20	156
D Outwood (The Orchards)	H. Gurney, Esq.	5	1	0	280	30.15	164
† Dorking (Fir Tor)	F. Taylor, Esq.	5	1	0	300 B	33.80	...
D „ (Stone House, Rose Hill)	Lt.-Col. J. R. Greenhill	5	1	0	240	33.52	169
D „ (West Street) ...	Mrs. W. A. Marsh.....	8	26	0	224 7	35.99	146
D „ (Denbies).....	Mr. J. Ansell	5	0	9	610 7	34.42	180
D† „ (Pixham Firs).....	J. Croft Deverell, Esq..	8	0	6	150 ?	31.08	173
Brockham (North Lodge)	H. R. Kempe, Esq. ...	8	0	9	160 7	31.81	...
D Reigate (Hartswood).....	R. W. Clutton, Esq....	5	1	0	174	31.29	166
D South Nutfield (Hale Edge).....	R. C. Grant, Esq.	5	1	0	270	28.84	151
Earlswood Com. (Clarence Lodge)	J. Charlton Tucker, Esq.	...	...	...	...	28.98	...
D „ (Sewage Farm)	F. T. Clayton, Esq., C.E.	5	1	6	196 7	28.44	147
D Redhill (Station Road)	W. H. Fowler, Esq. ...	5	18	0	270 7	30.21	148
D „ (Wigmore)	W. A. Gunner, Esq....	5	1	0	250 B	30.98	166
D „ (Warwick Road).....	A. E. Cornwall-Walker, Esq.	5	1	6	284 7	30.74	163
D Reigate (Holmfels)	T. Jackson, Esq.	5	1	2	260 7	27.61	147
D „ (The Gas Works).....	F. C. Bayard, Esq. ...	8	1	0	275	31.73	161
D „ (The Knowle)	G. Weston, Esq.	5	1	0	390 7	30.54	161
D „ (Wray Lodge)	A. Rosling, Esq.	5	1	0	316 7	31.88	156
D „ (Northcote)	F. C. Pawle, Esq.	5	1	0	375	29.76	171
D „ (Castle Grounds)	F. T. Clayton, Esq., C.E.	5	1	6	350 7	29.10	152
D „ (Laglands)	J. Welch, Esq.	5	1	2	375 7	32.26	161
D Redhill (Sid Court)	Miss Janvrin	5	1	0	290	30.90	165
D Nutfield Priory	Mrs. Fielden	8	1	2	468 7	29.41	181
D „ „	Mr. J. Moffatt	8	1	2	331 7	31.72	169
D „ (Holmesdale)	C. Trentham Maw, Esq.	8	3	0	500 7	31.09	163
D Blechingley House	Rev. Canon AHS Barwell	5	1	0	550 7	34.37	164
Betchworth (Sandhills).....	C. J. Whittington, Esq.	8	3	0	250 7	28.70	178
D „ (The Holmes)	F. R. Rushton, Esq....	5	0	8	322 7	33.02	174
Reigate (Hatherlow Observatory)	S. T. Klein, Esq.....	5	0	9	405	28.86	162
D Dorking (High Ashurst)	Dow. Countess of Harrowby..	5	3	0	550	30.91	152
Mickleham (Juniper Hall)	G. MacAndrew, Esq....	5	1	0	185	32.40	...
D „ (Norbury Park)	Mr. G. Kent	9	0	8	500 ?	30.07	...
Headley (The Hurst)	Mrs. Lyall	5	1	3	450	34.47	...

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
SURREY—(con.)						
5.—THAMES—Mole & c—(con.)						
D Walton-on-the-Hill (Hedgecroft)	G. R. Crompton, Esq.	5	1 0	570 T	32·68	171
D " " (Walton Manor)	Mr. J. Millichamp	5	1 0	600	31·70	170
D Leatherhead (Downside)	A. Tate, Esq.	5	1 0	250	28·46	155
§ " (Emlyn House)	A. T. Miller, Esq.	5	1 0	160	27·21	...
D Ashted (Hill Field)	C. F. Howell, Esq.	5	1 0	215	27·51	159
D " (D'Abernon Chase)	Sir W. Vincent, Bart.	5	1 0	280 T	25·73	155
D " (Barnet Wood Lane)	Rev. Theodore E. R. Phillips	5	1 0	167 T	25·78	155
D " (Oakfield Road)	H. F. Acocks, Esq.	5	0 9	189	26·41	150
D " (The Hut)	F. C. Bayard, Esq.	5	0 5	200	27·32	153
D Cobham (Hatchford Park)	Sir H. B. Samuelson, Bart.	8	1 0	170	24·94	...
" Court	C. Talbot Agar, Esq.	...	...	75 ?	23·50	...
Oxshott (Oaklands)	J. J. Morrish, Esq.	...	0 6	246 T	27·97	137
D Banstead (The Hall)	F. C. Bayard, Esq.	8	1 0	480	32·97	157
D " (Basing House)	" " "	8	1 0	456	33·22	157
D Epsom (Durdans)	J. Barclay, Esq.	8	0 11	210 ?	28·34	...
" (Water Works)	W. Vaux Graham Esq. CE	5	3 1	149 T	26·27	...
D Weybridge (Burcote)	C. Sanger, Esq.	5	0 9	120	23·36	166
D Sutton (Camborne Road)	F. E. Wright, Esq.	5	1 0	250 T	28·09	149
D Claygate (Hertslets)	N. C. Armitage, Esq.	5	1 0	106 T	23·64	172
D Esher (Sewage Works)	F. C. Bayard, Esq.	5	1 0	42 T	22·49	148
D Sutton (Water Works)	W. Vaux Graham Esq. CE	5	1 6	166 T	25·20	138
D " (Sewage Works)	W. H. Grieves, Esq., C.E.	8	1 0	100 T	25·62	155
Walton-upon-Thames (Ryden's Rd.)	<i>Surrey Advertiser</i>	...	...	...	23·74	...
D† Surbiton (Seething Wells)	Met. Water Board	5	0 10	34 T	23·47	149
D " (Vronvelin, Lovelace Rd.)	F. J. Barclay, Esq.	5	1 0	50	24·99	161
" (Tandridge House)	Charles Price, Esq.	5	0 10	...	24·72	160
D† West Molesey	Met. Water Board	5	1 0	28 T	24·51	153
D New Malden Sewage Works	T. H. Wilbraham, Esq.	5	1 0	45	22·87	139
D § " (Edenfield)	W. J. Carter, Esq.	5	1 0	40 T	24·59	162
D Kingston (County Hall)	E. Underwood, Esq.	5	0 9	31 T	24·98	146
D " Sewage Works	F. C. Bayard, Esq.	5	1 0	25	26·23	157
D " (Union Street)	Mr. T. Davis	8	3 0	26	23·16	139
D† Wimbledon (Raynes Park)	Messrs. J. Carter & Co.	8	1 0	75	23·74	157
D " (" " Ppg. Stat.)	C. H. Cooper, Esq., C.E.	5	1 0	50 T	24·29	146
D " (Worple Road)	N. Langsmith, Esq.	5	1 1	100 ?	23·32	154
D " (Alyn Bank, The Downs)	F. C. Bayard, Esq.	5	1 1	162 T	25·15	165
D† Richmond (The Terrace)	" " "	8	1 6	109	22·65	147
D " (The Old Palace)	Rev. A. Welsh Owen	8	0 9	...	23·29	155
D† " (Kew Observatory) (R)	Dr. C. Chree, F.R.S.	11	1 9	19 T	23·06	158
D Kew (Kew Gardens Road)	Dr. L. Burrell	5	1 2	19	23·79	160
6.—THAMES—Wey. 236 sq. mi.						
D Haslemere (Whitwell Hatch)	Earl of Altamont	5	1 6	680 T	35·94	...
D† " (Courts Hill)	Mr. J. I. Kennard	8	4 0	481 T	38·04	170
D " (Beech Road)	Nelson K. Cherrill, Esq.	5	0 9	540 T	34·67	156
D† " (Hazelhurst)	T. P. Newman, Esq.	5	1 0	550 B	38·39	182
D† Hindhead (Stoatley Hall)	Mr. H. Simmons	5	1 0	800	36·37	...
D Churt (Furze Hills)	Rev. Clements G. O. Bond	5	0 6	390 T	33·27	165

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge			Depth of Rain.	Days with 40 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
SURREY—(con.)						
6.—THAMES—Wey—(con.)						
Witley (Sandhills).....	L. W. Lodge, Esq. ...	8	1 0	450 ?	33·88	169
„ (Sandhouse)	<i>Surrey Advertiser</i> ..	...	...	...	34·79	...
D „ (King Edward's School)..	J. Wood, Esq.	5	1 3	400	37·27	165
D „ (Great Roke).....	C. W. Dixon, Esq. ...	5	4 6	300	29·67	159
D „ (The Mount)	Mrs. J. H. Foster	5	1 0	375 B	34·61	181
D Hascombe Rectory.....	C. T. Musgrave, Esq....	8	1 0	450 A	33·32	144
D Cranleigh Common (Homefield Cott.)	A. F. Jones, Esq.	5	1 2	175 T	34·17	176
„ (Stonewall)	W. Welch, Esq.	5	1 0	182 A	34·46	...
§ „ (County School)	Royal Meteorological Soc	5	1 0	232 A	27·73	173
D „ (Winterfold)	Mr. R. Turvey	8	3 6	603 T	34·74	143
D Bramley (Grafham Grange).....	Sherringham A. Shepherd, Esq	8	0 4	180 T	31·83	147
D Ewhurst (Downhurst Lodge) ...	Mr. W. Bradfield	5	1 0	350	33·11	160
D „ (Garlands)	G. Johnston, Esq.	5	1 0	360 A	34·35	144
D „ (Malquoits).....	W. Webb, Esq.	5	1 0	400	35·13	150
D „ (Coneyhurst)	Miss Ewart.....	8	1 0	561 A	33·89	164
„ (Woolpit)	Mr. H. W. Perrin	8	1 6	600	32·50	...
Godalming (Farncombe)	<i>Surrey Advertiser</i>	5	1 3	90	30·60	...
D § „ (Charterhouse)	O. H. Latter, Esq.....	5	1 0	315 A	29·85	181
Bramley (The Limes)	Rev. C. J. Etty	5	1 0	136 T	31·01	...
D Farnham (Charleshill)	Mrs. Oliver	5	1 0	230 B	29·29	163
„ (Gong Hill)	Windham H. R. Ryes, Esq..	5	0 8	250	30·26	...
„ (The Lower Bourne)...	G. Sturt, Esq.	5	1 0	320	29·37	...
D „ (Bourne Corner)	Miss I. M. Deedes	5	1 0	357	28·41	131
D Godalming (Tilthams)	Col. A. C. Bigg-Wither	5	1 0	130 A	28·38	174
D „ (Compton Rectory)...	Rev. H. H. Gillett.....	5	1 2	185	30·43	150
D Shere (Burrows Lea).....	Miss Barnard	8	1 0	400 T	30·11	168
Albury (Lockner Holt).....	<i>Surrey Advertiser</i>.....	...	...	...	28·79?	...
„ (Dalton Hall Gardens)...	„ „ „ .....	...	...	...	26·38	...
D Abinger Rectory	Miss Brodie Hall	5	1 0	381 A	33·58	165
D „ Hall.....	Lord Farrer	8	2 0	320 T	34·83	166
D Farnham (Crooksbury)	B. W. Bentinck, Esq....	5	1 0	450	29·57	150
D „ („ Ridges)...	F. R. Walters, Esq. M.D.	5	1 4	440 A	29·83	182
D „ (High Park Road).....	V. B. Longhurst, Esq..	5	1 1	260 ?	29·70	169
„ Castle	Mr. H. Dowding	8	1 0	330	29·09	...
D „ (Short Heath)	Morris Birkbeck, Esq..	5	1 0	352 T	29·49	211
D „ („ „ Lodge)...	Col. G. Chrystie.....	5	1 0	365 A	28·62	173
D Seale (Great Down)	Mrs. Kitchin	12	1 0	470 T	26·59	132
D „ (Poylehill House).....	C. B. Penlington, Esq..	5	0 9	395	30·43	170
Gomshall (The Croft)	<i>Surrey Advertiser</i>.....	...	...	...	28·39	...
D Guildford (Piccard's Rough) ...	H. A. Powell, Esq., M.D.	5	6 0	350 T	26·00	154
D „ (Briarfield)	Miss M. E. Swaine ...	5	3 0	300	30·45	138
„ (Roy. Grammar Sch.)	<i>Surrey Advertiser</i> ...	5	1 2	...	25·16	...
D „ (Newlands Corner) ...	Mr. H. Tann	5	1 6	550 ?	29·38	167
D „ (Hillside)	Miss H. S. Pitman.....	5	1 0	250 T	29·44	215
D „ (Cross Lanes)	F. F. Smallpiece, Esq...	5	0 8	200	26·46	164
D Merrow (Lansdown House)	Lt.-Col. O. Bradshaw..	5	1 4	264 T	29·50	139
„ (Craigie)	Miss Lomer.....	5	0 9	250 T	26·15	150

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	1911	
		in.	ft. in.	feet.	inches.	
SURREY—(con.)						
6.—THAMES—Wey—(con.)						
Merrow (Craigie) <i>Paddock</i>	Miss Lomer.....	...	...	250 T	27·09	...
D Guildford (Burpham)	W. H. Burbidge, Esq..	5	0 8	...	27·78	158
High Clandon	F. B. Eastwood, Esq...	5	0 6	500 T	27·86	...
D Horsley Towers	The Earl of Lovelace...	8	1 2	285 T	29·97	171
D „ (Woodcote Lodge)	Rt. Hon. Sir H. E. Roscoe	7	0 6	600	33·77	168
Worplesdon (Perry Hill)	Mr. G. H. Claydon.....	5	1 0	140 ?	24·97	...
Sutton Park (Manor House).....	<i>Surrey Advertiser</i>	5	1 1	100 T	25·18	...
Send (Sendholme) .....	.....	...	...	...	24·24	...
D „ (Sendbarns)	J. W. G. Bond, Esq....	5	0 11	100	24·83	139
Ripley (Dunsborough House) ...	C. F. M. Cleverly, Esq.	5	1 6	90	24·19	...
D Woking (The Grange)	Rev. F. Wilson	5	0 8	78 T	25·28	175
D „ (Northwood)	S. Price-Williams, Esq.	5	1 3	115 T	23·49	155
D Pyrford (Pyrford Croft)	H. W. Page Phillips, Esq.	5	1 6	100 ?	24·40	153
D Horsell (Lindisaye)	H. Horncastle, Esq. ...	5	4 2	120 T	23·58	150
„ („) ... <i>weekly g.</i>	„	5	0 9	120 T	23·53	...
D „ (Kettlewell Hill)	Claude Marzetti, Esq...	5	0 9	115 T	24·35	162
D § Wisley (R.H.S. Gardens)	J. T. Wright, Esq. ...	8	1 0	150	23·53	148
„ (West Hall Gardens).....	Mr. G. Carpenter	5	1 6	61	24·06	...
Woking (Woodham Hall)	Mr. F. Seabrook.....	...	...	105 ?	24·73	...
D West Byfleet (Hollywood)	Allanson Bailey, Esq...	5	1 1	100 ?	23·42	150
D Weybridge (Field Place)	Mrs. Yool	5	1 0	118 T	24·51	185
„ („) M	„	5	1 0	109 T	24·47	...
D „ (Heath Field).....	Miss A. T. Gardiner ..	5	1 0	100 T	25·45	170
D „ (Portmore Road) ...	Mr. W. E. Anderson...	5	1 0	47	24·24	144
D „ (West Oaks)	A. Whittet, Esq.	5	1 0	36 T	23·78	155
„ (Station Road)	H. K. G. Rogers, Esq..	5	1 1	85	25·04	...
D „ (Lyncroft)	Maj.-Gen. J P Battersby	5	0 10	70	23·43	148
7.—THAMES—Bourne. 55 sq. mi.						
D § Brookwood (Knapp Hill)	Mr. G. C. H. Simmonds	5	1 0	181 T	26·00	171
„ („ „ Lynbrook)	C. Wigan, Esq.	5	1 8	200	26·08	167
D Chobham (Sandpit Hall)	K. H. Power, Esq. ...	5	1 0	100	24·34	158
D „ (Chobham House).....	Miss C. M. Perceval ...	5	1 6	80	29·15	145
„ (The Manor House) ...	<i>Surrey Advertiser</i>.....	...	...	...	24·62	...
D Chertsey (Ottershaw)	R. H. Otter, Esq.	5	1 0	200 T	23·28	158
„ (Long Cross)	F. A. Baker, Esq.....	5	3 0	205 T	24·36	...
D „ (Botleys Park Gardens)	Mr. H. Whitmarsh ...	5	1 5	111 T	24·42	137
D Windlesham (Westwood)	Col. G. A. Curzon	5	0 10	300 T	24·68	130
D † Sunningdale (The Camp)	Lady Hooker	5	1 2	252	24·12	142
D Virginia Water (St. Ann's Heath)	Rev. J. Peck	8	1 1	120	23·28	156
D Egham Park ...	J. R. FitzGerald, Esq.	4	0 11	150 ?	25·35	144
Englefield Green (Queenswood) ..	W. G. Rigden, Esq. ...	8	2 0	200	28·67	167
D „ „ (Harvest Road)	H. Fermor, Esq.....	5	0 9	205	26·80	155
8.—THAMES—Loddon. 17 sq. mi.						
D Frimley Green (Ridgemount) ...	C. C. Haviland, Esq....	5	0 9	350	26·48	200
D „ (Tomlinscote)	Mr. T. Dawson	5	1 9	200	25·39	181

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	1911	
		in.	ft. in.	feet.	inches.	
KENT—(con.)						
4.—MEDWAY—(con.)						
Tonbridge (Colebrooke) <i>Snowdon</i>	W. A. Smith, Esq.	5	1 0	350 T	34.05	146
D „ (Knowles Bank)	J. Waley Cohen, Esq.	5	0 8	319 T	30.40	131
Staplehurst (Lindridge Farm)....	J. Norris, Esq.	5	1 4	310 T	28.84	169
Penshurst Place.....	Lord De L'Isle	5	1 6	150 ?	35.90?	...
D „ Park.....	Mr. J. M. Sturgess ...	5	0 9	265 T	28.92	150
Tonbridge (Mabledon Park).....	J. F. W. Deacon, Esq.	5	1 2	190 ?	30.04	134
„ (Brooklands)	G. J. Kimmins, Esq.	5	0 10	120 T	30.04	151
D „ (Beech Hurst)	W. C. Punnett, Esq.	5	1 6	102 T	30.08	150
„ { „ „ } <i>Snowdon</i> „ „ „ ..	„ „ „ ..	5	1 6	102 T	29.80	149
„ { „ „ } „ „ „ ..	„ „ „ ..	8	4 0	105 T	29.23	...
„ (The Manor House)....	M. S. David, Esq.	5	1 1	135 T	29.25	152
D „ (London Road)	Dr. G. H. Cressy	5	1 6	105	30.21	171
„ (Pinnacles)	A. H. Neve, Esq.	5	1 0	140 T	29.61	166
D Edenbridge (Cluny)	J. L. Boyson, Esq.	5	1 6	161 T	28.73	150
D Hadlow Place.....	C. J. G. Hulkes, Esq.	5	1 0	50	29.65	181
D „ (Golden Green)	F. W. E. Shrivell, Esq.	5	1 0	100	29.13	171
D§ Hildenborough (Hollanden Ho.).	C. H. Scott, Esq.	8	1 0	100	27.83	149
„ (Fairhill)	Mr. F. King	5	1 0	200	31.78	...
D Ulcombe Place	A. O. Walker, Esq.	5	1 0	350 T	27.43	152
D Linton Park	Mr. C. Pratt	5	0 8	...	28.93	158
D Langley (Rumwood)	Mr. W. J. Gould	5	1 9	354	28.66	174
D Leeds (Schoolhouse)	H. E. Bridge, Esq.	5	1 0	300 ?	28.33	167
D† Sevenoaks (River Hill).....	Lt.-Col. J. M. Rogers, DSO	8	4 0	535 T	30.23	148
D „ (Soar Farm, Plaxtol)	H. Stonham, Esq.	5	3 0	300 T	29.61	136
D Maidstone (Lower Tovil)	Lawrence Green, Esq.	5	1 0	30 L	27.10	155
D „ (W.W., Barming) ...	W. J. Ware, Esq., C.E.	8	1 0	30 T	29.87	152
D „ (Long Rede, „) ...	Rev. T. W. Carr	8	3 2	280 T	28.83	155
D† „ (Brenchley Gardens)....	T. F. Bunting, Esq., C.E.	5	0 9	50	29.06	162
D† „ (Mill Street).....	„ „ „ ..	8	6 0	38 T	29.77	167
D East Malling (Broadwater)	C. B. Mercer, Esq.	5	1 6	169	29.17	166
D West Malling (St. Leonards) ...	G. Phillips, Esq.	5	1 0	...	31.28	161
D Maidstone (Allington Lock)....	Mr. J. Rose	5	1 0	45 ?	26.96	148
„ („ Nursery)....	Messrs. G. Bunyard & Co.	5	1 6	112	27.65	...
D Detling (Frimmingham Lodge) ...	R. M. Ker, Esq.	5	1 0	495 T	30.74	162
„ („ Hill Top)	„ „ „ ..	5	1 0	652	31.84	...
D† „ (The Croft)	R. Cooke, Esq.	5	1 2	330 T	31.54	182
D „ („)	„ „ „ ..	5	1 0	330 T	31.89	181
„ (Pollhill Fields)	„ „ „ ..	5	1 0	...	29.80	...
D† Wrotham (Whitehill)	A. F. Bowker, Esq., C.E.	5	1 0	365 T	29.87	161
† „ („)	„ „ „ ..	8	1 0	365 T	29.42	...
D Bredhurst Vicarage	Rev. E. E. Phillips ...	5	1 0	450	29.90	144
Halling Pumping Station.....	F. L. Ball, Esq.	5	1 0	75 T	22.17	...
D Chatham (Luton W.W.)	W. Coles Finch, Esq.	5	3 0	88 T	25.44	138
D Rochester (Knights Place)	James Pye, Esq.	5	3 0	320	25.41	154
Strood Water Works	W. Banks, Esq., C.E.	5	3 0	112 T	25.65	161
D Frindsbury (The Shrubbery) ...	Warwick Stunt, Esq.	5	1 6	150	24.31	136
D „ (Stonehouse)	E. W. Wood, Esq.	5	5 0	20	23.89	159

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in	ft. in.	feet.	inches.	
KENT—(con.)						
4.—MEDWAY—(con.)						
D Hoo St. Mary (St. Mary's Hall)..	H. Pye, Esq.	5	5 6	146 T	21·15	141
5.—THAMES—Darent. 256 sq. mi.						
D Westerham.....	Met. Water Board.....	5	1 0	380	31·96	155
D " Hill Estate	" " "	5	1 0	539	30·82	162
Seal (Bitchet Wood)	Admiral G.S.Bosanquet	5	1 0	580 T	36·75	148
†Sevenoaks (Tonbridge Rd.Res.)M	A. Grainger, Esq.	5	1 6	556	30·54	...
D† " (The Old House)	W. Tattersall, Esq. ...	8	1 0	510 T	32·59	165
D† " (St. John's Hill)	F. C. Bayard, Esq. ...	5	1 3	404 T	36·08	152
D† Brasted (Combe Bank)	Robert Mond, Esq.....	8	0 10	323 T	32·20	167
D Tatsfield (Betsom Hill)	Met. Water Board.....	5	0 7	820 T	34·69	151
†Seal (St. Lawrence Reservoir) ...	A. Grainger, Esq.	8	1 0	665 T	31·85	...
† " (Oak Bank Reservoir)	" " "	8	1 0	550 T	33·24	...
† "	M A. F. Bowker, Esq., C.E.	5	6 0	324 T	31·85	...
† " (Kemsing Pumping Station)	A. Grainger, Esq.	5	1 0	292 T	31·64	...
D Sevenoaks (Chevening Gardens)	Mr. C. Sutton.....	5	1 0	360	34·76	150
D† Knockholt (Kent Waterworks)..	Met. Water Board.....	5	1 0	785	32·37	147
D Otford (Beechy Lees)	Mr. R. Edwards.....	5	0 10	480 T	32·29	164
D† Halstead Rectory	Rev. F. H. Deane	5	1 0	539 T	32·49	170
" Place	Mr. W. Dryden	5	1 3	523 T	32·51	170
Downe (Petleys)	Miss Murton	5	0 11	...	29·94	...
D " (Council School)	A. J. Ridge, Esq.	5	0 8	500 T	30·91	157
D Keston (Forest Lodge)	F. C. Bayard, Esq. ...	5	1 0	300	30·83	146
D West Wickham (Wickham Court)	" " "	5	1 2	300	29·60	139
D Hayes (Hayes Place)	" " "	8	1 0	350	28·16	133
D† Orpington (Kent Waterworks)...	Met. Water Board.....	5	1 0	220	27·35	151
Meopham	Jesse Garratt, Esq. ...	5	1 1	290 T	24·85	141
Cobham (Sole Street)	J. Scratton, Esq.	5	1 8	311 T	25·72	...
D Bromley Common (Elmfield) ...	Rev. J. P. Faunthorpe..	5	0 9	240 T	24·71	155
D Bickley (Sunnydene)	Sir J. Wrench Towse...	5	1 0	270 T	24·12	144
Bromley (Widmore Road)	D. G. Simpson, Esq. ...	8	1 3	260 T	22·91	162
" (The Palace)	F. C. Bayard, Esq. ...	5	1 0	187	22·31	...
D " (Ravensfell)	H. L. Richardson, Esq.	5	1 0	200	23·58	148
" (Lansdown Road)	C. A. Case, Esq.	5	1 0	220	23·11	...
D " (Kinnaird Avenue) ...	C. T. Drew, Esq.	8	3 0	300 P	20·22	143
Shortlands (The Gables)	A. March Tapp, Esq....	5	1 0	200	22·50	...
D Beckenham (Croydon Road)	J. A. Angell, Esq.....	8	1 0	110 T	28·59	158
Chislehurst (Hawkwood)	F. C. Bayard, Esq.....	5	1 0	300	22·82	...
D Gravesend (Thong)	C. H. Scriven, Esq. ...	5	1 0	255 B	25·74	164
D Southfleet (Kent Waterworks)...	Met. Water Board.....	5	1 0	82	22·39	144
D Wilmington (" ")	" " "	5	1 0	25	21·10	152
D Dartford (West Hill House)	F. C. Bayard, Esq. ...	5	1 3	100	23·87	131
D Higham (Oakleigh)	C. Lake, Esq.....	8	1 2	25	22·73	133
D Erith (Crossness)	Sir M. Fitzmaurice, CMG	14	0 6	16 T	18·65	131

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with '01 or more recorded.	
		Diameter	Height Above Ground	Height Above Sea Level			
		in.	ft.	in.	feet.	inches.	
SUSSEX. (Area, 1458 sq. mi.)							
1.—LAVANT & C. 175 sq. mi.							
d† Selsey (Large Acres)	E. Heron Allen, Esq...	5	1	0	25	27·64	137
d† " (" ") ... <i>Snowdon</i>	" " " " " " " " " "	5	1	0	25	28·46	137
Sidlesham (Ivy Grange)	J. W. Moore, Esq.	5	1	1	10	30·84	...
d§ Bognor	Dr. H. C. L. Morris ...	8	1	0	15	28·33	146
" (Albert Road)	HLFGuermonprez, Esq.	8	1	0	20	28·11	140
" (Lidsey Lodge)	H. Neale, Esq.	8	1	2	25	29·06	131
d West Thorney (The Manor House)	H. Padwick, Esq.	5	1	0	23 †	29·82	134
Arundel (Bonhams, Yapton) ...	W. Harrison, Esq.	5	1	0	24 †	28·10	136
" (Drove Farm, ") ...	" " " " " " " " " "	5	1	0	14 †	27·80	136
d Chichester (Westgate)	G. A. Tyacke, Esq. ...	8	0	6	40	29·95	143
d " (Oakwood House) ...	F. B. Du Pré, Esq. ...	5	0	7	101 †	33·18	153
d West Bourne [Emsworth]	Rev. L. B. Birkett.	5	1	0	50	34·43	164
d Funtington	J. A. Greenwood, Esq.	5	1	0	95 †	32·82	139
West Stoke Rectory	Rev. W. F. Shaw	5	1	0	176 †	35·95	144
d Chichester (Goodwood Gardens).	Mr. F. Brock	5	1	3	133	36·47	149
d " (Watergate House) ...	W. M. Christy, Esq....	5	1	0	236 †	36·10	172
" (West Dean Park) ...	Mr. W. H. Smith	10	1	6	190 †	38·17	131
" (Chilgrove)	J. W. Woods, Esq. ...	5	0	6	284 †	36·42	...
d Compton House [Petersfield] ...	Rev. H. M. Langdale...	5	1	0	255 †	39·39	179
2.—ARUN. 285 sq. mi.							
d Littlehampton (Dorset House)...	G. H. Beecheno, Esq...	5	2	0	30	28·22	131
Angmering	Rev. J. B. Orme.....	5	0	9	44	29·37	...
d Tortington House	Major J. A. Travers ...	5	1	0	25 †	30·72	156
d Arundel (Patchig)	J. Drewitt, Esq.....	5	1	0	180	33·23	144
d " { " }	Mrs. Joad	5	0	10	130 B	33·01	160
Sutton (Coldharbour)	Mr. J. Campbell.....	5	2	0	340	35·19	...
West Chilington (Gaywood) ...	E. Burney-Young, Esq.	5	0	8	134	31·21	...
Cocking Rectory	Mrs. Randall	5	1	0	193	37·02	162
Elsted (Telegraph House).....	The Earl Russell	5	0	4	625 †	38·89	...
Bepton (Linch Farm)	G. Eames, Esq.	5	0	8	276 †	41·32	139
" (Fairfield)	Major W. A. Chauncy..	5	0	8	155 †	35·27	130
Midhurst (Pendean)	Lt.-Col. P. C. Bulloch	5	1	0	206 †	38·78	141
West Harting [Petersfield]	Miss Monkhouse.....	5	0	6	...	39·07	...
d Selham Rectory	Rev. R. D. H. Gray ...	5	1	0	77 †	37·35	160
d Stedham (Rotherhill).....	Dr. W. A. Wills	8	0	8	170 †	39·91	152
d Easebourne (Hollist House)	Nigel V. Combe, Esq...	5	0	10	107 †	37·22	152
d Petworth Park	Mr. E. W. Pull.....	5	1	0	182 †	34·70	142
Tillington (River House)	The Hon. Lady Cunliffe	5	1	0	230	35·76	153
Midhurst (Lodsworth)	Lt.-Col. E.O.Hollist, RA	8	1	3	230	32·33	135
d§ " (K. Edward VII. San.)	Dr. Nowell Bardswell...	5	1	0	489	34·73	158
Wisborough Green (Lowfold) ...	B. de F. Osmaston, Esq.	5	1	6	120	29·15	...
d Linchmere (Borden Wood)	E. G. Lamb, Esq.	8	1	0	260 †	39·84	166
" (Hollycombe)	J. C. Hawkshaw, Esq..	8	6	6	550	36·62	...
d Fernhurst (Blackdown House)...	Lady Philipson Stow...	5	2	0	488 †	30·46	132
d Lower Beeding (The Warren) ...	Leicester M. Reed, Esq.	5	0	10	430 †	33·56	149
Horsham (Denne Park).....	Mr. F. Mannors	5	4	0	246 †	31·20	...
§ " (Christ's Hospital).....	S. H. Jennings, Esq....	5	1	0	161 †	31·44	151

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
SUSSEX—(con.)							
2.—ARUN—(con.)							
† Horsham (Manor House)	H. Padwick, Esq.	8	0	10	140 †	33·21	133
d† „ (Richmond Road)	Miss L. E. Whitling ...	5	1	2	190	33·90	174
d† „ (Wimblehurst)	Miss E. M. Allcard ...	5	1	0	195 †	32·62	177
d Slinfold (Rapkyns)	W. Duncan Knight, Esq.	5	1	0	170	28·11	133
d Rudgwick (Hermongers)	H. G. Busk, Esq.	5	1	0	248 †	29·92	132
3.—ADUR & C. 237 sq. mi.							
d Rottingdean	G. Mason, Esq.	5	1	0	120	31·64	137
Worthing (Victoria Park)	Dr. R. H. Wilshaw ...	8	1	0	36 †	31·68	149
d „ (Tarring)	Rev. H. E. Cooper	5	1	6	34 †	31·82	158
d† Brighton (Old Steyne)	D. Forbes, Esq., M.D..	5	1	0	32 †	30·54	143
d „ W.W. (Goldstone Bottom)	J. Johnston, Esq., C.E.	8	0	7	140 †	29·45	144
d „ „ (Lewes Road)	„ „ „	8	3	6	88 †	33·79	150
d „ „ (Upper Portslade)	„ „ „	8	1	3	167 †	32·13	158
d „ „ (Race Hill Reservoir)	„ „ „	8	1	0	466 †	34·41	153
d† „ (Preston Drive, Preston)	F. H. Phillips, Esq. ...	8	1	0	143 †	29·23	161
d „ (Ashford Road, „)	C. Biddlesden, Esq. ...	5	5	3	315 †	32·51	166
d „ (The Knowle, Withdeane)	P. J. Trouncer, Esq. ...	8	1	3	100	34·30	...
d† „ (Ditchling Rd., Preston)	G. Berry Hamlin, Esq.	5	1	0	302 †	33·86	167
† „ (Upper Roedale)	„ „ „	5	1	0	385 †	35·31	...
d Falmer (Brighton W.W.)	J. Johnston, Esq., C.E.	8	1	8	209 †	34·66	159
d Patcham („ „)	„ „ „	5	1	6	207 †	36·90	168
d Steyning	late Mrs. Ingram	5	1	0	80 †	36·86	134
„ (Crescent Road)	Mr. H. J. Hide	5	1	0	80 †	38·28	142
d Hassocks (Pyecombe)	Mr. F. S. Mitchell	5	0	7	392	37·38	152
d Clayton Windmills	E. A. Martin, Esq.	5	1	0	584 †	45·72	148
„ Rectory	Rev. T. H. R. Shand ...	9	1	6	201 †	37·73	173
d Hurstpierpoint (Danny Park)	Mr. J. J. Bunney	8	1	3	180	41·75	130
d Ditchling	E. A. Martin, Esq.	5	1	0	220 †	36·32	136
Keymer (The Limes)	Miss Berry	5	1	1	145 †	39·16	...
Burgess Hill (Ote Hall)	Mrs. Woods	5	1	6	...	38·14?	...
d Bolney Vicarage	Mr. J. Hodgson	5	0	11	99 †	33·04	156
Cowfold (Maple Bank)	Mr. S. Ford	5	1	6	373	32·32	...
§ Cuckfield (Workhouse)	Meteorological Office ...	8	1	0	389	41·81	140
d „ (Henmead Hall)	late Maj.-Gen. Campbell	5	4	5	365 †	35·03	166
d Lower Beeding (Leonardslee)	Sir E. G. Loder, Bart...	8	1	0	365	34·87	142
4.—OUSE. 224 sq. mi.							
d Seaford College	Col. F. W. Savage	5	1	6	38 †	33·97	145
d Newhaven (Poverty Bottom)	J. T. Bickford, Esq. ...	8	1	1	51 †	32·05	140
d Lewes (Little Dene)	Miss B. Brand	8	0	11	93 †	35·00	140
d Falmer Court	R. H. Verrall, Esq. ...	5	3	0	312 †	36·86	159
d Lewes (Waterworks)	A. Wells, Esq.	8	1	3	13 †	38·21	154
d§ „ (Bedford Lodge)	Mrs. Kemp ..	5	1	0	85 †	28·97	166
d Isfield Place	Major H. King	5	1	0	51	32·90	143
„ „	weekly g. „ „	5	1	0	51	32·68	...
„ „	monthly g. „ „	5	1	0	51	32·87	...
d Uckfield (Agricultural College)	Prof. S. Allinson Woodhead	8	1	0	166 †	31·99	152
d Haywards Heath (Franklyn Road)	Mr. R. Inglis	5	1	0	260 †	35·50	152

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1911	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
SUSSEX—(con.)							
4.—OUSE—(con.)							
D Haywards Heath (S. Wilfrid's Par.)	Mr. J. E. Shirley	5	1	0	300 T	35.88	157
D Buxted Park	Mr. G. Phillips	8	0	7	94	35.24	156
„ (Strawberry Hall)	C. Rintoul, Esq.	5	1	0	180	35.89	142
D Nutley Vicarage	Rev. H. J. Peckham ...	5	1	0	386 T	36.51	176
D „ (The Hall)	Miss Cook	5	0	10	417	38.74	161
D Haywards Heath (Brook House)	H. R. G. Clarke, Esq..	8	1	0	240	36.23	146
D Ardingly (Lywood House)	G. Forrester Scott, Esq.	5	0	9	240 T	35.64	164
D Balcombe (The Gables)	Mr. G. J. Warren	8	1	3	358 T	39.01	175
D „ (Stockcroft)	R. Newton, Esq.	5	1	1	341 T	37.80	159
D „ (Waterworks)	F. Martin, Esq., C.E. ...	8	1	0	471 T	37.88	135
D „ (Highley Manor)	H. Faure Walker, Esq.	8	1	6	420	32.49	161
5.—CUCKMERE & C. 189 sq. mi.							
D† Eastbourne (Wilmington Square)	Dr. W. G. Willoughby	5	1	0	39	35.54	149
D „ (Glenthorne)	Miss Woodd	8	1	6	86 T	36.96	167
„ (Arundel Road)	J. C. Wright, Esq.	5	1	0	70	36.67	...
D „ (Staveley Cross)	J. Weston, Esq.	5	1	6	110 T	35.78	166
D West Dean	F. Stileman, Esq., C.E.	8	1	0	112 T	30.32	161
D Jevington (Church Farm)	„ „ „	8	0	9	274 T	35.99	171
„ Litlington (Plough & Harrow Inn)	„ „ „	8	1	0	19 T	33.56	...
D§ Bexhill (Marina)	Mr. G. Brisley	8	1	0	27	28.43	143
† St. Leonards (West Marina) ...	H. Colborne, Esq.	8	1	0	24 T	30.48	162
† „ (Gensing Gardens)	„ „ „	8	1	0	179 T	29.61	164
D Polegate (Alciston)	R. Matthews, Esq.	5	1	0	172 T	36.56	170
„ Hailsham	Rev. F. Clyde Harvey..	5	1	0	105	35.59	...
D „ (Magham Down)	W. E. Bear, Esq.	5	2	9	90 T	30.35	134
„ Hurstmonceux Place	H. A. James, Esq.	5	1	8	83 T	30.51	...
§ Hastings	Meteorological Office ...	8	1	0	174	29.61	164
D „ (Newgate)	(R) P. H. Palmer, Esq., CE	8	5	6	240	32.65	147
„ (Filsham Reservoir) ...	H. Colborne, Esq.	5	0	10	91	28.02	...
„ (Halton Reservoir)	„ „ „	5	0	10	301	32.40	...
„ (Fairlight Reservoir) ...	„ „ „	5	0	10	517	32.09	...
D§ „ (Cemetery)	Walter Field, Esq. ...	5	0	8	500	30.60	148
D Horeham Manor	Miss P. C. Harrison ...	5	0	9	250	35.43	156
D „ Grange	W. F. Beauford, Esq..	5	1	2	260 T	35.85	155
D „ Road (Hollycroft Cottage)	J. Hamlin, Esq.	5	1	0	300 T	36.05	153
D Heathfield (The White Cottage)	J. F. Leigh Clare, Esq.	5	1	3	500 T	34.77	148
6.—ROTHER. 194 sq. mi.							
D Hastings (Guestling Rectory) ...	Rev. E. N. Bloomfield.	5	1	5	125 T	33.81	153
„ Winchelsea (Nesbit Cottage) ...	Miss G. Leigh	5	1	1	124 T	34.39	168
„ (Mariteau House) ...	C. W. Campion, Esq. ...	5	1	0	120	33.38	...
D Battle (Whatlington)	Miss H. Gripper	5	1	3	90 T	36.06	155
„ Udimore (The Hammonds)	J. G. Mair-Rumley, Esq.	8	1	0	144 T	29.25	146
D Rye (Point Hill)	Dr. C. S. Ticehurst ...	5	1	0	127	29.82	148
D Heathfield (Tottingworth Park).	Mr. J. Masson	5	1	0	500 T	36.09	150
D Robertsbridge (Salehurst Vic.) ...	Rev. E. J. Sing	5	0	9	110 T	35.75	165
D Mayfield (Five Ashes)	Miss Emily Aston	5	1	5	300	35.38	170
D Bodiam (South Park)	L. M. Jackson, Esq. ...	5	1	1	208 T	31.94	158

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1911	
		in.	ft.	in.	feet.	inches.	
SUSSEX—(con.)							
6.—ROTHER—(con.)							
D Wadhurst (The Olives).....	Miss Edith P. Luck ...	5	1	0	380	35.74	184
Etchingham (Shoyswell Manor)...	I. Seligman, Esq.	4	1	9	250	38.00?	...
D Ticehurst (Myskyns).....	E. H. Cartwright, Esq.	5	1	0	340 \nearrow	35.39	165
D „ House	Mr. J. D. Jordan	5	4	9	423 \nearrow	33.30	139
7.—MEDWAY. 117 sq. mi.							
D Nutley (Chelwood Beacon)	Lady Clarke Jervoise...	5	1	3	530 \uparrow	37.78	153
D Crowborough (Jarvis Brook).....	Crowborough Water Co.	5	1	0	325 \nearrow	40.71	162
D „ (Te Whare).....	Miss Hames	5	1	0	796 \uparrow	45.99	197
D Wadhurst (Lower Cousley Wood)	F. Wilkin, Esq.....	5	1	0	416 \nearrow	32.19	159
D Nutley (Pippingford Park)	Mr. P. Sutherland	5	1	0	600	37.73	166
D Forest Row (Wych Cross Place)...	D. W. Freshfield, Esq.	5	0	10	600 \uparrow	42.04	158
D „ „ (Hindleap Lodge) ...	Mr. A. Adam	5	1	6	620	36.63	133
„ „ (Charlwood Farm)...	A. Hoare, Esq.	5	1	0	250 \uparrow	36.21	...
Frant (Hazelhurst)	C. E. Ashfield, Esq. ...	5	1	8	450	34.30	151
D „ (Henley Lodge)	E. Malden, Esq.....	5	1	0	445 \uparrow	32.85	161
D „ (Eridge Castle)	Mr. A. Wilson	5	2	0	400	39.40	132
„ (Highfield)	C. M. R. Cleeve, Esq... 5	2	3	413	34.59	...	
D Crawley Down (The Grange).....	T. H. W. Buckley, Esq.	5	1	0	430 \nearrow	36.71	183
D East Grinstead (Cranston Road).	Mr. G. Mitchell	8	2	2	420 \uparrow	38.02	155
D Glen Andred [Groombridge] ...	Mrs. Boardman	8	1	0	320	36.16	144
Cozleigh [„] ...	J. Anderson, Esq.	8	2	0	230	36.17	149
8.—THAMES—Mole. 27 sq. mi.							
D Worth (South Hill)	T. E. Ravenshaw, Esq.	8	1	6	558 \uparrow	37.86	198
9.—THAMES—Wey. 10 sq. mi.							
HAMPSHIRE. (Area, 1622 sq. mi.)							
1.—ISLE OF WIGHT. 150 sq. mi.							
D† Ventnor (Flint Cottage)	J. S. Ineson, Esq.	5	1	0	99 \nearrow	29.45	142
D† „ (Royal National Hospital)	Miss M. Gibson	5	1	0	60	29.31	165
D Shanklin	E. C. Cooper, Esq., C.E.	8	1	0	184 \nearrow	33.23	138
D Sandown (Free Library)	C. E. Gilchrist, Esq....	8	1	0	15	32.73	163
D† Totland Bay (Aston House).....	J. Dover, Esq.	8	1	3	145 \nearrow	27.41	152
D† Newport (Grammar School)	C. D. Vibert, Esq.	5	1	0	65	36.40	160
Brading (Ryde W.W., Knighton)	J. T. Harvey, Esq., C.E.	8	2	0	73 \nearrow	35.99	134
† Ryde (New Lodge, St. John's Park)	late Capt. W. A. Dobie	5	1	1	147	32.95	154
„ (Perivale)	Major E. C. Murray ...	5	1	3	193 \nearrow	35.60	147
D† „ (Pier Street)	G. Nicholson, Esq.....	12	10	8	35	39.08	143
„ (Esplanade Gardens)	C. Mathew, Esq.	8	2	0	6 \nearrow	33.38	144
D† „ (Beldornie Tower)	P. Craven Hall, Esq....	5	1	0	30 \nearrow	30.84	159
D† Wootton (Fernhill)	C. G. Brodie, Esq.....	8	0	6	118 \uparrow	35.97	132
D East Cowes (Spring Hill).....	G. Shedden, Esq.	5	1	0	121 \nearrow	30.27	144
Cowes W.W. (Broadfield).....	J. W. Webster, Esq., C.E.	5	0	10	161	31.05	...
„ (High Street)	Mr. H. S. Benzie	5	6	0	20	31.27	138

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
HAMPSHIRE—(con.)						
2.—STOUR. 32 sq. mi.						
D Bournemouth (West Cliff)	Rev. G. A. Rideout ...	5	1 0	190	31·26	149
D „ (Clarendon Court)	G. Galpin, Esq.	5	1 0	130 †	28·97	141
† „ (South Cliff)	C. Dales, Esq.	5	1 0	41	27·08	157
† „ (Pleasure Gardens)	„ „ „	5	1 0	41	32·56	157
§ „ (Vale View)	„ „ „	5	1 0	145	30·38	159
D „ (Wellington House)	Messrs. Primavesi Bros.	5	1 0	100 †	27·07	162
D Christchurch (The White House)	A. H. Searle, Esq.	5	1 4	18 †	29·78	165
D „ (Heron Court)	The Earl of Malmesbury	5	1 2	25 †	31·79	146
D „ (Mill House, Hurn)	Mr. G. Rea	8	1 0	25 †	30·31	149
3.—EAST AVON & C. 114 sq. mi.						
D Christchurch (Winkton Lodge) ..	Miss Lassell	5	1 0	34 †	28·25	153
D Ringwood (West Mount)	R. F. Williams, Esq.	5	1 0	100 †	30·74	165
„ Vicarage	Rev. W. D. Bodkin ...	5	2 0	70 †	28·70	...
„ (Ellingham Vicarage)	Rev. E. W. Poore	8	0 6	77 †	30·10	134
D Fordingbridge (Cuckoo Hill) ...	Heywood Sumner, Esq. ...	5	0 7	150	31·11	160
D „ (Oaklands)	S. B. Rake, Esq.	8	1 0	135 †	28·86	152
D Tidworth House [Ludgershall] ..	late Mr. G. A. Inglefield	5	1 8	357 †	24·74	153
4.—TEST & SOLENT. 551 sq. mi.						
D Milford-on-Sea (Salt Grass)	A. C. G. Heygate, Esq. ...	5	1 0	6	27·74	142
„ „ „ (Milford House) ..	E. L. Agar, Esq.	5	0 8	40	28·25	161
Lymington (The Salterns)	P. A. Ouvry, Esq.	5	1 0	1	29·31	150
Milton (Wootton Hill)	Lt.-Col. R. Harman ...	5	1 0	188 †	30·88	153
D Fawley (Cadland)	Mr. J. A. Johnson	8	4 6	52 †	31·05	140
D Hythe (The Garth, Dibden)	P. C. Crossley, Esq. ...	8	1 0	127 †	30·88	152
D „ (Heathfield, „)	Jesse Reeves, Esq.	5	1 3	127	32·15	143
„ (Heatherdown, Purlieu) ..	H. S. Gilman, Esq. ...	5	1 4	126 †	32·96	158
D Marchwood (Byams)	Maj. H. J. G. Lloyd ...	5	1 0	25 †	30·06	155
D § Southampton (East Park)	Col. C. F. Close, C.M.G.	8	1 0	65 †	30·38	154
„ (Hulse Road)	A. Spooner, Esq.	5	1 1	88	29·80	...
„ Common Res.	M. E. C. Rodda, Esq.	5	1 0	193 †	27·71	...
D Ampfield Vicarage	Rev. Vere Awdry	5	3 0	233 †	26·61	154
D Romsey (Timsbury)	(R) W. Matthews, Esq., C.E.	8	1 8	96 †	27·66	154
D West Dean	Rev. E. Wells	5	1 0	149 †	27·17	160
Horsebridge (Bossington House) ..	W. H. Deverell, Esq. ...	8	0 9	92 †	30·11	153
D Stockbridge (Ashley)	Legh S. Powell, Esq. ...	5	1 3	235 †	28·44	155
D Broughton	W. Steele Tomkins, Esq.	5	1 0	125 †	31·81	160
D Barton Stacey (Moody's Down) ..	H. J. Gardiner, Esq.	5	1 3	230	29·53	148
D Micheldever (Northbrook House) ..	Miss E. M. Hare	5	0 11	325	29·85	170
D Sutton Scotney (The Nursery) ...	R. d'Eyncourt Day, Esq.	5	1 0	200	26·40	146
Longparish House	Mrs. Diggle	5	0 9	190 †	26·71	...
D Oakley Rectory	Rev. F. G. Hume	5	1 6	400	30·18	180
D „ (Malshanger)	G. Walter, Esq. ....	...	1 0	400	31·06	154
D „ (Upper Wootton)	W. Roberts Thomson, Esq. ...	5	1 4	500	29·65	143
D Facombe Manor	H. Gibson, Esq.	8	1 3	760 †	31·48	157

DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
HAMPSHIRE—(con.)						
4.—TEST & SOLENT—(con.)						
Vernhams Dean (Rowe House)...	Adm. E. H. Gamble, C.B.	5	0	7	650 T	28.13 ...
5.—ITCHEN & SPITHEAD. 422 sq. mi.						
† Portsmouth (Eastney)	A. W. Ward, Esq., C.E.	8	0	9	16 T	29.95 ...
D† „ (Victoria Park)	Dr. A. Mearns Fraser...	5	1	0	18 T	30.21 141
D Hayling Island (Littlemead) ...	Douglas S. Bird, Esq...	5	1	2	5 T	29.45 150
D „ „ (Lama House)...	J. Johnson, Esq.	5	1	2	14 T	28.64 138
D Porchester (Noel Cottage).....	Miss Montgomerie Frost	5	2	0	...	29.71 145
Fareham (Cams Hall)	Capt. J. Ramsay	5	1	6	40	32.00 ...
D „ (The Mount)	H. R. Pink, Esq.	5	1	6	250 T	32.02 133
D „ (Roche Court)	Mrs. H. F. Rawstorne..	5	1	0	104 T	35.21 147
D Warsash (Hook Vicarage)	Rev. C. B. Lloyd	5	1	2	60 T	28.45 143
D† Havant (Farlington).....	H. Ashley, Esq., C.E...	5	1	0	77 T	27.52 147
† „ („).....	M „ „ „	5	1	0	77 T	27.95 ...
D† „	„ „ „	5	1	0	25 T	30.68 156
† „	M „ „ „	5	1	0	25 T	30.97 ...
„ (Warblington Cottage)...	G. H. Evans, Esq.....	5	0	6	9 T	29.19 ...
Cosham (Purbrook Grange)	Miss F. A. Deverell ...	8	0	9	100 ?	33.16 ...
Netley (Lake House).....	Miss Pennington	8	1	0	54 T	30.69 172
D Wickham (Park Place).....	Lt.-Col. H. R. Farquhar	5	1	0	150 T	31.45 146
Southampton (Thornhill Park)...	Mr. G. Busby.....	5	1	8	220 T	32.34 ..
„ (Bitterne, Moorlands)	Courtenay F. Wilson Esq	5	1	0	200	29.81 146
D Botley (Hedge End)	Rev. T. H. Philpott ...	8	1	1	178 T	32.16 157
† „ (Brook House)	Beckett Powell, Esq....	5	3	2	45	31.14 ...
† „ (Rectory)	Rev. G. E. C. Osborne..	5	1	0	50 ?	31.57 ...
D† „ (Botley Hill)	Lady Jenkins	5	1	6	36 T	31.95 174
D† „ (Beecheroff, Curdridge)..	Miss L. M. S. Pasley...	5	1	0	96	30.28 170
† Horndean (Blendworth Lodge)...	Mrs. Long	8	0	10	217	40.92 164
D Catherington	Capt. R. H. Archer, R.N.	5	1	3	370 T	35.30 158
D Hambledon (Rosecroft).....	Mr. L. Dawes.....	5	1	0	200 T	36.33 158
Chalton (Woodcroft)	M C. J. P. Cave, Esq. ...	5	1	0	230	37.63 ...
Bishops Waltham (Swanmore House)	W. H. Myers, Esq.	8	1	0	390 T	36.53 147
D „ „ (Hill Place)	Major W. A. Daubeney.	8	0	9	260 T	33.08 153
„ „ (Wintershill Hall)	J. S. Moss, Esq.....	5	1	0	290 T	30.78 ...
D Droxford (Uplands)	Miss Bridge	5	1	0	279 T	36.32 153
D „ (Fairfield House)	H. Hamilton Bridge, Esq	5	1	0	254	34.36 165
D „ (Fir Hill)	Capt. Mackenzie-Grieve	5	3	6	212 T	33.04 152
D Eastleigh (Fair Oak Park)	G. H. Pember, Esq. ...	5	1	0	180	29.32 132
D Chandlers Ford (Fryern)	Miss Grace Stuart	5	1	2	150	28.75 144
D† Petersfield (Ditcham Park)	C. J. P. Cave, Esq. ...	8	1	0	555 T	38.14 165
† „ (Downley)	M „ „ „	5	1	2	374 T	40.23 ...
D† East Meon (Westbury House) ...	Col. Le Roy Lewis, D.S.O.	5	2	6	296 T	35.49 141
D Otterbourne (Elderfield)	G. Norsworthy, Esq....	5	1	0	137 T	30.60 184
D „ (W. W., Shawford).	E. C. Rodda, Esq.....	5	1	0	113 T	27.44 141
D Twyford (Pumping Station).....	(R) W. Matthews, Esq. C.E.	8	1	9	139 T	30.80 139
Kilmeston Manor	C. G. Heathcote, Esq...	5	4	6	323 T	35.01 ...

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	1911	
		in.	ft. in.	feet.	inches.	
HAMPSHIRE—(con.)						
5.—ITCHEN & SPITHEAD—(con.)						
D Colmer Rectory	Rev. A. C. Hervey	5	1 1	560 N	37·12	143
D Ovington Rectory	Rev. H. F. La M. Stowell	5	1 0	221 T	36·62	169
„ (Barley Down)	J. Stevens, Esq.	5	1 10	300	33·16	183
East Tisted (Rotherfield Park)...	Mr. W. H. Yates	5	1 0	550 T	41·02	170
D Newton Valence Vicarage	Rev. A. C. Maclachlan.	5	1 0	586	36·72	177
D § Swarraton Rectory	Rev. W. L. W. Eyre...	5	1 0	310 N	30·77	170
D Medstead Manor	(R) Capt. E. Jervoise, R.N.	8	1 10	705 T	30·05	162
D Ellisfield Manor	H. Hoare, Esq. ....	...	0 9	630	35·24	162
6.—ARUN. 32 sq. mi.						
† Petersfield (Sunwood)	M C. J. P. Cave, Esq. ...	5	0 10	479 N	40·21	...
„ (The Miscombe) ...	M „ „ „ ..	5	1 1	250 B	40·38	...
† „ (Old Ditcham)	„ „ „ „ ..	5	1 1	250 T	39·38	...
„ (Nursted)	M „ „ „ ..	5	1 0	270	39·06	...
„ („ House)	J. Rowe Bennion, Esq..	5	1 9	350	37·78	...
D † „ (Fairley)	A W Leachman, Esq. MD	5	0 9	202 T	37·88	154
„ (The Mount, Ramshill)	F. G. Padwick, Esq. ...	8	1 0	250	40·74	169
D Liss (Overcombe)	Miss Jebb	5	1 0	500	36·09	174
D „ (Highfield)	J. S. Gamble, Esq., C.I.E., F.R.S.	5	0 9	325 N	37·44	181
D „ (Kippences)	Rev. W. A. H. Thorold	5	0 9	250	37·77	143
D „ (Berry Grove)	E. Latter, Esq.	5	1 3	250	40·45	170
D Greatham (King's Holt)	Mrs. Chase Parr	5	1 7	325 T	35·26	150
„ (Manor House)	F. Coryton, Esq.	7	0 7	250	37·37	...
7.—THAMES—Wey. 92 sq. mi.						
D Liphook (Fowley)	E. A. Lee, Esq.	5	0 10	296 T	37·77	177
D Selborne (The Wakes)	Col. A. Bibby	5	1 0	400 N	39·47	175
D † Grayshott	Mrs. Lyndon	5	1 0	661 N	36·07	184
D Headley (Eveley)	Mr. T. Carter	5	1 3	295 T	38·27	149
Liphook (Bordon Camp)	Maj. R. N. Harvey, R.E.	8	1 0	268 N	35·15	146
Headley Park	Mr. G. Glaysher	8	1 6	250 ?	29·50	...
Alton (Shalden Manor)	J. Gathorne Wood, Esq.	8	3 0	594 T	34·46	169
D Froyle (Park Edge)	R. B. Sedgwick, Esq. ...	5	1 0	350 T	29·36?	170
Bentley (Marelands)	Mrs. Seawell	5	0 8	310	29·99	134
8.—THAMES—Loddon. 164 sq. mi.						
D Herriard Vicarage	Rev. E. L. Crawhall ...	5	1 0	557 N	31·45	170
D Warren Corner [Farnham]	F. Wilkin, Esq.	5	1 0	560 T	28·02	166
D Upton Grey (Hoddington Ho.)...	Lord Basing	8	1 0	378 N	32·48	153
D Maplederwell	H. B. Thorp, Esq.	8	1 2	270	29·15	147
§ Aldershot (Sewage Works)	Roy. Meteorological Soc.	5	1 0	231	29·60	178
D § Basingstoke (Queen's School) ...	A. M. Pitkin, Esq.	5	1 0	289	27·47	150
D „ (Pumping Station) ..	F. R. Phipps, Esq., C.E.	5	0 6	320 N	25·94	147
D „ (Sherborne St. John)	Rev. D. W. Chute	5	1 2	267 T	25·90	172
D Winchfield (Elvetham Park) ...	Mr. G. B. Mitchison ...	8	1 0	217 T	27·53	175
D Hartley Wintney	W. G. Machin, Esq. ...	5	1 2	222 T	26·55	170
D „ Grange	F. Walkinshaw, Esq. ...	8	1 0	221 N	27·45	161
D Strathfieldsaye Rectory	Rev. F. Page-Roberts..	5	1 0	164	25·05	165
D „ Gardens	Mr. A. G. Nichols	5	1 8	166	25·75	152

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	1911	
		in.	ft.	in.	feet.	inches.	
HAMPSHIRE—(con.)							
8.—THAMES—Loddon—(con.)							
D Heckfield (Park Corner)	Miss Martineau	5	1	2	257	23·63	154
9.—THAMES—Kennet. 65 sq. mi.							
D Kingsclere (Tower Hill House)...	Dr. R. Maples.....	5	0	3	327 T	29·70	172
BERKSHIRE. (Area, 722 sq. mi.)							
1.—TEST. 2 sq. mi.							
2.—THAMES—Bourne. 15 sq. mi.							
D Sunningdale (Lynwood)	G. Rodie Thompson, Esq.	5	1	0	266 T	26·47	172
3.—THAMES—Loddon & c. 162 sq. mi.							
D Sandhurst Lodge	Mr. W. J. Townsend...	8	2	9	263	28·21	157
D Wellington College	C. A. Stocken, Esq. ...	5	1	0	283 T	27·68	140
Finchampstead (West Court) ...	C. E. Harris-St. John, Esq.	5	1	0	180 T	24·76	187
D Swallowfield Park	Sir Charles Russell, Bart.	5	1	0	150 T	25·01	130
D Ascot (Winkfield Manor)	C. A. Ferard, Esq.	5	1	0	240 T	25·55	170
D Wokingham (Staverton)	H. C. Mylne, Esq.	5	1	0	220 T	25·51	178
§ „ (Pinewood)	Meteorological Office...	8	1	0	219	26·06	158
D Winkfield (Ryemead)	Mrs. Aubrey Elliott ...	5	0	10	220 T	26·04	188
D Windsor (Royal Gardens).....	Mr. T. Edwards.....	5	1	0	88 T	23·04	171
D „ (Osborne Road)	Miss M. G. Cookson ...	8	1	0	80	22·42	162
Reading (Earley)	M. J. Sutton, Esq. ...	8	1	6	150 T	23·32	...
D Maidenhead (Heywood Park) ...	Greville H. Palmer, Esq.	8	1	0	102	24·03	139
D „ (Hall Place)	Sir G. A. C. East, Bart.	8	1	2	275	26·52	155
D Bisham Vicarage	Rev. W. Farrer	5	1	0	100	26·77	160
D Temple House [Marlow]	Mr. G. Groves.....	5	1	0	106	27·97	194
4.—THAMES—Kennet & c. 224 sq. mi.							
Mortimer (Wokefield Park)	A. Palmer, Esq.	5	4	0	180 T	22·59	152
D Newbury (Sandleford Priory) ...	Mr. R. H. Butcher ...	8	2	0	381 T	31·81	159
D „ (Greenham Common) ..	H. L. Bowman, Esq. D. Sc.	5	1	0	328 T	26·75	149
D Sulhampstead (Firlands)	J. T. Strange, Esq. ...	5	1	0	300 T	26·27	193
D Woolhampton (Douai Abbey) ...	Rev W. B. Buggins, O.S.B.	5	1	3	365 T	23·37	169
D Beenham House.....	Capt. W. Waring	8	2	2	320	24·82	138
§ Bucklebury Place	Mr. J. W. Harris	5	1	0	420	23·65	151
D Reading (Calcot Place).....	late Maj.-Gen. Swettenham..	5	1	4	176 T	24·43	171
§ „ (Leighton Park).....	Meteorological Office...	8	1	0	265	23·52	168
D „ W.W. (Bath Road) ...	L. C. Walker, Esq., C.E.	8	...	...	218	22·23	140
D „ (Forbury Gardens).....	J. Bowen, Esq., C.E....	5	1	5	145 T	24·48	173
D § „ (University College) ...	Dr. H. N. Dickson.....	5	1	0	152 T	22·34	164
„ „ (Victoria Square)	W. Haynes, Esq.	5	1	6	145 T	24·22	165
D „ (Caversham Lock)	R. A. Swarbreck, Esq..	5	3	5	...	23·65	146
D Newbury (Welford Park).....	Mr. C. Pope	5	1	0	341 T	27·07	149
D „ (Weston)	R. Osmond, Esq.	5	1	4	335 T	22·72	164
D Lambourn (East Garston)	J. H. Spackman, Esq...	5	2	6	395 T	24·37	161
„ „ (Clarionville)	F. Gullett, Esq.....	5	1	6	500	25·97	...

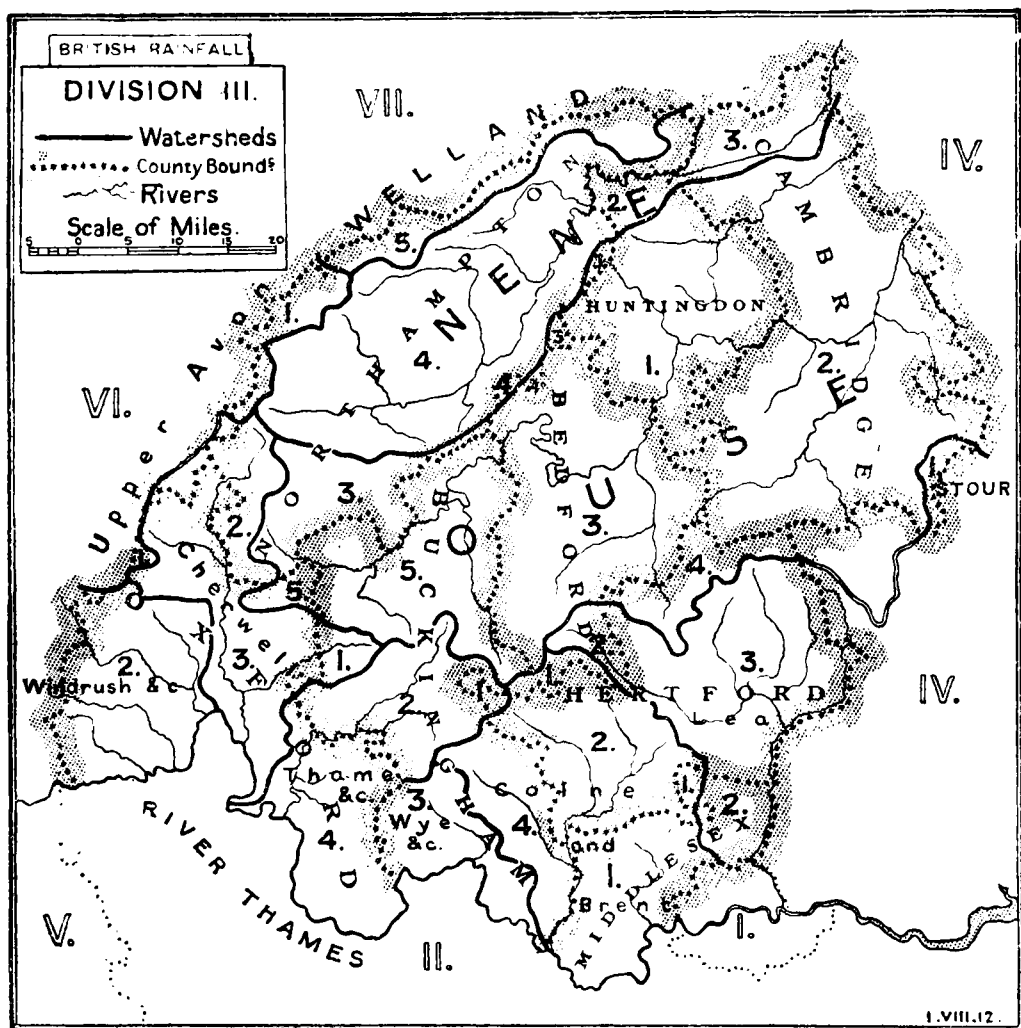
DIVISION II.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
BERKSHIRE—(con.)						
5.—THAMES—Ock & c. 319 sq. mi.						
D Reading (Englefield).....	J. H. Benyon, Esq. ...	5	1 1	175 ?	25·68	148
D Frilsham House	Mr. W. E. Austen.....	5	1 0	370	22·96	145
D Yattendon Court	Mr. F. Pitman	5	0 10	440 †	23·24	149
D Farnborough Rectory	Rev. J. B. H. Whitehurst	5	1 3	713 †	27·58	169
Wallingford (Aston Tirrold) ...	J. Harold Slade, Esq. ...	5	1 1	250	22·04	...
D „ („ Upthorpe)...	L. G. Slade, Esq.	8	1 2	202	23·06	142
D Didcot (Upton)	Miss Fry	5	2 3	240 †	22·85	162
D Wantage (Ginge Manor)	Miss Elliot	3	3 0	332 †	25·55	167
„	W. Hanson, Esq., C.E.	5	1 0	304	22·87	141
D „ (St. Katherine's School)	Miss J. O. Cudlipp.....	5	1 0	300	20·82	140
D Woolstone (Mill House)	Miss Turner	5	1 0	300	22·29	136
Steventon (Milton Hill)	R. H. Betteridge, Esq.	5	2 0	300	20·62	...
D Wallingford (Woodlea).....	G. F. Slade, Esq.	5	0 6	200 ?	21·41	150
„ Castle	Miss Hedges	5	1 0	175 †	21·18	...
D Long Wittenham (Manor Ho.)...	Admiral Clutterbuck...	12	1 0	170 †	20·53	147
D „ „ (Willington)...	H. J. Hewett, Esq.	5	1 0	167 †	20·67	166
Faringdon	Mr. C. Luker	5	1 0	333 †	21·76	...
D Abingdon (The Square House)...	E. Estridge, Esq.	5	1 9	180 †	19·12	155
„ (Twickenham House).	Mr. A. Fawdry	5	10 0	220	17·95	...
„ (Caldecott House) ...	Maj.-Gen. T. M. Bailie	5	1 6	177 †	16·99	...
„ (Sewage Works)	G. Winship, Esq., C.E.	5	0 6	169	17·72	...
D „ Union	Mr. J. Fray	5	1 0	196	20·15	163
„ (Donnington)	R. W. Langford, Esq. ...	5	1 6	196	18·57	151
„ (Oakley Warren)	Mrs. Blakeney	8	0 11	253 †	18·12	...
„ (Northcourt House) ...	M. T. Tatham, Esq. ...	5	0 7	190 †	18·97	...

MAP OF DIVISION III.

SOUTH MIDLAND COUNTIES,

Showing the River-Divisions.



The River Thames is a county boundary throughout.

DIVISION III.—SOUTH MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
MIDDLESEX. (Area, 232 sq. mi.)						
1.—THAMES—Colne & Brent. 185 sq. mi.						
d† Hampton	Met. Water Board.....	8	1 0	42 7	22·60	152
d „ Wick (Park House) ...	A. Shorter, Esq.....	5	1 0	28 7	24·60	149
„ Teddington (Clarence Road) ...	T. Gale, Esq.	5	1 3	32 7	23·91	153
d Staines (Belle Vue)	J. Gundry, Esq.	5	1 0	51 7	26·12	163
„ (Cambria House).....	C. Ashby, Esq.	5	0 10	50 ?	24·57	148
d Twickenham (Sewage Works)...	F. W. Pearce, Esq., C.E.	5	1 7	37 7	21·35	149
§ Isleworth (Mandeville House)...	A. Worsley, Esq.	12	1 0	24	26·98	...
„ Sipson (Hollycroft)	Mr. W. J. Mitchell ...	5	1 0	95 ?	19·98	...
d† Kew Bridge	Met. Water Board.....	8	3 0	37 7	24·97	146
d Chiswick (Grove Park).....	M. G. Brounger, Esq....	5	1 1	18 7	22·71	149
d „	E. Willis, Esq., C.E. ...	8	3 0	24 7	22·62	146
d Hayes (Council Offices).....	Douglas C. Fidler, Esq.	8	4 0	135 7	22·81	146
d Ealing (Grange Park)	H. M. Baker, Esq.....	5	1 6	97 7	24·85	175
„ („ „)	„ „ „	5	1 6	97 7	24·03	...
„ (Longfield Avenue)	C. „ Jones, „ Esq., „ C.E. ...	5	9 0	114	25·12	146
„ (Gordon Road)	Joseph Box, Esq.	5	10 0	85 7	23·31	146
d „ (St. Stephen's Road) ...	H. W. Peal, Esq.	8	1 10	159 7	24·97	157
„ Perivale (Northern Sewage Farm)	C. Jones, Esq., C.E. ...	5	12 0	56	25·38	178
† Willesden Reservoir	Met. Water Board.....	5	2 6	199 7	22·55	...
d† „ Green (Strode Road)...	Miss Lamport.....	5	1 0	150	25·09	166
d „ (Stonebridge Farm) (R)	O. C. Robson, Esq., C.E.	10	5 9	100 7	23·87	149
d Highgate (North Hill)	L. J. Tatham, Esq. ...	5	1 0	400	24·20	158
d „ („ „)	E. J. Lovegrove, Esq., C.E.	5	3 10	302	25·33	157
d Harrow (Bessborough Road Depôt)	J. P. Bennetts, Esq., C.E.	5	1 0	215	28·86	164
d§ Hendon (Temple Fortune Lane)	J. W. Duncan, Esq. ...	5	1 0	232	26·44?	178
d „ (Central School)	J. W. Butler, Esq. ...	5	1 4	220	25·29	171
„ Wealdstone House	K. R. Cobb, Esq.	5	0 11	236 7	23·41	...
§ Harefield (The Scrubbs)	Meteorological Office ...	5	1 0	338	24·95	...
d Pinner (Hatch End)	W. M. Cann, Esq.....	5	0 11	260	27·78	171
d† Northwood (Haslemere)	Miss McBean	5	1 0	200 ?	25·44	163
d „ (Murray Road)	Dr. H. Dane	5	1 0	240	25·35	175
d „ (The Grange)	A. P. Blathwayt, Esq.,	5	1 0	220 7	24·28	159
d Harrow Weald (Hill House) ...	A. Crossman, Esq.....	5	3 6	284	24·30	177
d North Finchley	Miss M. Shoults.....	5	0 8	295 7	26·19	163
d† Mill Hill (Tennyson Road)	Mrs. Edwards.....	5	1 0	250	26·97	145
d† „ „ (The Hollies)	Mrs. H. R. Mill.....	5	1 0	380	25·51	168
† „ „ („ „)	„ „ „	5	1 0	350	24·50	...
„ Dyrham Park [Barnet].....	Mr. H. Juniper	5	1 0	310	25·41	...
d† Potters Bar (Little Heath)	Henry Ellis, Esq.	5	4 8	375	26·02	164
† „ „ („ „)	„ „ „	5	1 0	375	26·96	164
2.—THAMES—Lea. 47 sq. mi.						
d Crouch End (Barrington Road)...	E. J. Lovegrove, Esq., C.E.	6	...	140 ?	25·61	152
d Harringay (Wightman Rd. Depôt)	„ „ „ .....	...	...	...	21·26	146
§ Tottenham (Drayton Road)	Meteorological Office ...	5	1 3	53 7	23·87	135
d† Hornsey (High Street)	Met. Water Board.....	5	4 0	109	26·90	171
„ Muswell Hill (Grand Avenue)...	G. Michael Williams, Esq.	5	1 0	317	27·05	188
d „ „ (Hillfield Park) ...	E. A. Lee, Esq.	5	1 0	294 ?	24·44	153

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
MIDDLESEX—(con.)						
2.—THAMES—Lea—(con.)						
D Muswell Hill (Tollington School)	W. Campbell Brown, Esq.	4	3 0	380 T	25.44	177
D „ „ (Colney Hatch Lane)	Miss Abethell.....	5	0 10	310 T	27.32	173
D „ „ (Irish Corner Sewage Farm)	E. J. Lovegrove, Esq., CE	8	4 8	216 T	24.67	153
D Wood Green (Maryland Road)...	Mr. F. C. Hornsey.....	8	9 4	118	24.01	143
D Finchley (Victoria Park).....	C. J. Jenkin, Esq., C.E.	5	1 0	272 T	27.60	167
D „ (Etchingham Park) ...	Mrs. J. W. Scott	5	1 2	295 T	27.82	193
D Southgate (Reservoir Road).....	W. B. Butler, Esq.....	5	1 0	255 T	26.30	168
D Ponders End (Bylock Hall)	H. E. Freir, Esq.	5	1 0	50	26.96	164
D† „ „	Met. Water Board.....	8	1 0	45 T	27.15	156
D Enfield (Southbury Road)	„ „ „	5	4 0	109 T	25.03	148
D§ „ (Public Offices).....	Dr. W. P. Warren.....	8	1 0	141	23.69	166
D† „ (Carisbrooke Culloden Rd.)	J. McEwan, Esq.	5	1 0	204 T	26.23	170
D „ (Clay Hill)	G. H. C. Lea, Esq.....	5	1 0	200 ?	26.86	183
D† Rammey Marsh [Waltham Abbey]	Met. Water Board.....	8	1 6	60 T	27.60	145
HERTFORDSHIRE. (Area, 635 sq. mi.)						
1.—THAMES—Thame. 10 sq. mi.						
D Tring (Grove Lodge).....	Miss Boyson	8	1 0	450	23.55	177
„ (Pendley Manor)	Mrs. Williams	5	2 0	420	25.26	187
„ (Cowroast Lock)	Gordon C. Thomas, Esq.	5	3 8	394 T	25.19	...
2.—THAMES—Colne. 199 sq. mi.						
D Easby [Northwood].....	Mrs. Sandford Fawcett	8	0 10	400 T	29.54	142
D Gate House [„].....	O. S. Holt, Esq.....	8	4 6	448	24.50	155
D Rickmansworth (Moor Park)...	Lord Ebury.....	5	2 0	340	24.89	181
D „ (Croxley Green).	S. Ingleby Oddie, Esq..	5	0 7	250 T	26.74	131
D† Totteridge (West Lodge)	W. H. Newman, Esq...	5	1 0	390 T	27.01	163
D† „ (Dollis Brae)	C. Stewart King, Esq..	5	1 0	350 T	27.76	153
Elstree (Bays Hill)	H. S. Winter, Esq. ...	5	1 0	430 T	27.61	...
D† „ (Aldenham House) ... (R)	Mr. E. Beckett	10	4 9	305	22.54?	146
D Watford (Bushey Hall Road) ...	J. Durst, Esq.	5	0 7	230	27.76	163
D „ (Colne Valley W.W.) ...	C. P. Sinclair, Esq. ...	5	1 0	200 T	26.14	156
D „ (Park Road).....	J. Hopkinson, Esq. ...	...	...	...	27.62	156
D „ (London Orphan Asylum)	Rev. Dr. O. C. Cockrem	5	1 0	230 T	27.35	172
D „ (Weetwood).....	J. Hopkinson, Esq. ...	5	1 0	269 T	29.35	175
„ „ „..... M	„ „ „	5	1 0	269 T	29.48	...
D† Shenley (Kitwells).....	T. H. Riches, Esq. ...	5	1 0	420	25.88	161
„ „ „..... M	„ „ „	5	1 0	420	24.68	...
Chipperfield (Little Callipers) ...	A. W. Rivington, Esq.	5	1 0	407 T	24.31	...
D London Colney (Bowmans)	C. Barwell Field, Esq...	5	1 0	235	23.05	159
D Hemel Hempstead (Apsley Mills)	Messrs. J. Dickinson & Co.	24	1 4	260	28.13	187
D „ (Church Croft)	Rev. Canon F. H. Fisher	5	3 0	300	32.64?	165
D St. Albans (Hill End)	G. Goodchild, Esq. ...	5	1 0	295 T	24.95	133
D „ (County Museum) ...	J. Hopkinson, Esq. ...	5	1 0	389 T	27.16	169
„ (Gorhambury).....	Mr. W. Newberry	5	1 0	423 T	28.41	...
D Berkhamsted (Anglefield).....	E. T. Browne, Esq. ...	5	1 0	450 T	27.40	172

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	1911	
		in.	ft. in.	feet.	inches.	
HERTFORDSHIRE—(con.)						
2.—THAMES—Colne—(con.)						
d† Berkhamsted (Rosebank)	E. Mawley, Esq.	8	1 0	401 ⅞	25·71	172
† " { " }M	" " " "	8	1 0	401 ⅞	25·33	...
§ Harpenden (Rothamsted)	A.D. Hall, Esq., F.R.S.	5	0 9	420 †	28·56	171
§ " { " }	" " "	8	0 9	420 †	27·61	159
d§ " (")	" " "	72X87	0 9	420 †	30·03	201
3.—THAMES—Lea. 340 sq. mi.						
d Barnet (Gas Works)	J. Hopkinson, Esq. ...	8	0 9	212	28·53	153
d " (Summerhill).....	F. A. Milne, Esq.	5	0 10	400 †	24·06	168
d " (Bedford Avenue)	Miss Haines	5	1 3	350	29·33	193
d Hadley (Hadley Bourne)	Mrs. Weber	5	1 0	430	29·76	170
Northaw (Barvin Park)	W. E. Balston, Esq....	...	...	250 ?	25·52	...
d Cheshunt (Goff's Oak House) ...	W. M. Cuninghame, Esq.	5	1 0	310 ⅞	26·83	171
d Northaw (St. Just).....	Miss Poland	5	1 0	400	26·14	172
d† Broxbourne (Stafford House) ...	A. F. Newbery, Esq. ...	5	1 0	118 †	29·29	156
d† Hoddesden (Feilde's Weir)	Met. Water Board.....	8	3 8	95 ⅞	24·36	166
d Haileybury College	P. H. Latham, Esq. ...	8	1 0	270 †	24·36	152
d Gilston Park	Mr. E. Leach	8	1 0	175 †	25·91	150
d Hatfield (Holwell House).....	Wilfrid E. Laurie, Esq.	5	1 6	240 †	23·57	147
d Hertford (Bayfordbury)	H.W.ClintonBaker,Esq	8	1 2	250	26·46	168
d Stanstead Abbots	E. H. Barlow, Esq. ...	5	1 2	115 †	22·66	146
d† Hertford (Sewage Works)	Met. Water Board.....	8	1 0	121 ⅞	21·66	131
d§ Ware (Red House).....	" " " "	5	4 0	115 †	23·14	156
d§ " (Grammar School for Girls)	Miss Rutter	5	1 0	120	23·92	159
d Welwyn (Bridge House)	Dr. B. W. Thomas ...	5	2 3	216	25·84	156
d Much Hadham	T. W. Mott, Esq.	5	1 0	212	22·70	165
d§ Bennington House.....	Miss E. A. Parker.....	5	1 0	406 ⅞	24·19	159
d " Lordship	A. F. Bott, Esq.	5	0 10	365 ⅞	24·64	165
d Little Hadham (Hadham Hall)..	W. Minet, Esq.	5	0 10	338	23·13	131
Standon (Libury Hall)	S. Knothe, Esq.	5	1 3	380	21·46?	...
d† Stevenage (Green Street)	M. L. Nicholas, Esq. ...	5	1 6	300 †	24·49	170
d Buntingford (Hamels Park)	H. Shepherd Cross, Esq.	5	1 3	390 †	24·19	160
d " (Westmill,ColesPk.)	T. Greg, Esq.....	5	0 8	379 †	23·59	168
d Hitchin (Preston)	R. de V. Pryor, Esq....	8	2 5	480 ⅞	22·69	163
d Weston Park	M. R. Pryor, Esq.....	5	0 8	470 †	23·35	170
d Buntingford (Throcking Rectory)	Rev. B. W. Harvey ...	5	1 0	487 ⅞	21·82	191
d Royston (Therfield Rectory).	Mr. J. Cracknell	5	1 0	513 ⅞	22·16	156
4.—OUSE. 86 sq. mi.						
d§ Offley Vicarage	Rev. E. P. Gatty	5	1 6	525	23·51	167
d Graveley Rectory	Rev. R. E. Chesshyre Walker	5	0 10	320	26·28	146
† Hitchin (Wratten).....	W. Lucas, Esq.	5	2 1	238 ⅞	23·50	154
d† " (The Maples)	W. Hill, Esq.....	8	1 1	220 †	23·24	157
d† " (The Chilterns)	F. Ransom, Esq.	5	0 9	300 ⅞	23·10	173
d† " (High Down)	Miss E. Pollard	5	1 1	422 ⅞	22·17	161
d " (Roxley Court, Willian)	Mrs. H. Bendixson	5	1 6	360	21·26	131
d Letchworth (Garden City)	A.W.E. Bullmore, Esq.	5	1 0	218 ⅞	21·58	157
d Baldock (High Street)	Dr. F.W.Langston Day	5	1 0	214 ⅞	22·69	151

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1911
		in.	ft.	in.	feet.	inches.	
HERTFORDSHIRE—(con.)							
4.—OUSE—(con.)							
D Royston (Barley)	W. W. Cook, Esq.....	5	1	0	300	20.97	145
D „ (Earlshill House).....	J. Phillips, Esq.....	8	1	6	225 T	20.54	181
BUCKINGHAMSHIRE. (Area, 743 sq. mi.)							
1.—THAMES—Cherwell. 30 sq. mi.							
2.—THAMES—Thame. 158 sq. mi.							
D Wendover (Halton Gardens) ...	Mr. R. C. Sanders.....	5	1	10	400	23.02	173
D Bulbourne [Tring]	Gordon C. Thomas, Esq.	5	2	3	401 T	21.61	141
Mentmore Gardens	Mr. J. MacGregor	5	1	2	400 ?	19.40	...
3.—THAMES—Wye & c. 129 sq. mi.							
D Eton (Tangier Islands)	C. Sainty, Esq.	5	1	0	67 T	22.51	154
† Slough (Upton)	R. Bentley, Esq.	8	2	0	80 T	20.82	...
D† „ „ „	„ „ „	5	2	0	78 T	22.08	177
Taplow Court	Lord Desborough	8	1	0	217 T	22.50	...
Burnham (Burnham Cottage) ...	G. J. Williams, Esq....	5	3	0	182 T	23.55	142
D „ (Bedford Villa).....	L. Lowman, Esq.	5	1	0	182	22.02	165
D Farnham Royal (The Chase).....	F. C. Carr-Gomm, Esq.	5	3	0	169 T	23.33	161
Greenlands [Henley-on-Thames]	Hon. W. F. Smith, M.P.	8	1	3	116	27.58	163
D Hedsor	Lord Boston	8	1	0	170 T	26.22	134
Bourne End (The Bourne)	A. Morse, Esq.	5	1	9	245	22.97	...
D Marlow (Thames Bank)	S. H. Wright, Esq. ...	8	2	0	105	28.30	181
§ Beaconsfield (Norfolk House) ...	Meteorological Office ...	8	1	0	484	25.13	141
D High Wycombe	H. S. Wheeler, Esq....	5	0	11	253 T	26.11	172
Penn (Rayners)	Sir P. T. Rose, Bart....	5	2	6	550	25.18	...
D Saunderton (Bledlow Ridge) ...	Lewis R. Shorter, Esq.	8	0	11	618 T	27.78	146
D Bradenham House	J. H. Tempest, Esq. ...	8	0	6	420 T	27.83	147
Saunderton (Speen)	H. R. McCarthy, Esq....	5	1	0	650	27.13	...
D Hampden House	The Earl of Buckinghamshire	5	1	0	690 T	26.88	190
4.—THAMES—Colne. 133 sq. mi.							
D Wrybury (Elmslea)	Lieut. P. C. Pearson, R.N.	5	1	0	50	24.22	134
D Slough (Langley)	R. H. Major, Esq.....	8	0	10	85 T	22.04	151
Iver	A. Chapman, Esq.....	5	3	0	160	22.23	...
D Chalfont St. Peter (Chalfont Park)	Mr. G. Barrell	5	1	0	200 ?	25.89	147
Beaconsfield (Ledborough Lane).	A. G. Robins, Esq. ...	5	1	0	350	26.65	144
D Chalfont St. Giles (The Stone)...	Col. R. W. Phipps.....	5	1	0	270 T	26.13	169
„ „ „	„ „ „	5	1	0	270 T	26.23	...
D „ „ „ (Woodlands) ...	A. D. Gordon, Esq. ...	5	0	11	400 T	28.42	166
„ „ „ „	„ „ „	5	0	11	400 T	28.20	...
D Amersham (Winchmore Hill) ...	Dr. A. Morley Davies..	5	1	0	494 T	28.75	168
„ „ (St. Mary's Boys' Sch.) ...	W. Garton, Esq.	5	1	0	400 T	27.05	...
D „ „ (The Plantation) ...	G. Weller, Esq.....	8	1	0	464 T	27.44	170
Chesham (Chesham Bois Rectory)	Rev. T. H. Fitzpatrick.	5	0	11	530 T	25.52	...
5.—OUSE. 293 sq. mi.							
D Oving House	H. Yates Thompson, Esq.	5	1	0	515 T	21.73	190
„ „ „	„ „ „	5	1	6	515 T	21.37	...
D Swanbourne House	Lord Cottesloe	5	1	0	411 T	22.18	168

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
BUCKINGHAMSHIRE—(con.)						
5.—OUSE—(con.)						
Winslow (Market Square)	R. A. Easton, Esq.	8	1	0	380 ∇	22.74 174
" (Norden House).....	Dr. T. F. Vaisey.....	5	0	7	...	21.65 130
Stockgrove Pk. (Leighton Buzzard)	Mr. J. Clues	5	1	2	500	20.61 133
Buckingham (Adstock Fields)...	W. Weston, Esq.	5	0	9	352 ∇	21.67 159
Wolverton (St. George's Vic.)...	Rev. W. L. Harnett ...	5	1	0	270 ∇	20.86 162
" (The School House)...	H. J. Hipsley, Esq....	5	1	0	264 ∇	21.11 176
" (Council School)	" " " " " " " "	5	5	0	263 ∇	20.59 ...
Newport Pagnell (The Croft) ...	F. Littleboy, Esq.....	5	2	0	191 ∇	20.52 157
" (Lovat Bank)...	F. J. Taylor, Esq.....	5	2	0	190	19.98 157
North Crawley Rectory.....	Rev. J. H. Harvey ...	5	1	0	300 ∇	19.11 163
OXFORDSHIRE. (Area, 756 sq. mi.)						
1.—SEVERN—Upper Avon. 10 sq. mi.						
Sibford Ferris.....	Joshua Lamb, Esq. ...	5	1	0	575 ∇	22.65 138
2.—THAMES—Windrush & c. 261 sq. mi.						
Stanton Harcourt School	S. Heaton, Esq.	6	1	0	202	25.70 ...
Witney (C. of E. School)	F. Hayter, Esq.	5	1	6	302	21.49 160
" (Ringwood Farm)	J. W. Abraham, Esq....	5	1	0	400 ∇	23.67 146
" (Hailey School)	S. Heaton, Esq.	6	1	0	360	22.58 ...
Woodstock (Freeland House) ...	W. J. Short, Esq.	8	0	9	345	21.90 ...
Charlbury (Finstock School) ...	S. Heaton, Esq.	5	1	0	417	25.64 ...
Wootton Rectory	Rev. F. R. Marriott ...	5	0	10	370 ∇	25.83 150
Shipton-under-Wychwood (C. of E. School)	S. Heaton, Esq.	5	1	0	360 ∇	25.65 ...
Ascot-under-Wychwood (Chilson ")	" " " " " " " "	5	1	0	493 ∇	29.55 ...
Charlbury (Wychwood House)...	J. H. Glen, Esq.	5	0	8	450	24.12 210
" School	S. Heaton, Esq.	6	1	3	400	28.72 ...
Lyneham.....	R. de M. Pratt, Esq....	5	1	7	351 ∇	27.10 171
Charlbury (Spelsbury School) ...	S. Heaton, Esq.	6	1	0	370	24.49 ...
Chadlington (Langston House)...	Major F. W. Schofield..	5	0	11	420	24.42 147
Churchill School.....	W. H. Anson, Esq. ...	8	1	3	524 ∇	24.56 ...
Sarsden (Estate Office).....(R)	J. M. Blair, Esq.	8	3	0	492 ∇	22.43 152
" Gardens.. ..	Mr. J. Vine	5	0	10	538 ∇	23.16 139
Chipping Norton (Heythrop) ...	Albert Brassey, Esq....	10	4	0	700	20.78? 154
" " (" School)	S. Heaton, Esq.	6	1	0	163	25.37 ...
3.—THAMES—Cherwell. 250 sq. mi.						
Nuneham Park Gardens	Mr. C. E. Munday.....	8	3	0	280 ∇	19.82 ...
Oxford (Hincksey Pumping Sta.)	W. H. White, Esq., C.E.	8	1	0	187 ∇	19.96 159
" (Magdalen College)	R. T. Günther, Esq....	5	1	0	186 ∇	19.52 151
" " " " " " " "	" " " " " " " "	5	33	11	223 ∇	18.01 ...
Radcliffe Observatory)...	Dr. A. A. Rambaut, FRS	8	1	8	210 ∇	21.09 161
" " " " " " " "(R)	" " " " " " " "	11	2	4	210 ∇	21.17 159
" (Banbury Road)	Miss E. M. Tawney ...	5	1	1	211 ∇	20.25 151
" (Warneford Asylum) ...	Dr. J. Neil	5	1	0	300 ∇	21.08 150
" (Headington)	S. Heaton, Esq.	6	1	0	320	18.90? ...
" " Hill)	Miss Davenport	5	0	10	354	21.66 168
" (Elsfield Manor House)..	Miss M. J. Parsons ...	5	1	0	330 ∇	21.25 155

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	1911	
		in.	ft. in.	feet.	inches.	
OXFORDSHIRE—(con.)						
3.—THAMES—Cherwell—(con.)						
D Islip.....	Col. G. E. Eliot	5	3 0	200 T	21·06	135
D Hampton Poyle Rectory	Rev. S. T. Gwilliam ...	5	1 0	201 T	20·09	142
Charlton-on-Otmoor School	E. Cartwright, Esq. ...	6	1 3	197 T	23·06	...
D Bicester (Bank)	H. A. Fane, Esq.	5	0 10	231 T	24·58	163
„ (Launton School).....	S. Heaton, Esq.	6	1 0	212 T	20·83?	...
D „ (Middleton Park)	The Earl of Jersey.....	5	2 6	326 T	24·14	170
D Steeple Aston (Hill House)	B. S. Ogle, Esq.....	5	0 5	400	25·09	172
D „ „ (The Grange).....	Miss Bradshaw	8	1 0	400 T	23·34	149
Upper Heyford (C. of E. School)	S. Heaton, Esq.	6	1 0	350 T	24·60	...
D Swerford.....	W. Hall, Esq.	5	1 0	500 T	26·76	179
D Adderbury (Cross Hill).....	G. H. Norris, Esq.....	5	1 1	338 T	21·47	169
D Bloxham Grove	W. H. Warriner, Esq. ...	8	3 10	387 T	24·74	161
D Bodicote House	J. F. Starkey, Esq. ...	8	1 3	388 T	23·17	157
„ (Draycott House)	F. B. Judge Baldwin, Esq.	5	1 8	391 T	22·89	164
Wroxton.....	Hon. Mrs. FitzGerald...	8	1 3	700	22·87	154
4.—THAMES—Thame & c. 210 sq. mi.						
D Caversham (Rectory Road)	W. Simpson, Esq.....	5	1 0	129 T	24·60	165
„ (Eastfield)	C. M. Powell, Esq.....	5	1 0	180 T	23·60	156
D „ (St. Benet's Home)...	Mr. H. Hall	5	1 3	300	25·40	157
D „ (Kidmore End School)	T. F. Higgins, Esq. ...	5	0 11	330 T	25·52	137
D Goring (Elmercroft).....	Major E. Gambier Parry	5	0 10	160	22·94	167
Henley-on-Thames (Peppard) ...	Rev. Hubert Shears ...	5	1 0	336	25·43	...
„ „ „ (Greys Green)	Miss Mary Davis	5	2 0	350 T	28·10	183
D „ „ „ („ Lane)	G. Potter, Esq.	5	0 9	123	26·66	142
D Nettlebed (Joyce Grove) Gauge A	Mr. A. Johnstone	5	1 0	590 T	29·68	167
D „ („ „) „ B	„ „ „ „	5	1 0	590 T	29·31	170
D Assenton	Mr. J. Ratty	5	1 0	281 B	28·69	145
Mongewell School [Wallingford]	S. Heaton, Esq.	6	1 0	246 T	24·48	...
Crowmarsh School [„]	„ „ „ „	5	1 3	160 T	22·85	166
D Dorchester (Bishops Court)	T. Latham, Esq.	5	2 0	169	18·22	174
D Abingdon (Culham School House)	F. Mitchell, Esq.	5	0 10	180	18·31	153
D „ („ College)	R. L. Treble, Esq.....	8	0 11	213 T	18·93	162
D Clifton Hampden (Manor House)	Lord Aldenham	5	1 0	190 T	18·71	155
D† Watlington (Pyrton Hill).....	W. H. Dines, Esq. F.R.S.	5	1 0	520 T	26·53	162
D „ („ Manor).....	Mrs. E. Hamersley ...	5	1 6	321 T	25·01	163
Chalgrove School	S. Heaton, Esq.	5	1 0	230 T	23·27	...
Lewknor (Manor House)	Miss Spencer	5	1 3	360	23·97	183
D Toot Baldon (Potland)	D. Clinkard, Esq.	5	1 0	288 T	21·50	164
Great Haseley School.....	S. Heaton, Esq.	5	1 0	250	22·03	...
D „ „ (Manor House) ...	F. Gelderd-Somervell, Esq....	5	1 0	280 T	19·37?	142
D† Waterstock.....	W. H. Ashhurst, Esq... 8	3 2	200 ?	21·77	182	
† Wheatley (Schoolhouse)	R. Leyshon, Esq.	6	1 3	240	22·94	...
Thame (Tythrop House)	A. W. Smith, Esq.....	...	...	230 ?	22·67	136
Stanton St. John (Woodperry)...	J. Thomson, Esq.	6	1 0	399 T	22·93	174
5.—OUSE. 25 sq. mi.						

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.	1911	
		in.	ft.	in.	feet.	inches.	
NORTHAMPTONSHIRE. (Area, 1003 sq. mi.)							
1.—SEVERN—Upper Avon. 60 sq. mi.							
D Winwick Warren	Col. R. H. Ainsworth...	8	1	5	648 T	24.97	173
D Lilbourne Vicarage	Rev. T. R. Price	8	1	3	320 T	21.37	174
D Welford (Salford House)	J. Gee, Esq.	5	1	3	566	22.66	173
2.—THAMES—Cherwell. 77 sq. mi.							
D King's Sutton (Astrop).....	E. Browne, Esq.	5	1	0	338 T	22.15	161
D Grimsbury (Banbury W.W.) ...	W. E. Wood, Esq. ...	5	1	3	320 T	17.95?	166
3.—OUSE. 148 sq. mi.							
D Brackley House	J. Allen, Esq.....	5	1	0	425 T	25.52	175
D Towcester (Bradden Rectory) ...	Rev. C. Blathwayt ...	5	4	6	403	20.74	192
D Stoke Bruerne Park	Mr. W. Batchelor	5	1	0	320	20.59	141
Hargrave House.....	C. K. Murchison, Esq..	5	1	0	273	17.14	...
4.—NENE. 622 sq. mi.							
D Blisworth (Crieff House)	A. Westley, Esq.....	5	5	0	330	18.92	162
D „	T. W. Millner, Esq. ...	5	1	6	300 T	18.74	179
D Litchborough Hall.....	C. A. Markham, Esq...	5	1	10	500	22.55	162
D Daventry (Fawsley)	The Lady Knightley ..	5	1	0	477 T	20.70	131
D Castle Ashby	R. G. Scriven, Esq. ...	5	1	0	263 T	21.78	190
D Little Houghton House.....	Christopher Smyth, Esq.	5	2	2	271 T	19.74	147
D Northampton (Hazlewood Road)	C. A. Markham, Esq...	...	...	...	...	19.69	159
D „ (Dallington Av.)...	„ „ „ ...	5	1	0	265 T	19.49	173
D „ (Berry Wood).....	„ „ „ ...	8	1	4	399 T	19.07	162
D „ („ „ „).....M	„ „ „ ...	...	...	...	399	19.04	...
D „ (General Hospital)	„ „ „ ...	...	...	...	...	18.06	151
D Great Billing Rectory	Rev. G. H. Mullins ...	8	1	6	275 T	19.24	182
D Daventry (Oxford Street).....	C. A. Markham, Esq...	5	1	0	486	21.06	164
D „ (Tunnel End)	T. W. Millner, Esq. ...	5	1	6	394	22.68	195
D Great Brington	C. A. Markham, Esq...	5	2	9	448	19.28	142
D Althorp House	„ „ „ ...	8	3	10	310 T	20.20	135
D Sywell Hall	T. A. Dickson, Esq. ...	5	1	0	371 T	22.58	180
D Pitsford (Sedgebrook)	C. A. Markham, Esq...	5	1	0	311 T	20.28	167
D „ („ „)	M „ „ „ ...	5	1	0	311 T	20.10	...
D§ Rushden (Alfred Street School)..	S. Saddler, Esq.....	5	1	3	200 ?	18.29	156
D Wellingborough (Swanspool) ...	N. P. Sharman, Esq. ...	5	0	2	155	19.78	168
D „ (Croyland Abbey)	E. Sharman, Esq.	5	1	0	174 T	20.21	163
D Watford Court	C. A. Markham, Esq...	9	1	2	380	21.17	141
D§ Ravensthorpe (Coton Mill)	G. S. Eunson, Esq. ...	5	1	0	355	22.83	163
D Finedon Hall	C. A. Markham, Esq...	...	...	...	...	19.36	131
Orlingbury Hall.....	Rev. W. B. Jacques ...	5	3	0	330 T	18.30	...
Scaldwell.....	Capt. R. Soames.....	5	1	0	404 T	21.44	...
D§ Raunds (Day School)	Léon G. H. Lee, Esq...	8	1	0	205 T	19.25	148
D§ Cranford (Woodford House).....	E. N. Plevins, Esq. ...	8	0	8	252 T	19.53	159
D Kettering W.W. (Cransley).....	T. R. Smith, Esq., C.E.	8	0	6	275 T	19.92	148
„ (Workhouse)	A. Sattin, Esq.	5	0	5	297 T	20.62	135
D „ (Sewage Works)	T. R. Smith, Esq., C.E.	8	1	0	199 T	20.74	167
D „ (George Street)	C. W. Lane, Esq.	5	1	0	288 T	20.29	168
D „ W.W. (Thorpe Malsor)	T. R. Smith, Esq., C.E.	5	0	11	352 T	21.01	187
D „ „ (Clover Hill)...	„ „ „ ...	5	0	7	344 T	21.11	154

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with 40 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1911	
		in.	ft.	in.	feet.	inches.	
NORTHAMPTONSHIRE—(con.)							
4.—NENE—(con.)							
Kettering (Warkton)	Mr. R. H. Brett.....	5	1	3	275 π	19.21	131
Rothwell (Loddington)	Mr. J. Oliff.....	5	1	0	400	20.92	...
Thrapston (Islip)	J. Edmonds, Esq.	5	1	6	145 π	19.44	...
„ (Drayton House).....	„ „	5	1	6	220 π	20.44	140
D Clopton Manor	Mrs. Buckley	12	2	0	400 ?	20.20	167
D Aldwinkle St. Peter Rectory ..	C. A. Markham, Esq... ..	5	0	11	175	19.42	140
D Rushton Manor	R. A. Willows, Esq. ...	5	1	0	400 π	22.30	150
Rothwell (Shotwell Mill)	T. C. Betts, Esq.	5	1	6	320 π	20.04	138
D Desborough.....	C. A. Markham, Esq....	5	3	0	457 π	20.27	152
Barnwell (Lilford Hall)	Mr. E. Wilson	5	1	0	...	20.10	...
Oundle (Milton Road)	J. M. Siddons, Esq. ...	5	3	4	105 π	16.90	...
§ „ Waterworks	Meteorological Office...	5	1	0	147	19.04	158
D Corby (Weldon Grange)	John Rooke, Esq.	8	1	0	342 π	19.40	186
D Peterborough (Westbourne Ho.)	E. H. Colman, Esq. ...	8	1	0	30 π	16.81	154
D „ (Queen Street) ...	J. Shipley Ellis, Esq....	5	0	6	49 π	17.42	159
D „ (Milton House) ...	C. A. Markham, Esq....	...	...	...	...	17.80	135
D Wittering Rectory.....	Rev. S. B. Warde	5	1	0	180	18.98	162
D Eye (Newborough)	R. Williams, Esq.	5	1	0	8 π	17.35	165
5.—WELLAND. 96 sq. mi.							
D Marston Trussell Rectory ... (R)	Rev. J. Knight Law... ..	10	2	6	314 π	18.75	150
D Dingley [Market Harborough]...	E. C. Purton, Esq.....	5	1	6	...	21.45	158
D Rockingham Castle Gardens.....	C. A. Markham, Esq... ..	5	4	4	300 π	22.07	148
Gretton (Gretton House)	Mr. J. Rogers.....	5	1	0	354 π	19.84	137
Kings Cliffe (Fineshade Abbey)...	C. A. Markham, Esq... ..	5	0	9	200	19.72	...
D Etton [Market Deeping]	J. C. Gill, Esq., C.E....	8	1	0	25 π	17.02	142
HUNTINGDONSHIRE. (Area, 366 sq. mi.)							
1.—OUSE. 327 sq. mi.							
D St. Neots (Waresley Park)	Col. W. Duncombe	5	0	11	190	18.43	148
D „ (Great Paxton)	Rev. A. G. Cane.....	5	1	0	100 π	17.79	144
Offord D'Arcy	W. Priestley, Esq.	5	0	9	51 π	18.82	139
D Buckden (Stirtloe House).....	the late J. Linton, Esq.	5	1	0	75	18.65	139
D Huntingdon (Brampton Rectory)	Miss M. Budge	5	1	1	39 π	21.01	142
D „ (Bosworth House)...	H. Lucas, Esq.	5	1	6	35 π	19.48	194
D „ (Hinchingbrooke)(R)	Earl of Sandwich	10	6	0	74 π	17.37	128
D St. Ives (Slepe House)	Dr. W. R. Grove	5	1	0	25	18.63	167
D Houghton Grange	C. H. Coote, Esq.	5	1	0	114	18.31	173
D Catworth.....	Miss E. M. Conway ...	5	0	9	210 π	18.57	172
D Great Gidding Rectory	E. N. Plevins, Esq. ...	5	1	0	169 π	17.18	158
Whittlesea Mere	A. Lunn, Esq., C.E. ...	8	1	6	10 ?	16.20	...
2.—NENE. 39 sq. mi.							
Waternewton Rectory	Rev. H. G. Woodhouse ...	...	...	...	50 ?	18.70	...

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

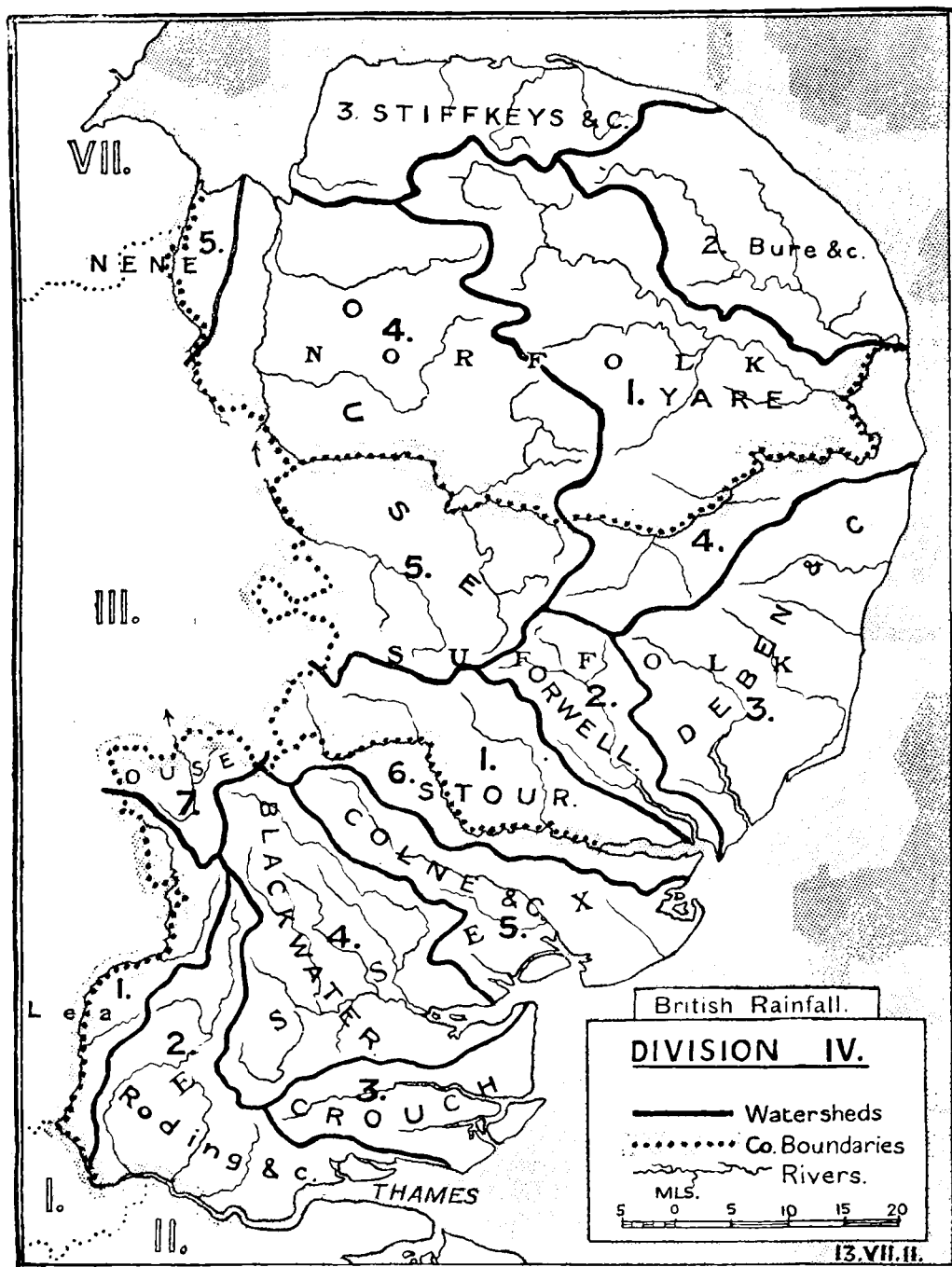
STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
BEDFORDSHIRE. (Area, 467 sq. mi.)						
1.—THAMES—Colne. 20 sq. mi.						
D Dunstable (Kensworth).....	the late Miss Jones ...	5	1 5	630 B	25·99	149
Luton (Stockwood)	Francis Crawley, Esq..	5	3 0	539 T	22·12	153
2.—THAMES—Lea. 32 sq. mi.						
D Luton (Pumping Station).....	J.W.Tomlinson, Esq. CE	5	1 0	343 A	20·49	156
D „ (Tennyson Road)	Harold F. Smith, Esq.	5	1 1	530 T	21·86	145
D „ (The Downs)	G. W. Pryer, Esq.....	...	...	...	23·74	153
3.—OUSE. 408 sq. mi.						
D Woburn (Milton Bryant).....	Mr. C. J. Kilby	5	1 0	510	21·56	151
D Shillington	Kilham Roberts, Esq...	5	1 0	182 A	21·28	150
D Holwell Bury [Hitchin]	C. Chittick, Esq.	5	1 0	185 T	22·45	144
D Ampthill (Higham Bury).....	E. J. Jekvll, Esq.	5	1 0	310 T	22·36	164
Shefford (Upper Stondon).....	R. Long, Esq.	5	1 0	241 T	19·56	...
D† Woburn (Crawley Mill Farm)...	H. M. Freear, Esq. ...	8	1 0	292 T	19·24	161
D† „ (Fruit Farm, Ridgmont)	W. H. Neild, Esq.....	5	1 0	270 T	20·64	182
D Stotfold (Three Counties Asylum)	Dr. L. O. Fuller.....	5	1 0	220 T	20·19	163
Shefford (Clifton Bury)	A. Inskip, Esq.	5	2 1	150	18·97	...
D „ Council School	G. F. Alldritt, Esq. ...	5	1 0	134 T	19·76	164
„ Hardwick	H. Inskip, Esq.	5	2 6	90 ?	19·17	...
D Cranfield School.....	Alfred Death, Esq. ...	5	1 6	365	19·78	144
D Biggleswade (Waterworks)	H. Carne, Esq., C.E....	5	1 6	170 A	17·67	165
D „ (Old Warden Park)	Mr. W. C. Modral	8	1 2	90	21·34	159
D Potton (Wrestlingworth)	H. J. King, Esq.	5	1 0	119 T	19·69	150
Sandy (The Lodge)	Viscount Peel.....	5	1 0	200 ?	18·30	144
D „ (Beeston Grange)	Col. Maunsell Bowers..	5	1 0	85 ?	17·93	185
D „ Rectory	Rev. J. Richardson ...	5	1 0	120	18·78	175
D Bedford (The Park)	(R) N. Greenshields, Esq...	8	5 8	123 A	17·51	150
„ (Castle Road)	Miss M. E. Newbery...	5	7 0	108 T	20·35	145
Goldington (Castle Mills).....	W. H. Rogers, Esq. ...	5	1 6	90 A	17·20	...
D Great Barford House.....	J. Arnold Whitechurch Esq	5	1 0	120 T	18·18	141
Sharnbrook (Colworth Gardens)	Mr. J. Hoad	5	2 0	250	19·74	...
Melchbourne Park.....	late Lord St. John of Bletso..	...	1 6	281	16·19	...
4.—NENE. 7 sq. mi.						
CAMBRIDGESHIRE. (Area, 859 sq. mi.)						
1.—STOUR. 17 sq. mi.						
D Carlton Hall	the late A. S. Nice, Esq.	5	1 6	290 T	24·30	156
D Brinkley Hall.....	R. W. King, Esq.....	5	1 0	380	22·21	144
2.—OUSE. 740 sq. mi.						
D Odsey [Ashwell]	Sir H. G. Fordham ...	5	1 0	256 A	19·49	158
Abington Pigotts	Mr. J. N. Woodham ...	5	0 8	130	17·79	...
D Meldreth (Chiswick Farm)	A. Howard, Esq.	5	1 1	70 T	20·41	152
D „ (Belmington Close) ...	G. Warren Bindloss, Esq	5	1 0	65 T	18·13	158
D Foxton (The Bury)	J. Gifford, Esq.	5	1 0	60 T	20·86	178
D Great Abington (Abington Hall)	Mr. F. Ripley.....	3	0 7	90 ?	18·19?	135
D Whittlesford (Sawston Hall) ...	D. L. Huddleston, Esq.	5	1 1	86 T	19·58	147
D Harston Vicarage	Mrs. E. C. Baldwin ...	5	0 8	47	19·66	134

DIVISION III.—SOUTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with ¹ / ₁₀ or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1911	
		in.	ft.	in.	feet.	inches.	
CAMBRIDGESHIRE—(con.)							
2.—OUSE—(con.)							
D Wimpole Hall	Mr. W. J. Snell	5	1	0	141	19.77	157
D Little Shelford Manor House ...	Miss M. C. Walton ...	5	1	0	52	19.27	163
D Stapleford House	J. H. H. Linton, Esq..	5	2	3	64	19.39	140
D Weston Colville.....	Gerald H. Long, Esq...	5	1	0	327 π	21.74	130
D Trumpington	C. Parsons, Esq.	5	1	0	60 \uparrow	19.92	140
D Grantchester Mill	J. Nutter, Esq.	5	5	0	31 π	18.14	142
D Cambridge W.W. (Fulbourne) ...	W. W. Gray, Esq., C.E.	5	1	0	37 π	19.04	157
D " " (Cherryhinton)	" " " "	5	1	0	35 π	18.53	173
D \dagger " " (Harvey Road)	Smith Nutter, Esq. ...	8	5	5	45	19.34	172
D \dagger " " (Herschel House) ...	C. N. H. Lock, Esq. ...	5	1	1	36 \uparrow	16.97	138
D \dagger " " (Sidney Street)	Percy Pain, Esq.	8	53	0	83 π	18.15	163
D \dagger " " (Tenison Avenue) ...	W. B. Parsons, Esq. ...	8	1	2	...	18.55	157
D \dagger " " (Pinehurst)	C. F. Foster, Esq.	5	0	10	36	19.57	169
D \dagger " " (Botanic Gardens) ...	R. Irwin Lynch, Esq...	8	0	10	43	19.01	150
D " " (Quy Hall)	T. Musgrave Francis Esq	5	0	5	24 π	21.29	165
Croxton Park	G. D. Newton, Esq. ...	5	2	6	200 ?	17.53	...
D Boxworth [St. Ives]	E. H. Thornhill, Esq...	5	1	0	76 \uparrow	20.79	174
D Burwell	R. Stephenson, Esq....	5	2	0	58	21.45	145
D Conington Hall [St. Ives]	Philip T. Gardner, Esq.	8	0	5	50 \uparrow	19.81	172
D Cottenham (Bernard House).....	A. Bull, Esq.....	5	3	6	30 \uparrow	20.25	144
Fordham	W. V. Bloom, Esq. ...	...	1	0	30	17.84	...
Soham	T. Everett, Esq.	5	2	0	25 \uparrow	19.67	...
Stretham (Dimocks Cote).....	H. Nightingale, Esq....	5	13	7	...	18.70	...
D " " Engine	Mr. J. Housley	9	4	9	13 π	19.11	142
D " " (Orchard House)	C. Wright, Esq.....	8	5	0	42	21.00	148
D \dagger Ely (The Palace)	Mr. A. Sewell.....	5	1	0	64 \uparrow	22.00	170
Chatteris (Holwood Farm)	Mr. G. Argent	5	0	10	12	19.79	...
Mepal Engine.....	Mr. J. Goodman.....	5	20	6	25	14.95	...
D Littleport (Highfield House) ...	H. G. Martin, Esq. ...	8	2	7	67 \uparrow	20.65	142
D Chatteris (Aylesby House)	A. H. Ruston, Esq. ...	8	0	6	31	21.98	150
" " (The Priory)	H. F. Fryer, Esq.	5	0	7	31	21.12	131
D March	A. Lunn, Esq., C.E. ...	9	2	0	...	20.06	144
D Upwell (Marmont Priory Lock)..	" " " "	8	1	1	...	18.16	171
D " " (Euximoor House)	H. West, jun., Esq. ...	5	0	8	15	21.43	150
3.—NENE. 102 sq. mi.							
D Stanground Sluice	A. Lunn, Esq., C.E. ...	8	1	6	...	17.88	142
D Thorney (Bedford Office)	Hugh R. Brodie, Esq...	8	3	6	9 π	18.61	161
Wisbech (Bank House).....	Lord Peckover of Wisbech	8	0	8	6	21.33	...
D " " (Monica Road)	W. Climensson, Esq. ...	8	1	2	6	21.97	138
Tydd (North Level House)	Mr. S. Fovargne .....	...	...	...	10 ?	22.73	...

MAP OF DIVISION IV.

EASTERN COUNTIES,
Showing the River-Divisions



DIVISION IV.—EASTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
ESSEX. (Area, 1532 sq. mi.)						
1.—THAMES—Lea. 132 sq. mi.						
D West Ham (Abbey Mills).....	Sir M. Fitzmaurice, CMG	8	1 0	11 π	21.57	153
D Leyton (Town Hall)	E. H. Essex, Esq.	5	1 0	22 π	20.83	141
D† Lea Bridge.....	Met. Water Board.....	8	0 6	23 π	21.45	144
D† Walthamstow (Ferry Lane).....	" " "	8	0 10	30 π	21.20	129
D† Woodford (Haggar Lane)	" " "	8	0 8	176 π	22.92	139
D† Buckhurst Hill Reservoir.....	" " "	8	1 7	275 π	24.53	173
D " " (Ardmore)	Mrs. Eliot Howard ...	8	1 0	270	25.42	139
D† Chingford Mill	Met. Water Board.....	8	0 6	40 π	23.85	140
D " (Sewardstone Lodge)..	W. P. Robertson, Esq.	8	0 10	200 ?	24.08	138
D† Loughton (High Beech Reservoir)	Met. Water Board.....	8	1 0	376 π	28.26	171
D† Waltham Abbey.....	" " "	8	5 0	66 π	26.74	165
" " (Gunpr. Factory)	The Superintendent ...	5	2 0	64 π	26.34	186
D Hatfield Broad Oak (Barrington Hall)	A. H. Gosling, Esq. ...	5	0 10	300 π	21.14	146
D Hassobury [Bishop Stortford] ...	L. D. Gosling, Esq. ...	5	0 10	290 ?	22.84	162
D Elsenham (Gaunts End)	Sir Walter Gilbey, Bart.	5	1 0	363	23.57	150
2.—THAMES—Roding & c. 316 sq. mi.						
D Grays Sewage Works	A. C. James, Esq., C.E.	8	2 3	9 π	19.76	150
D Stifford (Coppid Hall)	Miss Scott	5	2 0	75	18.23	142
D East Ham (Central Park).....	Medical Officer of Health	5	1 0	13 π	21.51	144
D " " Well	Met. Water Board.....	8	0 11	17 π	23.05	136
D Barking Cemetery.....	H. Hargreaves, Esq....	5	1 0	18	19.53	131
D Vange Pumping Station	Southend Water Wks Co	5	1 0	43 π	20.29	...
D Pitsea " "	" " "	5	1 0	29 π	20.74	128
D Wanstead "Red Bridge"	Met. "Water" Board.....	8	8 0	33 π	20.91	130
D Manor Park (Albany Road) ... M	A. J. Wilmshurst, Esq.	5	3 0	40	20.72	...
D Upminster Hall ...	Captain G. H. T. Swinton	5	1 0	121 π	20.60	147
D Romford (Harold Wood)	J. G. Broodbank, Esq..	5	4 0	120	21.52	148
D Havering Grange	G. P. Hope, Esq.	5	1 0	255 π	21.87	197
D " -atte-Bower (Fernside)	Benjamin Smith, Esq..	5	1 0	341 π	25.56	185
D Theydon Bois (Suttons)	Lady Cunliffe Smith ...	5	0 4	115 ?	24.28	...
D " " (Thriffs Hall) ...	H. B. Debenham, Esq..	5	0 9	200	22.64	178
D Epping (The Hemnalls)	J. Nicholl, Esq.	8	0 8	345	30.25	135
D North Weald (Canes)	H. W. Hart, Esq.	5	1 11	250 ?	21.81	130
D Abbess Roding Rectory	late Rev. L. Capel Cure	8	1 0	300	20.21	...
3.—CROUCH. 186 sq. mi.						
D§ Shoeburyness	Superintendt. of Expts.	8	1 0	13 π	18.76	143
D§ " "	" " "	5	1 0	13 π	19.27	...
D Southend (Corporation Obsy.) ...	E. J. Elford, Esq., C.E.	8	1 0	90	19.68	144
D " (Southchurch Road) ...	B. C. Hall, Esq.	5	1 2	96 π	20.99	131
D " (Broadway)	H. J. G. Ralph, Esq....	5	1 0	85 π	21.50	156
D " (Water Works).....	Southend Water Wks Co	8	1 0	112 π	21.68	165
D Leigh Reservoir	" " "	5	1 0	177 π	20.91	140
D Eastwood Pumping Station	" " "	8	1 0	50 π	21.23	161
D Thundersley Reservoir	" " "	5	1 0	277 π	21.50	134
D Nevendon Pumping Station	" " "	5	1 0	43 π	21.00	...
D Billericay (Service Tank)	" " "	5	1 0	310 π	23.02	153
D " (Ramsden Hall)	T. W. Bacon, Esq.....	5	0 9	260 π	23.85	160

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	1911	
		in.	ft. in.	feet.	inches.	
ESSEX—(con.)						
3.—CROUCH—(con.)						
D Wickford (Runwell Hall).....	Lt.-Col. H. Kemble ...	5	1 0	75 T	24.49	133
D Southminster	H. Murton, Esq.	5	1 1	85 T	20.49	...
D Dengie (Land Wick).....	H. G. Owen, Esq.	5	1 0	10	19.54	143
D Bradwell-on-Sea (Bradwell Hall)	J.C. Chillingworth, Esq.	5	1 1	27	18.17	126
4.—BLACKWATER. 425 sq. mi.						
D Brentwood (Shenfield, The Lodge)	H. P. Landon, Esq. ...	5	0 7	303 T	23.05	155
Cold Norton (Latchingdon Rec.)	Mrs. Pope ...	5	1 0	175 T	20.30	145
D Ingatestone (Fryerning)	A. E. Christy, Esq. ...	5	1 0	291 T	21.92	166
D „ { „ Furze Hall)...	Mrs. Wilde.....	5	1 0	285 T	22.81	164
D „ { „ „ „) M	„ „	5	1 0	285 T	22.45	...
D Maldon (Hazeleigh Rectory) ...	Rev. G. H. Raynor ...	7	1 1	161 T	19.21	137
D Danbury Rectory	Rev. J. Bridges Plumptre	5	1 0	365 T	20.47	147
Maldon	<i>E. Anglian Daily Times</i>	...	...	...	20.89	...
D Writtle (Melbourne).....	E. Rosling, Esq.	5	0 9	140 T	20.75	153
D „	R. Woodhouse, Esq. ...	8	2 0	100 ?	20.87	132
D „ (The House).....	Miss Osborne	5	2 6	100	23.24	128
Chelmsford (High Street).....	F. Chancellor, Esq. ...	8	1 0	92 T	20.75	165
„ (County Hortic. School)	C. W. Aylett, Esq. ...	5	1 0	...	20.65	...
D§ „ (Spargula)	J. C. Thresh, Esq., M.D.	5	1 0	136 T	19.31	135
D „ (Springfield Place)...	Miss Jackson	5	0 11	143 T	22.30	187
„ (Roxwell)	R. W. Christy, Esq. ...	5	1 0	180 T	19.07	...
D Witham (Terling Vicarage).....	H. C. Boutflower, Esq.	5	1 0	115 T	19.89	143
Great Leighs (Lyons Hall)	J. H. Tritton, Esq. ...	5	3 0	130 T	20.15	136
Witham (Faulkbourne Hall) ...	Miss C. L. Parker	5	0 8	100 ?	20.01	139
Kelvedon (Lawn House)	F. Randolph-Symmons, Esq.	5	1 0	96	19.62	...
D „ (White Barn)	W. & H. J. Sheldrake, Esqs.	5	1 5	135 T	20.44	143
„ (Feering Vicarage) ...	Rev. A. F. Curtis	5	1 0	100 T	24.44	...
Little Dunmow Council School...	Miss M. G. Archer ...	5	1 0	290 T	20.18	...
„ „ (Throws)	<i>Essex Weekly News</i> ...	...	...	250 ?	19.87	...
Braintree (Bocking, Fennes).....	H. S. Tabor, Esq.	5	1 0	240 T	18.85	...
Great Saling (Saling Grove).....	Capt. J. N. Harrison...	8	1 0	290 T	19.91	131
5.—COLNE & C. 283 sq. mi.						
Mersey Island (Waldegraves) ...	<i>E. Anglian Daily Times</i>	...	...	55 ?	19.38	...
D Clacton-on-Sea (Clacton College)	H. Picton, Esq.	5	0 9	40 T	20.28	168
D§ „ „ „	Mr. A. W. Shadick ...	5	1 2	55 T	18.58	142
Fingringhoe (Ballast Quay Farm)	T. B. Grubb, Esq.	5	2 0	47	19.20	132
Colchester (Berechurch)	R. P. Blyth, Esq.	5	1 3	120 ?	21.03	129
„ (King's Ford)	Hon. Lady Digby	5	1 0	103 T	20.74	181
D „ (Beverley Road)	A. E. Barker, Esq. ...	5	1 0	...	19.17	137
D „ (Borough Surveyor's Office)	H. Goodyear, Esq., C.E.	8	17 0	82 T	18.50	132
D „ (Hill House, Lexden)	S. F. Hurnard, Esq. ...	5	1 0	90 T	19.92	148
„ „ „ „) M	„ „ „ „	5	1 0	90 T	19.56	...
„ (Home Farm, „)	Mr. W. Bird	5	1 0	125 T	20.81	...
Great Bromley (Broughton).....	W. Arnold Roberts, Esq.	5	1 0	115 T	21.24	...
Earls Colne (Chalkney House)...	H. F. Hills, Esq.	5	1 0	188 T	22.35	...
D Manningtree (Bradfield Lodge)..	G. Hempson, Esq.	5	1 0	113 T	21.72	146

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1911	
		in.	ft.	in.	feet.	inches.	
ESSEX—(con.)							
5.—COLNE & C—(con.)							
d § Halstead (The Brewery)	E. T. Adams, Esq.....	5	1	0	144	21·13	137
d „ (Grammar School).....	Miss Coles	7	1	0	220 †	21·38	135
Great Maplestead (Monk's Lodge)	T. F. Miller, Esq.	5	0	9	245 †	21·86	...
6.—STOUR. 110 sq. mi.							
d Harwich (Hill House, Ramsey)..	Miss K. Hempson	5	0	6	80	24·13	150
„ (Coastguard Station)...	Mr. W. Bevan	5	1	0	40	19·24	...
d Lawford (Dale Hall).....	W. H. Richardson, Esq..	5	1	0	110 †	21·09	140
d Dedham (Dalethorpe)	J. D. Tremlett, Esq....	5	1	1	54	20·08	165
Langham Rectory	Rev. T. S. Raffles	5	0	11	134	20·15	148
d Bulmer Lodge [Sudbury].....	The Misses Burke	5	1	3	200 †	26·09	164
7.—OUSE. 80 sq. mi.							
d Newport (Belmont House)	Dr. J. Arthur Brown...	5	1	0	180 †	24·09	137
Arkesden (Wood Hall)	Charles Beadle, Esq....	5	1	0	380	26·16	...
d Saffron Walden (Market Place)..	J. S. W. Leverett, Esq..	5	1	5	201 ‡	22·13	159
d „ „ (Audley End)...	Mr. J. Vert	5	1	0	155 ‡	20·68	148
d Great Chesterford Mills	Ernest H. King, Esq...	5	1	0	130	21·34	161
SUFFOLK. (Area, 1489 sq. mi.)							
1.—STOUR. 271 sq. mi.							
Brantham [Manningtree].....	H. M. Greenstock, Esq..	6	1	0	22	24·73	...
d East Bergholt (Ackworth House)	A. Harwood, Esq.	8	1	6	145	20·68	171
d Capel St. Mary School	B. B. Taylor, Esq.....	5	1	0	135 ?	22·87	152
d Sudbury (Great Cornard).....	A. B. Legard, Esq.....	5	1	0	100 ?	21·85	139
d „ (Cornard Road)	W. I. Tait, Esq., C.E..	5	1	3	90 †	21·31	161
„ (Lunt Fall Reservoir)...	„ „ „	5	1	3	194 ‡	21·26	175
d „ (Friars Street)	E. Ransom, Esq.	5	1	7	93 †	21·80	165
Lavenham (High Street)	C. Mellis, Esq.	200 ?	25·84	148
Hitcham Rectory	Rev. R. R. Cobbold ...	5	1	5	255 †	21·51	157
„ (Loose Hall)	T. A. Harwood, Esq....	5	1	0	275 ?	21·92	...
Clare (Cordell Hall, Stansfield)..	J. Slater, Esq.	5	1	0	300 ‡	25·68	...
d „ (Hawkedon Rectory)	Rev. B. P. Oakes	5	3	4	305 ‡	25·97	189
d Cockfield Rectory	Rev. Edwin Hill	5	1	0	305 †	24·01	164
2.—ORWELL. 166 sq. mi.							
d Trimley (The Avenue)	G. Binyon, Esq.....	8	1	0	80 †	23·37	153
d Ipswich (Woolverstone Park) ...	C. H. Berners, Esq. ...	8	1	0	100 †	21·91	148
d „ (Orwell Park)	Mr. A. K. Turner	8	1	0	60 ‡	23·81	174
„ (Belstead Hall)	Miss Wilson	5	1	0	100	23·03	155
d „ (Rookwood, Copdock)...	F. L. Bland, Esq.	5	1	6	170 †	21·68	165
d „ (Museum).....	F. Woolnough, Esq. ...	8	0	10	72 ‡	24·52	157
„ (Bishop's Hill).....	Miss D. E. Biddell.....	5	1	0	104 ‡	24·01	...
„ (Parkside)	F. Turner, Esq.	5	1	0	125 †	22·33	145
d „ (Dale Hall)	Percy Turner, Esq.....	8	1	0	135 †	23·03	151
Ash Bocking Vicarage..... No. 1	Rev. M. B. Cowell.....	5	1	0	231 ‡	22·83	141
„ „ „ „ „ No. 2	„ „ „ „ „	5	3	4	231 ‡	22·39	141
Needham Market (Hurstlea) ...	R. G. Wylde, Esq.....	5	1	2	95 †	23·98	...

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		1911
			ft.	in.	feet.			inches.
SUFFOLK—(con.)							
2.—ORWELL—(con.)							
Haughley House	Mr. E. Quinton	6	0	6	145 ?	23·63	...
„ (Wetherden School) ...	<i>E. Anglian Daily Times</i> ...	...	...	...	140 ?	25·71	...
3.—DEBEN & C. 466 sq. mi.							
§ Felixstowe (The Shrubbery)	S. Alexander, Esq.	5	1	0	70	23·94	144
§ „ (Wireless Tel. Station)	T. G. Simpson, Esq. ...	8	1	0	10	21·76	171
Waldringfield Old Rectory	Rev. T. H. Waller	8	1	2	60 ?	21·27	...
Hollesley Manor	G. P. Hope, Esq.	5	1	0	65 †	20·07	...
D Woodbridge Abbey	Col. R. J. Carthew ...	8	1	2	46 †	23·42	164
D „ (Melton Asylum) ...	Dr. S. G. Longworth ...	8	1	4	74 †	21·98	151
Orford (The Gables)	<i>E. Anglian Daily Times</i> ...	...	...	...	35 ?	21·66	...
D Rendlesham Hall	late Lord Rendlesham..	5	1	0	88 †	20·40	135
Charsfield Hall	Hugh P. Youngman Esq.	5	...	...	150	21·52	...
Parham (The High House)	H. R. Smith, Esq.	5	1	0	93	21·08	...
D Aldborough (Aldringham Ho.) ..	F. Garrett, Esq.	8	4	5	50 B	21·67	166
D Great Glemham (Glemham Grove)	Col. A. Bloomfield	5	1	2	80 †	22·73	153
D Leiston (Lower Abbey)	M. K. Rope, Esq.	5	0	7	30	21·65	130
Westleton (St. Helena)	J. R. Grimsey, Esq. ...	8	2	0	65 †	22·86	141
D Halesworth (Estate Office)	H. S. R. Stanford, Esq.	5	2	6	25 ?	21·84	163
D Wangford (Henham Gardens) ...	Earl of Stradbroke	5	3	6	50	21·63	153
D „ (Reydon Grove)	C. P. Runnacles, Esq. ...	5	3	0	20 †	20·23	156
D „ (Ford House)	Hon. Agnes Eden	5	0	10	25 ?	21·92	145
D Beccles (Sotterley Hall)	Capt. Miles Barne	5	0	11	50 †	21·43	170
Wrentham (Henstead Hall)	Rev. Canon R. V. Barker	5	1	2	20	22·01	...
4.—YARE & C. 208 sq. mi.							
D Bacton	W. R. Church, Esq. ...	5	1	0	186 †	23·89	174
Stradbroke Vicarage	Rev. Canon W. Tate ...	5	1	3	172 †	22·03	...
D Halesworth (Rumburgh)	Rev. W. Linton Wilson	5	3	0	148 †	20·57	196
Bungay (Flixton Vicarage)	Rev. H. Trethewy	5	1	0	80 †	21·65	152
† Lowestoft (Belle Vue Park)	Roy. Meteorological Soc.	5	1	0	86 †	21·59	165
Blundeston House	L. J. Peto, Esq. ....	...	...	...	30 ?	21·88	...
D Herringfleet (The Gables)	G. H. Wyllys, Esq. ...	5	0	8	52	22·95	186
D Lound Pumping Station	Lowestoft Water & Gas Co.	8	1	0	34	21·00	159
Fritton	Mrs. H. E. Buxton	8	0	10	40	20·68	152
„ Warren	Gen. R. Upcher, C.B. ...	5	...	...	...	22·74	150
D Burgh Hall [Yarmouth]	H. P. Frederick, Esq. ...	8	0	6	45 †	21·13	183
5.—OUSE. 378 sq. mi.							
D Chevington (The School)	F. King, Esq.	5	1	2	300 †	23·21	162
D Little Saxham Rectory	Rev. H. I. Kilner	8	0	10	220	23·73	171
D Bury St. Edmunds (Albert Cres.)	J. R. Burdon, Esq.	5	1	0	196 †	23·58	174
D „ „ „ (Westley)	R. Burrell, Esq.	5	1	0	226 †	24·75	153
D „ „ „ (Fornham St. Martin)	Rev. J. S. Pratt	5	1	0	100	21·60	133
D † Walsham-le-Willows	Mr. J. Pamment	5	1	0	140	25·32	171
† Barningham	Miss A. K. Lingwood ...	8	0	9	136	23·64	...
D Elveden Hall	Viscount Iveagh, K.P. ...	5	1	0	130 †	24·26	195

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	1911		
		in.	ft.	n.	feet.	inches.	
NORFOLK. (Area, 2044 sq. mi.)							
1.—YARE. 658 sq. mi.							
D Diss (Council School)	T. M. Pullen, Esq.....	5	1	0	90	22-94	172
„ (The Cedars).....	Dr. H. M. Speirs	10	1	0	108 A	23-73	155
D Pulham St. Mary (The Firs) ...	W. G. Rutter, Esq. ...	5	1	0	...	23-83	179
„ „ „ „ School.....	W. H. Pumphrey, Esq.	5	1	0	131 A	25-45	131
D § Geldeston [Beccles]	E. T. Dowson, Esq. ...	5	1	0	38 A	21-09	177
§ „							

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		1911
		in.	ft.	in.	feet.	inches.	
NORFOLK—(con.)							
2.—YARE—Bure & c—(con.)							
D Worstead (The Grange)	Rev. F. W. Walter ...	3	3	0	40 T	23.04	161
D North Walsham (Empson House)	W. S. Horn, Esq.	5	1	0	102 T	20.99	161
D Cromer (Northrepps Hall)	Mrs. R. Gurney.....	5	0	4	200	24.93	191
3.—STIFFKEYS & C. 288 sq. mi.							
D Hillington School	A. W. Preston, Esq....	5	3	6	93 T	32.02	216
D Sandringham House Gardens ...	Mr. T. H. Cook	5	1	1	121 T	31.43	211
Cromer	W. H. Archer, Esq. ...	8	1	0	197 T	19.29	233
D „ (The Warren)	F. H. Barclay, Esq. ...	8	1	6	...	22.11	164
D Blakeney	Mr. R. Lee	5	1	3	29	21.32	158
D „	A. W. Preston, Esq....	...	...	...	...	23.58	206
D Wells (Holkham Hall)	Earl of Leicester, G.C.V.O.	12	4	0	43	27.57	152
4.—OUSE & C. 683 sq. mi.							
Riddlesworth Hall Gardens	Mr. H. Simpson	5	1	0	80 ?	22.64	...
D Thetford (Waterworks)	Mr. E. S. Greenwood...	8	1	0	170 T	24.16	177
D „ (Ford Place Gardens)..	Mr. P. Horn	5	1	0	50	22.73	172
„ („ Street Gardens)..	Mr. A. Pipe.....	5	1	0	44	22.73	...
D Kenninghall (Council School) ...	A. B. Smith, Esq.	5	0	6	160 ?	22.95	138
D Santon [Brandon]	A. W. Preston, Esq....	5	0	10	32	26.61	173
Weeting [„]	S. J. Adcock, Esq.	5	0	7	32 T	22.23	132
Hargham	H. R. Beevor, Esq. ...	5	2	0	120 T	24.65	135
D Southery	J. Stanley, Esq.....	5	1	3	13	20.13	167
D Caston Rectory	Rev. W. H. Partridge..	5	1	0	148 T	27.78	183
D Watton	A. A. Gompertz, Esq...	5	1	0	166 T	27.52	165
D Denver	Rev. G. D. Barry	5	...	...	...	24.05	168
D Stoke Ferry (Wereham)	G. Read, Esq.....	5	2	3	66 T	26.92	192
D Outwell (Wellbreck Sluice)	A. Lunn, Esq., C.E....	9	2	6	16	21.92	157
Emneth	F. M. Bland, Esq.....	6	1	0	6	21.50	153
D Swaffham	W. H. Plowright, Esq..	5	5	0	250 T	25.77	163
D „ (The Paddocks)	H. W. Coe, Esq.....	5	0	8	245 T	29.10	176
„ (Homewood)	Messrs. Vynne & Everett	5	2	6	210	28.85	175
D Sporle	T. S. Matthews, Esq...	8	4	0	230	29.37	203
D Swaffham (Little Dunham)	A. W. Preston, Esq....	5	1	1	320	31.58	218
D Wiggenhall (St. Germans Sluice) ..	A. Lunn, Esq., C.E....	8	1	6	...	24.69	158
Middleton Hall	J. de Pass, Esq.....	5	0	9	100 ?	23.36	...
Gayton Pumping Station	A. J. Smith, Esq.	5	1	0	131 T	25.25	...
5.—NENE 47 sq. mi.							

DIVISION V.—SOUTH WESTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with ≥ 0.1 or more recorded.
		Diameter.	Height Above Ground.	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
WILTSHIRE. (Area, 1375 sq. mi.)						
1.—LOWER AVON. 386 sq. mi.						
Corsley (Sturford Mead)	H. Theodore Cookson Esq.	5	0 9	459	34.39	180
Market Lavington	Miss A. P. Bouverie ...	5	0 10	290 T	23.99	168
D Trowbridge W. W. (Biss)	W. W. Gray, Esq., C.E.	5	1 0	311	31.35	169
D „ (Rood Ashton)	Mr. W. Strugnell	8	1 6	250	30.18	181
D „ (Wingfield)	T. H. Clark, Esq.	5	1 0	190	25.47	146
D Bradford (Winsley Manor)	E. W. Knatchbull, Esq.	5	0 6	400	25.79	157
D „ (Bearfield House)	G. A. R. FitzGerald, Esq.	5	1 10	290 T	25.63	143
D „ (Woolley Grange)	P. K. Stothert, Esq., C.E.	5	0 8	216 T	25.72	164
D Seend (Cleeve House)	(R) W. Heward Bell, Esq..	...	1 0	160 T	24.48	145
D Holt (The Retreat)	A. V. H. Beaven, Esq..	5	2 6	145 T	25.03	170
Devizes (Wilts Co. Asylum) ...	Dr. J. Ireland Bowes...	8	2 3	385 T	22.68	...
D „ (Southbroom House) ...	R. H. Caird, Esq.	5	1 0	434 T	23.39	176
D Calne (High Street)	E. W. Brown, Esq.	4	1 0	242	25.06	156
D „ (Compton Bassett Gardens)	Col. A. W. H. Hornsby Drake	8	1 3	350 T	27.70	...
D Wroughton (Basset Down House)	Mrs. Story Maskelyne..	5	1 0	500 ?	25.65	145
D Wootton Bassett (The Lime Kiln)	H. Bevir, Esq.	5	1 6	422 T	22.84	152
D Malmesbury (Cowbridge House).	C. E. de Bertodano, Esq.	5	1 0	236	25.09	164
D „ (Charlton Cottage).	Countess of Suffolk ...	6	0 9	400	26.49	147
2.—STOUR. 33 sq. mi.						
D Mere (Townend)	W. W. Farnfield, Esq.	5	2 6	340 T	31.53	168
D „ (Charnage)	A. R. White, Esq.	5	1 0	426 T	31.78	185
D Stourhead	Sir H. Hoare, Bart. ...	5	1 0	583 T	34.23	151
D Kilmington Rectory	Rev. H. A. Boys. ....	...	...	720 ?	36.98	196
3.—EAST AVON. 554 sq. mi.						
D Downton (Wick House)	Dr. F. G. Penrose	8	0 5	120 T	26.86	155
D Donhead St. Mary (Charlton Ho.)	Dowager Lady Wynford	5	0 7	515	34.06	159
D Longford Castle	The Earl of Radnor ...	5	1 0	141 T	27.63	153
D Tisbury (The Academy)	J. Bristol, Esq.	5	0 9	380 T	31.19	142
D East Knoyle (Slades)	E. H. Miles, Esq.	5	2 0	560 T	32.13	173
D Salisbury	W. J. Goodwin, Esq., C.E.	5	2 2	153 T	26.22	152
D „ (Fowlers Hill)	Mrs. T. Awdry	5	1 0	225 T	25.66	145
D „ (Brown Street)	T. H. Baker, Esq.	5	1 0	155 T	27.84	177
D „ (Wilton House)	Mr. T. Challis	8	1 0	180 T	36.05	193
D Stratford-sub-Castle (The Manor Ho.)	J. Carpenter, Esq.	5	0 9	165 T	25.70	154
Woodford (Court House)	Mrs. E. G. Chetwynd Stapylton	5	0 10	200	27.00	149
D Codford St. Mary (Stockton Ho.)	G. Knowles, Esq.	5	1 0	260	30.64	174
D Maiden Bradley	The Duke of Somerset.	8	1 6	626 T	44.38?	176
D Warminster (Rye Hill)	Stiles E. Jefferys, Esq..	8	2 0	466 T	33.00	193
D „ (Bishopstrow)	P. Benton, Esq.	5	0 10	380 T	29.63	160
D Cholderton Rectory	Rev. A. E. Brisco Owen	8	1 0	320 T	27.52	179
D Salisbury Plain (Chitterne House)	R. Hayward, Esq.	11	4 0	319 T	23.83	153
D „ „ (Shrewton)	F. J. Wardale, Esq. ...	5	0 9	322	26.84	172
Collingbourne Kingston	Mrs. Foote	5	1 0	470 T	26.32	...
D Chirton Old Manor House	Mr. T. Selfe	5	3 0	374	24.99	151
D Woodborough	Rev. C. W. Hony	5	1 0	400 T	24.80	166

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	1911	
		in.	ft.	in.	feet.	inches.	
WILTSHIRE—(con.)							
3.—EAST AVON—(con.)							
D Pewsey (Wilcot)	W. R. Wilbraham, Esq.	5	0	6	415 π	24·09	170
„ (Stowell Park)	J. H. Smith-Barry, Esq.	5	1	0	470	24·66	...
Stanton St. Bernard Rectory ...	Rev. E. Montagu Parken	...	...	...	450 ?	25·62	...
D Bishops Cannings	Mrs. H. H. Mogg	5	1	0	446 π	23·39	155
4.—TEST. 77 sq. mi.							
Landford (Northlands)	Mrs. Wigram	5	1	10	167 π	29·54	174
D Ludgershall (Conholt Park).....	E. A. Wigan, Esq. ...	5	1	3	800 \uparrow	32·85	133
5.—THAMES—Kennet. 169 sq. mi.							
D Grafton (Wexcombe)	K. A. MacAndrew, Esq.	5	1	0	570 \uparrow	28·97	157
D Shalbourne (West Court)	Mr. T. Barns	5	1	0	640 ?	27·57	160
D § Marlborough (College)	Meddows Taylor, Esq. ...	5	1	0	425	26·13	165
D „ (Mildenhall)	Rev. Gordon Soames ...	5	1	0	456	25·23	144
D Aldbourne (The Warren)	Henry Brown, Esq. ...	5	1	0	550 \uparrow	26·52	167
6.—THAMES—Cole & C. 156 sq. mi.							
D Wroughton (Water Works).....	H. J. Hamp, Esq.	8	1	3	450	25·78	152
D „ (Burderop Park) ...	A. Ashford, Esq.	5	0	9	550 ?	27·24	152
D New Swindon	H. J. Southwell, Esq. ...	8	0	11	378	24·16	173
D Highworth (Hannington Hall)...	Mrs. Hussey-Freke ...	5	1	0	375	21·28	158
DORSETSHIRE. (Area, 988 sq. mi.)							
1.—PARRETT. 61 sq. mi.							
D Evershot (Melbury House)	Mr. R. Rintoul	5	1	6	500	35·20	141
D Chedington Court	Sir Henry Peto, Bart. ...	5	1	0	605	34·60	161
D Leigh Vicarage	Dorset Field Club .....	...	1	0	250 ?	32·80	152
D Sherborne Castle	Mr. T. Turton	5	1	0	195 \uparrow	27·10	172
2.—AXE. 25 sq. mi.							
D Broadwindsor Vicarage	Rev. G. C. Hutchings...	5	0	7	535 \uparrow	32·98	170
D „ (Blackdown House)	C. E. M. Pinney, Esq. ..	5	0	9	515	36·78	188
3.—FROME & C. 502 sq. mi.							
§ Portland Bill (New Lighthouse).	Meteorological Office ...	8	1	0	23	19·13	143
D „ (Easton)	R. S. Henshaw, Esq. C.E.	5	1	6	265 π	27·46	154
D „ (H.M. Breakwater).....	T. C. Malim, Esq.	8	1	5	23 π	29·99	155
D § Weymouth (Westham)	I. J. Brown, Esq.	5	1	0	25	24·80	151
D „ (Massandra)	H. W. Green, Esq. ...	5	1	6	40 π	30·19	183
D Swanage (Royal Victoria Hotel)	H. B. Vincent, Esq. ...	5	1	11	50 π	29·12	142
D Chickerell (Montevideo)	Mrs. Richardson	5	1	0	100	26·00	164
D § „ Rectory	Rev. Sealy Poole	8	1	0	94	22·89	147
East Fleet (Fleet House)	Dorset Field Club	5	1	2	40	25·64	...
D † West Lulworth Vicarage	Rev. W. Percy Schuster	5	1	0	128 π	30·39	151
D East Lulworth Vicarage	Dorset Field Club	5	0	9	173	33·35	149
Creech Grange	J. W. G. Bond, Esq. ...	5	1	2	240	33·38	...
Abbotsbury Castle Gardens	Mr. H. Kempshall	8	...	...	100 ?	25·90	...
D „ (New Barn)	J. C. P. White, Esq. ...	5	1	6	111 \uparrow	25·46	154
D Upwey (Portland W. W.).....	R. S. Henshaw, Esq. C.E.	8	1	0	290 π	29·25	159
D Warmwell (Warmwell House)...	Lord Wynford	5	0	10	155 π	33·67	162
D Wareham (East Holme)	Gerald D. Bond, Esq. ...	5	1	0	24 \uparrow	32·87	140

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height above Ground.	Height above Sea Level		
		in.	ft. in.	feet.	inches.	
DORSETSHIRE—(con.)						
3.—FROME & C.—(con.)						
D Wareham (Worgate Hill).....	Mr. W. Sargent	5	1 1	108	28·82	177
D „ (South Street)	S. W. Bennett, Esq. ...	5	2 6	18	31·45	151
D „ (Binnegar Hall)	Lt.-Col. P. Farrer	5	1 0	65	33·18	147
D „ (Trigon)	Mrs. L. Sturdy	8	1 4	60 T	30·19	135
D Winterbourne Herringstone.....	Dorset Field Club .....	...	...	...	36·61	136
D Abbotsbury (Littlebrey).....	Rev. A. C. Moule	5	0 6	372	32·23	143
D Winterbourne Steepleton.....	H. Stilwell, Esq.	8	1 0	316 T	36·24	172
D Dorchester Water Works.....	H. D. Strange, Esq.	8	1 0	315 T	35·11	165
D „ (Wollaston House) ..	Capt. J. E. Acland.....	5	1 0	200 T	36·10	166
D Poole (Parkstone)	W. H. Symes, Esq.	5	1 3	160 T	29·91	143
D Branksome (Bourne Valley).....	H. W. Woodall, Esq....	8	1 3	84 T	29·44	140
D „ (Alderney Reservoir)	„ „ „ „ „ „ „ „ „	8	1 3	213 T	25·92	167
D Broadstone (Lypiatt Cottage) ...	F. W. Beckford, Esq....	5	1 0	220 B	33·35	218
D „ (Dunyeats)	J. E. James, Esq.	5	1 4	140 T	31·02	167
D Lyme Regis (Holme Cleve)	Mrs. Cave	5	1 0	230 T	27·22	147
D „ „ (Colway Cottage)...	Dr. J. Spurr	5	1 0	250	29·41	145
D Charmouth (Leslie Cottage).....	M. E. Mills, Esq.	8	1 3	120 T	27·59	166
D „ „ „ „ „ „ „ „ „ weekly	„ „ „ „ „ „ „ „ „	5	1 0	120 T	27·22	...
D Bridport (Coneygar)	H. Gordon, Esq., C.E..	5	1 0	110 T	27·04	148
D Bradford Peverell House	Mrs. Middleton	6	1 1	380	34·76	151
D Charminster (Brooklands).....	Capt. R. Dymond	8	1 3	...	33·21	...
D Puddletown Vicarage.....	Rev. A. Helps	5	2 8	195	34·59	153
D Wynford House.....	Lord Wynford	5	0 6	410	39·61	140
D Bere Regis (Barrow Hill).....	Mr. A. Lucas	5	1 0	120	32·49	147
D „ „ (Bloxworth Rectory).	Rev O.P. Cambridge FRS	5	1 6	205 T	30·44	135
D „ „ „ „ „ „ „ „ „ House)...	F. G. A. Lane, Esq. ...	5	1 6	118	32·92	158
D Netherbury.....	B. J. T. Stott, Esq.....	5	1 0	143 T	35·76	149
D Maiden Newton (Cattistock Lodge)	Major H. H. F. Fagan	5	1 0	361	39·31	168
D Bere Regis (Longthorns)	Mr. S. Smart	5	1 0	...	35·31	152
D Beaminster Vicarage.....	late Rev. A. A. Leonard	5	1 0	216 T	34·13	168
D „ (Fleet Street)	J. Andrews, Jun., Esq.	5	1 0	200 T	34·26	173
D Milton Abbas (Milton Abbey) ...	Mr. C. H. Perkins	5	0 10	333 T	36·90	167
4.—STOUR. 388 sq. mi.						
D Kinson (Eglinton).....	W. C. Keevil, Esq.	5	0 6	44 T	32·75	155
D Wimborne (Corfe Mullen)	G. V. Sparrow, Esq., C.E.	5	1 6	82	29·11	...
D Winterbourne Whitechurch Vic..	Rev. H. H. T. Bassett.	8	0 6	241	32·24	141
D Sturminster Marshall (Bailie Ho.)	Rev. J. Cross	5	0 6	85	29·31	142
D Wimborne (Westfield)	Dorset Field Club .....	...	...	...	30·08	137
D „ (St. John's Hill).....	E. H. Widnell, Esq....	5	1 0	146 B	30·46	144
D „ (Codford).....	GHBatterbury, Esq. MD	5	0 9	69 T	30·55	152
D „ (Stoneham)	H. J. Tuck, Esq.	3	1 0	200 T	29·94	...
D Witchampton	Miss A. L. Homer	5	1 0	130 T	30·46	...
D Horton Vicarage	Rev. G. Wellington ...	5	1 0	133 T	26·47	161
D Holwell (Westrow)	Mr. H. Caines.....	5	1 0	252	31·32	155
D Wimborne St. Giles (St. Giles Ho.)	Earl of Shaftesbury ...	8	1 0	165 T	29·94	142
D Gussage St. Michael (Gussage Manor)	Miss Ellen Good.....	5	1 3	200	29·50	...
D Iwerne Courtney (Ranston)	Sir R. L. Baker, Bart. MP	5	1 7	180 ?	28·81	133

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1911	
		in.	ft.	in.	feet.	inches.
DORSETSHIRE—(con.)						
4.—STOUR—(con.)						
D Sturminster Newton (Riverside).	A. R. Hallett, Esq. ...	5	5	0	205	27.32 149
D " " Vicarage...	Dorset Field Club	5	2	7	180 T	27.35 149
D Iwerne Minster House Gardens..	J. H. Ismay, Esq.	5	1	0	244 T	32.93 166
D " " " " (R)	" " " "	8	1	1	244 T	32.04 159
D Ashmore Rectory	Rev. A. J. Reed.....	8	1	3	700	33.77 174
D Shaftesbury	Rev. F. Ehlers.....	5	1	2	722	26.65 160
D Buckhorn Weston Rectory	Rev. W. Hughes D'Aeth	5	1	0	285	24.08 171
D Gillingham	S. H. Stephens, Esq....	5	1	2	244 T	30.42 163
5.—EAST AVON. 12 sq. mi.						
SOUTH DEVON. (Area, 1707 sq. mi.)						
1.—PARRETT. 7 sq. mi.						
2.—TAMAR & C. 395 sq. mi.						
D† Plymouth (The Hoe).....	H. Victor Prigg, Esq. CE	8	1	0	116 T	37.33 177
D " (Drake's Reservoir)...	F. Howarth, Esq., C.E.	5	1	0	149 T	37.65 158
D " (Hartley Reservoir)...	" " " "	5	1	0	321 T	41.58 165
D " (Freedom Fields).....	H. Victor Prigg, Esq. CE	8	1	0	208 T	39.14 162
D Devonport (Rowdens Res.)	F. W. Lillicrap, Esq., CE	5	1	0	201 T	34.77 169
D Plympton (Leigham).....	Vere Cholmondeley, Esq	5	1	0	50	42.51 166
D Bickley (Roborough Reservoir)..	F. Howarth, Esq., C.E.	5	1	0	548 T	48.52 190
Lee Moor Clay Works	T. Martin, Esq.	8	1	6	950	62.32 ...
Bere Ferrers Rectory.....	Rev. F. T. W. Wintle.	5	1	0	100	44.46 171
Bere Alston (Mount Tamar).....	T. Ching, Esq.	5	18	0	350	45.81 ...
D " " (Rumleigh)	Sir A. Croft, K.C.I.E...	5	1	6	123	45.84 172
D Sheepstor Vicarage	Rev. H. H. Breton.....	8	1	0	730 T	65.92 195
D " " " " " M	F. Howarth, Esq., C.E.	5	1	0	1024 T	54.78 ...
D " (Red Stone)	" " " "	5	1	0	763 T	64.72 200
D " (Burrator)	" " " "	5	1	0	755	64.27 200
D " (Head Weir).....	" " " "	5	1	0	720	51.38 200
D Dartmoor (Lowery)	F. W. Lillicrap, Esq., CE	5	1	0	890 T	57.77 180
D " (Deancombe Farm) ...	F. Howarth, Esq., C.E.	5	1	0	830 T	60.21 170
D " (Leather Tor Farm)...	" " " "	5	1	0	910 T	67.36 181
D " (Siwards Cross)..... M	" " " "	5	1	0	1200 T	63.25 ...
D " (Cramber Tor)..... M	" " " "	5	1	0	1435 T	52.90 ...
D Tavistock (Statsford, Ashbrook)..	Rev. H. B. Grylls	5	1	0	400	48.48 189
D " (Public Library)	Mr. J. Quick	8	20	0	283 T	43.56 179
Dartmoor (Leeden Tor)..... M	F. Howarth, Esq., C.E.	5	1	0	1270 T	48.98 ...
D " (N. Hessary Tor) No. 1	" " " "	5	1	0	1625 T	57.69 ...
D " (" " ") No. 2	" " " "	5	1	0	1502 T	57.76 ...
Marytavy Rectory.....	Rev. Irvine K. Anderson	8	1	0	560 T	54.52 ...
Milton Abbot (Endsleigh).....	Mr. F. Yole	5	1	0	180 T	45.61 ...
D Lifton (Kelly House).....	Rev. Maitland Kelly...	8	2	6	462 T	47.07 180
D Coryton Rectory	Rev. H. N. Fowler ...	5	1	6	400	37.30 177
D Polapit Tamar [Launceston] ...	R. C. Coode, Esq.	5	1	0	315 T	39.42 191

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	1911	
		in.	ft.	in.	feet.	inches.	
SOUTH DEVON—(con.)							
5.—TEIGN—(con.)							
D Newton Abbot (The Chestnuts)...	E. D. Wylie, Esq.....	5	0	6	100 T	33.04	154
D Teignmouth (Woodlands)	W. B. Harris, Esq. ...	8	1	2	98 T	28.95	144
D§ " (Den Gardens)	G. Rossiter, Esq.	5	1	0	20 T	28.80	141
D " (Landscore Res.) ...	Teignmouth U.D.C. ...	8	1	0	136	31.25	156
D " (Hazledown Res.)...	" "	8	2	0	227	26.64	137
D " (Shaldon)	" "	5	1	0	227	34.16	...
D " (Bonnicliff)	Miss M. Horner.....	5	1	0	260 T	31.53	166
D§ " (Benton)	W. C. Lake, Esq., M.D.	5	1	0	320	27.61	162
D Dawlish (Blyth).....	Capt. Plenderleath, R.N.	5	1	0	44 T	28.23	159
" (The Lawn).....	S.F.C. Churchward, Esq	5	1	0	18 T	26.99	...
" (Thorns Reservoir).....	" "	5	1	0	550 T	30.66	...
" (Burrows Reservoir) ...	" "	5	1	0	420 T	28.84	...
D Chudleigh (Ideford Rectory) ...	Rev. G. J. Ford.....	4	1	0	300 T	32.74	149
D Ilsington.....	W. J. J. H. Burnett, Esq.	5	1	0	600	48.70	173
D Bovey Tracey (Colehays)	Mr. G. Heath.....	5	1	0	400	53.42	159
Chudleigh (Trusham)	Rev. Offley H. Cary ...	5	0	6	322 T	35.93	164
D Moretonhampstead (Bullaton) ...	S. C. Chapman, Esq., C.E.	8	1	0	928 T	46.91	186
D " (Mardon) ...	" "	8	1	0	835	45.62	187
D Christow (Kennick)	" "	8	1	0	836 T	43.01	195
D " (Barne House)	Harford J. Lowe, Esq..	5	1	0	410 T	41.61	175
D Moretonhampstead (Blackingstone)	S. C. Chapman, Esq. C.E	8	1	0	1158 T	46.26	191
D Christow (Laployd)	" "	5	1	6	1041 T	49.14	190
D Moretonhampstead Rectory	Rev. S. D. Dewey	5	1	0	600 B	43.47	193
Chagford (Dartmoor Sanatorium)	S. W. Ward, Esq.....	5	1	3	750 T	50.74	...
6.—EXE. 445 sq. mi.							
D Starcross (Cofton Vicarage)	Rev. C. F. Benthall ...	5	1	9	60	29.91	143
D Exmouth (Douglas Avenue).....	Rev. S. G. Gillum	5	0	10	80 B	26.21	147
D " (Nidderdale)	Mrs. Herbert Stewart...	5	1	0	51	24.64	143
" (Manor Grounds)	S. Hutton, Esq., C.E..	5	1	0	13 T	27.60	157
" (Filters, Salterton Rd.) ..	" "	8	8	6	195	29.33	153
" (" Capel Lane)...	" "	5	8	0	240	27.42	150
D " (Marpool Hall)	Mrs. Chichester	5	1	0	87 T	28.24	152
D Aylesbeare (Rosamondford)	A. T. Loram, Esq.....	5	0	10	220 T	26.99	156
† Exeter (St. Thomas)	E. N. Snow, Esq.	5	0	8	65	33.63	153
D† " (Devon & Exeter Inst.)...	J. E. Coombes, Esq. ...	5	13	7	155 T	28.23	171
D† " (Elmfield House)	W. B. Heberden, Esq. CB	5	1	0	100 T	28.36	158
D Cheriton Bishop	Lt. Col. E. C. Thwaites	5	1	0	575 P	34.48	139
† Broad Clyst (Brockhill)	W. T. Bayne, Esq. LL.D.	5	1	0	80	27.61	163
D Newton St. Cyres (Sherwood) ...	Capt. A. L. Cave	5	1	0	400	31.03	154
D Upton Pyne (The Parsonage) ...	Rev. A. Hillyard	5	1	0	213 T	30.73	166
D† Brampford Speke Station	Mr. A. Tucker	5	1	0	79 T	26.83	154
D Crediton (Trobbridge House).....	R. Stanley Clarke, Esq.	8	1	2	250 T	30.21	204
D§ Silverton (Killerton)	Mr. J. Wilson	5	1	0	161	29.83	168
D Crediton (Okefield)	Seymour F. Pope, Esq.	5	1	0	325 T	31.32	180
D Copplestone (Coplestone House)...	Miss Pope	5	0	11	315 T	31.36	172
D§ Cullompton	M. T. Foster, Esq.....	5	1	0	202 T	34.93	200
† Tiverton (Broomhill).....	J. Dickinson, Esq.....	5	1	0	380	34.24	174

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	1911	
		in.	ft. in.	feet.	inches.	
SOUTH DEVON—(con.)						
6.—EXE—(con.)						
D† Tiverton (Highfield)	Maj.-Gen. G. W. Hanson	5	1 10	450 T	42.30	206
D „ (St. Peter Street)	Miss Gill	5	6 0	245	33.12	182
D „ (Blundell's School) ...	E. G. Peirce, Esq.	5	6 3	265 T	32.99	165
D Halberton	Capt. G. Izat, R.N. ...	5	0 6	240 T	33.97	153
D Uffculme (Bullmoor)	Miss M. E. Gowring ...	5	1 0	280	35.00	186
Tiverton (Lythecourt)	A. L. Sadler, Esq. ....	...	...	...	38.01	159
D Bampton (Huntsham Court) ..	H. Acland Troyte, Esq..	8	1 0	640 T	37.15	165
„ (Wonham)	Mrs. J. R. Holland ...	5	1 0	530	33.83	159
7.—AXE & C. 237 sq. mi.						
Budleigh Salterton (Knowle Ho.)	Capt. Arthur Pepys ...	5	1 0	200	26.05	...
D „ „ (Squabmoor)	S. Hutton, Esq., C.E. ...	5	1 0	267	29.82	158
D† East Budleigh (Otterton Vic.)...	Rev. R. Seymour	5	1 0	62	29.25	152
D† „ „ (Bicton)	Mr. E. H. High	5	1 0	90	29.97	147
„ „ „ („ Common)	S. Hutton, Esq., C.E. ...	5	1 0	300	31.14	...
D† Sidmouth (Eaglehurst)	E. S. McEuen, Esq. ...	5	1 2	60 B	27.57	150
D† „ „ (Sidmount)	Miss C. M. Radford ...	5	1 0	149 T	29.13	175
D† „ „ (Salcombe Regis Vic.)	Rev. D. McLaren	5	1 2	410 T	28.61	159
D† Seaton	Mrs. Pattinson	5	0 10	25	27.51	158
D Axmouth (Millmead)	E. H. Waters, Esq. ...	5	4 9	20	27.29	159
D§ Rousdon [Lyne Regis]	Mr. C. Grover	5	1 0	516 T	27.17	153
D Pinhay [„ „]	Mr. J. F. Stobo	5	1 11	465 T	30.08	155
D† Ottery St. Mary (West Hill) ...	B. Stansbury, Esq.	5	1 6	340 T	29.70	165
D† „ „ „ (Broad Street) ..	H. D. Badcock, Esq. ...	5	4 0	170 B	32.65	158
D† „ „ „ (Manor House) ..	W. A. Willock, Esq. ...	5	1 2	200	33.12	159
D Northleigh Rectory	Mrs. W. Champernowne	5	0 6	335 T	37.26	191
D Kilminster (Haddon Corner) ...	A. Hitchcock, Esq.	5	1 0	400 T	34.95	181
Axminster (Lea Combe House) ..	A. C. F. Luttrell, Esq..	5	2 0	180	33.38	150
D Honiton (Combe Raleigh)	Lt.-Col. M. James	5	2 4	500 T	34.15	161
D Chardstock Vicarage	Rev. A. Lewis	5	0 8	317 T	34.11	156
NORTH DEVON. (Area, 898 sq. mi.)						
1.—NORTH COAST STREAMS. 77 sq. mi.						
† Braunton (Preston Ho., Saunton)	Miss Durham	5	0 8	120 B	26.20	160
D§ Woolacombe	Miss Chichester	5	1 0	60 T	29.16	180
D Morthoe (Twitchen House)	Dr. G. B. Longstaff ...	8	1 0	430 T	34.58	178
Parracombe	Rev. J. F. Chanter ...	5	1 0	795 T	51.92	173
D Ilfracombe (Reservoir)	O. M. Prowse, Esq., C.E.	5	1 0	395	44.12	192
D „ „ (Bickleighscombe) ...	Mrs. Slade King	5	1 0	300	41.98	180
§ „ „ (Hotel)	Royal Meteorological Soc	5	1 0	24	33.18	173
D Martinhoe Rectory	Rev. R. W. Oldham ...	5	2 3	808	44.04	165
Lynton (Lee Abbey)	C. F. Bailey, Esq.	5	0 6	320 T	41.32	...
D Lynmouth (Gwynallt)	A. L. Ford, Esq.	8	0 8	284 T	47.65	184
D „ „ (Rock House)	T. H. Mead-Briggs, Esq.	5	0 11	22 T	42.91	182
2.—TAW. 442 sq. mi.						
Morchard Bishop (Hartnolls) ...	Mrs. Owen Wynne ...	5	1 0	420 T	30.06	...
D Chumleigh (Leigh House)	Mr. W. Gillies	5	1 0	400	31.79	178

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with "0 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
NORTH DEVON—(con.)						
2.—TAW—(con.)						
d Warkleigh Rectory	Rev. J. H. Thompson...	5	1 0	439 A	35·36	181
South Molton	F. Day, Esq.	5	1 0	450 T	50·61	165
d\$ Filleigh (Castle Hill School) ...	W. H. Reeve, Esq.....	8	1 0	363 A	38·59	194
" (" , Gardens)... ..	The Countess Fortescue	12	3 6	317	38·26	179
d Molland	S. J. Case, Esq.....	5	1 9	674 T	45·51	199
d East Anstey (Rhyll Manor)	Mrs. Hancock	5	1 0	900	44·66	159
Barnstaple (Newport)	T. Wainwright, Esq....	5	1 0	138	35·09	180
d† " (N.Devon Athenæum)	" " "	8	1 0	25 T	33·42	175
Stoke Rivers (Higher Davies) ...	Mrs. Chamings	5	1 0	700	40·02	176
Braunton (West Hill)	T. Wainwright, Esq....	...	...	200	30·46	...
d\$ Arlington Court	No. 1 Miss Chichester	5	1 0	613 B	53·37	167
" " " No. 2	O. " " " " "	5	1 0	613 B	49·90	167
d Challacombe	O. M.Prowse, Esq., C.E.	5	1 2	815 A	60·22	183
3.—TORRIDGE. 342 sq. mi.						
d Okehampton (Oaklands)	Maj.-Gen. E. H. Holley	5	1 0	500 T	45·97	162
d Petrockstow (Heanton Satchville)	Mr. A. Eames	5	1 0	332 A	37·76	165
Dolton (Hilliers)	A. Smythies, Esq.....	5	1 3	380 A	33·43	140
d Beaford (Abbots Hill)	J. Stuckey, Esq.....	5	1 3	380 T	37·39	166
d Roborough (Ebberly).....	J. S. C. Davis, Esq.....	5	1 0	506 T	33·57	173
d Torrington (Enfield).....	G. M. Doe, Esq.....	5	1 0	336 A	39·05	180
d " (Little Silver).....	L. L. Lloyd, Esq.	5	1 0	395 T	41·08	182
d Parkham (Melbury Moor).....	Baldwin Latham EsqCE	5	1 0	623 A	48·84	199
d " (" Reservoir)...	" " " "	5	1 0	516 A	53·34	197
d Abbotsham (High Park)	G. Sheldon, Esq.	5	0 11	300 T	39·88	186
d " (Riccard's Down) ...	Mrs. Hibbert	5	1 0	87 A	35·47	198
d Bidford (Gammaton W. W.)...	Baldwin Latham EsqCE	5	1 0	335 A	36·85	182
d " (Webbery).....	Mrs. C. E. Boyd.....	5	1 10	350 A	35·52	168
d " Rectory	Rev. T. Newton Leeke.	5	1 2	150 T	38·29	175
d " (Beechcroft)	A. H. Hobhouse, Esq....	2	1 0	125 T	36·16	183
d " (")	" " " "	5	1 0	125 T	36·72	181
d " (Northam Road).....	Mr. W. Littlejohns ..	5	0 6	20	34·27	132
d " (Horwood House)	Rev. J. Dene	5	1 0	288 T	30·19	171
Northam (St. Helens)	Miss Bowles	5	1 0	67 T	32·03	158
d " Vicarage	RevPrebDimond-Churchward	5	1 3	173 A	32·69	182
d " (Fairlea).....	Col. F. W. Bennet.....	5	2 6	200 ?	31·55	166
d Westward Ho! (Bellevue)	A. H. Boyd, Esq.	8	1 0	200 A	30·67	181
d Instow.....	Miss Lock	5	1 0	100 B	30·74	153
4.—WEST COAST STREAMS. 32 sq. mi.						
d Hartland Abbey.....	Mr. G. Sleep	5	1 6	222 T	29·76	148
Clovelly Court	Mr. H. Tuke	5	0 11	350 ?	43·40	159
5.—EXE. 5 sq. mi.						
CORNWALL. (Area, 1357 sq. mi.)						
1.—CAMEL & N.W. COAST STRE						
Phillack Rectory	AMS. 458 sq. mi. Rev. Canon A.P.Hockin	5	1 0	70 A	33·19	169
d St. Ives (Lower Bussow)	F. E. Wintle, Esq. ...	5	0 8	393 A	46·96	199

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
CORNWALL—(con.)						
1.—CAMEL & N.W. COAST STRE		AMS—(con.)				
St. Ives	J. M. Nicholls, Esq. ...	5	4 0	60 ∇	38.59	184
D Redruth (Pencoy's Vicarage) ...	Rev. R. Prior	5	1 0	700 ∇	48.09	182
D „ (Tolvean)	A. Lanyon, Esq.	5	0 9	365	42.91	185
D§ „ (Trewirgie)	A. P. Jenkin, Esq.	5	1 0	399 ∇	44.93	191
D „ (Tehidy Park)	Mr. F. J. Clark	8	1 1	187 ∇	43.33	172
St. Agnes	W. Whitworth, Esq. ...	5	3 8	320 ∇	31.07	187
D Newquay (Tresillian House) ...	Lt.-Col. E. Gully Bennet	5	3 0	230 ∇	38.53	157
„ (Reservoir)	Dr. C. C. Vigurs	5	1 0	114	29.40	...
D§ „ (Mount Wise) ... No. 1	„ „ „	5	1 0	190	30.20	179
„ („ „) ... No. 2	„ „ „	5	1 0	190	30.58	...
D Withiel Rectory	Rev. W. S. Cruddas ...	5	0 11	360	45.84	201
D Bodmin (Polgwin)	H. D. Foster, Esq.	5	1 0	280	44.45	196
D „ (Castle Hill)	Rev. Prebendary Every	5	0 9	480 ∇	48.85	213
D Wadebridge (St. Kew)	Major W. C. Braddon ..	5	1 0	100	39.05	181
D Camelford (Stannon Clay Works)	Capt. R. M. Richards ..	8	1 0	800 ∇	55.17	183
Tintagel (K. Arthur's Castle Hotel)	Cornwall County Council	5	1 0	245	30.82	173
D Stratton (Poughill)	Miss Field	5	1 0	200 ∇	36.26	196
D Morwenstow Vicarage	Rev. H. Lynne Jones ...	5	0 10	331 ∇	37.63	206
2.—FOWEY & S.E. COAST STRE		AMS. 620 sq. mi.				
Lizard	A. P. Jenkin, Esq.	5	1 0	244 ∇	32.08	...
Mullion (Polurrian Hotel)	Mr. R. Thomas	5	1 0	200	29.73	...
St. Keverne (Lanarth)	P. D. Williams, Esq. ...	5	0 10	290 ∇	40.63	180
D „ „ (Rosuick Cottage) ...	G. W. Jevons, Esq. ...	5	1 0	250 ∇	42.99	211
Bosahan	Cornwall County Council	...	...	240	30.76	166
Helston (Tenderah)	J. Walker Tyacke, Esq. 5	1 6	210 ∇	38.80	174	
Perran Uthnoe (Trenall's Farm)	B. Tunstall-Behrens Esq	5	0 10	48 ∇	29.40?	...
D† Penzance (Morrab Garden)	C. H. Benn, Esq.	5	1 0	55	40.38	202
D „ (Rosehill)	(R) David Howell, Esq ...	10	3 0	212 ∇	33.99	187
† „ (Trenkwainton)	T. Robins Bolitho, Esq.	10	1 0	400 ∇	43.91	168
D „ („ „)	„ „ „	10	0 10	400 ∇	47.83	209
Marazion	T. Field Michell, Esq. ...	5	2 0	30	39.11	153
D§ Falmouth (New Observatory) (R)	E. Kitto, Esq.	11	2 0	169 ∇	40.50	181
D§ „ („ „)	„ „ „	8	2 0	169 ∇	40.51	178
„ (St. Mawes, Place) ...	J. S. Spry, Esq.	5	1 0	12	33.20	163
D Penryn (Ashfield)	J. G. Stephens, Esq. ...	5	1 1	100	38.63	165
D „ (Enys)	Priestley Hogbin, Esq. ...	5	1 0	100 ∇	43.04	175
D „ (Carclew)	Mr. J. Simmons	5	0 9	180 ∇	38.63	153
D Redruth (Trevince)	E. B. Beauchamp, Esq. ...	8	0 8	240 ∇	44.70	187
D Truro (Killiow)	J. C. Daubuz, Esq.	5	1 0	230 ∇	36.20	168
„ (Royal Institution)	Cornwall County Council	5	43 0	83	43.02	185
D „ (Bosvigo)	Miss C. L. Rashleigh ...	5	0 9	100 ∇	40.64	192
D „ W. W. (Lower Tregurrow)	W. J. Lean, Esq.	5	9 0	71 ∇	39.29	177
Grampound Road (Creed Rectory)	Rev. G. T. C. Pearce ...	5	1 0	130 ∇	35.67	196
D Probus (Lamellyn)	H. Tresawna, Esq.	5	0 6	230	34.06	164
D Talland (Polperro)	H. E. Butler, Esq.	5	1 0	120	39.15	191
§ Fowey (St. Willow)	Meteorological Office ...	...	...	...	30.73	164
D† „ (Torfrey)	W. G. Mills, Esq.	5	0 6	300	42.87	154

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with ≥ 0.1 in. or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
CORNWALL—(con.)						
2.—FOWEY & S.E. COAST STRAITS—(con.)						
† St. Austell (Trevarna)	W. M. Coode, Esq. ...	5	1	0	300 T	42.20 181
D Looe (Morval)	A. H. Tremayne, Esq. ...	5	1	0	150 T	44.36 143
„ (Bray)	Mrs. G. S. Sneyd	5	1	0	530 T	39.70 177
† Lostwithiel (Lanwithan)	Miss Foster	5	1	0	80	44.63 163
D Roche (Glencoe)	Miss Browne	5	0	9	602 T	41.40 196
† Liskeard (Trevillis)	L. C. Foster, Esq.	5	1	0	320 T	44.00 184
D „ (Dean Terrace)	W. A. Jenkin, Esq. ...	5	1	1	400 T	47.18 181
„ (St. Cleer Down)	„ „ „	5	1	1	620 T	44.36 ...
3.—TAMAR & C. 279 sq. mi.						
D Empacombe [Devonport]	J. Sandercock, Esq. ...	5	1	0	20 T	35.39 179
D Cremyll [Devonport]	W. Wonnacott, Esq. ...	5	10	0	25	37.22 193
D St. Germans (Trethill)	Lt.-Col. J. D. A. Roberts	5	2	0	200 B	34.33 165
D Antony Vicarage	Rev. Alan Clover	5	1	0	250 T	34.84 165
Saltash (Pentillie Castle)	Cornwall County Council	5	2	4	150 B	53.20 176
D St. Mellion Rectory	Rev. F. T. Wintle	5	1	0	400	46.53 181
D Callington (Pencrebar)	Miss Horndon	5	1	9	450 T	42.27 171
D „ (Mount Lodge)	G. Brown, Esq., M.D. ...	8	1	0	400	50.30 185
„ (Drakewalls Place)	Mr. C. A. Wadge	5	3	0	650 T	48.96 161
D Launceston (Landue)	Miss S. E. Tregoning ...	5	0	11	225 T	45.75 193
„ (Hexworthy) <i>Snowdon</i>	R. B. Rogers, Esq. ...	5	1	0	270 T	43.89 ...
„ „ „ „ „ „ (R)	„ „ „ „ „ „	5	1	6	270 T	42.43 160
D Altarnon Sanctuary	Rev. A. H. Malan	5	1	0	620 T	58.22 200
Launceston (Old Tree House) ..	<i>Press-cutting</i>	8	1	6	630	35.79 165
D „ (Tamar Terrace) ..	Captain L. Ching, R.N. ...	5	0	10	446	43.51 177
Egloskerry (Tregeare)	E. G. B. Lethbridge, Esq. ...	5	1	0	575 T	46.23 ...
North Tamerton (Ogbeare)	Mr. J. S. Bray	5	4	0	460 T	35.78 166
4.—INSULAR—Isles of Scilly.						
§ St. Mary's	Meteorological Office ...	8	1	6	152	34.23 186
Tresco Abbey	T. A. Dorrien-Smith, Esq. ...	11	3	0	40	33.38 204
SOMERSET. (Area, 1630 sq. mi.)						
1.—LOWER AVON. 300 sq. mi.						
D Cranmore Hall	E. Barclay Whish, Esq. ...	8	1	9	600 T	41.46 182
D Shepton Mallet (Pondsmead, Oakhill) ..	Mr. J. Fletcher	8	1	0	710	42.07 183
D „ „ (Hillylands, „) ..	Mr. E. Stock	5	0	10	659 T	42.96 184
D Frome (Marston Rectory)	Hon. & Rev. H. N. Waldegrave	8	0	6	300 ?	37.09 177
D „ W. W. (Egford)	F. W. Jones, Esq., C.E. ...	8	2	0	270	33.67 173
D „ (Selwood School)	Miss A. K. Coombs ...	5	1	6	310 T	33.10 172
D Mells (Wadbury House)	Mrs. Sykes	5	1	0	394 T	35.92 159
D „ (Selwood)	Miss E. G. Horner	5	1	0	344 T	36.19 182
D Binegar (Gurneyslade)	Very Rev. G. A. Kindersley	5	1	0	588 T	43.17 166
D Stratton-on-the-Fosse (Downside Abbey)	„ „ „	8	1	0	600 T	39.51 171
D Frome (Orchardleigh)	Rev. W. A. Duckworth	8	0	10	303 T	28.39 160
D „ (Beckington)	E. M. Nelson, Esq. ...	8	1	3	270 T	29.13 178
D Chewton Mendip (The Priory) ...	The Earl Waldegrave ..	5	1	5	550 T	43.56 178

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		1911
		in.	ft.	in.	feet.	inches.	
SOMERSET—(con.)							
1.—LOWER AVON—(con.)							
Ston Easton	H. E. Hippisley, Esq...	5	3	0	480 π	39·66	170
D Midsomer Norton (Island House)	Dr. G. S. Pollard	5	1	6	300	35·28	149
D „ „ (Dymboro) ...	A. Bulleid, Esq.....	5	1	0	357 π	32·53	151
D Radstock.....	G. H. Gibson, Esq.....	8	8	0	330	31·30	148
D E. Harptree (Sherborne Res., Litton)	J.A.McPherson, Esq CE	5	1	0	338 \uparrow	43·58	169
D „ „ {Harptree Court) ...	W. W. Kettlewell, Esq.	5	1	0	346 π	43·07	162
„ „ { „ Hill) ...	J.A.McPherson, Esq. CE	8	1	0	784	38·66	...
Camerton Court.....	Mr. John Milne	5	1	0	340 \uparrow	33·02	...
D Temple Cloud.....	Dr. Theodore Martin...	5	1	0	340 \uparrow	33·03	172
D Clutton (Council School)	J. Pullen, Esq.	5	1	6	420 \uparrow	31·62	153
D Pensford (Sutton Court)	Lord Strachie.....	8	1	0	280	34·19	179
Bath (Combe Hay Manor)	F. G. Smart, Esq.....	5	1	0	...	31·13	174
D „ (Crossways, Monkton Combe)	M. J. Lipscomb, Esq....	5	1	0	180	29·28	139
Chew Magna	J.A.McPherson, Esq CE	5	1	4	180 \uparrow	35·93	167
D Pensford (Norton Court)	H. H. Palairret, Esq. ...	5	1	0	300	31·80	179
D Bath (Claverton Manor)	E. A. Whittuck, Esq... 5	1	0	238 \uparrow	26·24	152	
„ (Royal Institution)	W. A. Craven, Esq. ... 6	8	0	74	25·88	145	
„ (Royal Crescent)	H. Gervis, Esq. 3	3	0	180 \uparrow	26·97	...	
D§ „ (Henrietta Park)	Dr. W. H. Symons ... 5	1	0	67 π	25·01	151	
D „ (Statutory Hospital).....	„ „ „ .. 5	1	0	520	27·57	139	
D „ (Kingswood School)	„ „ „ .. 5	1	0	620 π	26·30	140	
D „ (Hampstead, Combe Park).	„ „ „ .. 5	1	0	165 π	27·47	150	
D „ (Somerset Place)	R. Lewis Lloyd, Esq... 5	0	10	350	28·30	179	
D „ (Charlcombe).....	J. Dent Young, Esq. C.E. 8	2	0	325 \uparrow	28·41	159	
„ („ Hamilton Ho.)	F. E. Rogers, Esq..... 5	1	6	780 \uparrow	27·10	...	
D Saltford House ...	Col. W. V. Rolleston... 8	0	8	100	27·36	162	
D Batheaston	Col. Linley Blathwayt. 5	1	0	166 π	27·94	165	
„ „ „ „ M	„ „ „ „	5	1	0	166 π	27·93	...
D „ „ Reservoir	J. Dent Young Esq., C.E. 6	2	0	248 π	28·72	184	
Barrow Gurney Reservoir.....	J.A.McPherson, Esq. CE	5	1	6	300 π	31·70	175
D Keynsham (West View Road)...	S. B. Froude, Esq..... 5	1	0	102 π	26·81	159	
Long Ashton (Estate Office).....	H. B. Napier, Esq. ... 8	1	0	134 π	30·54	...	
Bristol (Coronation Road)	H. C. Martin, Esq. ... 5	0	10	50	28·55	...	
D† Failand House	Miss Agnes Fry..... 5	1	0	385 \uparrow	30·24	171	
D Abbots Leigh	Sir Henry Miles, Bart. 5	1	0	320 \uparrow	30·05	156	
2.—YEO, AXE & BRUE. 405 sq. mi.							
D Castle Cary (Alford House)	Admiral P. F. Tillard... 5	1	0	98 π	28·44	165	
D Somerton (Butleigh Court)	R. Neville Grenville Esq. 8	1	2	95	26·38	146	
D Bruton (Sunny Hill)	H. E. Makins, Esq. ... 5	1	0	280 \uparrow	29·61	168	
D „ (King's School)	D. E. Norton, Esq..... 5	1	2	200	32·56	181	
D Ditchat	Rev. H. A. Boys.....	...	...	200	30·73	151
D Street (Hind Hayes).....	Joseph Clark, Esq..... 5	1	5	78 \uparrow	25·71	161	
D „	W. S. Clark, Esq. 8	1	0	100	26·00	164	
Edington.....	A. C. F. Luttrell, Esq.. 5	2	6	90 \uparrow	27·61	152	
D Shepton Mallet (Pilton)	J. Dredge Allen, Esq... 5	1	3	354	31·44	169	
D Glastonbury (Ynyswytryn)	Mrs. Swayne	5	1	8	245 \uparrow	27·45	176
D Shepton Mallet (Charlton)	C. E. Burnell, Esq.. ... 5	1	0	481 π	34·04	173	

DIVISION V.—SOUTH WESTERN COUNTIES—(continued.)

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
SOMERSET—(con.)						
2.—YEO, AXE & BRUE—(con.)						
D Shepton Mallet (Field House) ...	F. H. Berryman, Esq..	5	1 0	500	33·30	156
D " " (Grammar School) ..	William Aldridge, Esq.	5	1 0	475 π	33·71	167
D " " (Sewage Farm) ..	W. Reader, Esq.	5	0 8	310	35·69	164
D Wells (Somerset & Bath Asylum)	J. E. P. Shera, Esq., M.D.	5	1 0	300	24·65	160
D " (Wookey Hole)	Guy A. Hodgkinson, Esq.	5	1 4	180	31·62	150
Priddy Vicarage	Rev. W. H. Creaton ...	5	1 0	800 ?	34·79	...
D Burnham (Dunstan Ho., Chalbury)	H. A. Smith Spark, Esq.	5	1 0	20 \uparrow	25·38	136
D " (Brent Knoll)	Miss FitzGerald	5	2 0	26 π	26·55	162
Compton Martin	J. A. McPherson, Esq. CE	8	1 0	276	44·05	...
Ubley (Rookery Farm)	" " "	8	1 0	525	46·83	...
D Blagdon (Nordrach-on-Mendip) ..	R. Thurnam, Esq., M.D.	5	0 4	862 π	42·84	198
D Winscombe (The Down)	J. Grubb, Esq.	5	1 0	295 \uparrow	31·58	183
D " (Wintrath)	F. A. Knight, Esq.	5	5 5	300 \uparrow	28·19	164
D Hutton Rectory	Rev. W. F. Rose	5	1 0	75	29·82	154
D Banwell (Eversley)	Kenneth Anderson, Esq.	5	1 6	50 \uparrow	30·34	164
Blagdon	J. A. McPherson, Esq. CE	8	1 0	550	41·12	...
"	" " "	8	0 8	112 π	36·36	173
" (Coombe Lodge)	" " "	8	1 0	388 π	38·44	...
Ubley (Pixey Hole)	" " "	8	1 0	300	33·87	...
Nempnett (West Town)	" " "	8	1 0	263	33·65	...
D Burrington (Langford)	Rev. H. A. Boys .....	...	...	...	31·02	166
D Weston-spr.-Mare (Leycroft Ho.)	C. Brown, Esq.	8	1 0	15	27·03	147
D§ " " (Town Hall) ...	W. H. Allen, Esq.	5	1 0	21	27·35	151
D " " (Worle)	Dr. St. John Kemm ...	5	1 0	...	28·27	166
Butcombe (Cholwell)	J. A. McPherson, Esq., CE	8	1 0	370	36·59	...
D Wrington (The Cottage)	H. C. Bristowe, Esq. M.D.	5	1 0	100	29·69	158
D " (The Rectory)	Rev. G. M. Ashdown ..	5	5 0	68	32·67	157
Yatton (Chelvey)	J. A. McPherson, Esq. CE	8	0 8	60	28·64	156
Flax Bourton (Backwell House)	<i>Bristol Times & Mirror</i>	...	...	...	32·38	...
D " " (" Hill Ho.)	W. Garnett, Esq.	8	1 10	490 \uparrow	29·42	161
D " " (The Grange) ...	C. Onslow Master, Esq.	4	1 0	180 ?	31·97	153
D† Clevedon W.W. (Old Street) ...	J. Harger Pye, Esq. ...	5	1 10	28 π	28·32	159
D† " " (Tickenham Rd.)	" " "	5	7 7	69 π	22·99	156
Wraxall (Boys' School)	Ebenezer Brown, Esq..	5	1 2	...	27·18	159
3.—PARRETT. 568 sq. mi.						
D Crewkerne (Bincombe House) ...	Miss Sparks	5	1 2	294 π	29·19	174
D " (Merefield House) ...	J. Tompsett, Esq.	8	14 5	240 π	33·32	160
D " " " " " " " " " " " "	" " " " " " " " " " " "	8	1 1	231 π	33·37	160
Coker Court Gardens	Mr. T. H. Gilham	8	1 0	250 ?	31·52	...
D West Coker	G. F. Deedes, Esq.	5	1 6	265	28·27	164
D Ilminster (Laurel Bank)	W. Beckwith, Esq.	5	1 0	180 \uparrow	28·67	163
D " (Whitelackington Ho.)	S. Creed, Esq.	5	3 0	200 π	30·60	161
D " (Dillington Park) ... (R)	Mr. W. Goldthorpe ...	8	3 0	161 π	32·35	153
D Montacute (Odecombe Rectory) ...	Rev. H. A. Boys .....	...	...	300 ?	29·26	161
D Yeovil (Gas Works)	E. Howell, Esq.	5	22 0	122 \uparrow	24·46	142
D " (Sew. Wks., Pen Mill) ...	Dr. H. Page	5	1 0	101 π	26·35	165

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	1911	
		in.	ft. in.	feet.	inches.	
SOMERSET—(con.)						
3.—PARRETT—(con.)						
South Petherton (Yeabridge) ...	Miss E. F. Blake	8	0 9	100 †	24·41	169
Wellington (Old Way House) ...	T. Fox, Esq.	5	1 1	300	30·88	189
Stoke-under-Ham	Miss Gillett.....	8	1 0	...	27·83	160
Tintinhull (Manor House).....	Rev. Dr. S. J. M. Price	5	0 10	145	26·13	146
Angersleigh (Blagdon Reservoir)	H. T. Coles, Esq.	8	1 6	590 †	33·00	...
„ (Leigh Hill Reservoir)	„ „ „	8	1 6	525 †	30·73	...
„ („ Court)	A. Eastwood, Esq.....	8	1 0	360 †	32·83	173
Rimpton	Rev. H. A. Boys.....	8	3 0	100	22·09	151
Langford Budville (Ritherdens)	Miss Rodd	5	0 10	380 †	32·16	185
„ „ (Bindon) ...	Major T. G. C. Reynolds	5	6 0	400	30·27	164
Milverton (Spring Grove).....	C. Roberts Gawen, Esq.	5	0 8	500 †	34·21	200
„ (Old Halls)	Charles Bere, Esq.....	5	1 0	250	33·24	165
Taunton (Linden Grove)	H. Le B. Gunner, Esq.	5	1 0	70 B	25·05	168
„	Dr. H. J. Alford.....	...	...	64	28·49	161
Wiveliscombe (Culverhead)	T. R. Marsh, Esq.....	5	1 0	450 †	35·13	143
Langport (The Grange).....	Dr. H. Page	5	1 0	50 †	22·56	180
„ (Huish Episcopi)	Miss A. M. Kelway ...	8	1 1	30 ?	20·21	...
Milverton (The Mount, Halse)...	Miss J. E. Smith	5	1 2	254 B	29·96	166
Maperton Rectory	late Rev. D. E. Norton	5	1 0	367 †	32·45	182
North Cadbury Rectory	Rev. H. A. Boys	8	1 3	256 †	28·99	178
Somerton (Kingweston)	Rev. G. de Y. Aldridge	5	2 6	200 †	26·99	169
Cothelstone House	C. E. J. Esdaile, Esq...	5	1 0	430	28·88	175
North Petherton (Shovell)	A. M. Wilson, Esq. ...	8	1 0	206 †	22·98	155
„ „ (The Old Rectory)	E. C. Curtis, Esq.	8	0 6	136 †	24·84	144
Bridgwater (Nurseries)	Mr. H. Corder	5	0 6	30 ?	25·36	167
„ (Blake Gardens).....	F. Parr, Esq., C.E. ...	5	3 1	27 †	25·33	154
„ (Ashford)	„ „ „	5	1 5	102 †	28·11	164
„ „	H. C. Salmon, Esq. ...	5	4 10	25	27·49	170
Fiddington (Keenthorne)	T. W. Cuffe, Esq.	5	1 0	250 †	28·73	154
Cannington (Brymore)	H. H. P. Bouverie, Esq.	5	1 6	65 †	26·43	157
4.—NORTH COAST STREAMS. 158 sq. mi.						
Williton (Aller Farm)	T. Hosegood, Esq.....	5	3 6	210	28·21	...
Holford (Woodlands House) ...	Miss I. L. Joseph	5	1 0	391 †	29·92	168
„ (Dytche School)	J. E. Overend, Esq. ...	5	1 0	260 †	28·52	153
Quantockshead (St. Audries) ...	Mr. F. S. Hayne	8	1 0	260 †	28·33	148
Stockland Bristol (Manor House)	Rev. H. A. Daniel.....	5	1 0	65	26·89	135
Watchet (Chapel Cleeve)	Rev. F. Sterry	5	0 11	65 †	26·52	176
Minehead (Mariansleigh)	T. F. Twist, Esq.	5	1 0	45 B	32·43	153
„ „ (Clanville).....	R. Shafto Adair, Esq...	5	1 0	160 †	31·62	149
Porlock (Lynch Mead, Allerford)	J. Dyke Acland, Esq...	5	1 3	100 †	33·79	162
5.—EXE. 122 sq. mi.						
Dulverton (Exebridge Fishery)..	T. F. Tracy, Esq.	5	1 0	410	39·65	166
Brushford Rectory	Rev. B. J. du Boe	5	1 0	450 †	38·62	169
Hawkridge (Liscombe)	Mr. E. W. Darby	5	3 6	980	53·16	202
Winsford School	W. Dicker, Esq.	5	1 2	685 †	50·33	169

DIVISION V.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with no more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
SOMERSETSHIRE—(con.)						
5.—EXE—(con.)						
D Cutcombe (Wheddon Cross)	H. H. P. Bouverie, Esq.	3	1	2	940 ∇	50·10 198
D Simonsbath	Rev. H. F. Ramsay ...	5	1	3	1080 ∇	66·29 204
6.—AXE. 42 sq. mi.						
D Chard Vicarage	Rev. Preb. Walter Farrer	5	1	0	380 ∇	39·30 185
Cricket St. Thomas (Cricket Ho.)	Mr. S. Lyon	5	1	0	444	36·84 163
7.—STOUR. 35 sq. mi.						
D Henstridge (Inwood Ho. Gardens)	Mr. W. Hester	5	1	0	350	29·17 162
D Temple Combe Rectory	Rev. J. C. Fox	5	0	6	215	31·56 182
Wincanton (Holbrook)	Mrs. Angerstein	5	2	4	450 ∇	31·40 139
D „ (Roundhill Grange) ..	General C. H. P. Ducat	5	1	9	380	30·78 176
D Pen Selwood Rectory	Rev. Newton Parsons..	5	0	10	650 ∇	32·49 160

MAP OF DIVISION VI.

WEST MIDLAND COUNTIES,

Showing the River-Divisions.



DIVISION VI.—WEST MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
GLOUCESTERSHIRE. (Area, 1243 sq. mi.)						
1.—WYE. 50 sq. mi.						
Castleford [Chepstow]	Mrs. W. R. Lysaght ...	5	0 8	146 †	27·69	158
Pen Moel [„]	W. R. Price, Esq.	5	1 0	240 †	31·97	194
Forest of Dean (Braceland)	C. O. Hanson, Esq. ...	8	1 0	500	34·86	145
„ „ „ (Ruardean Hill Lo.)	„ „ „ ...	8	1 0	900	33·50	162
2.—SEVERN—Right Bank Tributaries. 176 sq. mi.						
Sedbury Park [Chepstow]	Sir W. H. Marling, Bart.	8	1 0	150 †	28·04	148
Lydney (Clanna)	Captain W. B. Marling	5	1 0	260 †	25·42	...
Forest of Dean (Whitemead Park)	C. O. Hanson, Esq. ...	8	1 0	200	29·57	148
„ „ „ (Blakeney Hill Lo.)	„ „ „ ...	8	1 0	500	26·34	142
„ „ „ (Worcester Lodge)	„ „ „ ...	8	0 11	700	30·22	146
„ „ „ (Edgehills Lodge)	„ „ „ ...	8	1 0	700	29·53	150
Westbury-on-Severn (Chaxhill)	Mrs. Grant	5	3 0	122 †	26·74	153
Mitcheldean (Blaisdon)	Colin MacIver, Esq. ...	5	1 0	117 †	27·27	...
Tibberton Court	W. R. Price, Esq.	5	1 0	109 †	23·21	143
Tewkesbury (Forthampton Court)	Mr. H. French	5	1 0	48 †	20·29	135
„ (Upper Lode)	E. D. Marten, Esq., C.E.	5	1 0	41 †	20·05	151
Bromsberrow Pumping Station	W. Osborne Thorp Esq. C.E.	5	1 0	181 †	21·22	140
3.—SEVERN—Left Bank Tributaries. 372 sq. mi.						
Wickwar Rectory	Rev. Canon R. J. Lyon	5	1 0	260 †	29·26	156
Tortworth Court	The Earl of Ducie	8	1 0	264 †	27·01	153
„ School	E. A. Smith, Esq.	5	2 0	264	26·47	153
Dursley (Woodmancote)	Meteorological Office ...	5	1 0	257	24·99	...
Horsley (Midland Fishery)	I. R. Bruce, Esq.	5	0 10	270	29·74	146
Avening House	Maj. Hon. L. Byng ...	8	1 3	350 †	29·13	134
Berkeley Castle Gardens	Mr. S. Wathen	5	1 6	62 †	26·01	...
„ (Sharpness Docks)	F. A. Jones, Esq., C.E.	5	3 6	50	25·37	148
Nailsworth (Dunkirk Manor)	Miss M. C. Meade-King	5	1 3	400	28·83	163
Chalford (Hyde Grange)	C. J. Bowstead, Esq. ...	5	3 0	527	29·38	...
„ („ House)	Piers F. Legh, Esq. ...	5	1 6	527 †	27·62	146
Stroud (Stanley Park)	Sir W. H. Marling, Bart.	8	1 0	365 †	28·37	146
„ (Upfield)	Miss E. R. Stanton ...	5	1 0	226 †	25·63	177
Stonehouse (Wycliffe College)	W. A. Sibly, Esq.	5	1 0	130 †	24·62	158
„ (Parklands) No. 1 (R)	W. Grey Robinson, Esq.	8	2 6	103 †	22·89	158
„ („) No. 2	„ „ „ ...	5	2 0	103	23·24	156
Stroud (Park Farm, Lypiatt)	E. Armitage, Esq. ...	5	0 6	720 †	28·98	...
Whitminster	F. A. Jones, Esq., C.E.	5	1 0	32 †	24·60	151
Haresfield Court	Mr. R. J. Tidswell	5	1 0	100	24·45	181
Harescombe Grange	Stamford Hutton, Esq.	5	1 0	545 †	22·60	162
Brookthorpe (Chambers Farm)	Mr. H. C. Prinsep	8	1 0	157 †	22·76	147
Longney Vicarage	Rev. W. E. Stewart ...	5	1 0	55 †	22·43	145
Quedgeley House	Col. Curtis Hayward ...	5	1 0	65 †	22·20	151
Witcombe Reservoir	R. Read, Esq., C.E. ...	8	3 0	297 †	24·40	157
Gloucester (Park Road)	G. Embrey, Esq.	8	1 3	56	20·56	163
„ (Belgrave Road)	W. Piffe Brown, Esq. ...	5	1 0	52 †	20·10	150
„ (Denmark Road)	Harley Butt, Esq.	5	1 5	79 †	20·21	...
„ (Barnwood Vicarage)	Rev. F. H. Fowler	5	1 0	80 †	22·63	160

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	1911	
		in.	ft. in.	feet.	inches.	
GLOUCESTERSHIRE—(con.)						
3.—SEVERN—Left Bank Tributaries—(con.)						
D Gloucester (Llanthony Lock) ...	E.D. Marten, Esq., C.E.	5	1 2	39 ∇	20.45	155
D „ (Wotton Asylum)	Dr. E. F. Kough	8	0 9	93 ∇	20.74	135
D „ (Maisemore Lock) ...	E. D. Marten, Esq., C.E.	5	1 1	39 ∇	20.86	160
D Dowdeswell Reservoir	J.S. Pickering, Esq., C.E.	5	0 10	357 \uparrow	24.62	145
Leckhampton (Thirlestaine Hall) (R)	J. Player, Esq.	8	2 6	250	22.97	158
D Charlton Kings (The Grange) ...	Miss E. M. Heberden...	5	0 9	300	24.52	145
D Cheltenham (Hewletts Res.) ...	J.S. Pickering, Esq. C.E.	8	1 6	419 ∇	23.09	158
„ (Sandford Mead) ...	„ „ „	5	2 6	210 \uparrow	21.90	...
„ (Kemerton Lodge)...	Rev. Percy Burd	5	1 0	211	21.41	151
§ „ (High Street)	Royal Meteorological Soc	5	1 0	214	21.73	145
D „ (Prestbury)	J. W. Guy, Esq.	5	0 10	...	23.96	176
4.—SEVERN—Upper Avon. 99 sq. mi.						
D Winchcombe	Dr. J. Halliwell	5	1 2	345	26.95	173
Wormington Grange	(R) R. E. S. Thomas, Esq..	8	0 10	200	22.13	...
Chipping Campden	W. Godson, Esq.	5	0 4	473 \uparrow	22.59	...
D† „ (Hidcote) ...	Major W. Wright	5	1 0	525	20.69	146
D† Mickleton (Bank House)	M. J. Salter, Esq.	5	1 0	233 \uparrow	20.85	161
5.—LOWER AVON & C. 198 sq. mi.						
D Monkswood Reservoir [Bath] ...	J. Dent Young Esq., C.E.	5	2 0	365 \uparrow	28.87	181
D Bristol Docks (Underfall Yard) .	Engineer, Bristol Docks	8	19 6	45 ∇	25.72	161
„ (Telephone Avenue)	J.A. McPherson, Esq. CE	5	50 0	80	28.58	157
Clifton (Oakfield Road)	„ „ „	5	1 0	200	28.47	160
D „ (Harley Place)	Miss Hooper	5	1 5	260 ∇	29.98	176
D „ (Durdham Down)	Mrs. Dix	5	1 6	310	29.93	178
D „ (Pembroke Road)	R. F. Sturge, Esq. ...	8	0 10	215	31.54	181
D§ „ College	D. Rintoul, Esq.	8	1 2	230	29.10	158
D „ (Stoke Bishop)	H. L. P. Lowe, Esq. ...	8	1 3	230 \uparrow	29.14	163
D Stapleton (Milton Cottage)	R. C. Sikes, Esq., C.E.	5	1 0	114 \uparrow	26.52	171
Westbury-on-Trym (Cote House)	Mrs. H. St. V. Ames...	8	1 3	243 ∇	28.96	171
D Filton	F. W. Gayner, Esq. ...	5	2 0	202 ∇	23.69	151
D Winterbourne (Kendleshire) ...	J. Marsh, Esq.	5	1 0	170 \uparrow	25.27	151
D Frampton Cotterell (Park House)	H. H. Harding, Esq....	5	1 0	158 ∇	24.65	152
D Chipping Sodbury (Stanshawes Ct)	R. N. Hooper, Esq. ...	5	1 3	280 ∇	26.80	137
D „ „ (The Ridge) ...	Lt.-Col. P. Burges.....	5	1 4	375 \uparrow	25.71	138
Almondsbury (Over Court, Park)	R. C. C. Lippincott, Esq.	5	0 11	147 ∇	27.99	...
„ „ „ „ „ M	„ „ „	5	1 0	147 ∇	27.16	...
D „ „ „ „ Garden	„ „ „	8	1 0	137 ∇	26.50	168
Badminton	Mr. W. Nash	5	1 0	407	28.29	152
6.—THAMES—Right Bank Tributaries. 15 sq. mi.						
7.—THAMES—Windrush & c. 333 sq. mi.						
D Fairford (Kempsford)	A. T. Iles, Esq.	5	1 0	250 ?	21.11	153
D „ (The Close)	W. Cobbett Arkell, Esq.	5	1 9	...	21.47	137
D „ (Draycott)	C. W. Edmonds, Esq....	5	2 0	200	23.24	159
D Lechlade (Claydon House)	T. T. S. Metcalfe, Esq..	5	1 0	250 ∇	21.91	171
„ (Southrop)	Thomas Arkell, Esq....	...	1 0	...	21.52	...
D† Cirencester (Roy. Agricult. Coll.)	Prof. M. Kershaw	5	0 10	443	23.31	159

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	1911	
		in.	ft. in.	feet.	inches.	
GLOUCESTERSHIRE—(con.)						
7.—THAMES—Windrush & c—(con.)						
† Cirencester (Waterloo)	W. Griffith, Esq.	5	1 0	350 T	23·12	...
† „ (Cripps Mead)	Mrs. Wilfred Cripps ...	5	0 8	366 T	23·97	167
† „ (Dollarward House) ..	C. P. Hooker, Esq. ...	5	1 6	366	24·85	171
† „ „ „ „ „ „ „ „	„ „ „ „ „ „ „ „	8	1 6	366	24·48	171
„ Baunton (Manor Farm)	E. S. Burton, Esq.	5	1 0	370 ?	23·79	134
„ (Preston Farm)	M „ „ „ „ „ „ „	5	1 0	420 ?	21·27?	...
Fairford (Hatherop Castle)	Mr. A. W. Maulden ..	5	1 0	410 T	24·19	171
Little Barrington (Barrington Grove) ..	C. J. B. Hurst, Esq. ...	5	1 0	395 T	27·51	155
Great Barrington	H. J. Barrett, Esq. ...	5	1 6	430 T	24·78	...
„ Northleach (Sherborne House) ..	Mr. A. Mitchell	5	1 0	420	27·20	149
„ „ (The Vicarage)	Rev. R. C. S. Jones ...	5	0 9	545 T	26·36	170
„ „ (Leygore Manor)	Arthur E. Moss, Esq. ...	5	1 0	700	27·09	174
„ Bourton-on-the-Water	E. W. Kendall, Esq. ...	5	1 6	434 T	26·81	171
„ „ „ „ (Chardwar) ..	G. F. Moore, Esq.	5	2 6	430	26·95	159
„ Wyck Rissington Rectory	Rev. P. H. Kempthorne	5	1 0	500 T	27·10	179
„ Stow-on-the-Wold (Icomb Place) ..	G. H. Simpson Hayward, Esq.	8	1 3	500 T	27·93	152
„ „ „ „ (Quar Wood) ..	Mrs. Bryant	5	1 0	690	26·76	168
„ „ „ „ (Netherswell Manor) (R) ..	Mr. D. MacBeath	8	2 0	560	23·49	160
„ „ „ „ (Maugersbury) ..	D. W. Horner, Esq. ...	5	1 0	590 T	25·48	165
„ „ „ „ „ „ „ „	„ „ „ „ „ „ „ „	5	1 5	748 T	26·58	185
„ „ „ „ (Duncomb House) ..	R. I. Arkell, Esq.	5	0 9	...	26·52	...
„ Temple Guiting	Major G. T. Noel	5	1 2	665 T	25·23	143
HEREFORDSHIRE. (Area, 840 sq. mi.)						
1.—WYE. 685 sq. mi.						
† Walford-on-Wye Vicarage	Rev. Kentish Bache ...	5	3 0	112 T	28·24	169
„ Weston-under-Penyard (The Sandiway) ..	Dr. G. W. Prevost	5	0 6	290 T	24·07	141
† Ross (The Graig)	H. Southall, Esq.	5	1 0	213 T	22·44	153
„ Kentchurch Rectory	Rev. R. P. Dansey	5	1 0	215 T	32·00	176
† Ross (Perrystone Court)	General Clive	5	1 3	450	20·49	153
† Much Dewchurch (Bryngwyn) ..	Sir J. Rankin, Bart., M.P.	5	0 9	421 T	32·36	153
„ Fownhope (Lower House)	Miss F. Cresswell	5	1 5	200 ?	21·83	148
„ Woolhope (The Hyde)	J. A. Thompson, Esq. ...	5	1 0	440 T	23·96	167
„ Vowchurch (Whitehouse)	Arthur S. Wood, Esq. ..	5	5 0	450 T	31·92	164
„ Tyberton Court	C. B. Lee Warner, Esq. ..	5	0 10	250 ?	26·97	151
† Hereford (St. Michael's Priory) ..	Rev. J. C. Maddox, O.S.B.	8	1 0	291 T	25·40	149
„ „ (Breinton Court)	H. A. Wadworth, Esq. ..	5	3 0	238 T	23·27	147
† „ „ (Richmond Place)	W. Cooke, Esq.	8	0 8	184 T	24·28	158
„ „ „ (White Horse Street) ..	W. R. Bufton, Esq. ...	5	1 0	210	26·31	153
„ „ „ (Quarry House)	Rev. Preb. W. Selwyn ..	5	1 0	180 ?	26·27	156
† „ „ (Broadlands)	Miss Ida M. Lea	5	1 0	280 T	24·57	153
„ „ „ (Hinton Court)	A. Battiscombe, Esq. ...	5	1 0	185 T	25·35	146
† „ „ „ (Holmer Hall)	Rev. Preb. M. Hopton ..	8	1 3	241 T	22·56	166
„ Bartestree (Hagley Park)	Mr. T. Alford	5	0 6	311 T	22·97	...
„ Credenhill (Swainshill)	B. G. Ronalds, Esq. ...	5	1 0	266 T	21·99	148

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground		Height Above Sea level		
		in.	ft.	in.	feet.	inches.	
HEREFORDSHIRE—(con.)							
1.—WYE—(con.)							
D Credenhill (Stretton Sugwas) ...	S. H. Armitage, Esq....	5	1	0	226 ∇	22.08	150
D† „ „	R. M. Whiting, Esq....	5	1	5	275 ∇	22.66	169
† Yarkhill Vicarage.....	Rev. A. G. Jones	8	1	0	200 ∇	23.75	159
D† Burghill Court	Miss E. D. Woodhouse	5	1	2	293 ∇	20.53	162
D† Ocle Pychard (Ocle Court) ..	G. Cresswell, Esq.	8	1	2	298 ∇	25.11	169
D Marden (Fruit Farm)	M. Piper, Esq.	8	0	9	270 ?	25.19	137
D Whitney-on-Wye	Mr. W. Burgess.....	8	1	0	428 B	28.90	193
D Brilley Vicarage	Rev. W. Head	5	1	0	590 ∇	26.94	180
† Sarnesfield Rectory	Rev. W. Marshall	5	0	11	400 ∇	23.01	148
D† Bodenham (Pigeon House)	R. C. Bailey, Esq.	5	1	0	215	24.71	169
† Pencombe Rectory.....	Rev. J. Seymour St. John	5	1	0	520 ∇	27.03	162
D Huntington Court.....	E. Radclyffe Crump, Esq.	5	1	1	833 ∇	31.58	191
D† Pembridge (Dilwyn).....	Dr. T. Lambert Hall... ..	5	0	8	290 ∇	23.36	148
† „ „ (Burton Court)	Col. P. L. Clowes	5	1	8	400	25.75	156
D Bromyard (Dumbleton Cottage)..	T. V. Philpott, Esq.	5	1	0	393 ∇	27.92	169
D† „ „ (Rowden Abbey).....	H. J. Bailey, Esq.	5	1	0	450 ∇	28.40	162
D† „ „ (Buckenhill).....	Mrs. R. Phipps	8	1	6	410	26.62	147
D† Kington (Lynhales)	S. Robinson, Esq.	5	1	0	566	28.13	182
D† „ „ (Gravel Hill)	Col. G. F. Pearson.....	5	0	8	535 ∇	29.29	194
D† Pembridge (Marston)	H. Langston, Esq.....	5	1	5	347 ∇	26.57	171
D „ „ (Byletts)	Lt.-Gen. Sir Elliott Wood, KCB	5	1	5	350 ∇	25.30	156
D† Leominster (Farm)	the late Miss Southall..	5	1	5	268 ∇	24.41	170
2.—SEVERN—Right Bank Tributaries. 155 sq. mi.							
D Much Marcle (The Mount)	Miss A. M. Charles ...	5	0	8	240 ∇	22.39	165
D† Ledbury (Orchardleigh)	M. A. Wood, Esq.....	5	3	6	180	20.47	155
D† „ „ (Underdown)	S. H. Bickham, Esq....	5	1	0	307 ∇	21.58	166
† „ „ („ „)	„ „ „ „ „	5	1	0	306 ∇	20.83	...
„ „ (Putley Court)	J. Riley, Esq.....	5	1	0	290	26.22	158
D „ „ (Wellington Heath) ...	Rev. F. S. Stooke-Vaughan	5	1	2	505 ∇	23.75	178
† Whitbourne Court.....	Lady Harington.....	5	1	0	130	20.01	...
D Leintwardine	E. Charnock, Esq.	5	1	6	450	29.94	198
SHROPSHIRE. (Area, 1343 sq. mi.)							
1.—MERSEY—Weaver. 27 sq. mi.							
2.—DEE. 30 sq. mi.							
D Whitchurch (Fenns Bank)	M. W. Sowden, Esq., C.E.	8	1	0	271 ∇	21.10	139
3.—SEVERN—Right Bank Tributaries. 722 sq. mi.							
D Ludlow (Ashford House)	W. Downes Hall, Esq.	5	0	5	315 ∇	29.43	182
D Bromfield (Oakly Park)	Mr. T. Reason	5	1	0	300	25.37	185
D „ „	F. Brayshaw, Esq.....	5	1	0	320 ∇	27.64	189
Craven Arms (Stokesay Court)...	Mr. J. R. Francis	5	1	4	432 ∇	26.26	...
D Clunbury Vicarage	Rev. W. G. Clark Maxwell	5	1	0	497 ∇	27.87	159
D Hopesay Rectory	Rev. R. J. Roberts ...	5	1	0	565 ∇	27.13	166
D§ Wistanstow Rectory ...	Rev. W. M. D. La Touche	5	1	0	480	27.02	149
D Bishops Castle (Totterton)	W. H. Whitaker, Esq.	5	1	0	700	23.90	179
D „ „ (Castle Street) ...	E. Griffiths, Esq.	5	2	0	720 B	24.56	159

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height above Ground.	Height above Sea Level		
		in.	ft. in.	feet.	inches.	
SHROPSHIRE—(con.)						
3.—SEVERN—Right Bank Tributaries—(con.)						
D Bishops Castle Vicarage	Rev. C. E. Warner ...	5	1 6	596 T	27.44	189
D „ „ (More Rectory) ...	Rev. Ridley Relton ...	6	0 11	600 T	26.22	163
D Church Stretton (Sewage Works) ...	E. J. Marsh, Esq.	5	1 0	582 T	29.24	191
D† Bridgnorth (Hookfield House) ...	Rev. Preb. F. Burd ...	5	0 11	273 T	20.82	146
D „ (Cantreyn)	W. Bayliss, Esq.	5	3 0	290	21.71	159
D „ „ „	„ „ „	5	0 3	287	22.28	159
D „ (Aldenharn Park) ...	Mr. T. Canning	5	3 9	430 T	21.33	150
D Church Preen (Preen Manor) ...	Mr. J. Hopkins	5	1 0	700 T	25.01	166
D Church Stretton (Wolstaston) ...	Mrs. E. D. Carr	5	1 5	800 T	28.33	169
D Much Wenlock (Willey Park) ...	Lord Forester	5	3 0	492 T	23.85	155
Pontesbury (Somerville)	Miss H. M. Croft	5	1 6	355 T	20.57	...
Minsterley (Hampton Hall)	J. Whitaker, Esq. ....	...	1 0	630 T	27.85	...
D „ (Wallop)	Mrs. Severne	8	1 8	700 T	32.17	182
Shrewsbury (Mill Mead)	Wyndham Deedes, Esq. ...	5	1 6	230	18.49	...
D† „ (Ordnance Surv. Off.) ...	Meteorological Office ...	8	1 0	191 T	17.37	148
D† „ (The Abbey House) ...	Miss F. Rouse Boughton ...	8	1 3	180 T	19.92	163
D „ (Highfield)	T. M. Howells, Esq. ...	5	4 6	250 T	18.96	148
4.—SEVERN—Left Bank Tributaries. 564 sq. mi.						
Bridgnorth (Coton Hall)	Lt.-Col. E. M. Wakeman ...	5	1 6	460	22.45	152
D Shifnal (Hatton Grange)	Mr. G. Risebrow	5	4 4	262	19.39	176
D „ (Neachley)	Col. Hon. F. Bridgeman ...	5	1 6	280 T	20.28	158
D „ (National School)	F. W. Haswell, Esq.	5	1 1	279 T	21.77	152
D „ (Haughton Hall)	W. J. Brooke, Esq.	5	3 0	355 T	20.64	135
D§ Shrewsbury (Roden)	J. W. Nowell, Esq.	8	1 0	209	17.66	133
D „ (Fitz Rectory)	Rev. W. Brewster ...	5	1 2	238 T	19.09	168
D „ „ „ Manor)	Major J. F. Horner ...	5	1 4	253 T	19.14	180
D Newport (Aston Hall)	Col. R. Leeke	5	1 4	280 T	21.15	166
D „ (Agricultural College) ...	Phedworth Foulkes Esq ...	5	1 0	220	18.44	144
D „ (Edgmond)	J. Bodenham, Esq.	8	1 0	261 T	20.26	173
D „ „ „ „ „ weekly	„ „ „ „ „	5	1 0	261 T	20.51	...
D „ (Chetwynd Park)	Mrs. Burton Borough ...	5	1 0	240	21.18	174
D „ „ „ „ „ Gardens) ...	Mr. N. Sherwood	5	1 0	250 T	21.14	175
D Cheswardine (Knighton Res.) ...	G. R. Jebb, Esq., C.E. ...	5	1 0	351 T	22.89	147
D Oswestry (The Mount Reservoir) ...	G. W. Lacey, Esq., C.E. ...	5	1 0	698 T	27.89	191
Market Drayton (Buntingsdale) ...	Mrs. Tayleur	8	3 0	276 T	22.28	...
D Ellesmere (The Grange)	Mrs. Ashton	5	0 10	340	22.91	158
STAFFORDSHIRE. (Area, 1171 sq. mi.)						
1.—MERSEY—Weaver. 50 sq. mi.						
2.—SEVERN—Left Bank Tributaries. 160 sq. mi.						
D Dudley (Shavers End)	H. A. Hill, Esq., C.E. ...	5	1 0	744 T	21.08	149
D Wombourne (The Bratch)	Baldwin Latham Esq CE ...	5	0 9	271 T	20.68	159
† Wolverhampton (Town Hall) ...	G. Green, Esq., C.E.	5	15 6	481 T	21.05	159
† „ (West Park) ...	„ „ „ „ „	5	1 4	432 T	21.86	167

DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level.		
		in.	ft. in.	feet.	inches.	
STAFFORDSHIRE—(con.)						
2.—SEVERN—Left Bank Tributaries—(con.)						
D Patshull Park.....	The Earl of Dartmouth	8	1 3	273	19·35	152
D Weston Park [Shifnal].....	The Earl of Bradford...	5	1 6	400 T	22·02	160
D Norbury Junction	G. R. Jebb, Esq., C.E.	8	1 0	332 T	20·12	148
D Market Drayton (Old Springs)...	F. E. Harding, Esq....	5	1 0	423 T	21·62	174
D Maer Hall Gardens	F. J. Harrison, Esq....	8	1 6	390 T	23·17	141
3.—TRENT—Right Bank Tributaries. 518 sq. mi.						
D West Bromwich (R)	A.D. Greathouse, Esq., CE	8	4 9	546 T	22·89	139
D Wednesbury (Ocker Hill).....	G. R. Jebb, Esq., C.E.	5	0 8	474 T	20·64	157
D Walsall (Brockhurst Sew. Farm)	J. Taylor, Esq.	8	0 11	376 T	18·63	152
D „ (Wednesbury Sewage Wks.)	T. Wicks, Esq.	5	2 8	381 T	19·22	149
D Bilston (The Lunt Outfall)	Vincent Turner, Esq. CE	5	1 0	422 T	20·83	153
† Wolverhampton (Graiseley) ...	K. C. Berrington, Esq..	6	0 9	506 T	21·99	148
D „ (Wrottesley) ...	Mr. E. Simpson	8	1 0	500	19·04	146
D Bloxwich (Sneyd Reservoir).....	G. R. Jebb, Esq., C.E..	5	1 0	507 T	20·49	164
D Hammerwich (Cannock Chase Res)	„ „ „ ..	5	1 0	475 T	19·56	166
D Brewood (Belvide Reservoir) ...	„ „ „ ..	5	1 0	367 T	20·19	143
D Lichfield (St. John Street)	Dr. F. M. Rowland ...	5	0 10	269 T	20·19	164
„ (Maple Hayes)	A. O. Worthington, Esq.	5	0 11	380 T	18·48	...
D Penkridge (Rodbaston).....	Mrs. H. Ward	5	0 9	324 T	20·88	150
D Hednesford (Scout House)	H. A. Hill, Esq., C.E..	5	1 0	750 T	18·24	133
D Church Eaton Rectory	Rev. S. Wickham Jones	8	0 8	298 T	20·69	154
Shugborough	The Earl of Lichfield...	5	1 0	260	22·47	171
D Stafford (Tipping Street)	W. Fred. Wright, Esq.	5	2 6	258 T	20·28	151
„ (West Bank, Doxey) M	Leslie Wilson, Esq. ...	5	0 6	250 T	19·29	...
Ingestre (Birch Hall)	H. H. Goddard, Esq....	5	1 8	320 T	18·09	...
D Eccleshall (Walton Hall).....	Sir H. A. Wiggin, Bart.	5	1 0	344 T	21·41	154
4.—TRENT—Left Bank Tributaries. 193 sq. mi.						
Wichnor Park	Basil Levett, Esq.	5	0 8	100 ?	18·32	...
D Burton (Hoar Cross)	F. W. Lycett, Esq.	8	1 0	400 T	21·69	148
D „ (Rangemore)	Mr. W. Bennett.....	5	5 6	424 T	19·52	135
D „ (Shobnall).....	Messrs. Bass & Co. ...	5	5 6	156 T	18·64	140
Abbots Bromley (St. Anne's) ...	Miss Waller	5	1 0	400 T	18·86	...
D Longton (The Meir)	G. B. H. Soame, Esq., C.E.	5	1 0	618 T	21·97	158
D „ High School	H. O. Smith, Esq.	5	0 8	500	25·13	144
5.—TRENT—Dove. 250 sq. mi.						
D Hanbury Hall	Miss Bott.....	5	0 11	483 T	21·57	173
§ Cheddle (The Heath House).....	Roy. Meteorological Soc.	5	0 6	647 T	23·80	161
D Oakamoor (Woodbank) (R)	M. A. Bolton, Esq.....	8	4 10	500	25·76	170
D Mayfield House [Ashbourne] ...	Graham C. Lawson, Esq.	8	1 0	374 T	25·82	167
D „ (Doveside)	Mr. T. Bridge.....	8	1 0	421 T	24·78	167
Ipstones (Sharpeliffe Hall)	A. S. Boucher, Esq. ...	5	0 4	925 T	29·51	...
D Leek (Wall Grange)	G. B. H. Soame, Esq., C.E.	5	1 0	458 T	30·59	173
D „ (Hillesdon)	J. Wilson, Esq. ....	...	...	780 ?	32·99	188
D „ (Haregate)	Mr. G. Sweetmore	5	0 9	680	31·81	184

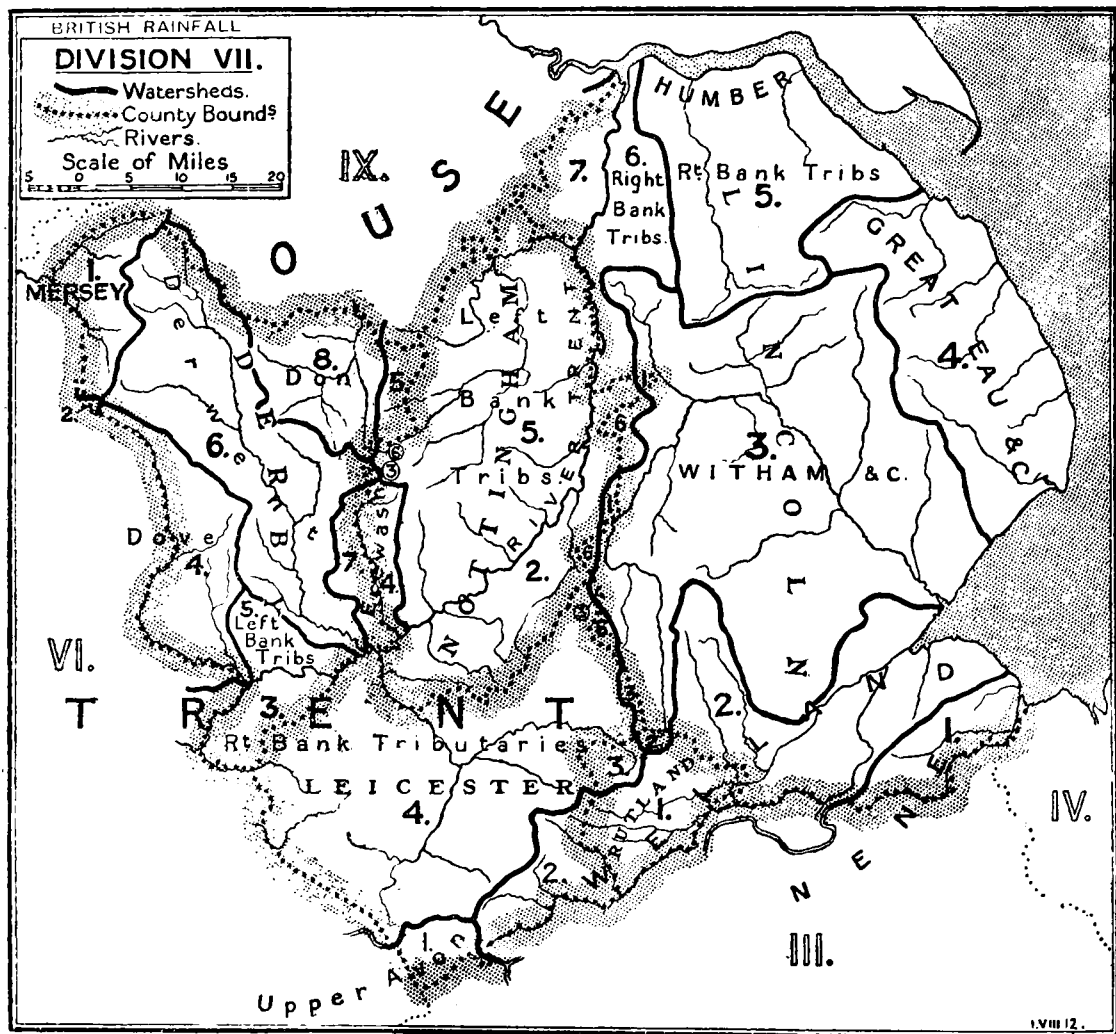
DIVISION VI.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
WORCESTERSHIRE. (Area, 751 sq. mi.)						
1.—SEVERN—Right Bank Tributaries. 231 sq. mi.						
Upton-on-Severn (Willow Bank)	J. Selwyn Cowley, Esq.	5	1 3	42	22·90	167
D " " " (The Eades)...	Major E. W. Tennant..	5	0 9	100 †	23·37	170
D Malvern (British Camp Res.) ...	W. Osborne Thorp, Esq., C.E.	5	0 11	677 †	25·10	173
D† " (Church Street)	" " "	5	1 0	350 †	24·84	157
D† " (Belle Vue House)	A. Mander, Esq.	5	4 0	520	25·50	165
D " (Davenham Gardens) ...	Mr. C. A. Bayford.....	5	2 0	300	21·23	156
D† " (Hornycold Road)	Rev. T. Wolseley Lewis	5	1 0	492 †	23·19	156
D " (Madresfield Court) ...	Mr. W. Crump	8	2 6	125 †	21·32	153
D Knightwick Sanatorium	H. Gordon Smith, Esq.	5	1 0	300 †	20·88	156
D† Worcester (Diglis Lock)	E.D. Marten, Esq., C.E.	5	1 0	49 †	18·14?	173
D Martley Rectory.....	Rev. J. F. Hastings ...	5	1 0	220 †	21·60	152
D Ombersley (Holt Lock).....	E.D. Marten, Esq., C.E.	5	1 1	55 †	20·50	130
Clifton-on-Teme	Mrs. H. Tayleur.....	5	0 10	640 †	20·67	...
Shelsley Walsh	Miss M. Constance Hadley	5	0 8	184 †	27·12	...
D Tenbury (St. Michael's)	Mrs. & Miss Hewitt ...	5	0 8	343 †	27·08?	158
D " (Rochford Rectory) ...	Rev. J. Tomson	5	1 0	317 †	27·41	158
Stockton-on-Teme (Eardiston)...	Miss M. Wallace	5	0 9	200	22·20	142
D† Bewdley (Winterdyne).....	Miss K. M. Sturt	5	1 0	100 ?	20·34	148
2.—SEVERN—Left Bank Tributaries. 194 sq. mi.						
D Kempsey (Draycott House)	Col. C.E. Southouse Scott	5	1 0	55 †	21·69	165
D† Worcester (Belmont Road)	G. B. Wetherall, Esq..	5	1 1	180 †	17·72	157
D† " (Water Works)	T. Caink, Esq., C.E. ...	5	0 9	56 †	18·06	144
D " (Bever Lock)	E.D. Marten, Esq., C.E.	5	1 1	52 †	18·83	140
" (Hawford Lodge)	F. Ames, Esq.	5	1 1	70	20·87	...
D Droitwich (Friar Street Dépôt)...	H. Hulse, Esq., C.E. ...	12	2 9	98 †	19·75	153
D Bromsgrove (Tardebigge Res.)...	F. A. Jones, Esq. C.E.	5	4 6	455 †	22·35	144
D Barnt Green (Upwood).....	Miss M. Gibbins.....	5	0 9	650 †	20·41	155
Stourport (Lincombe Lock).....	E. D. Marten, Esq., C.E.	5	1 0	62 †	21·04	...
Bewdley (Spring Grove)	T. W. Binyon, Esq. ...	5	0 5	150	21·11	167
D Kidderminster (Brinton Park)...	Mr. J. T. Cowderoy ...	5	1 0	160 †	18·46	149
" (Honeybrook Ho.)	Col. R. Talbot Watson..	5	0 9	75	20·93	...
D Netherton (Lodge Farm Res.) ...	G. R. Jebb, Esq., C.E..	5	1 0	445 †	20·23	151
Dudley (Borough Cemetery) ...	J. Gammage, Esq., C.E.	5	1 3	591 †	20·10	157
3.—SEVERN—Upper Avon. 260 sq. mi.						
D Blockley (Upton Wold).....	E. W. Arkell, Esq. ...	5	1 0	800 ?	25·32	155
Northwick Park.....	the late Lady Northwick	8	1 6	410 †	21·36	...
Shipston (Tidmington House) ...	Miss Staunton	5	1 1	...	25·66	...
D Evesham (Bengeworth).....	Messrs. Ross Bros., Ltd.	5	1 0	120 †	18·27	163
D† " (Lansdowne)	Miss Burlingham	5	5 0	108 †	18·19	145
"	H. S. Harvey, Esq. ...	8	3 0	86 †	16·49	139
D " (Great Hampton)	H. C. Boutflower	5	1 0	150 †	17·16	143
D " (Port Street)	A. Fowler, Esq.	5	1 6	80	18·53	142
Pershore (The Poplars).....	Col. J. F. Miller	5	1 6	104 †	18·38	...
D Shipston (Armscote)	W. L. Stanton, Esq. ...	5	1 1	241 †	20·80	169
D " (Talton)	Capt. G. Lainson Field	8	1 0	160 †	19·43	134

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		1911
		in.	ft.	in.	feet.	inches.	
WORCESTERSHIRE—(con.)							
3.—SEVERN—Upper Avon—(con.)							
D Redditch (Hewell Gardens)	Mr. A. A. Pettigrew ...	5	1	0	469 π	22·04	162
D Alvechurch (High Croft)	D. B. Grubb, Esq.	5	1	0	580	21·42	170
D „ (Fairfield)	D. McMichael, Esq. ...	8	0	8	400 \uparrow	26·99	143
D Bromsgrove (Lower Bittal Res.)	F. A. Jones, Esq., C.E.	5	3	0	457 \uparrow	22·44	158
4.—THAMES—Windrush & c. 10 sq. mi.							
5.—TRENT—Right Bank Tributaries. 56 sq. mi.							
D Northfield (West Heath House)	Prof. A.J. Brown, F.R.S.	5	1	0	...	22·36	166
D Halesowen (Frankley)	E. Antony Lees, Esq. ...	5	0	10	570 π	25·17	160
Selly Oak (Lodge Hill Cemetery)	Mr. W. Garden	5	1	4	540 \uparrow	23·71	143
Moseley (Prospect Road)	Rev. F. Oscar Lane ...	5	1	0	550 \uparrow	23·18	...
D „ (Chantry Road)	G. F. Lyndon, Esq.	5	1	0	472 π	22·43	153
D Sparkhill [Birmingham]	D. H. Owen, Esq.	5	1	0	426 π	21·68	151
WARWICKSHIRE. (Area, 902 sq. mi.)							
1.—SEVERN—Upper Avon. 603 sq. mi.							
Long Compton (Weston Park)...	H. A. Warriner, Esq. ...	8	3	0	510 \uparrow	23·29	149
Shipston (Honington Vicarage) ..	Rev. E. H. Boddington	5	0	10	215 \uparrow	19·96	154
Bidford (Moor Hall)	E. H. Cubberley, Esq. ...	5	4	3	125 \uparrow	16·93	...
D Wormleighton Hall	F. W. Burnett, Esq.	5	4	9	515 \uparrow	21·03	143
Stratford-on-Avon (Avonfield) ..	G. W. Everard, Esq.	5	0	10	120 \uparrow	18·16	147
D „ „ „ (Shottery Hall)	R. C. Carter, Esq.	5	0	8	140 \uparrow	19·14	147
D „ „ „ (Rowley Lodge)	Rev. H. Wilson	12	6	0	150	18·90	141
D Alcester (Ragley Hall)	Mr. C. Harding	5	1	0	270 \uparrow	21·33	155
Snitterfield	Roden Dixon, Esq.	8	1	6	274 \uparrow	21·45	...
Barford Rectory	Rev. W. Ingham Brooke	8	0	11	167 π	21·71	...
D Radford Semele (Radford House)	C. E. G. Hatherell, Esq.	5	1	2	240 \uparrow	20·72	164
D Leamington (Binswood Avenue)	Rev. A. Corbet	5	0	9	...	19·56	149
„ „ „ „ „	H. H. Newark, Esq. ...	5	1	3	174 π	19·78	...
D „ (Cubbington)	Mrs. Robins	5	1	0	282 \uparrow	19·38	155
Tanworth-in-Arden	F. Davies, Esq.	6	4	0	504 \uparrow	27·50	...
D Rugby (Bilton Grange)	W.H.G. Southcomb, Esq.	5	1	0	400	18·17	146
D „ (Temple Observatory) ...	Rev. Denys E. Shorto..	5	1	1	383 \uparrow	19·03	156
D Ryton-on-Dunsmore (Ryton Ho.)	Charles Browett, Esq. ...	5	1	2	260	21·20	132
D Coventry (City Hospital)	E. H. Snell, Esq., M.D.	8	1	0	269 \uparrow	21·37	161
D „ (St. Paul's Road)	J. B. Morris, Esq.	5	1	0	341 \uparrow	20·76	163
D „ (Kingswood)	R. B. Caldicott, Esq. ...	8	1	0	340 \uparrow	20·92	146
D Foleshill (Foxford School)	A. F. Smith, Esq.	5	10	9	311 \uparrow	20·97	136
D Coventry (Keresley Grange)	Miss H. Rotherham ...	5	0	10	413 \uparrow	21·67	195
D Bedworth Cemetery	Mr. G. O. Bosworth ...	5	1	0	385 \uparrow	20·15	144
2.—THAMES—Windrush & c. 2 sq. mi.							
3.—THAMES—Cherwell. 15 sq. mi.							
D Farnborough	Miss Prater	5	1	0	515 \uparrow	24·39	155

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
WARWICKSHIRE—(con.)						
4.—TRENT—Right Bank Tributaries.	282 sq. mi.					
Hockley Heath (Packwood)	E. S. Fry, Esq.	5	1 2	400	21·65	140
D Hampton-in-Arden (Hampton Manor)	Mr. W. R. Cooper	8	0 7	345 T	26·50	170
D Birmingham (Edgbaston)	A. Cresswell, Esq.	8	1 0	515 T	20·32	161
D „ (Hagley Road)	H. E. Stilgoe, Esq., C.E.	5	0 9	612 T	23·38	166
„ (The Crescent) ... M	J. J. Gilbert, Esq.	5	7 0	480 T	21·48	...
D „ (Gravelly Hill)	W. Ll. Mold, Esq.	5	3 0	470	21·79	145
D Castle Bromwich Hall	Rt. Hon. Viscount Newport..	5	0 10	364 T	20·97	146
Nuneaton (Chilvers Coton Vic.)..	Rev. R. Chadwick	5	0 10	283 T	18·25	144
D Witton Res. (Birmingham W.W.)	E. Antony Lees, Esq.	5	3 0	347 T	19·06	157
D Whitacre { „ „ }	„ „ „	5	1 5	269 T	19·36	172
D Sutton Coldfield (The Park)	Mr. H. Harlond	5	1 0	371 T	18·91	143



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		1911
		in.	ft.	in.	feet.	inches.	
LEICESTERSHIRE. (Area, 824 sq. mi.)							
1.—SEVERN—Upper Avon. 41 sq. mi.							
Lutterworth (Walcote)	Major Corbet Smith ...	5	0	6	290 T	22·67	...
2.—WELLAND. 96 sq. mi.							
D Market Harborough (Rose Hill).	G. O. Nicholson, Esq. ...	5	1	0	350 T	22·27	165
East Langton Grange	J. W. Logan, Esq.	5	1	0	...	22·23	...
D Kibworth Beauchamp	E. V. Phillips, Esq. ...	5	2	6	390 T	21·38	153
Hallaton Hall	S. N. Bankart, Esq. ...	8	1	3	366	21·39	...
Horninghold House... <i>Snowdon g.</i>	Mr. B. Inchley	5	1	6	380	20·48	...
" " <i>Flout g. M</i>	" " "	6	2	0	380	19·20	...
3.—WITHAM. 7 sq. mi.							
4.—TRENT—Right Bank Tributaries. 680 sq. mi.							
D Wistow Hall Gardens	Mr. R. W. Thatcher ...	5	1	1	310 T	19·75	142
Newton Harcourt	Hon. T. F. Fremantle..	5	1	0	352 T	19·52	...
D Blaby (Whetstone Road) ...	G. F. Shoults, Esq. ...	5	0	6	239 T	19·10	168
D Glen Parva (S. Wigston Sew. Fm.)	W. G. J. Clark, Esq., C.E.	8	0	5	231 T	18·96	166
D Leicester (Stoneygate Road) ...	T. Spencer Smithson Esq	5	0	6	258 T	19·88	163
D " (Town Hall Square) ...	E. G. Mawbey, Esq., C.E.	5	0	6	211 T	17·91	149
D† " (" " " " " (R)	" " " " " " " "	7	2	0	213 T	17·78	148
D Market Bosworth (Osbaston Hall)	Thomas Cope, Esq.	8	1	0	393 T	21·61	186
D Desford (Industrial School)	C. Oxley, Esq.	5	1	0	370	25·02	157
Humberstone Asylum	S. C. Leak, Esq.	8	1	0	266 T	22·00	182
D Leicester (Gilroes Cemetery) ...	E. G. Mawbey, Esq., C.E.	5	1	0	285 T	20·62	166
" (Anstey Pastures)	W. P. Viccars, Esq. ...	5	1	1	280	20·38	...
D Thornton Reservoir	F. Griffith, Esq., C.E. ...	8	1	2	371 T	22·73	161
D Thurstaston (Cropston, Bradgate Res.)	" " " " " " " "	8	1	0	246 T	23·30	170
D Markfield (Ulverscroft)	Capt. W. G. Lillingston	8	2	7	560 T	23·63	165
D Barkby Hall	Victor R. Pochin, Esq. ..	5	0	3	217 T	23·12	154
D Syston	S. K. Daniels, Esq. ...	5	1	6	180 T	23·51	158
Coalville (Kilham Bridge Sew. Fm.)	L. L. Baldwin, Esq., C.E.	8	1	0	432 T	21·57	...
" W. W. (Bardon Hill) ...	" " " " " " " "	8	1	0	520 T	21·27	158
D Swithland (The Brand)	F. Griffith, Esq., C.E. ...	8	1	0	172 T	23·16	180
D Ratcliffe-on-Wreake College ...	Rev. J. Cremonini	5	1	0	288 T	18·67	151
D Ashby-de-la-Zouch (Coleorton Hall)	Mr. H. Wilson	5	2	0	540 T	20·48	150
D Barrow-upon-Soar (The Mount).	Mrs. C. Stuart Thomson	5	1	6	...	19·96	148
D Charnwood Forest (Blackbrook Res.)	A. H. Walker, Esq., C.E.	8	1	0	367	21·75	168
D Loughborough (Nan Pantan Res.)	" " " " " " " "	8	1	0	269 T	23·42	166
Thringstone (Snarrows Sew. Fm.)	L. L. Baldwin, Esq., C.E.	8	1	0	295 T	18·82	...
Loughborough (The Widenings)	Adrian Young, Esq. ...	5	0	7	197 T	21·70	163
" (Sewage Farm) ...	A. H. Walker, Esq., C.E.	8	1	0	134 T	18·74	...
D Burton-on-the-Wolds (Burton Hall)	Lord Ernest St. Maur. ...	5	1	0	270	20·20	149
D Prestwold Hall	E. H. Packe, Esq.	8	1	0	209 T	20·59	183
D Waltham-on-the-Wolds	G. Higgins, Esq.	5	1	0	568	23·45	174
D Croxton Kerrial Vicarage	Rev. W. E. P. Malden	5	1	0	480 T	23·02	212
D Belvoir Castle Gardens	W. H. Divers, Esq. ...	8	1	0	260 T	21·22	203

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
RUTLAND. (Area, 152 sq. mi.)						
1.—WELLAND. 125 sq. mi.						
Liddington (Uppingham W.W.)	Messrs G. & F. W. Hodson	5	1 0	152 ∇	18.56	...
d Uppingham (Ridlington)	N. W. Wortley, Esq....	5	4 7	527 ∇	21.85	163
Wing (The Cottage)	J. P. W. Lightfoot.....	5	1 1	370 ∇	20.78	158
d Whitwell Rectory	Rev. T. E. Woodhouse.	5	0 11	320	21.02	191
d Great Casterton Rectory	E. N. Plevins, Esq. ...	8	1 0	137 ∇	19.39	152
2.—WITHAM. 5 sq. mi.						
3.—TRENT—Right Bank Tributary	es. 22 sq. mi.					
d Market Overton	Miss Grace Wingfield...	8	0 11	475 ∇	23.77	195
LINCOLNSHIRE. (Area, 2646 sq. mi.)						
1.—NENE. 100 sq. mi.						
2.—WELLAND 341 sq. mi.						
Stamford (St. George's Square)..	T. Booth, Esq.	5	4 0	88 ∇	18.55	145
Market Deeping (Welby House)	B. J. Walker, Esq.....	5	1 4	29 ∇	18.16	...
d " " (Wilsthorpe) ...	J. C. Gill, Esq., C.E....	8	3 10	55 ∇	17.62	157
Holywell Hall	Col. Birch Reynardson	...	...	190 ?	21.80	...
Bourne (Council School)	Oliver Davies, Esq.	5	1 6	23	17.59	...
d " (Guthram)	F. S. Robins, Esq., C.E.	8	1 6	19	15.71	136
d Spalding (Pode Hole)	H. Bain, Esq.....	8	1 3	13	18.98	156
d Holbeach Marsh (Somerset House)	Miss M. E. West	5	0 8	1 ∇	21.27	183
3.—WITHAM & C. 1085 sq. mi.						
d Stainby Rectory	Rev. W. L. de B. Thorold	4	0 9	490 ∇	21.00	142
Stroxton	Rev. S. C. Wood .....	...	...	350 ?	21.27	...
d Little Ponton Rectory	Rev. P. R. Worsley ...	5	1 0	250 ∇	24.76	197
d Denton Manor	Sir C. G. E. Welby, Bt. CB	5	3 0	310	22.08	204
d Grantham (Saltersford)	H. Preston, Esq.	5	0 6	188 ∇	20.66	155
d " (Guildhall)	W. Wright, Esq., C.E.	5	13 6	202 ∇	19.42	159
d " (High Street)	Messrs. R. & W. Bird..	5	1 0	202	21.41	148
d Boston (Black Sluice, Skirbeck).	F. S. Robins, Esq., C.E.	8	1 3	11	22.78	195
" (Main Ridge)	F. L. Bothamley, Esq..	5	2 0	13 ∇	22.40	147
d " (Holland Cottage)	J. Shaw, Esq.	5	1 2	9	24.64	184
d "	G. E. Clarke, Esq., C.E.	8	1 0	11 ∇	24.12	182
d " (Grand Sluice)	J. H. Johnson, Esq., C.E.	8	8 0	18 ∇	23.10	166
d " (Bargate End)	A. O. Scrivener, Esq...	8	1 0	9	23.57	185
d Sleaford (Rauceby Hall)	late Gen. Sir M. Willson	5	1 0	125 ∇	20.03	173
d Stubton [Newark]	the late G. Nevile, Esq.	5	4 6	99 ∇	22.29	162
d Claypole Rectory	Rev. F. R. A. Hamilton	8	2 0	70	20.46	175
d Fulbeck Parsonage	Rev. V. F. Willson ...	5	0 8	180 ∇	19.35	182
d Welbourn	Miss M. Burt	5	3 6	120 ∇	17.99	155
"	J. C. Mountain, Esq....	...	...	...	20.27	...
§ Temple Bruer	Miss A. S. Morley	5	1 0	300 ?	20.74	161
d Leake (Lade Bank Engines)	J. H. Johnson, Esq., C.E.	8	1 0	10 ∇	23.48	138
d Carrington Grange	Mr. T. J. Ward	5	6 0	15 ∇	23.82	164
Navenby Rectory	Mr. J. Thompson	5	1 0	218 ∇	20.11	162
d Carlton-le-Moorland	J. Brocklebank, Esq....	5	1 2	49	19.16	138
§ Mareham-le-Fen	Meteorological Office ...	5	3 0	11	24.79	191

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
LINCOLNSHIRE—(con.)						
3.—WITHAM & C—(con.)						
D Revesby	J. Shaw, Esq.....	5	2 0	135 ∇	25.25	133
D Woodhall Spa (Galm House) ...	J. Collins, Esq.	5	1 0	72	22.58	177
D Spilsby (Hagnaby Priory)	Miss Pocklington	8	1 8	47 ∇	29.54	188
Lincoln (Branston Hall)	A.S. Leslie Melville, Esq.	5	1 0	122 ∇	18.02	145
D Bucknall	Mr. Joshua Bint	5	1 0	33 ∇	23.69	189
D Horncastle	(R) H. R. Maynard, Esq....	5	1 6	110	24.94	181
Lincoln (Boultham)	Neil McK. Barron Esq. CE	5	1 0	19 ∇	17.87	135
„ (Skellingthorpe Hall) ...	A. H. B. Coupland, Esq.	5	1 0	...	19.78	142
„ (St. Botolphs)	A. M. Swift, Esq.	5	1 2	25 ∇	20.60	...
„ (Station)	Great Central Rly. Co.*	9	3 6	26	20.53	159
D „ (Sessions House)	H. Hoe, Esq.	5	1 0	59 ∇	18.88	166
„ (D'Isney Place)	A. H. Leslie Melville Esq	4	1 0	215 \downarrow	20.51	177
D „ (Cottesford Place)	F. A. Peacock, Esq. ...	5	0 9	220	21.52	164
Scampton House	Mrs. G. E. Sandars ...	5	1 11	80	18.41?	...
Willingham-by-Stow	R. C. Bacon, Esq.	8	2 0	70 \uparrow	20.81	172
4.—GREAT OAU & C. 443 sq. mi.						
D Wainfleet (Bridge House).....	G. Booth Walker, Esq.	5	1 0	17 ∇	25.77	187
D Skegness (Estate Offices)	S. Coetmore Jones, Esq.	8	1 0	13 \uparrow	25.17	186
D East Keal Rectory	Rev. R. H. Simpson ...	5	0 7	180 \uparrow	24.06	193
D Halton Holgate	G. Rattenbury, Esq....	5	1 0	89 \uparrow	28.28	183
D Spilsby	Dr. J. W. Walker.....	5	1 0	160 \uparrow	29.94	177
D „ (Ashby Road)	J. J. Rainey	5	1 0	160 \uparrow	28.38	177
D Hagworthingham	Mr. R. Wright	5	1 1	252 ∇	28.45	167
D Harrington Hall	Mr. E. Burgess	5	0 4	163 \uparrow	29.17	173
Alford Cemetery	Mr. E. Hodgson	5	1 0	29 ∇	24.03	180
D Mablethorpe (Trusthorpe Hall)..	I. N. Woodiwiss, Esq..	8	1 3	10 \uparrow	24.02	157
D Louth (Westgate)	Dr. F. Fawcett	5	0 9	120 ∇	27.10	177
D Kirmond	C. Fieldsend, Esq.....	5	1 2	309 \uparrow	28.97	196
5.—HUMBER—Right Bank Tributaries. 428 sq. mi.						
D Market Rasen	Mr. W. B. Jevons	5	0 8	84	24.01	149
„ „	Great Central Rly. Co..	9	3 6	100	21.95	168
§ Caistor (Cabourne).....	Rev. R. Thomas	5	1 2	280 \uparrow	25.85	...
D Waltham Hall Gardens	Mr. C. Frankish.....	5	1 1	80	25.49	202
D Brigg (Grammar School)	A. M. Dell, Esq.	5	1 0	25 \uparrow	22.21	168
D „	A. Atkinson, Esq., C.E.	8	1 2	11 ∇	21.50	196
D Irby-on-Humber	H. B. Parker, Esq.....	5	1 0	175	27.29	203
D Grimsby (Abbey Road).....	W. J. Wood, Esq., C.E.	5	3 0	23	23.35	153
„	Great Central Rly. Co..	9	15 0	42	20.75	...
Barnetby	„ „ „ „	9	3 6	51	20.13	133
D Brocklesby Park	Mr. F. C. Stainsby.....	5	2 0	108 ∇	26.37	188
D Burton-upon-Stather (Normanby)	A. G. Wilkes, Esq.....	5	0 10	185 \uparrow	24.34	178
D Thornton Curtis.....	Rev. C. B. Goodacre ...	8	1 4	66	23.71	173
D Horkstow	E. J. Turton, Esq.....	5	0 10	75 ∇	26.70	170
Ferriby Sluice	A. Atkinson, Esq., C.E.	5	1 0	18 ∇	23.04	195
New Holland	Great Central Rly. Co..	9	3 6	18	21.56	154

* Kept for the Canal Department of the Great Central Railway Company.

Returns supplied by G. Taylor, Esq.

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1911
		in.	ft.	in.	feet.	inches.
LINCOLNSHIRE—(con.)						
6.—TRENT—Right Bank Tributaries. 172 sq. mi.						
D Lincoln (Doddington Hall)	G. E. Jarvis, Esq.	8	1	2	92 ∇	19.46 164
Gainsborough (N. Sandsfield) ...	Mr. J. Creed	5	2	3	23 ∇	19.72 ...
D Burton-upon-Stather Vicarage...	Rev. Canon F. A. Jarvis	5	1	6	212 ∇	22.44 149
7.—TRENT—Left Bank Tributaries. 77 sq. mi.						
Crowle (North Level Engine) ...	Mr. H. G. Trafford	5	2	6	10 $?$	20.56 ...
„ (Keadby)	Great Central Rly. Co.	9	...		17	19.59 148
NOTTINGHAMSHIRE. (Area, 843 sq. mi.)						
1.—WITHAM. 10 sq. mi.						
2.—TRENT—Right Bank Tributaries. 218 sq. mi.						
D Kingston (Midland Agric. Inst.)..	F. Wakerley, Esq. ...	5	1	0	126 ∇	18.01 156
D „ Hall	Mr. W. H. Cooke	5	0	9	130	21.40 168
D Plumtree (Normanton-on-Wolds)	T. A. Hill, Esq.	8	1	0	170 ∇	20.90 190
D Nottingham (Wilford Hill Res.)	F. W. Davies, Esq. ...	8	0	11	296 ∇	17.12 175
Cropwell Bishop (Cropwell Grove)	H. Smith, Esq., jun.	5	1	1	160 ∇	18.09 ...
Bingham (Whatton Manor)	Capt. M. H. Hall	5	3	0	104 ∇	19.87 176
Newark Castle Gardens	Mr. J. Mountney	5	0	8	63 ∇	19.00 ...
D North Collingham (Markham Ho.)	E. Turton, Esq.	5	1	0	28 ∇	21.04 183
3.—DERWENT. 2 sq. mi.						
4.—TRENT—Erewash. 42 sq. mi.						
D Beeston	Dr. F. Rothera	5	1	0	104 ∇	21.99 173
D § Nottingham (Strelley)	T. L. K. Edge, Esq. ...	8	1	0	396 ∇	19.49 178
D § „ { „ Hall)	„ „ „ „	5	1	0	378 ∇	19.85 179
§ „ { „ „ } ...M	„ „ „ „	5	1	0	379 ∇	19.87 ...
D Bulwell (Watnall Reservoir) ...	F. W. Davies, Esq.	8	0	11	472 ∇	23.75 194
D Eastwood Colliery	J. W. Fryar, Esq.	5	1	0	245 ∇	22.06 185
Annesley (Selston W.W.)	S. Maylan, Esq.	5	1	0	475 ∇	19.29 140
5.—TRENT—Left Bank Tributaries. 569 sq. mi.						
§ Nottingham (Trent Lane) ... (R)	A. Brown, Esq., C.E. ...	8	0	10	85 ∇	19.43 158
D „ (The Castle)	„ „ „ „	8	1	2	192 ∇	19.79 174
D „ „ „ „	„ „ „ „	8	76	0	268 ∇	18.77 159
D „ (Carisbrook Ho., The Park)	W. Bradshaw, Esq. ...	5	2	0	247 ∇	20.57 168
D „ (Stoke Bardolph)	A. A. Avis, Esq.	8	1	0	66 ∇	17.39 144
D „ (Mapperley Hall Drive) ...	A. Brown, Esq., C.E. ...	...	1	0	245	20.64 ...
D „ („ Hill)	E. Powell, Esq.	8	1	0	400 ∇	20.81 175
Bagthorpe (Isolation Hospital) ...	P. Boobbyer, Esq., M.D.	8	2	0	189 ∇	20.08 170
D Nottingham (Basford W.W.) ...	F. W. Davies, Esq. ...	8	1	0	169 ∇	19.96 171
D Bulwell (Nuttall Temple)	J. Holden, Esq.	5	1	1	312	19.73 150
D Burton Joyce Water Works	F. W. Davies, Esq. ...	8	0	9	64 ∇	21.13 175
Bulcote (Corporation Farm)	A. A. Avis, Esq.	10	1	3	65 ∇	19.55 ...
Lowdham (Chilwell Nurseries) ...	Mr. J. D. Pearson	5	5	6	90	16.87 ...
D Bulwell (Bestwood W.W.)	F. W. Davies, Esq. ...	8	1	2	317 ∇	21.55 174
D Daybrook (Ramsdale Hill Res.)	„ „ „ „	8	0	10	495 ∇	23.21 208
Bulwell Hall Park	F. B. Lewis, Esq.	8	1	0	252	21.49 160
D Hucknall Torkard (Forge Mills)	J. D. Walker, Esq.	5	4	3	200 $?$	18.95 144
D Papplewick (Water Works)	F. W. Davies, Esq. ...	8	0	10	317 ∇	23.32 176

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	1911	
		in.	ft. in.	feet.	inches.	
NOTTINGHAMSHIRE—(con.)						
5.—TRENT—Left Bank Tributaries—(con.)						
D Southwell (Elmfield).....	Dr. H. Handford	5	1 0	132 ∇	19.94	182
" "						

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
DERBYSHIRE—(con.)						
5.—TRENT—Left Bank Tributaries 84 sq. mi.						
Stanton-by-Bridge	F. Worrall, Esq., C.E..	8	1 2	144 ∇	17.98	140
Willington W.W. (Milton)	Messrs G. & F. W. Hodson	5	1 0	134 ∇	17.11	...
D Chellaston	H. Chambers, Esq.....	5	1 0	170 ∇	19.19	180
Findern (The Longlands).....	Mrs. B. W. Spilsbury..	5	0 9	186 ∇	17.06	132
Etwall (Blakeley Lodge)	Mr. R. Giles	5	1 0	190 ∇	18.32	...
D „ (Sewage Farm)	Mr. B. Hydes.....	5	13 0	201 ∇	17.03	130
Mickleover (County Asylum) ..	R. Legge, Esq., M.D...	5	3 0	300 ∇	18.53	138
D „ Manor.....	Mr. J. Campbell	5	2 0	280	20.79	163
Littleover (The Knoll)	W. B. Robotham, Esq..	5	2 6	315	22.20	164
„ Old Hall	E. McInnes, Esq.	5	2 6	346	21.80	174
6.—TRENT—Derwent. 428 sq. mi.						
D Spondon (Derby Sewage Works)	J. Ward, Esq., C.E.	5	1 3	135 ∇	20.11	169
D Derby (Wild Street).....	Messrs. J. Davis & Son	5	1 0	174	21.39	175
D† „ (Midland Railway).....	J. Sayers, Esq.	5	1 5	156 ∇	19.77	168
D§ „ (Royal Infirmary)	E. Forster, Esq.....	5	1 0	195 ∇	17.97	172
D „ (Arboretum)	J. Ward, Esq., C.E.	8	1 0	196 ∇	19.62	160
„ (Duffield Road)	Dr. W. G. Copestake...	5	1 2	190 ∇	21.63	...
Kirk Langley (Langley Hall) ...	G. W. Peach, Esq.	5	1 10	396 ∇	23.30	169
D Breadsall Lodge.....	Col. W. B. Woodforde.	5	1 3	280 ∇	20.11	172
D „ Priory	Miss H. A. Haslam ...	5	1 6	380 ∇	20.86	163
D Duffield (Castle Hill House).....	Messrs. J. Davis & Son	...	...	...	23.30	186
D „ (Kirkstyles).....	WB Worthington Esq C.E.	5	1 0	235 ∇	21.16	160
Hazelwood (Chevin)	late Sir J. G. N. Alleyne	5	4 0	503 ∇	22.72	182
D§ Belper (Herbert Strutt School)...	W. W. Tunnicliffe, Esq.	8	1 0	223 ∇	22.46	158
D§ „ (Quarry Bank)	J. Hunter, Esq., C.E....	5	0 8	281 ∇	23.38	158
D „ (Highfield)	Lt.-Col. M. Hunter ...	8	0 8	310 ∇	23.86	152
D Ambergate Reservoir (Crich) ..	M. M. McCullum, Esq.	5	1 0	690 ∇	20.98	145
D Wirksworth (Bridge House) ...	Thomas Gibbs, Esq.	5	1 0	500 ∇	28.02	177
D „ (Manor House).....	T. Atkinson, Esq.	5	...	498	28.58	169
D Alderwasley Hall	F. C. A. Hurt, Esq.	5	1 0	535 ∇	25.27	140
Whatstandwell (Meerbrook Sough)	Messrs. G. & F. W. Hodson..	5	1 0	246	27.27	185
D Brackenfield (Lindway Reservoir)	R. F. Ward, Esq.	5	1 0	595 ∇	23.62	154
Matlock Bath	Miss E. Chadwick	5	1 1	500	27.73	...
D „ (The Gables)	Mrs. R. Wildgoose.....	5	1 0	450 ∇	29.42	197
D§ „ (Rockside).....	J. D. Evans, Esq.	5	1 0	637 ∇	27.33	191
Darley Dale (Whitworth Inst.)..	J. H. Dawson, Esq.	5	1 8	361 ∇	26.10	...
D „ Hall.....	A. Clay, Esq.....	5	1 0	400 ∇	27.00	177
D Bakewell (Catcliff).....	Dr. T. Fentem	12	1 6	411 ∇	31.27	158
D† Chatsworth Gardens	Mr. F. Jennings.....	5	1 0	436 ∇	27.27	173
D Buxton (Portobello Bar)	F. Langley, Esq., C.E.	8	1 0	1600 ∇	50.63	236
D „ (Stanley Moor)	„ „ „	8	1 0	1340 ∇	45.24	236
D „ (Burbage Edge)	„ „ „	8	1 0	1400 ∇	47.19	235
D§ „ (Devonshire Hospital)...	W. Pilkington, Esq.	5	1 0	988 ∇	40.19	177
D† Baslow (The Beeches)	Rev. W. Vale Bagshawe	5	1 0	440 ∇	26.84	160
D† Holmesfield (Barbrook Reservoir)	Gilbert Frith, Esq., C.E.	8	1 0	1080	30.05	261
D† Eyam (The Rectory)	Rev. F. L. Shaw	5	1 0	856 ∇	30.72	176

DIVISION VII.—NORTH MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
DERBYSHIRE—(con.)						
6.—TRENT—Derwent—(con.)						
D Eyam (The School)	R. Owen, Esq.	8	1 6	856 1	29.79	179
D „ (Eyam View)	Mr. P. Thorpe.....	5	1 0	945	33.03	188
„ (Bretton).....	Miss Moorhouse	5	1 0	1250	37.90	...
†Grindleford (Grouse Inn) No. 58	E. Sandeman, Esq., C.E.	5	1 0	990	29.04	176
Hathersage	No. 57 „ „ „	5	1 0	525	32.55	144
Bamford	No. 60 „ „ „	8	2 0	680	30.18	193
D „ (Engineer's Office) No. 36	„ „ „	8	2 1	509	32.99	209
Castleton	No. 55 „ „ „	5	1 0	625	39.51	184
Hope School.....	No. 56 „ „ „	5	1 0	545	35.10	192
Edale (Dale Head)	No. 54 „ „ „	5	1 0	1015	43.21	191
„ (Upper Booth)	No. 53 „ „ „	5	1 0	910	41.16	193
Bamford (Yorkshire Bridge Weir) No. 59	„ „ „	5	1 0	540	34.48	213
Ashopton (Win Hill)	No. 34 „ „ „	5	1 0	1240	34.09	...
„ (Cockbridge Farm) No. 33	„ „ „	5	1 0	620	36.92	198
„ (Wooler Knoll) No. 52	„ „ „	5	1 0	1080	37.61	...
„ Inn.....	No. 32 „ „ „	8	1 0	610	36.33	199
„ (Grimbo Carr)...	No. 51 „ „ „	5	1 0	1100	30.06?	...
„ (Cutthroat Bldg.) No. 31	„ „ „	8	1 0	994	37.26	...
„ (Moscar Flat) ...	No. 30 „ „ „	8	1 0	1154	35.62	...
Derwent Bridge End	No. 28 „ „ „	5	1 0	624	39.34	183
„ Dam	No. 26 „ „ „	5	1 0	790	36.83	195
Ashopton (Haglee)	No. 50 „ „ „	8	1 0	783	34.58	188
Blackdean Moor (Crookstone) 49	„ „ „	5	1 0	1460	46.38	...
Derwent (Lockerbrook Fm.) No. 27a	„ „ „	5	1 0	1174	42.29	194
Woodland Dale (Woodlands, S.) 48	„ „ „	8	1 0	1044	44.29	183
„ „ „ (N.) 47	„ „ „	8	1 0	1063	42.83	183
The Peak (Fairbrook).....	No. 46 „ „ „	5	1 0	1009	54.96	198
„ (Nungrain).....	No. 45 „ „ „	5	1 0	1320	56.51	...
Hayfield (Ashop Head) ...	No. 43 „ „ „	5	1 0	1650	40.30?	...
Woodland Dale (Rowlee) No. 24	„ „ „	5	1 0	1540	39.65?	...
Derwent Dale (Walker Ho.) No. 22	„ „ „	8	1 0	758	40.08	203
Alport Dale (Alport Castles) No. 42	„ „ „	5	1 0	955	50.57	186
Featherbed Moss (Redgate Clough) 44	„ „ „	5	1 0	1730	47.20	...
Derwent Dale (Birchinlee) No. 23	„ „ „	5	1 0	870	45.41	214
Birchinlee Moor (Cote Ridge) No. 18	„ „ „	5	1 0	1440	44.88	...
Lady Clough Moor	No. 41 „ „ „	5	1 0	1720	43.20	...
Coldharbour Moor (Summit) No. 39	„ „ „	8	1 0	1670	42.23	...
Derwent Dale (Howden Dam) 17	„ „ „	8	1 0	829	41.85	199
„ „ (Banktop Hey) 16	„ „ „	8	1 0	1340	51.12	...
„ „ (Ridge Farm)...	13 „ „ „	5	1 0	1175	37.00	223
Alport Moor (Glethering Clough)..	40 „ „ „	5	1 0	1640	43.04	...
Westend Moor (Blacklow Cote) 15	„ „ „	5	1 0	970	49.10	...
„ „ „	No. 10 „ „ „	5	1 0	1560	43.64	...
Alport Moor.....	No. 38 „ „ „	5	1 0	1790	43.30	...
Derwent Dale (Back Dyke) No. 12	„ „ „	5	1 0	1546	48.67	...
„ „ (Mosley Bank) No. 5	„ „ „	5	1 0	1350	50.50	...
Ridgewalk Moor	No. 9 „ „ „	5	1 0	1650	44.00?	...

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	1911	
		in.	ft.	in.	feet.	inches.	
DERBYSHIRE—(con.)							
6.—TRENT—Derwent—(con.)							
Bleaklow Stones No. 8	E. Sandeman, Esq., C.E.	5	1	0	2060	55·50	...
Derwent Dale (Roundhill) No. 4	„ „ „	5	1	0	1675	48·50	...
7.—TRENT—Erewash. 50 sq. mi.							
D Codnor (Cross Hill)	A. F. Pine, Esq.....	5	1	0	372 T	21·80	151
D „ Park	Midland Railway Co....	5	1	0	243 T	22·81	193
8.—OUSE—Don. 148 sq. mi.							
Hardwick Hall	Mr. E. Wilson	8	2	6	594 T	23·31	164
Grassmoor Colliery	Mr. J. Norman	5	19	10	370 T	16·01	...
† Chesterfield (Gas Works).....	Chesterfield Corporation	5	1	0	279	19·41	...
„	Great Central Rly. Co..	9	3	6	250	20·67	159
D „ (Sewage Works) ...	Mr. W. Tomlinson.....	5	2	0	222	20·08	136
D† „ (Linacre Reservoir). Chesterfield Corporation		8	1	0	460	25·77	162
D† „ („ „).....		5	1	0	490	24·17	162
„ (Tapton Grove).....	Mr. W. R. Bloxham ...	5	4	3	400	19·54	...
D Totley Hall.....	W. A. Milner, Esq. ...	5	1	0	700	30·64	191
D Eckington (Mosbrough C.E.Schl.)	W. H. Holmes, Esq....	5	1	0	330 T	21·41	159
Killamarsh (Norwood) ...	Great Central Rly. Co..	9	3	6	226 T	20·12	194
D† Norton.....	Col. Sir N. Creswick, KCB	5	0	8	700 T	26·19	181

MAP OF DIVISION VIII.

NORTH WESTERN COUNTIES,
Showing the River-Divisions.



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	1911	
		in.	ft.	in.	feet.	inches.	
CHESHIRE. (Area, 1027 sq. mi.)							
1.—UPPER MERSEY. 269 sq. mi.							
D† Macclesfield (The Park)	Mr. J. Dale.....	5	1	0	501	29·96	178
„	Great Central Rly. Co..	9	3	6	539	25·13	171
D† „ (Swanscoe Park) ...	T. C. Horsfall, Esq. ...	5	1	0	676	32·96	209
Bollington (Sponds Hill)	Great Central Rly. Co..	9	3	6	1279	26·98?	...
D „ Cross (Turner Heath)	J. A. Wanklyn, Esq.....	5	1	6	500	30·24	155
Whaley Bridge	Great Central Rly. Co..	9	3	6	602	36·84	195
D Handforth (Clare Cottage)	A. Brothers, Esq.	5	1	6	260	30·00	144
D Disley (Lyme Park)	T. Molyneux, Esq.....	5	1	0	674	30·12	161
D „ („ „)	„ „ „ „	5	1	0	720	29·69	161
D Runcorn (Weston Point)	J. A. Saner, Esq., C.E.	8	1	4	17	25·13	152
Thelwall (Massey Hall)	E. W. Reynolds, Esq...	5	1	0	100	27·68	165
Altrincham (Norman's Place)....	Miss G. A. Griffiths ...	5	8	0	150	31·19	...
„ (Barrington House).	C. E. Newton, Esq., C.E.	8	2	6	103	27·44	...
Cheadle (Adswood)	R. W. Wright, Esq.	5	0	6	180	28·20	...
D Northenden (Wythenshawe Hall)	T. E. Tatton, Esq.	5	1	0	114	28·28	184
„ („ „) M	„ „ „ „	8	1	0	114	26·57	...
Marple Top Lock	Great Central Rly. Co..	9	3	6	523	31·50	173
D Stockport	Dr. H. E. Corbin	5	1	0	186	29·25	194
Godley Reservoir	G. H. Hill, Esq., C.E..	12	2	0	500	30·47	...
Newton	Great Central Rly. Co..	9	3	6	396	29·56	175
Mottram Station	„ „ „ „	9	3	6	452	30·70	168
D Broadbottom (Harewood Lodge). ..	Col. Sidebottom	5	1	0	440	33·15	170
D Dukinfield (Higher Reservoir)...	F. J. Dixon, Esq., C.E.	8	1	6	495	29·76	172
„ (Lower „ „) ...	„ „ „ „	5	1	0	435	31·19	172
D Hadfield (Millbrook House).....	Mr. S. H. Doxon „	8	3	10	442	37·47	192
„ („ „ „)	„ „ „ „	12	4	0	442	37·99	192
Arnfield Reservoir.....	G. H. Hill, Esq., C.E..	12	2	6	550	37·24	...
Rhodes Wood Reservoir	„ „ „ „	12	1	0	520	42·35	...
Torrside Reservoir.....	„ „ „ „	12	1	6	680	41·49	...
D Stalybridge (Market Ground Yard)	F. J. Dixon, Esq., C.E.	5	1	0	373	37·19	190
Swineshaw Moor (Lees Hill).....	„ „ „ „	8	1	0	1168	40·85	...
Woodhead Reservoir.....	G. H. Hill, Esq., C.E..	12	0	10	660	45·77	...
2.—MERSEY—Weaver. 489 sq. mi.							
D Audlem Rectory	Rev. J. S. Cotton	5	1	6	200	23·68	144
D Baddiley (Nantwich W. W.) ...	Baldwin Latham Esq CE	5	1	0	231	23·34	160
D Nantwich (Dorfold Hall)	J. A. Saner, Esq., C.E.	8	1	0	190	22·47	168
D „ (Reaseheath Hall) ...	„ „ „ „	8	1	0	130	21·76	168
D Sandbach (Malkins Bank)	Mssrs Brunner Mond & Co	5	3	8	244	19·82	158
† Congleton (Westgate)	G. Pedley, Esq. ....	...	...	...	...	25·67	...
D† „ (Sewage Works)	Randle Burslam Esq. CE	5	1	0	248	27·04	154
D† „ (Buglawton Vicarage)	J. A. Saner, Esq., C.E.	8	5	0	347	27·29	182
Bosley Reservoir	Great Central Rly. Co..	9	3	6	590	27·10	168
„ Minns	„ „ „ „	9	3	6	1210	27·47	177
D Middlewich.....	Mssrs Brunner Mond & Co	5	3	10	138	21·84	143
„ (Bostock Hall)	Col. France Hayhurst..	5	2	6	157	25·28	...
D Chelford (Astle Hall)	G. Dixon, Esq.	5	1	0	250	25·95	154
„ („ „) M	„ „ „ „	5	1	0	250	24·41	...

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	1911	
		in.	ft. in.	feet.	feet.	
CHESHIRE—(con.)						
2.—MERSEY—Weaver—(con.)						
Northwich	Great Central Rly. Co.	9	3 6	76 T	22.45	135
D§ „ (Highfield)	J. A. Saner, Esq., C.E..	8	1 0	116 T	26.42	172
D „ (Winnington)	Mssrs Brunner Mond & Co	5	1 0	64 T	25.41	158
D „ (Lostock Gralam) ...	„ „ „	5	3 6	75 T	24.83	169
3.—LOWER MERSEY & C. 142 sq. mi.						
Duddon School	L. E. Line, Esq.	5	5 6	138 T	21.46	...
D Tarporley (Wilmington Hall)	Mr. A. Ellis	5	1 0	220	20.96	155
D Frodsham (Helsby)	J. H. Howell, Esq.	5	1 1	190	25.28	158
D „ (Simonsdelf)	E. H. Lewis	5	1 0	420 T	24.54	134
Hooton Water Works	P. H. Bettie, Esq.	5	1 0	97	21.60	...
D Eastham (Mill Hey)	Roger P. Sing, Esq. ...	5	1 7	125 T	25.93	153
„ House	J. H. Vernon, Esq. ...	5	1 0	100 T	25.41	162
D Wirral W.W. (Prenton)	P. H. Bettie, Esq.	5	1 0	91 T	23.42	161
D Rock Ferry (Elmhurst)	Miss Shepherd	8	6 0	110	27.44	147
§ Birkenhead (Bidston Observatory)	W. E. Plummer, Esq..	8	1 0	189 T	25.27	170
D§ Hoylake (District Council Office)	R. W. Fraser, Esq. ...	5	1 0	33 T	23.95	155
D Wallasey	Dr. T. W. N. Barlow ...	5	1 0	35 T	26.34	153
D New Brighton (Rutland House) ..	W. Bell, Esq.	5	0 11	130 B	25.49	150
4.—DEE. 127 sq. mi.						
D Aldford	Miss M. Meredith	5	1 1	46 T	22.75	178
Eaton Hall Gardens	Mr. N. F. Barnes	5	3 0	72 T	21.03	...
Eccleston	E. Wells, Esq.	5	1 1	94 T	21.01	140
D Chester (Sewerage Works)	W. D. Scouller, Esq....	5	1 0	34 T	20.75	146
D „ (Christleton Hall)	Mr. J. Weaver	5	1 2	142 T	22.30	165
D „ (Water Works)	E. Wilfrid Bennett, Esq.	5	0 10	85 T	18.01	178
D „ (Northgate Station)	Great Central Rly. Co.	9	3 6	84 T	21.38	...
D Neston (Vine House)	H. F. Russell, Esq. ...	5	1 0	111 T	19.97	151
D West Kirby (Greenfield)	H. Bell, Esq.	5	1 0	75 T	22.68	139
SOUTH LANCASHIRE. (Area, 687 sq. mi.)						
1.—ALT & C. 103 sq. mi.						
D Liverpool (Huyton Vicarage) ...	Mrs. E. M. Sanderson..	5	0 11	116 T	30.80	169
D „ (Knotty Ash)	W. M. Reade, Esq. ...	5	1 0	100	28.68	162
D West Derby (Basil Grange)	Mr. G. Harris .....	...	...	100 ?	31.95	171
D „ „ (Croxteth Hall) ...	Mr. J. Gibbins	5	1 0	79 T	30.16	156
Blundellsands (Park Corner) ...	A. L. Reade, Esq.	5	1 0	33 T	25.46	174
D Ormskirk (Bickerstaffe Pump Sta)	S. R. Raffety, Esq. ...	5	1 2	128 T	29.18	166
D „ (Aughton Springs) ...	C. E. Maples, Esq. ...	5	1 0	138 T	28.82	194
D† Downholland (Barton Moss)	J. Baxendell, Esq.	5	0 9	14 T	27.27	162
2.—LOWER MERSEY. 240 sq. mi.						
Widnes (Gas Works)	Isaac Carr, Esq., C.E...	5	8 0	36 T	27.33	...
Garston	J. A. Brodie, Esq., C.E.	10	1 10	84 T	30.12	159
D „ (Grassendale Park)	Miss E. C. Abraham ...	5	1 0	35 T	26.72	159
D Aigburth (Holmfield)	Miss Maxwell	5	1 0	100 T	28.69	168
D Woolton (Roseleigh Gardens) ...	Mr. J. Stoney	8	1 0	180 T	30.49	168
D Warrington (Howley Yard)	T. Longdin, Esq.	10	0 10	19 T	27.23	156

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	1911	
		in.	ft.	in.	feet.	inches.	
SOUTH LANCASHIRE—(con.)							
2.—LOWER MERSEY—(con.)							
Warrington (Central Station) ...	Great Central Rly. Co..	9	3	6	59 $\frac{1}{2}$	25.69	145
† Liverpool (Monument Place) ...	J. A. Brodie, Esq., C.E.	5	1	3	126 $\frac{1}{2}$	25.93	156
D† " (" ") (R)	" " "	10	4	6	129 $\frac{1}{2}$	25.79	156
" (Smithdown Road) ...	" " "	10	0	9	135 $\frac{1}{2}$	28.70	168
" (Rathbone Road)	" " "	10	1	0	199 $\frac{1}{2}$	30.69	172
" (Lank Lane)	" " "	10	10	8	101 $\frac{1}{2}$	29.28	169
" (Newsham Park)	" " "	10	1	0	140 $\frac{1}{2}$	31.08	171
" (Breeze Lane)	" " "	5	0	9	135 $\frac{1}{2}$	31.55	179
" (Huskisson Station) ...	Great Central Rly. Co.	9	3	6	40 $\frac{1}{2}$	25.87	139
St. Helen's (Eccleston Hill).....	J.J. Lackland, Esq., C.E.	12	2	9	268 $\frac{1}{2}$	23.43	144
Earlestown (Newton Cemetery)...	Newton-in-Makerfield U.D.C.	5	1	0	75 $\frac{1}{2}$	29.10	...
D Leigh (Rose Bank, Pennington)	Major T. Hunter, C.E.	5	1	0	72 $\frac{1}{2}$	26.26	163
3.—MERSEY—Irwell. 299 sq. mi.							
D Urmston Sewage Works	Mr. A. B. Ogden	8	2	3	72 $\frac{1}{2}$	26.88	154
D Manchester (Whalley Range) ..	J. H. Cooke, Esq.	5	1	0	100 $\frac{1}{2}$	27.86	178
D " (Godlee Observatory)	W. C. Jenkins, Esq. ...	8	1	3	140	28.38	178
D " (" ") (R)	" " "	11	1	6	140	28.81	180
" (Piccadilly)	Great Central Rly. Co..	9	40	0	194 $\frac{1}{2}$	27.84	169
" (Fairfield)	" " "	9	6	0	312 $\frac{1}{2}$	30.24	178
D† " (Oldham Road)	Dr. J. Niven	5	1	0	191 $\frac{1}{2}$	31.12	173
† " (Whitworth Park)...	Meteorological Office ...	8	1	5	126	29.37	165
D Eccles (Worsley New Hall)	Mr. W. B. Upjohn ...	8	10	0	80 $\frac{1}{2}$	27.54	145
D Ashton-under-Lyne (Knott Hill Res.)	F. J. Dixon, Esq., C.E.	8	1	3	605 $\frac{1}{2}$	35.84	185
D§ Prestwich Asylum	F. Gore, Esq.	8	1	0	295	33.22	188
" Reservoir	G. H. Hill, Esq., C.E. ...	12	2	0	356 $\frac{1}{2}$	29.13	...
D† Oldham (Alexandra Park)	Dr. J. B. Wilkinson ...	5	1	0	600	36.29	189
" (Honeywell Lane)	Great Central Rly. Co..	8	...	...	553	35.27	199
" (Brushes Clough) <i>old g.</i>	C. J. Batley, Esq., C.E.	5	4	0	930 $\frac{1}{2}$	41.08	206
" (" ") <i>new g.</i>	" " "	5	5	0	955 $\frac{1}{2}$	42.23	206
D† Bolton (Queen's Park)	T. Midgley, Esq.	5	1	0	390 $\frac{1}{2}$	37.31	195
D† " (Heaton Reservoir)	Lewis Mitchell, Esq. C.E.	5	1	0	500	37.90	200
D " (Bloomfield, Heaton) ..	Mrs. F. Taylor	5	1	0	530 $\frac{1}{2}$	38.53	223
D† " (Smithills Hall)	Col. R. H. Ainsworth...	8	1	2	510 $\frac{1}{2}$	41.91	185
" (" Moor)	" " "	8	1	2	1375 $\frac{1}{2}$	45.59	...
D Bury (Parsons Lane)	R. B. Rigby, Esq.	8	9	8	316 $\frac{1}{2}$	39.13	184
" (Bridge Hall)	O. O. Wrigley, Esq. ...	5	0	6	...	41.31	193
D† Milnrow (Piethorne, Kiteliffe)...	C. J. Batley, Esq., C.E.	5	4	6	769 $\frac{1}{2}$	41.20	209
† " (" Coldgreave)	" " "	5	4	6	894 $\frac{1}{2}$	39.10	200
† " (" Norman Hill)	" " "	5	4	6	1076 $\frac{1}{2}$	35.41	197
† " (" Rooden Res.)	" " "	5	4	6	1131 $\frac{1}{2}$	36.13	196
D† Rochdale (Park Observatory) ...	Dr. A. G. Anderson ...	8	0	6	472	41.95	211
D " (Fieldhead Yard)	S. S. Platt, Esq., C.E..	8	12	0	484 $\frac{1}{2}$	37.86	180
D " (" ") (R)	" " "	8	12	0	484 $\frac{1}{2}$	38.20	180
D† " (Ashworth Moor)	J. S. Diggle, Esq., C.E.	5	1	2	957 $\frac{1}{2}$	40.11	198
D Bury (Gin Hall)	J. Woodhead Smith, Esq., C.E.	8	1	0	475	39.47	184
D " (" ")	" " "	8	1	0	475	40.39	184

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
SOUTH LANCASHIRE—(con.)						
3.—MERSEY—Irwell—(con.)						
D† Bolton (Belmont)	Lewis Mitchell, Esq., CE	5	0 9	800	52·48	202
D Rochdale (Hamer Pasture Res.)..	F. H. Brunt, Esq. ....	...	...	...	57·46	216
D „ (Naden Filters)	J. S. Diggle, Esq., C.E.	5	1 8	761	43·50	191
Norden (Higher Red Lumb)	„ „ „	5	1 6	...	42·54	...
„ (Far Knowl)	„ „ „	5	1 2	...	45·94	...
Rochdale (Naden Dean) ... <i>old g.</i>	„ „ „	5	1 7	948 ∇	37·07	...
„ „ „ „ ... <i>new g.</i>	„ „ „	5	1 4	948 ∇	40·53	...
† Ramsbottom (Killgate Brook) M	„ „ „	5	1 0	978 ∇	44·12	...
† „ (Cheesden Barn) M	„ „ „	5	1 0	997 ∇	44·45	...
† „ (Shuttleworth Moss) M	„ „ „	5	0 11	1076 ∇	44·17	...
„ (Gt. Lodge, Higher Hill) M	„ „ „	5	1 0	1400	42·53	...
D Edenfield (Scout Moor Res.) No. 2	J. Woodhead Smith, Esq., C.E.	8	1 0	1275	48·53	185
D Rochdale (Spring Mill Whitworth)	F. H. Brunt, Esq.	8	1 7	720	56·64	199
D „ (Cowm, „)	„ „ „ „	8	1 7	760	58·90	178
D† Entwistle	Lewis Mitchell, Esq., CE	5	1 0	700	50·07	189
Littleborough (Hollingworth Lake)	Rochdale Canal Co.*	8	1 5	600	36·58	...
„ (Windy Bank) ...	„ „ „	8	2 0	605 ∇	37·57	...
„ (Canal Summit) ...	„ „ „	8	2 0	700	30·85	...
„ (Chelburn)	„ „ „	8	2 0	800	36·99	...
„ (Byron Edge Drain)	„ „ „	8	1 5	1250 ∇	40·34	...
„ (Lenches)	„ „ „	8	2 0	806	36·97	...
Walsden (Calf Lee)	„ „ „	10	1 6	960	39·96	...
„ (Warland Drain)	„ „ „	8	1 5	1250 ∇	38·00	...
„ (Whiteholme Drain) ...	„ „ „	8	1 5	1250 ∇	38·30	...
„ (Rishworth Drain)	„ „ „	8	1 5	1300 ∇	36·00	...
D Bacup (Beech House)	A. E. Sutcliffe, Esq.	5	1 0	940	49·28	201
D† Haslingden (Holden Wood) No. 1	J. Woodhead Smith, Esq., C.E.	8	1 0	670 ∇	51·52	183
D „ „ „ „ No. 2	„ „ „	8	1 0	670 ∇	48·65	183
D† „ (Calf Hey)	„ „ „	8	1 0	800 ∇	49·89	183
D „ „ „ „ No. 2	„ „ „	8	1 0	800 ∇	43·47	183
D „ (Springfield Lodge) ..	John Stott, Esq.	5	1 0	800 ∇	48·80	189
Rawtenstall Cemetery	J. Johnson, Esq., C.E.	8	1 0	572	51·10	167
D† „ (Cloughbottom Res.) No. 1	J. Woodhead Smith, Esq., C.E.	8	1 0	1025	46·76	198
D „ „ „ „ No. 2	„ „ „	8	1 0	1025	43·20	198
D† „ (Hapton Reservoir) No. 1	„ „ „	8	1 0	930 ∇	53·65	221
D „ „ „ „ No. 2	„ „ „	8	1 0	930 ∇	53·33	221
4.—UPPER MERSEY. 45 sq. mi.						
D Didsbury (Linden Road)	L. G. King, Esq.	8	1 6	110	27·32	175
D Heaton Mersey [Stockport]	W. B. Leigh, Esq.	5	3 11	218 ∇	27·05	171
D Withington (Chorlton-c-Hardy Sew. Wks.)	G. F. Walter, Esq. ...	8	4 0	76 ∇	26·73	182
D „ „ „ „	J. H. Casartelli, Esq.	5	2 0	75	27·03	160
Denton Reservoir	G. H. Hill, Esq., C.E.	12	2 0	324 ∇	28·50	...
Gorton „	„ „ „	12	2 0	263 ∇	29·29	...
D Ashton-under-Lyne (Henrietta St. Yard)	F. J. Dixon, Esq., C.E.	7	1 0	394 ∇	35·69	205
„ „ „ (Waterhouses) ...	Great Central Rly. Co.	9	3 6	345 ∇	32·00	189
D Lower Swineshaw Reservoir	F. J. Dixon, Esq., C.E.	7	3 0	886 ∇	46·15	174

* 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		1911
		in.	ft.	in.	feet.	inches.	
SOUTH LANCASHIRE—(con.)							
4.—UPPER MERSEY—(con.)							
D Mossley (Manor House Yard) ...	F. J. Dixon, Esq., C.E.	5	1	0	636	37·69	170
CENTRAL LANCASHIRE. (Area, 536 sq. mi.)							
1.—RIBBLE & C. 326 sq. mi.							
†Rivington (Higher Hill)	J. Parry, Esq., C.E. ...	8	1	4	733	37·87	...
D Haslingden (Mitchells House Res.)	C. Harrison, Esq.	5	1	6	990	48·71	172
D Darwen (Sunnyhurst Hey)	R. W. S. Saville, Esq..	8	1	8	915	51·09	203
D " (Earnsdale Reservoir)...	" " " "	8	1	8	705	50·34	203
D§ " (Bold Venture Park) ...	Dr. F. G. Haworth " ...	8	2	4	722	54·52	218
" (Hoddlesden) .....No.1	W. Stubbs, Esq., C.E..	8	4	0	680	48·86	198
" " " "No.2	" " " "	8	1	0	675	48·82	198
† " (Daisy Green) .....No.1	" " " "	8	1	0	969	46·66	198
" " " "No.2	" " " "	8	1	0	969	47·39	198
" (Pickup Bank) .....No.1	" " " "	8	1	0	720	47·47	198
" " " "No.2	" " " "	8	1	0	720	47·39	198
D Brindle Rectory.....	Rev. P. Lancashire ...	5	1	3	380	39·93	149
†Blackburn (Guide Reservoir) ...	W. Stubbs, Esq., C.E..	8	1	0	650	46·63	184
" (Witton)	" " " "	8	2	6	315	44·63	179
" (Store Yard)	" " " "	8	30	0	373	35·98	144
" (Water Works Office)	" " " "	8	60	0	436	29·97	151
† " (Corporation Park) ...	" " " "	8	0	6	584	43·47	181
† " (Pumping Station) ...	" " " "	8	6	0	600	42·82	180
D Accrington (St. James's Vicarage)	Rev. A. Spencer.....	8	1	6	475	46·17	196
" (Milnshaw Park).....	Accrington Corporation	5	1	6	464	44·84	175
D " (Victoria Hospital) ...	Mr. L. T. Whipp	5	1	2	540	49·49	182
D Preston (Corporation Offices) ...	T. Cookson, Esq.	8	18	7	148	33·81	173
Blackburn (Samlesbury Sew Wks)	W. Stubbs, Esq., C.E.	8	...	...	240	33·92	179
†Causeway Side (Burnley W.W.)	W. Williamson, Esq....	8	2	0	1116	43·20	...
†Sheddin " " " "	" " " "	8	2	0	960	43·56	...
†Cant Clough, S. Side (" " " ")	" " " "	8	2	0	900	44·15	217
† " " " " N. Side (" " " ")	" " " "	8	2	0	900	42·63	217
Rams Clough Head (" " " ")	" " " "	8	2	0	1260	42·02	...
D Huncoat (Burnley Road Res.)...	C. Harrison, Esq.	9	1	6	620	48·43	178
D Great Harwood	" " " "	12	1	6	540	48·49	193
D§ Burnley (Queen's Park)	Dr. Thomas Holt	8	1	0	459	44·14	183
" (Yorkshire Street)	W. Williamson, Esq...	8	30	0	420	39·34	192
† " (Swinden).....Upper g.	" " " "	8	12	0	820	46·07	212
† " (").....Lower g.	" " " "	8	2	0	745	45·32	212
† " (Extwistle Moor Top)...	" " " "	8	2	0	1310	44·23	...
D " (Gawthorpe Hall)	Alfred Ford, Esq.....	8	0	9	316	45·05	197
D Kirkham (The Hill, Westby) ...	E. T. Wilson, Esq. ...	5	1	3	100	31·65	151
D Fulwood (Haighton).....	A. E. Coupe, Esq., C.E.	5	1	2	255	34·97	163
Alston Reservoir	J. H. Smethurst, Esq...	8	1	2	320	37·98	...
†Stonyhurst College	Rev. W. Sidgreaves, S.J.	8	1	10	377	44·19	195

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
CENTRAL LANCASHIRE-(con.)						
1.—RIBBLE & C—(con.)						
n† Stonyhurst College	(R) Rev. W. Sidgreaves, S.J.	11	1 10	377	44·22	193
† " " " " " M	" " " " "	11	1 0	376	43·57	...
Knowle Green (Preston W.W.) M	J. H. Smethurst, Esq.	8	1 2	400	37·93	...
Loud Scales (" ") M	" " "	8	1 2	400	39·71	...
Spade Mill (" ") M	" " "	8	1 2	400	37·45	...
Jeffrey Hill (" ") M	" " "	8	1 2	900	46·55	...
d Beacon Fell (Barnsfold Reservoir)	A. E. Coupe, Esq., C.E.	5	1 6	506	38·88	184
" " (" ") M	" " "	5	1 6	506	38·40	...
n† Colne (Cemetery Grounds) ...	(R) T. H. Hartley, Esq. ...	8	2 11	619	47·47	199
Barrowford Reservoir	Leeds & L'pool Canal Co.	8	1 0	473	41·09	...
Foulridge (Upper Reservoir) ...	" " "	8	1 0	582	43·47	...
Clitheroe (Downham Hall)	R. C. Assheton, Esq.	10	1 6	464	43·21	...
n† Chatburn (Middlewood)	W. K. Wilkinson, Esq.	5	1 3	363	43·06	151
2.—RIBBLE—Douglas. 156 sq. mi.						
d Upholland Grammar School	C. H. Cox, Esq.	5	1 0	310	28·99	160
d Wigan Water Works	W. Bolton, Esq.	8	1 6	225	33·53	177
Horwich (Wallsuches)	C. E. Barr, Esq.	5	1 0	655	34·44	...
n† " (Lower Rivington) ...	J. Parry, Esq., C.E.	8	1 0	440	36·60	179
† " (Lower Knoll)	" " " " "	8	1 4	742	38·98	...
† Rivington (Brown Hill)	" " " " "	8	1 4	843	40·57	...
n† " (Stoneshouse) ... No. 1	" " " " "	8	1 4	623	40·77	187
† " (") ... No. 2	" " " " "	8	1 4	623	40·51	...
† " (Hurst Hill)	" " " " "	8	1 10	1029	40·63	...
† " (Great Hill)	" " " " "	8	1 8	1240	50·79	...
† " (Coppice Stile)	" " " " "	8	1 8	879	38·98	...
† " (Gamekeeper's)	" " " " "	8	0 8	850	46·22	...
d Rufford	J. G. Heggie, Esq. ...	5	1 0	41	30·72	149
d Chorley (Sewage Works)	T. Hurst, Esq.	5	1 6	180	34·36	159
" (Park Road)	Rev. A. Shipham	5	0 11	278	34·11	170
§ Leyland (Worden Hall)	H. Nowell Farrington Esq	5	1 0	125	32·87	174
§ " (" ") M	" " " " "	5	1 0	125	32·69	...
d Bamber Bridge (Cuerden Hall)..	R. A. Tatton, Esq.	5	1 0	230	34·91	177
3.—COAST STREAMS. 52 sq. mi.						
Southport (Birkdale)..... M	J. Baxendell, Esq.	5	1 0	27	29·36	...
d " (Linaker Street)	J. H. Bonny, Esq.	5	1 6	25	28·59	172
n† " (Hesketh Park)	J. Baxendell, Esq.	5	1 0	38	30·18	162
n† " (" ") M.O.g.	" " " " "	8	1 0	38	30·38	168
n† " (" ") ... (R)	" " " " "	11	1 5	39	30·20	165
† " (Lord Street Station).	Great Central Rly. Co..	9	3 6	21	28·03	151
4.—OUSE—Aire. 2 sq. mi.						
Worthdale (Watersheddes Res.)	W. Fowlds, Esq., C.E.	5	1 0	1115	50·41	...
Foulridge (Canal Office)	Leeds & L'pool Canal Co.	8	1 0	497	49·27	...
" (Cragg Nook Hill) ..	" " "	8	1 0	690	44·58	...

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
NORTH LANCASHIRE. (Area, 609 sq. mi.)						
1.—DUDDON & C. 77 sq. mi.						
D Barrow-in-Furness	W. Fergusson, Esq. ...	11	1 6	36 ∇	35.09	161
D Ulverston (Urswick School Ho.)	J. Dobson, Esq.	5	1 3	140 ∇	42.64	170
Lindal (Moor Mines).....	Messrs. Harrison, Ainslie & Co.	5	7 0	...	45.32	...
D Broughton-in-Furness	C. P. Chambers, Esq. ...	5	1 3	101 ∇	54.00	178
D Duddon Valley (Seathwaite Vic.)	Rev. J. B. Ditchfield...	5	1 0	330 ∇	82.13	195
2.—LEVEN & C. 135 sq. mi.						
D Cartmel (Flookburgh Lodge) ...	J. J. Myres, Esq., C.E.	5	1 0	75	45.36	178
D „ (Carke).....	W. R. Nash, Esq.	5	1 0	76 ∇	42.71	173
D „ (Holker Hall)	Lord Richard Cavendish	5	0 9	85 ∇	44.61	186
D Ulverston (Poaka Beck)	W. Fergusson, Esq. ...	11	1 6	512 ∇	46.42	192
D Cartmel (Aynsome)	J. Stewart Remington Esq	8	2 0	137 ∇	55.54	203
§ Ulverston (Graythwaite)	Meteorological Office...	8	1 0	185	58.64	...
D Greenodd (Summerhill).....	J. L. Altham, Esq.	5	...	244	62.59	153
D Finsthwaite Vicarage	Rev. S. Inman	8	1 2	250	60.81	174
D Blawith Vicarage	Rev. J. Ashburner.....	5	0 10	185	62.64	181
D Coniston (Holywath)	J. W. H. Barratt, Esq.	8	0 8	200	98.68	200
D „ (Water Park).....	A. P. Brydson, Esq. ...	5	1 0	180	65.46	180
D Hawkshead (Tower Bank, Sawrey)	late Maj. W. Alcock-Beck	5	1 0	342 ∇	70.28	198
Monk Coniston Park	Miss C. Marshall	5	1 2	305 ∇	88.50	170
Hawkshead (Esthwaite Mount)..	C. E. S. Headlam, Esq.	5	1 0	246 ∇	72.74	173
„ (Black Fell)	Miss C. Marshall	5	1 6	1055	89.09	...
D Skelwith Fold [Ambleside]	„ „ „	5	1 0	333	93.38	201
„ „ [„ „]	„ „ „	5	1 0	333	92.39	...
3.—KENT & C. 45 sq. mi.						
D Heysham Harbour	Midland Railway Co. ...	5	1 6	28 ∇	35.98	161
D „ House.....	Miss Tomlinson	5	1 6	80	46.52	189
D § Morecambe	Mr. T. B. Lamb.....	8	1 0	24 ∇	43.46	168
D Bolton-le-Sands Vicarage.....	Rev. A. R. Tomlinson.	5	1 2	70 ∇	41.73	190
D Carnforth (Over Kellet)	W. Farrer, Esq.	8	1 0	175	40.02	182
D Yealand Conyers (Beechfield) ...	W. E. Roper, Esq.	5	1 0	250	42.68	186
D „ „	J. Rawlinson Ford, Esq.	5	1 0	278 ∇	46.68	201
Grange-over-Sands (Merlewood)	E. C. Miller, Esq.	5	0 9	280 ∇	47.25	175
D Cartmel Fell (The Schoolhouse)..	R. J. Cragghill, Esq. ...	5	5 0	220 ∇	56.40	199
4.—LUNE. 135 sq. mi.						
D Hampson-in-Ellel	W. G. Welch, Esq. ...	5	1 6	145 ∇	39.83	187
D Lancaster (Bailrigg) ..	H. L. Storey, Esq.	5	1 3	200	41.95	190
† Quernmore (Brow Top).....	A. G. Bradshaw, Esq. CE	8	1 0	552 ∇	48.25	166
D Lancaster (Strathspey)	A. B. S. Welch, Esq. ...	5	1 0	87 ∇	39.90	179
„ (Blea Tarn Reservoir).	A. G. Bradshaw, Esq. CE	8	1 0	330	41.49	188
D § „ (Greg Observatory) ...	Neville Holden, Esq. ...	8	1 0	312	42.95	197
„ (Robert Street).....	A. G. Bradshaw, Esq. CE	8	1 0	62 ∇	43.11	193
Caton Green	F. Storey, Esq.	5	1 0	250	46.69	188
D † Wray Vicarage	Rev. C. L. Reynolds...	5	1 0	165 ∇	47.90	199
D Hornby Castle	late Col. W. H. Foster	8	1 8	100	47.92	175
D „ (Holly House)	G. N. Beckett, Esq. ...	8	1 6	...	47.95	152
D Leck Vicarage	Rev. J. Turner	5	1 1	400	42.54	192

DIVISION VIII.—NORTH WESTERN COUNTIES—(continued).

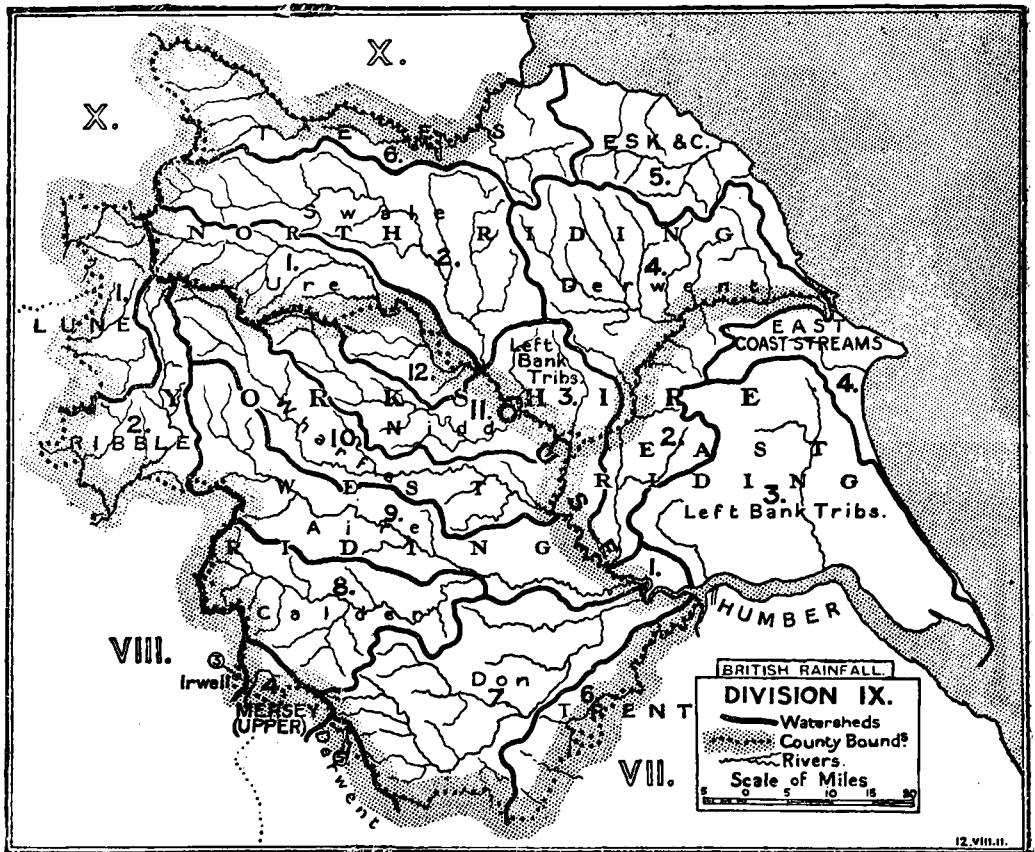
STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
NORTH LANCASHIRE—(con.)						
5.—WYRE & C. 213 sq. mi.						
D St. Anne's-on-the-Sea	Mr. W. E. Procter	5	1 0	25 T	30.92	175
† Weeton Reservoir	No. 3 J. Cook, Esq., C.E. ...	5	1 0	108 T	33.20	...
D Barton (Anderton Fold)	W. H. Mason, Esq. ...	5	0 6	90 T	34.57	168
D† Blackpool (Met. Observatory) ...	E. W. Rees Jones, Esq. MD	5	1 0	67 T	31.12	180
Poulton-le-Fylde (Singleton Pk.)	T. H. Miller, Esq.	8	0 11	50 ?	34.46	183
D† St. Michael's-on-Wyre School...	J. Moss, Esq.	5	1 0	27 T	33.48	181
D† „ „ „ Vicarage	Ven Archdeacon Hornby	5	1 0	26 T	34.69	174
D† Fleetwood	(B) E. Frobisher, Esq.	8	1 8	29 T	32.88	167
D† Garstang (Bruna Hill)	Mrs. Wilson	5	0 6	90 T	41.09	196
† „ (Holme Ho., Bleasdale)	A. Wilson, Esq.	5	1 0	650 T	53.12	...
„ (Fairsnape Fell)	„ „ „ „	5	1 0	1630 T	72.68	...
„ (Calder Intake)	J. Cook, Esq., C.E. ...	5	1 0	632 T	46.18	...
D† „ (Barnacre Reservoir)...	„ „ „ „	5	1 0	616 T	45.40	183
D† „ (Grizedale Reservoir) ..	„ „ „ „	5	1 0	517 T	44.02	183
† „ („ Intake)* ...	„ „ „ „	5	1 0	644 T	44.93	...
Pilling (Smallwood Hey)	M. Mr. J. H. Curwen	5	0 9	12 T	34.95	...
† Wyresdale (Abbeystead Res.) ...	A. G. Bradshaw, Esq. ...	8	1 0	366 T	47.55	152
D† „ („ Gardens)	Mr. T. Wyton	8	0 6	420	52.01	180
Quernmore (Old Gauge Basin) M	A. G. Bradshaw, Esq. CE	8	1 0	963 T	46.25	...
Wyresdale (Wardstone)	M „ „ „ „	8	1 0	1440 T	61.88	...
6.—INSULAR. 4 sq. mi.						

* Formerly called Stake House.

MAP OF DIVISION IX.

YORKSHIRE,

Showing the River-Divisions.



DIVISION IX.—YORKSHIRE.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
WEST RIDING. (Area, 2791 sq. mi.)						
1.—LUNE. 178 sq. mi.						
D High Bentham	Mr. Bryan Holmes	5	1	0	412 T	40·40 187
Ingleton (Kingsdale Head)	Mr. L. Pye	5	0	10	994 T	77·82 ...
D Sedbergh (Dent Vicarage)	Mr. J. Mason	5	1	0	484 T	83·56 220
D „ (Akay)	C. E. Taylor, Esq.	5	1	0	400 T	65·11 198
D „ (Cemetery)	Mr. J. Anderson	5	1	0	374 T	65·25 208
D „ (Bynac)	Mrs. B. Wilson	5	1	0	480 T	60·82 184
D „ (Croasdale Beck)	W. Atkinson, Esq.	5	1	0	623 T	68·87 173
D „ (Howgill School)	W. Woodhead, Esq.	5	1	0	550 T	55·87 184
2. RIBBLE. 225 sq. mi.						
D Lanesshaw Reservoir [Colne]	J. F. Bedford, Esq.	5	1	0	842	37·78 194
D Barnoldswick (Rainhall Road)	Asa Burniston, Esq.	5	0	10	549	40·82 194
D Bolton-by-Bowland (Bolton Hall)	Mrs. Wright	8	0	6	300 T	52·10 186
† Slaidburn (Knowlmore Manor) ..	W. Peel, Esq.	5	1	0	417 T	60·40 ...
„ (Hareden Brook) ... M	J. H. Smethurst, Esq. ..	8	1	2	540	65·75 ...
† „ (Langden Brook) ... M	„ „ „ „ ..	8	1	2	556	65·85 ...
D† „ (Whiteholme)	W. K. Wilkinson, Esq. ..	5	1	3	475 T	50·16 171
„ (Dunsop Houses)	W. Stubbs, Esq., C.E. ..	8	1	0	450 T	65·44 186
„ (Middle Knoll)	„ „ „ „ ..	8	2	6	1298 T	58·70 ...
„ (Brennand)	„ „ „ „ ..	8	1	0	820 T	70·73 187
„ (Whitendale)	„ „ „ „ ..	8	1	0	830 T	70·17 185
„ (Cabin Hill)	„ „ „ „ ..	8	3	1	1559 T	65·30 ...
„ (Baxton Fell)	„ „ „ „ ..	8	2	6	1540 T	64·00 ...
D† Settle (The Terrace)	J. W. Shepherd, Esq. ..	8	1	2	531 T	44·21 196
D† „ (Giggleswick School)	P. Haswell, Esq.	8	1	0	500	42·26 188
3.—MERSEY—Irwell. 2 sq. mi.						
4.—UPPER MERSEY. 35 sq. mi.						
Greenfield (Upperwood Moor) ...	F. J. Dixon, Esq., C.E. ..	5	1	0	1518 T	42·18 ...
„ (Chew Mount)	„ „ „ „ ..	5	1	0	1600 T	45·86 ...
D „ (Yeoman Hey)	„ „ „ „ ..	5	1	0	784 T	44·79 186
„ (Ashway Moss)	„ „ „ „ ..	5	1	0	1581 T	39·93 ...
„ (Birchen Clough)	„ „ „ „ ..	5	1	0	1017 T	49·44 ...
Saddleworth Station	E. Prebble, Esq., C.E. ..	5	4	2	630 T	30·98 ...
Strinesdale [Oldham]	C. J. Batley, Esq., C.E. ..	5	4	0	815 T	33·97 202
D Standedge (Castleshaw, Broadhead)	„ „ „ „ ..	8	4	6	876 T	38·49 205
† „ (Cudworth)	„ „ „ „ ..	5	4	6	1410 T	26·95? 207
„ (Redbrook Reservoir) ..	E. Prebble, Esq., C.E. ..	8	1	6	1150	43·70 ...
† Denshaw (Ox Hey)	C. J. Batley, Esq., C.E. ..	8	4	6	1030 T	37·94 191
D† „ (New Year's Bridge) ...	„ „ „ „ ..	8	4	0	1012 T	41·99 191
† „ (Ready Con Dean)	„ „ „ „ ..	8	4	0	1414 T	36·48 191
5.—TRENT—Derwent. 7 sq. mi.						
Derwent Dale (Low Seat) No. 21	E. Sandeman, Esq., C.E. ..	5	1	0	1565	36·25 ...
„ „ (Howden Ho.) 19	„ „ „ „ ..	8	1	0	775 T	42·35 205
„ „ (Row Top) No. 20	„ „ „ „ ..	5	1	0	1260	44·23 ...
„ „ (Sandy Lee) No. 7	„ „ „ „ ..	5	1	0	1340	42·08 ...
„ „ (Cranberry Clough) 6	„ „ „ „ ..	8	1	0	960	49·12 ...
„ „ (Crowstones) No. 3	„ „ „ „ ..	5	1	0	1660	45·97 ...
„ „ (Featherbed Moss) 1	„ „ „ „ ..	5	1	0	1670	46·75 ...

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	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. 143 sq. mi.						
D Tickhill (Sandbeck Park)	Mr. G. Summers	8	1 0	150 T	20·44	156
D „	G. G. Phillips, Esq. ...	8	1 0	61 T	21·71	146
D Doncaster (Wadworth Hall)	Rev. J. C. Ross	8	1 0	190 T	22·64	177
7.—OUSE—Don. 564 sq. mi.						
D Woodhouse (Handsworth Sew. Wks.)	Bernard Powell, Esq. ...	8	0 6	180 T	20·46	149
D Sheffield (Fulwood House)	J. Dixon, Esq.	5	1 0	670 T	28·49	179
D „ (Stumperlow Hall) ...	H. J. Dixon, Esq.	5	1 0	700 T	28·30	186
D „ W.W. (Redmires Res.) (R)	L.S.M. Marsh, Esq., C.E.	10	5 0	1110 T	34·44	202
D „ „ { „ „ „ } weekly	„ „ „	8	4 0	1110 T	33·21	...
D „ „ { Rivelin }	„ „ „	10	4 0	564 T	30·06	196
D „ „ { „ }	„ „ „	8	4 0	564 T	30·17	...
D „ „ { Crookes }	„ „ „	10	2 0	629 T	25·69	179
D „ „ { „ }	„ „ „	8	2 0	629 T	25·85	...
D† „ (Weston Park)	E. Howarth, Esq.	8	1 0	430 T	25·42	169
D „ (Victoria Station)	Great Central Rly. Co..	9	3 6	188 T	22·18	150
D „ W.W. (Broadcar) No. 1	L.S.M. Marsh, Esq., C.E.	5	1 0	1004 T	40·10	...
D „ „ (Oaks Fm., Damflask)	„ „ „	5	1 0	650 T	34·35	...
D Loxley Valley (Dale Dyke Res.) (R)	„ „ „	10	3 0	715 T	35·67	211
D „ „ { „ „ „ } weekly	„ „ „	8	3 0	715 T	35·39	...
D „ „ (Thornseat) No. 2	„ „ „	5	1 0	1326 T	39·05	...
D „ „ (Rocher Flat) No. 5	„ „ „	5	1 0	1106 T	32·93	...
D „ „ (Mortimer Ho.) No. 4	„ „ „	5	1 0	1036 T	33·21	...
Rotherham (Ulley Reservoir) ...	E. B. Martin, Esq., C.E.	5	1 0	184 T	17·16	...
Sheffield (Tinsley Locks)	Great Central Rly. Co..	9	...	117 T	21·47	161
D Rotherham (Sitwell Vale)	Mr. G. Howard	5	1 0	300 T	22·56	175
D „ (Moorgate Grange) ...	C. E. Chrimes, Esq. ...	5	1 0	262	19·70	144
D „ (Thrybergh)	F. Oscar Kirby, Esq. C.E.	8	1 0	184 T	19·31	165
D Chapeltown (Potter Hill)	Mr. D. Bell	8	5 0	581 T	23·51	171
D Doncaster (Firsby Reservoir) ...	F. Oscar Kirby, Esq. C.E.	8	1 4	189 T	19·94	161
D Wentworth Woodhouse	Mr. A. Third	5	0 10	360 T	19·78	137
D Swinton (Council Offices)	Horace Birks, Esq. ...	8	1 0	126 T	20·06	133
D Mexborough	G. Fenwick Carter Esq. C.E.	5	1 6	76 T	17·27	145
Wortley	Great Central Rly. Co..	9	3 6	548 T	25·06	197
Elsecar	„ „ „	9	3 6	181 T	17·94	138
Langsett Moor (Cateleugh) ... M	L.S.M. Marsh, Esq., C.E.	8	1 6	1516 T	44·78	...
D „ „ (Mickleton) ... M	„ „ „	5	1 6	1217 T	47·92	...
D „ „ (Upper Midhope)	„ „ „	8	1 6	925 T	35·81	190
D „ „ (Midhope)	J. H. Taylor, Esq., C.E.	5	1 0	830 T	38·98	190
D Little Don Val. (Underbank Res.)	L.S.M. Marsh, Esq., C.E.	8	1 6	604 T	33·18	185
D „ „ (Brockholes) ... M	„ „ „	5	1 6	934 T	30·47	...
D „ „ (Sheep House) ... M	„ „ „	5	1 6	974 T	32·49	...
D† „ „ (Bridge Lane)	„ „ „	8	4 9	761 T	37·27	193
D† Langsett Moor (Flouch Road) ...	„ „ „	8	4 3	960 T	44·35	194
D „ „ (Fiddlers Green) M	„ „ „	8	1 6	1493 T	47·08	...
D „ „ (Border Hill) ... M	„ „ „	5	1 6	1148 T	48·50	...
D „ „ (Swinden Lodge) ..	„ „ „	8	1 6	1037 T	43·73	212

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with 0.1 or more recorded.
		Diameter	Height Above Ground		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
WEST RIDING—(con.)						
7.—OUSE—Don—(con.)						
D Wath-upon-Deerne (Chapel St.)	Dr. F. J. Burman	8	2	2	188 T	19.30 156
Bolton-upon-Deerne	T. Washington, Esq.	5	1	0	130 T	19.26 156
Worsborough	Great Central Rly. Co..	9	3	6	225 T	22.70 180
D Stainborough (Wentworth Castle)	W. Fisher, Esq.	8	2	6	520 T	23.05 159
Doncaster (Hexthorpe Hall)	H. Morris, Esq.	5	1	0	25	20.96 ...
"	Great Central Rly. Co..	9	3	6	32 T	19.57 151
D " (Pumping Station) ...	F. Oscar Kirby, Esq. C.E.	8	1	2	30 T	22.26 160
Dunford Br. (Up. Windleden) M.	H. Dearden, Esq., C.E.	12	2	2	1100	48.15 ...
" " (Dearden Res.)... M.	" " " "	12	1	6	1244 T	47.67 ...
" " Station	Great Central Rly. Co..	9	3	6	954 T	45.87 209
D " " Reservoir	H. Dearden, Esq., C.E.	12	2	0	1111 T	55.23 226
Penistone	Great Central Rly. Co..	9	3	6	717 T	28.54 165
" (Hazlehead)	" " " "	9	3	9	868 T	41.74 197
" (Ingbirchworth Res.)	J. H. Taylor, Esq. C.E.	8	1	3	853 T	33.76 187
Silkstone (Champany Hill Res.)	" " " "	5	1	0	...	20.87 ...
Barnsley (Jordan Hill)	" " " "	8	1	0	460 T	20.96 157
"	Great Central Rly. Co..	9	3	6	317 T	18.01 135
Cawthorne	Rev. C. T. Pratt	5	1	6	340 T	25.72 180
Cudworth (Lund Lane Sew. Wks.)	J. H. Taylor, Esq., C.E.	5	1	0	150 T	20.55 141
Doncaster (Wyndthorpe)	Viscountess Chetwynd..	5	0	11	13	19.29 ...
Kirk Bramwith	H. A. Brundell, Esq. C.E.	5	1	0	17 T	21.64 184
D Hemsworth Hall	Mr. T. F. Bendall	5	1	0	250 T	18.82 144
D Ackworth School	E. Priestman, Esq.	8	0	10	100	19.71 182
D " (Hillthorpe)	Mrs. F. Hatchard	5	1	5	175 T	18.95 151
D " (Nostell Priory)	Mr. J. Easter	5	4	0	...	20.82 158
+Goole (Swinefleet)	Mr. G. Harrison	5	5	6	10 P	25.67 ...
D† "	W. E. Grayburn, Esq.	5	2	0	18 T	21.63 137
8.—OUSE—Aire—Calder. 361 sq. mi.						
Holmbridge (Yateholme Farm)...	J. C. Barrowclough Esq. C.E.	7	1	0	861 T	61.40 ...
" (Holme Styres Res.)...	Mr. B. T. Woodcock...	7	2	0	830 T	40.00 ...
" (Boshaw Whams Res.)	" " " "	7	2	0	930 T	46.60 ...
" (Bilberry Reservoir)..	" " " "	7	2	0	820 T	48.10 ...
Meltham (Harden Moss)	Edgar Jones, Esq.	8	1	2	1212 T	45.21 ...
" (" ") new g.	" " " "	8	1	0	1212 T	46.24 ...
Wessenden Head	" " " "	8	1	0	1270 T	44.75 ...
" (Hollin Bank Moss)...	" " " "	8	1	0	1360 T	66.75 ...
" (Great Butterley).....	" " " "	8	1	0	1110 T	44.71 ...
" (Bobus).....	" " " "	8	1	0	1200 T	40.54 ...
Meltham (Brow Grains)	" " " "	8	1	0	900 T	43.56 ...
" (Royd Edge) Glaisher g.	C. L. Brook, Esq.	8	1	0	585 T	50.69 ...
" (" ") M. O. g.	" " " "	8	1	0	585 T	49.98 ...
D " (Harewood Lodge).....	" " " "	8	1	0	514 T	44.46 206
" Grange	Edgar Jones, Esq.	8	1	2	850 T	41.30 ...
Marsden (Deer Hill)	old g. " " " "	8	1	0	1149 T	41.75 ...
" (" ") new g.	" " " "	8	1	0	1149 T	46.18 ...
Wakefield (Woolley Park Gardns.)	Mr. T. Wells	5	1	0	400	21.74 ...
D Slaithwaite (Blackmoorfoot).....	Edgar Jones, Esq.	8	1	0	800 T	44.39 219

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	1911	
		in.	ft	in.	feet.	inches.	
WEST RIDING—(con.)							
8.—OUSE—Aire—Calder—(con.)							
D Slaithwaite (Inglewood)	J. Woodhead, Esq. ...	5	1	0	546 T	42.72	214
Huddersfield (Portland House, Dalton)	G. Carlyle-Steel, Esq. ...	6	1	0	300 T	25.18	175
D§ „ (Carr End, „)	J. W. Robson, Esq. ...	8	1	0	350 T	27.37	182
„ (Bank Field, Golcar)	J. R. Sykes, Esq.	5	1	0	400 T	38.00	171
D§ „ (Cemetery)	Mr. J. Firth	8	1	0	410 T	32.65	206
D Walton (Willington Lodge).....	E. Simpson, Esq.	5	1	0	200 T	19.32	146
D† Rishworth Moor (Gt. Walden Edge)	C. Clemesha Smith Esq. CE	5	0	10	1135 T	45.10	221
D „ (Stott Hall)	„ „ „	5	1	0	935 T	36.08	215
D† „ (Ringstone Res.)	„ „ „	5	1	0	990 T	39.04	208
„ Moor (Greystones) ...	„ „ „	5	1	0	1175 T	46.28	...
Soyland Moor (Summit)	„ „ „	5	1	0	1290 T	39.76	...
D „ „ (Baitings Gate) ...	„ „ „	5	1	0	935 T	46.02	232
„ „ (Manshead)	„ „ „	5	1	0	1240	44.28	...
Horbury (Highfields)	J. H. Green, Esq.	5	1	0	226 T	22.69	...
D Mirfield (Cote Wall)	J. Watson-Kaye, Esq..	8	1	2	200	27.93	177
D Wakefield	Dr. H. Maclean Wilson	8	1	0	174 T	19.81	169
D† „ (Field Head).....	C. Clemesha Smith Esq. CE	5	1	0	250 T	19.66	148
D† „ (Stanley Grange)	H. S. Haworth, Esq. ...	5	1	0	235 T	19.47	168
Elland	P. H. Whitwam, Esq..	8	1	0	307 T	28.16	...
D Mytholmroyd (Cragg Hall)	W. A. Simpson-Hinchliffe, Esq.	5	1	0	615 T	43.41	145
Sowerby Bridge (Brockwell Triangle)	W. Cyril Empson, Esq..	8	1	0	500 T	37.53	...
D „ „ (Haugh End) No. 4	J. S. Rawson, Esq. ...	5	0	8	450 T	35.80	215
Todmorden W.W. (Ramsden Res.)	F. H. Brunt, Esq., C.E.	8	1	0	980 T	47.93	173
D „ (Fielden Hospital) ...	Mr. F. Rogers	5	1	0	650 T	40.00	184
D „ (Sourhall Hospital) ...	„ „ „	5	1	0	1020 T	51.66	196
D Halifax (Hall Ings, S. Ofram) ...	Rev. G. E. Aspinall ...	5	0	7	750 T	20.09	193
„ (Thorpe)..... No. 1 M	J. S. Rawson, Esq. ...	8	0	8	345 T	39.56	...
D „ „ „ „ „ No. 2	„ „ „	5	0	8	345 T	39.79	194
D† „ (Public Library)	E. Green, Esq.	8	1	0	625 T	29.01	196
Batley (Staincliffe Reservoir) ...	J. C. Barrowclough Esq. CE	7	1	0	492 T	19.38?	...
D „ (Woodwell Dépôt)	O. J. Kirby, Esq., C.E.	8	1	0	301 T	23.52	172
D† Ardsley Reservoir	C. Clemesha Smith Esq. CE	5	1	2	395 T	20.13	167
D† „ (Jaw Hill Filters)	„ „ „	5	1	0	315 T	18.57	134
Halifax W.W. (Albert)	R. J. Hartley, Esq., C.E.	5	1	0	795 T	30.19	...
„ „ (Gibbet)	„ „ „	5	3	9	568 T	30.10	...
„ „ (Ramsden Wood)	„ „ „	8	1	2	816 T	33.76	...
Gomersall (Castle Hill).....	A. J. Pyrah, Esq.	5	1	0	480	22.02	157
Hebden Bridge (Falling Royd) ..	A. R. Crossley, Esq.	4	1	0	479 T	44.46	207
D „ „ (Summerfield)	J. Hoyle, Esq.	5	1	0	800 T	40.10	198
Halifax W.W. (Castle Carr Lodge)	R. J. Hartley, Esq., C.E.	5	0	6	1060 T	37.04	...
„ „ (Midgley Moor) M	„ „ „	8	0	9	1350 T	38.97	...
„ „ (Warley Moor) M	„ „ „	8	1	2	1325 T	37.60	...
„ „ (Ogden)..... M	„ „ „	5	0	10	990 T	38.54	...
„ „ (Ovenden Moor)...	„ „ „	8	0	9	1375	42.87	...
„ „ (Widdop)	„ „ „	5	1	3	1050	40.53	...
„ „ (Walshaw Dean Lodge)	„ „ „	5	1	0	1040	47.83	...
„ „ („ „) ... M	„ „ „	8	1	0	1380 T	43.42	...

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	1911	
		in.	ft. in.	feet.	inches.	
WEST RIDING—(con.)						
9.—OUSE—Aire. 504 sq. mi.						
D Whitley Bridge (Roall Pump Stat.)	J. E. Pickard, Esq., C.E.	8	0 10	44 A	17.95	142
Morley (The Secondary School)..	W. E. Burgess, Esq....	5	1 0	535 A	23.42	172
Pudsey (Tong Hall)	J. H. Tempest, Esq. ...	...	...	525	28.95	174
" (Fulneck)	Miss E. C. Lawford ...	5	1 0	490	24.36	161
D § Garforth (Manor Farm)	Prof. R. S. Seton	8	1 2	194 A	24.27	189
Bradford (Grange Road, Horton)	Mr. A. E. Chilton	5	5 0	450 T	27.62	207
" (Queensbury)	R. J. Foster, Esq.	8	2 2	1050	30.89	188
" (Brayshaw Reservoir) ..	J. Watson, Esq., C.E..	5	1 0	982 A	30.06	157
D " (Lister Park)	Mr. H. Lander	8	1 0	440 A	28.03	174
" (Thornton Moor Filters)	J. Watson, Esq., C.E..	5	1 0	1218 A	41.59	244
" (Stubden Res.)...old g.	" " "	8	1 0	1075 A	49.55	231
" (" ") new g.	" " "	8	1 0	1075 A	45.85	230
" (" ")	" " "	5	1 0	1071 A	45.15	230
" (Nan Scar, Oxenhope) M	" " "	5	1 0	1101 A	46.29	...
" (Stairs Top, ") M	" " "	5	1 0	1401 A	43.15	...
" (Leeming Reservoir) M	" " "	5	1 0	850 A	38.07	213
" (Doe Park Res.)...old g.	" " "	8	1 0	810 A	39.85	200
" (Leeshaw Res.)	" " "	5	1 0	875 A	48.78	...
" (Chellow Dean Res.) ...	" " "	5	1 0	645 A	32.03	187
" (" Heights Res.)	" " "	5	1 0	848	34.42	198
" (Hewenden Res.)...old g.	" " "	5	1 0	700 T	37.56	181
" (" ") new g.	" " "	5	1 0	701 A	33.72	182
" (Heaton Res.) ...old g.	" " "	8	1 0	530 A	28.04	160
" (" ") new g.	" " "	5	1 0	531 A	26.25	163
Leeds (Wortley Reservoir)	C. G. Henzell, Esq., C.E.	8	0 9	307 A	22.58	184
" (Knostrop)	" " "	8	0 9	72 T	21.77	...
D " (Holbeck)	Messrs. J. Rhodes & Co.	10	32 0	127 A	20.07?	148
D " (" W.W. Depot) ...	C. G. Henzell, Esq., C.E.	8	0 9	93 A	22.31	174
D " (Museum)	H. Crowther, Esq.	10	46 0	177 A	22.44	150
" (Woodhouse Moor)	C. G. Henzell, Esq., C.E.	8	0 9	307 A	23.44	170
" (Weetwood Reservoir) No.1	" " "	8	0 9	328 A	21.61	174
" (" ") No.2	" " "	8	0 9	328 A	22.14	174
D " (Allerton Hill)	T. E. Fenwick, Esq., C.E.	5	0 7	418 A	22.81	179
Shipley (Cragg End)	Leeds & L'pool Canal Co.	8	1 0	304	25.85	...
D " (West Point)	M. Paterson, Esq., C.E.	5	1 0	382 A	30.06	187
D Oakworth (Oldfield Filters)	W. Fowlds, Esq., C.E.	5	1 0	1008 A	41.98	202
Bingley (Gilstead Filters)	J. Watson, Esq., C.E..	5	1 0	572 A	23.97	174
Rawdon (Barningham)	H. Killick, Esq.	5	0 9	525	26.06	...
D Adel (Lawns Wood Cemetery) ...	Mr. S. R. Dyson	5	1 0	475 T	25.50	172
D Keighley (The Knowle)	P. Clough, Esq.	5	1 0	385 T	34.01	188
D " (Long Lee)	C. Croft, Esq.	8	1 0	725 T	29.57	188
Bingley (Sunnydale)	J. Watson, Esq., C.E..	5	1 0	825	28.68	192
D " (East Morton)	C. Croft, Esq. ....	...	...	...	27.67	173
Earby (Sewage Works)	J. E. Aldersley, Esq....	8	1 0	425 A	40.45	206
D Silsden (Bolton Road)	Mr. A. Elder	5	1 0	432 A	29.19	166

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1911	
		in.	ft.	in.	feet.	inches.	
WEST RIDING—(con.)							
9.—OUSE—Aire—(con.)							
Silsden (Gill Grange)	J. Watson, Esq., C.E..	5	1	0	883	26.80	...
„ Reservoir	„ „ „	5	1	0	560 ∇	29.61	178
„ (Cringles Reservoir)	„ „ „	5	1	0	760 ∇	29.37	179
+Skipton (<i>Craven Herald</i> Office)...	E. Townsend, Esq.....	8	2	4	360	30.95	187
„ (Sewage Works)	A. E. W. Aldridge, Esq.	8	0	9	315 ∇	31.41	...
D† „ (Town Hall)	„ „ „	8	0	9	370 ∇	31.62	166
„ (Hawthorne Cottage) ...	Leeds & L'pool Canal Co.	8	1	0	380	30.54	...
D „ (Embsay)	J. A. Edmondson, Esq.	5	6	0	360 ∇	36.42	199
Gargrave (Banks Hill Bank Newton)	Leeds & L'pool Canal Co.	8	1	0	545	37.36	...
„ (Ray Bridge Hill)	„ „ „	8	0	10	459	28.36	...
„ (Great Searnber Hill)...	„ „ „	8	0	9	676	30.04	...
Winterburn (Long Hill)	„ „ „	8	0	9	705	33.83	...
„ (Brown Hill)	„ „ „	8	1	0	961	41.52	...
D Malham Tarn	the late Mr. T. Coulthard	8	1	0	1296 ∇	51.83	198
10.—OUSE—Wharfe. 408 sq. mi.							
D Aberford (Lotherton Hall)	Mrs. Trench Gascoigne	8	1	0	200	23.92	144
D Saxton Vicarage	Rev. C. D. Ash	5	2	6	95	23.97	180
Adel (Eccup, South)	C. G. Henzell, Esq., C.E.	8	0	9	390 ∇	26.79	183
„ „ (East)	„ „ „	8	0	9	375 ∇	26.92	181
Harewood (Arthington)	„ „ „	8	0	9	139 ∇	32.08	162
D „ House	Countess of Harewood.	5	0	10	300	25.70	171
D Otley (Sewage Works) ..	C. F. Hodgson, Esq. ...	5	0	9	169 ∇	23.35	152
D† Ilkley (Silverwell Cottage)	Mr. T. C. Gill	5	1	0	904 ∇	32.72	185
D† „ (Glen Rosa)	F. A. Aykroyd, Esq. ...	5	1	1	450	34.43	207
D† „ (St. James' Road)	A. Wilson, Esq.	5	1	0	325 ∇	30.76	196
D† „ (Brook Street)	G. W. Worfolk, Esq. ...	5	20	0	312 ∇	29.75	156
Leathley (Lindley Wood, S.) ...	C. G. Henzell, Esq., C.E.	8	0	9	312 ∇	27.11	196
„ „ „ „ (N.) ...	„ „ „	8	0	9	320 ∇	26.90	196
D Ilkley (March Gill Reservoir) ...	C. F. Hodgson, Esq. ...	5	0	9	665 ∇	30.08	171
D† York (Mount Villas)	Mrs. Rowntree	5	1	0	70	24.54	188
D† „ (Cherry Hill)	Mrs. H. Richardson ...	5	1	6	50	24.61	166
† „ (Museum Gardens)	Meteorological Office...	9	1	0	57	25.06	173
D „ (The Retreat)	Dr. H. J. Mackenzie ...	5	1	0	74 ∇	23.82	181
Skipton (Counter Hill)	M J. Watson, Esq., C.E. ...	5	1	0	951 ∇	27.68	...
„ (Chelker Reservoir) ...	M „ „ „	5	1	0	730 ∇	30.19	...
Fewston (Timble Ings)	C. G. Henzell, Esq., C.E.	8	0	9	912 ∇	32.52	195
„ „ „ „ „	„ „ „	8	0	9	720 ∇	29.88	185
„ (Swinsty, E.)	„ „ „	8	0	9	460 ∇	31.32	206
„ „ „ „ (W.)	„ „ „	8	0	9	425 ∇	31.81	206
„ South	„ „ „	8	0	9	525 ∇	34.09	206
„ North	„ „ „	8	0	9	525 ∇	32.98	206
„ (Blubberhouses)	„ „ „	8	0	9	575 ∇	34.14	191
Bolton Abbey Estate Office	A. Downs, Esq.	5	1	2	350	34.85	193
Barden Reservoir	old g. J. Watson, Esq., C.E..	8	1	0	746 ∇	40.00	224
„ „ „ „ new g. „ „ „	„ „ „	5	1	0	746 ∇	37.85	224
„ „ „ „ Upper ..	„ „ „	5	1	0	1250 ∇	32.88?	214
Burnsall (Thorpe Fell)	M „ „ „	5	1	0	1661 ∇	37.01	...

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	1911	
		in.	ft.	in.	feet.	inches.	
WEST RIDING—(<i>con.</i>)							
10.—OUSE—Wharfe—(<i>con.</i>)							
Burnsall (Sandbed Beck)	M. J. Watson, Esq., C.E.	5	1	0	676	38.47	...
^D „ Rectory	Rev. W. J. Stavert	8	4	7	503	39.62	209
Grimwith Reservoir	J. Watson, Esq., C.E.	8	1	0	890	42.16	213
„ „	„ „ „	5	1	0	893	40.76	213
^D Arncliffe Vicarage	Rev. Canon W. A. Shuffrey	8	2	6	732	72.75?	204
^D Wharfedale (Oughtershaw Hall)	Miss Woodd	8	1	6	1175	71.09	210
11.—OUSE—Nidd. 254 sq. mi.							
Spofforth (Sewage Works)	C. E. Rivers, Esq., C.E.	5	1	0	184	25.61	190
^D Wetherby (Ribston Hall)	Mr. J. McClelland	5	1	2	130	25.90	178
Harrogate (Ten Acres Reservoir)	A. S. West, Esq., C.E.	8	1	6	620	26.01	160
^D „ (Scargill Reservoir)...	„ „ „	8	1	0	646	29.79	183
„ (Beaver Dyke Res.)...	„ „ „	8	0	11	575	29.45	185
^D „ (Harlow Moor Obsy.)...	C. E. Rivers, Esq., C.E.	5	1	0	480	27.92	181
„ („ Hill Res.)...	A. S. West, Esq., C.E.	8	1	0	551	26.55	166
„ (Irongate Bridge Res.)	„ „ „	8	1	6	455	29.20	163
^D „ (The Stray)	Mr. G. W. Gledhill	5	1	0	380	27.42	182
^D „ (Park Parade)	„ „ „	5	1	0	400	28.14	182
^D Goldsborough Hall	Mr. R. Goodall	5	1	0	118	24.53	178
Knarborough (Water Tower)...	A. S. West, Esq., C.E.	8	1	0	240	25.84	195
Harrogate (Bilton Sewage Works)	C. E. Rivers, Esq., C.E.	5	1	0	208	26.63	173
^D Birstwith (Swarcliffe)	Capt. C. S. Greenwood	5	1	0	510	33.09	174
^D „ (The Moss)	C. S. Dixon, Esq.	5	1	0	230	30.48	152
^D Ouseburn (Thorpe Underwood Hall)	F. W. Slingsby, Esq.	5	1	1	60	25.99	153
^D Pateley Bridge (Castle Stead) ..	Mr. C. May	5	1	0	410	39.23	170
Ramsgill (Raygill House)	J. Watson, Esq., C.E.	5	1	0	925	44.04	154
„ „ „	„ „ „	5	1	0	450	28.95	149
Nidderdale (High Riggs)	„ „ „	5	1	0	1010	49.30	185
„ (East Gill Head)	„ „ „	5	1	0	1710	61.15	...
„ (Lodge)	„ „ „	5	1	0	1150	48.96	223
12.—OUSE—Ure. 110 sq. mi.							
Pateley Moor (Smaden Head) ...	C. G. Henzell, Esq., C.E.	8	0	9	784	30.48	191
Dallow Moor (High Skeldon) ...	„ „ „	5	0	9	674	32.30	224
† „ „ (Harper Hill)	„ „ „	8	0	9	858	32.84	206
^D Ripon (Studley Royal Gardens).	O. H. Wade, Esq.	5	1	6	250	28.15	184
^D „ (The Red House)	F. D. Wise, Esq.	5	1	0	120	25.65	165
† Kirkby Malzeard (Drovers' Inn) ..	C. G. Henzell, Esq., C.E.	5	0	9	576	38.02	207
† „ „ (Hawset)	„ „ „	8	0	9	820	36.97	210
„ „ (Hambleton Hill)	„ „ „	8	0	9	1106	42.15	...
† „ „ (Bagwith Brae)	„ „ „	5	0	9	703	31.34	207
„ „ (Stone & Ears Wham)	„ „ „	8	0	9	1118	39.50	...
ⁿ Ripon (High Bank, Mickley) ...	Miss Harrison	5	1	6	225	28.61	163
EAST RIDING. (Area, 1176 sq. mi.)							
1.—OUSE—Left Bank Tributaries. 82 sq. mi.							
ⁿ Deighton Grove [York]	Miss M. L. Whitehead	5	1	0	47	24.54	198
ⁿ Heslington [„]	Hon. L. de Yarburgh-Bateson	8	0	7	35	25.70	179

DIVISION IX.—YORKSHIRE—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
EAST RIDING—(con.)							
1.—OUSE—Left Bank Tributaries.—(con.)							
▮ Dunnington Hall [York]	Miss Hildyard	8	1	2	110	23·87	190
2.—OUSE—Derwent. 248 sq. mi.							
▮ Warter	Mrs. J. Coxon	5	1	10	230 †	27·34	164
▮ Birdsall Gardens	Mr. J. Anderson.....	5	1	3	308	30·53	199
▮ Malton (The Leat House).....	W.R.InnesHopkinsEsq.	5	0	10	60	29·80	189
▮ Rillington (Scampston Hall) ..	Mr. F. C. Puddle	5	1	6	102 †	29·35	184
▮ Hunmanby (Holly Bank).....	Miss Suter	5	1	2	...	25·39	...
3.—HUMBER—Left Bank Tributaries. 675 sq. mi.							
§ Patrington (Spurn Head)	Meteorological Office ...	8	1	0	27	19·19	144
▮ "	late W. B. Pugh, Esq..	5	2	6	46 †	22·98	143
▮ Hull (Pearson Park).....	H. B. Witty, Esq... ..	5	0	10	6	24·41	193
▮ " (Springhead).....	C. B. Newton, Esq., C.E.	5	1	0	16 †	23·80	219
▮ Cottingham (Water Works)	"	5	1	1	26 †	24·68	182
▮ Beverley (East Riding Asylum).	Dr. M. A. Archdale ...	5	1	0	175 †	26·27	201
▮ " (New Walk)	W. Evans, Esq., C.E... ..	5	3	0	38	24·93	185
▮ " (Hull Bridge).....	"	5	2	6	11 †	23·75	182
▮ Market Weighton (Dalton Hall)	Mr. W. Jackson.....	5	1	6	150 †	28·36	170
▮ Brandesburton (HempholmLock)	W. Evans, Esq., C.E... ..	5	2	6	11 †	25·26	191
§ Driffield (York Road)	W. E. Lovel, Esq. ...	5	1	0	76 †	28·58	187
▮ " (Highfield)	Mr. R. Marson	5	1	0	80	27·02	...
▮ Lowthorpe (The Elms)	F. K. Hawes, Esq.....	5	1	0	63 †	26·15	190
4.—EAST COAST STREAMS. 171 sq. mi.							
▮ Bridlington.....	S. R. Crofts, Esq.	5	1	0	59	26·45	191
▮ " (Grammar School) ...	B. A. Farrow, Esq. ...	8	1	0	57 †	24·29?	149
▮ Filey (Deepdene)	A. V. Machin, Esq. ...	5	0	8	44 †	29·75	201
NORTH RIDING. (Area, 2155 sq. mi.)							
1.—OUSE—Ure. 273 sq. mi.							
▮ Masham Moor (Benjy Guide).....	C. G. Henzell, Esq, C.E.	5	0	9	1411 †	38·31	...
† " " (Somerside)	" " "	5	0	9	928 †	36·10	171
" " (Autherlands) ...	" " "	5	0	9	1237 †	38·68	...
† " " (High Sour Mire)	" " "	5	0	9	884 †	28·35	...
" " (Spruce Gill).....	" " "	5	0	9	1187 †	41·42	...
" " (Leighton Res.)...	" " "	5	0	9	634 †	34·24	181
" " (Thorney Grane)..	" " "	5	0	9	1175 †	41·59	...
" " (Bracken Hill) ...	" " "	5	0	9	1450 †	37·18	...
" " (Towler Hill)....	" " "	8	0	9	820 †	35·21	192
" " (Spruce Gill, East)	" " "	5	0	9	915 †	35·41	...
" " (" " North)	" " "	5	0	9	883 †	34·08	...
† " " (Breary Bank) ...	" " "	5	0	9	600 †	34·68	190
" " (Healey).....	" " "	5	0	9	542 †	31·01	179
† " " (Low Houses).....	" " "	5	0	9	693 †	35·52	209
" " (Black Brunt) ...	" " "	5	0	9	1160 †	39·00	...
" " (Brown Beck) ...	" " "	5	0	9	1150 †	34·60	...
▮ " " (Roundhills Res.)	A. S. West, Esq., C.E..	8	1	0	743 †	33·76	185

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	
		in.	f.	n.	feet.	inches.
NORTH RIDING—(con.)						
1.—OUSE—Ure—(con.)						
D Middleham Rectory	Rev. H. G. Topham ...	5	1	0	450	28·88 166
D West Witton (Ivy House)	J. B. Espiner, Esq. ...	5	1	0	606 T	34·85 205
D Leyburn (Bolton Hall)	Mr. F. Scrivener	8	1	0	420 T	31·55 189
D Hawes (The Stone House).....	H. Arden Crallan, Esq.	5	1	6	845	53·56 190
2.—OUSE—Swale. 569 sq. mi.						
D Dalton Parsonage	Rev. G. H. Chilman ...	5	1	0	87 T	20·56 165
Sowerby	late A. C. Bamlett, Esq.	5	6	0	113	20·14 ...
D Thirsk (Brynkellhow)	A. B. Hall, Esq.	8	1	0	115 T	23·74 176
D „ (The Hall)	Reginald Bell, Esq. ...	5	1	10	121 T	23·49 159
D „ (Sutton-under-Whitstonecliffe)	F. R. Hansell, Esq.	5	1	0	246 T	25·19 153
D „ (Mount St. John) <i>Snow g.</i>	A. J. Walker, Esq.	5	1	7	535 T	25·93 ...
D „ { „ „ „ } „ „	„ „ „ „	5	1	0	523 T	25·39 175
D „ { „ „ „ } <i>Cary g.</i>	„ „ „ „	5	1	0	523 T	24·37 ...
D „ { „ „ „ }	„ „ „ „	5	1	10	542 T	26·76 176
D „ { „ „ „ }	„ „ „ „	5	1	10	542 T	25·61 ...
D „ (Boltby)	„ „ „ „	5	0	7	495 T	24·73 ...
D „ („ Cliff Head) No. 1 M	„ „ „ „	5	4	7	773 T	22·18 ...
D „ („ „ „) No. 2 M	„ „ „ „	5	1	4	772 T	27·12 ...
D „ (Newbuilding)	G. S. Thompson, Esq. ..	8	1	3	600	28·14 143
D Bedale (Burneston)	Rev. Canon J. T. Hartley	5	1	0	110 T	22·26 155
D „ (Thorpe Perrow)	Mr. C. W. Tilly	8	1	6	140	22·62 197
D „ (Park House)	Miss M. Greenwood ...	5	1	1	180	23·22 182
D „ (Newton House) ..	Mr. W. Paylor	5	2	6	125	24·08 ...
Newby Wiske	H. Rutson, Esq.	5	0	10	100 T	22·35 ...
D Thornton-le-Moor	Col. R. W. Peckitt ...	5	1	0	136 T	23·44 157
Scruton Hall	Rev. A. T. Coore	5	1	6	110	22·91 158
Muker (Gunnerside Lodge) ... M	W. M. Christy, Esq.	5	1	0	900 T	51·32 ...
D Northallerton (Osmotherley).....	T. Yeoman, Esq.	8	0	8	660	28·11 151
D § Rounton Grange	Mr. J. Hanagan	8	1	0	249	25·38 193
D Richmond (Sedbury Park)	G. Gilpin Brown, Esq. ..	5	1	0	450	27·44 186
D „ (Gilling West)	G. Roper, Esq.	5	1	3	303 T	30·35 150
Middleton Tyas	J. F. B. Baker, Esq. ...	5	0	10	380 T	25·33 ...
3.—OUSE—Left Bank Tributaries. 153 sq. mi.						
Haxby (Moorlands)	(R) E. G. Tew, Esq. ....	...	0	8	58 T	22·91 ...
Alne	R. Godfrey, Esq., C.E.	5	0	10	80	23·80 152
Easingwold (Sutton Hall)	Mrs. Grey	5	1	0	125	25·18 ...
4.—OUSE—Derwent. 509 sq. mi.						
Terrington Hall	Mr. T. Suffield	5	1	5	300 T	30·03 223
Malton (Eden House)	A. Hugh Douglas, Esq.	5	1	5	70	27·24 ...
D „	C. C. Laverack, Esq.	5	1	0	164	28·21 164
§ Hovingham Hall	Sir W. H. A. Worsley, Bt.	5	0	6	120 T	32·04 153
§ Ampleforth Abbey	Rev. R. C. Hesketh, o.s.b.	8	1	0	351	27·18 180
Helmsley (Duncombe Park Gdns.)	Mr. D. Williams	5	3	0	176 T	31·46 ...
D Thornton-le-Dale ..	Miss E. M. Priestman..	5	1	0	150 T	30·61 204
D Pickering (Hungate Hall)	Dr. J. L. Kirk	5	1	0	90	30·45 196
D Seamer (Irton Pumping Station)	W. Millhouse, Esq. C.E.	8	1	0	94 T	31·09 193
D Scarborough (Osgodby)	„ „	8	1	0	166 T	26·77 158

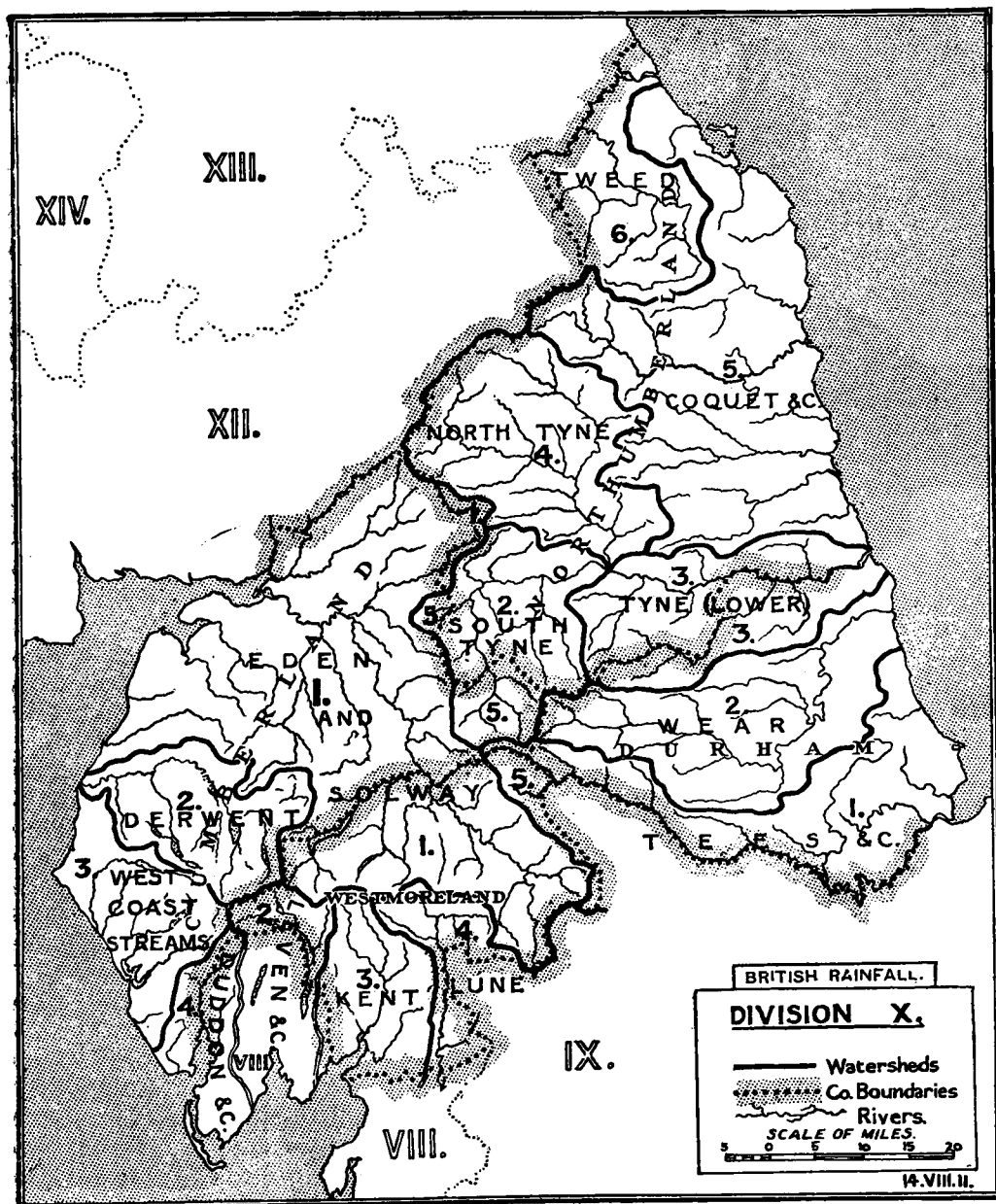
DIVISION IX.—YORKSHIRE—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded
		Diameter	Height Above Ground.	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
NORTH RIDING—(con.)						
5.—ESK & C. 278 sq. mi.						
D Scarborough (South Cliff).....	Major R. E. Stuart ...	5	1 0	200 B	27.33	182
D§ " ".....	W. W. Larkin, Esq....	5	1 0	101 A	26.63	197
" " (Manor Road)	H. W. Smith, Esq., C.E.	5	1 0	170 A	28.79	173
D " " (May Lodge)	Mrs. Kitson.....	5	0 4	150	31.11	184
D " " (Sealby)	Mrs. J. W. Rowntree...	5	0 11	300 B	34.23	178
Fylingdales Vicarage	Rev. R. Jermyn Cooper	6	0 10	125	23.89	...
D Sleights (Brook Park)	E. Isle Hubbard, Esq...	5	1 0	80 T	29.53	186
D Whitby (Park Hall, Aislaby) ..	Rev. J. H. Richardson..	5	1 0	500	31.81	194
D§ " " (Crescent Avenue)	T. Newbitt, Esq.....	8	1 0	125	24.85	158
D " " (Mulgrave Castle)	Mr. J. Corbett	5	1 0	410 T	31.18	171
D Guisborough (Lockwood Beck Res)	W. I'Anson, Esq., C.E.	8	1 0	632 A	32.46	181
D Saltburn-by-the-Sea (Skelton Castle)	Mr. J. R. Batty.....	5	0 9	272 A	28.78	215
D " " "	W. Marston, Esq.	8	4 6	200	18.99?	168
6.—TEES. 373 sq. mi.						
D Ingleby Manor	Lord De L'Isle	5	0 11	460 T	33.29	170
" " Greenhow Vicarage	Rev. M. A. Horsfall ...	5	...	480	34.49	186
D " " (The School House)	P. Huntington, Esq....	5	1 0	448 T	31.72	186
D Croft (Dalton-on-Tees).....	Mr. W. Wrather	8	2 0	170 ?	24.84	167
East Layton Hall	Mrs. Proud	11	1 0	575 T	27.63	...
D Forcett Park ["]	Capt. P. M. French ...	11	1 0	351 T	28.06	194
D Great Ayton (Easby Hall)	J. J. Emerson Esq., LL.D.	5	1 0	355	31.39	183
D Kildale Hall	R. B. Turton, Esq.	5	1 2	600 T	35.07	186
Stokesley (Seamer).....	J. Pounder, Esq.	5	1 4	250	26.81	144
D Middlesbrough (Ormesby)	W. Stewart Tailor Esq	5	1 0	100 T	25.83	174
D " " (Linthorpe)	Mrs. C. L. Bell	8	1 0	48 T	21.78	172
D " " (Albert Park) ...	J. M. Parnaby, Esq. ...	8	1 0	30	26.15?	165
Baldersdale (Blackton Reservoir)	Hugh Wilson, Esq.	5	1 0	935 T	37.20	...
" " (Balderhead)	" " "	5	1 0	1360	44.70	...
D† " " (Hury Reservoir) ..	" " "	5	1 0	866 T	34.91	192
Lunedale (Lunehead).....	" " "	5	1 0	1450	53.90	...
" " (Selset)	" " "	5	1 0	924 T	42.20	...
D† " " (Grassholme Reservoir)	" " "	5	1 0	936 A	39.38	183
D† Mickleton	No. 1 Dr. H. R. Mill	8	1 0	850	28.55	173
" "	No. 2 " " "	8	1 0	860 ?	32.15	...
† " " (Lime Kiln Pasture) M	" " "	8	1 0	1175 T	31.95	...

MAP OF DIVISION X.

NORTHERN COUNTIES,

Showing the River-Divisions.



DIVISION X.—NORTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with 0.1 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
DURHAM. (Area, 1011 sq. mi.)						
1.—TEES & C. 396 sq. mi.						
D Darlington (Hurworth Grange)...	J. R. Backhouse, Esq...	5	1 0	161 ∇	25.58	180
„ (Public Park).....	<i>Northern Echo</i>	5	1 0	150 ∇	28.55	183
D „ (Cleveland Parade)...	W. W. Willmott, Esq.	5	1 3	160 ∇	25.50	179
D „ (Hummersknott) ...	Mr. J. Short	5	1 0	200	22.84	140
D† Barnard Castle (County School)...	R. Hitchcock, Esq. ...	5	1 6	540 ∇	27.60	185
Gainford	Walter Scott, Esq. ...	5	1 0	260 ∇	25.13	...
D Stockton (Ropner Park)	M. H. Sykes, Esq.	5	1 9	61 ∇	22.33	160
D Hurworth Burn (Crookfoot Res.)	T. Bower, Esq., C.E...	10	1 6	293 ∇	24.64	199
West Hartlepool (Lynn Street)...	Mr. H. Lamb.....	5	65 0	84	17.61	168
D „ „ (Water Works)	T. Bower, Esq., C.E...	10	1 0	35 ∇	22.67	140
D „ „ (Bradgate).....	G. H. Baines, Esq.....	8	1 3	100 ∇	26.64	174
D Hurworth Burn	T. Bower, Esq., C.E...	10	1 0	357 ∇	26.51	173
D Hartlepool (Hart Reservoir).....	„ „ „	10	1 0	172 ∇	23.52	173
Seaham (Dalton Pumping Sta.)...	A. B. E. Blackburn, Esq.	8	1 0	345 ∇	26.31	184
D§ „ Harbour	Mr. G. H. Aird	8	1 6	141	25.77	158
2.—WEAR. 464 sq. mi.						
D Wolsingham (Dryderdale)	Mr. G. Cranston.....	5	1 0	580 ∇	31.14	173
D Willington Rectory	Rev. T. Urmson	5	1 0	285 ∇	25.69	160
D Wolsingham (Martagon House)...	Miss F. E. Stobbs	5	1 0	464	33.85	172
D Stanhope (Parson Byer's Quarry)	Messrs. Bell Bros., Ltd.	5	6 8	846 ∇	32.83	165
D Wearhead Station	Mr. R. Rust	5	0 6	1104	53.28	180
§ Durham Observatory.....	Meteorological Office ...	12	4 0	352	22.99	167
D§ Ushaw (St. Cuthbert's College)...	Rev. Dr. C. Gelderd ...	5	0 9	600 ∇	27.31	163
Pittington (Elemore Hall)	Miss Baker Baker	8	0 6	323 ∇	27.84	...
D Weardale W.W. (Tunstall Res.)	R. Askwith, Esq., C.E.	8	1 2	724 ∇	33.11	158
„ „ (Waskerley 6)	„ „ „	8	4 2	1229 ∇	28.97	...
„ „ („ 3)	„ „ „	8	4 6	1433 ∇	32.37	...
„ „ („ 4)	„ „ „	8	4 7	1321 ∇	29.10	...
„ „ („ 5)	„ „ „	8	4 2	1244 ∇	30.60	...
D „ „ („ 2)	„ „ „	8	0 11	1179 ∇	33.74	202
„ „ („ 1)	„ „ „	8	4 5	1367 ∇	30.08	...
„ „ („)	„ „ „	8	4 4	1317 ∇	28.94	...
Fence Houses (Chilton Moor) ...	V. W. Corbett, Esq. ...	5	1 4	186 ∇	23.77	...
Chester-le-Street (Biddick Hall)	Mr. A. Bentley	5	1 0	150 ∇	27.02	154
Ryhope Pumping Station	A. B. E. Blackburn, Esq.	8	1 1	228 ∇	25.58	178
D† Sunderland (W. Hendon Ho.) No. 5	T. W. Backhouse, Esq.	5	1 0	130 ∇	26.60	182
† „ („ „ „) No. 6	„ „ „ „	5	1 0	130 ∇	26.72	184
D „ (Mowbray Park)	H. Renney, Esq., M.D.	5	1 0	105	25.26	171
„ (Claxheugh Grove) ...	J. P. Cornett, Esq.....	5	2 6	90	25.05	...
D „ (The Cedars)	W. F. Vint, Esq.	5	1 0	115 ∇	25.06	164
„ (Southwick Cemetery)	Mr. J. R. Hodgson.....	8	1 0	171 ∇	26.16	163
3.—TYNE, LOWER. 151 sq. mi.						
D Weardale W.W. (Smiddy Shaw)	R. Askwith, Esq., C.E.	8	1 3	1128 ∇	32.39	197
Consett Park Farm	J. D. Brown, Esq.....	5	4 3	641 ∇	27.16	163
D Burnopfield (Priestfield)	H. F. Bulman, Esq. ...	5	1 0	532 ∇	27.40	180
D† Washington (Usworth School)...	H. W. Walbank, Esq...	5	1 0	284 ∇	23.95	182
Sunderland (Boldon Rectory) ...	Rev. J. G. B. Knight...	5	0 9	100 ∇	19.80	138

DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
DURHAM—(con.)						
3.—TYNE, LOWER—(con.)						
Sunderland (Cleadon Pumpg. Sta.)	A. B. E. Blackburn, Esq.	8	1	0	216 π	25.20 191
Ryton-on-Tyne	J. P. Dalton, Esq.	5	1	0	258 π	24.84 ...
" " (Balgonie House)	J. W. Smith, Esq., M.D.	5	1	6	258	26.80 165
NORTHUMBERLAND. (Area, 2015 sq. mi.)						
1.—EDEN. 20 sq. mi.						
2.—SOUTH TYNE. 232 sq. mi.						
§ Allenheads	J. W. Metcalfe, Esq.	8	1	0	1353 π	39.15 ...
D Haltwhistle (Bellister Castle)	J. M. Clark, Esq.	5	1	0	380	39.17 208
3.—TYNE, LOWER. 227 sq. mi.						
D Corbridge (Howden Dene)	J. H. Straker, Esq.	5	0	9	200 τ	28.69 195
D " (Monksholme)	H. Palmer, Esq.	5	1	0	127 τ	25.99 176
D Hexham (Beaufront Castle)	Capt. J. H. Cuthbert, DSO	8	1	0	400	28.20 181
Newcastle (Lit. and Phil. Soc.)	H. Richardson, Esq.	8	55	0	160	28.77 ...
D " (Chronicle Office)	Newcastle Chronicle	8	30	0	148	25.17 148
§ " (Northumberland Rd.)	N. H. Martin, Esq.	8	45	0	200	24.49 203
" (Leazes Park)	W. J. Steele, Esq., C.E.	5	1	0	255 π	27.17 ...
D " (Town Moor)	A. Wright, Esq.	5	2	0	201 π	27.81 198
" (Wellburn, Jesmond)	J. H. Holmes, Esq.	5	1	6	163 τ	26.76 164
§ Heddon-on-the-Wall Vicarage	Rev. W. G. Pringle	5	1	0	420 τ	26.05 ...
§ North Shields (Dockwray Square)	Meteorological Office	8	1	4	117	26.26 190
D Tynemouth (Tyne Pier Works)	N. G. Gedy, Esq., C.E.	5	1	8	65 π	29.73 195
D § " (Percy Park)	J. E. Burnett, Esq.	8	1	0	91 π	25.84 177
D § " (" ")	" " " " (R)	6	1	6	91 π	25.10 176
D § " (" ")	" " " " (R)	8	6	0	96 π	25.21 177
Whittle Dean (Newcastle W.W.)	A. L. Forster, Esq., C.E.	5	0	6	380	25.49 199
" " Filters (" ")	" " " "	5	1	1	353	26.89 201
4.—NORTH TYNE. 433 sq. mi.						
N. Tyne (Green Crag) (Newcastle W.W.)	A. L. Forster, Esq., C.E.	5	1	6	896 π	29.96 ...
Hallington Village (" ")	" " " "	5	1	0	467 π	30.72 ...
" Reservoirs (" ")	" " " "	5	1	0	470	29.67 200
" (Fawcett) (" ")	" " " "	5	1	2	537 π	28.55 ...
" (Cheviot) (" ")	" " " "	5	1	2	576	27.19 ...
Gunnerton Burn (Campbell) (" ")	" " " "	5	1	1	650 π	30.99 ...
Colt Crag (" ")	" " " "	5	1	0	654	28.97 197
D § Bellingham (High Green Manor)	Capt. C. Morrison-Bell	5	1	0	849 π	37.87 234
D Otterburn (Horsley Vicarage)	Miss Stephens	5	1	2	700	35.72 224
Redewater (Chattlehope)	A. L. Forster, Esq., C.E.	5	1	0	900	48.37 220
" (Catcleugh)	" " " "	5	1	0	819	47.68 220
5.—COQUET & C. 840 sq. mi.						
Stamfordham Vicarage	Rev. G. Evans-Gwynne	5	0	6	422 π	28.36 ...
Whittington (Newcastle W.W.)	A. L. Forster, Esq., C.E.	8	0	9	528	27.55 ...
Burnside (" ")	" " " "	5	0	9	419	26.54 ...
Ryal Cottage (" ")	" " " "	10	0	9	463	30.14 ...
D Scots Gap (Wallington)	Mr. E. Keith	8	2	9	446 τ	37.78 172

DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1911	Days with 0.1 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
NORTHUMBERLAND—(con.)							
5.—COQUET & C—(con.)							
†Morpeth	T. Matheson, Esq.	8	1	6	100	28.01	144
D† „ (Bothalhaugh Garden) ..	Hon. & Rev. W. C. Ellis	5	1	10	35	27.33	197
† „ { „ „ } M	„ „ „ „	5	1	10	35	27.07	...
D† „ { „ „ Lawn } ..	„ „ „ „	5	1	10	137	26.51	198
† „ { „ „ } M	„ „ „ „	5	1	10	135	26.78	...
D§ „ (Cockle Park) ..	T. E. W. Dobson, Esq.	8	1	0	325 π	27.38	210
D Font Res. (Tynemouth W. W.) ..	Duncan Munro, Esq.	10	1	0	614 π	30.44	221
D† Acklington (Broomhill Colliery)	S. Pedelty, Esq.	5	7	0	94	26.10	166
Rothbury (Brinkburn Priory) ..	Mrs. Hugh Fenwick ...	8	1	2	257 \uparrow	35.39	...
D§ „ (Cragside) ..	Mr. W. Bertram	8	1	0	405 π	34.58	180
Flotterton	G. H. Phillips, Esq. ....	...	...	...	541	30.94	...
D Felton (Newton-on-the-Moor) ..	J. A. Charlton, Esq.	5	1	6	500 \uparrow	26.26	149
§ Alnwick Castle	Meteorological Office ...	5	0	4	210	30.15	182
D Howick Hall	Earl Grey, G.C.M.G.	8	0	10	121 π	29.72	158
Bamburgh	T. W. Little, Esq.	5	1	0	75 \downarrow	22.03	...
Beal (Barmoor Castle)	Dr. T. Hodgkin	8	3	6	400	27.91	154
6.—TWEED. 262 sq. mi.							
D Glanton (Glanton Pyke Gardens)	Mr. J. Henderson	8	4	2	521 π	31.84	189
Ilderton (Lilburn Tower)	A. B. Collingwood, Esq.	10	6	0	300 \uparrow	29.39	...
D „ („ Cottage) ..	N. D. Cowans, Esq.	5	1	0	340 \uparrow	28.36	182
Wooler (St. Ninians)	Dr. R. Walker	8	0	10	176 \uparrow	31.83	...
„ (Victoria House) ..	Miss Dodds	5	1	0	176	26.66	...
„ (The Thirlings) ..	Col. J. M. W. Anderson	5	1	6	200	30.27	...
D „ (Doddington Vicarage) ..	Rev. J. G. Shotton	8	0	6	140 \uparrow	29.59	189
D Milfield (Flodden)	C. Waterston, Esq.	5	1	9	200	24.59	179
D Berwick-on-Tweed (Church St.)	Lt.-Col. A. W. Pennyman	5	1	0	95	23.26	180
7.—INSULAR. 1 sq. mi.							
CUMBERLAND. (Area, 1516 sq. mi.)							
1.—EDEN & SOLWAY. 887 sq. mi.							
Ullswater (Hallsteads)	Miss C. Marshall	5	2	0	497 \uparrow	63.67	194
Hutton John	Rt. Hon. The Speaker, MP	5	0	11	700 \uparrow	47.86	181
Penrith (Lowther Street) ..	H. Lester, Esq.	5	1	0	575 \uparrow	35.17	172
„ (Fir Bank, Fell Lane) ..	T. Lester, Esq.	5	1	0	575 \uparrow	33.96	178
„ (Nandana)	G. Varty Smith, Esq.	5	1	0	650	33.63	237
§ „ (Newton Rigg) ..	W. T. Lawrence, Esq.	8	1	0	559	37.87	193
„ (Greystoke)	H. Walker, Esq.	5	1	3	650 \uparrow	47.30	...
D „ („ Belle Vue) ..	Miss E. A. Rowe	5	4	0	680 \uparrow	36.64	171
D „ (Ennim)	Mrs. Hamlet Riley ...	8	0	6	660	42.60	170
„ (Inglewood) ..	W. Thompson, Esq.	5	1	0	550 \uparrow	33.87	153
Uldale (Chapel House Reservoir)	J. Smith Hill, Esq.	8	1	0	600 \uparrow	49.20	176
D Penrith (Nunwick Hall) ..	Mrs. Heywood Thompson	5	1	0	298 \uparrow	31.54	173
D§ Aspatria (Agricultural College) ..	J. Smith Hill, Esq.	8	1	0	251	40.85	206
„ (Brayton Hall) ..	Sir Wilfrid Lawson Bart.	8	0	8	200	38.40	161
D Wigton (Winscombe) ..	R. M. Lidbetter, Esq.	5	0	10	150	31.64	163

DIVISION X.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
CUMBERLAND—(con.)						
1.—EDEN & SOLWAY—(con.)						
D Wigton (Brookfield)	J. Ransom Marsh, Esq.	5	1 6	124 ∇	34.70	169
D Wreay Vicarage.....	Rev. Canon A. R. Hall	5	2 0	310 ∇	30.80	171
D Geltsdale.....	H. C. Marks, Esq., C.E.	5	1 2	778 ∇	38.66	228
D Carlisle (Spital Cemetery)	J. T. Charlton, Esq.	8	4 0	118	30.54	181
„ (Rickerby)	Mr. T. Stoddart	8	1 2	52 ∇	28.10	...
„ (Stanwix).....	Sir Benjamin Scott	8	1 6	100 ∇	29.82	165
D „ (Newby Grange)	T. H. Hodgson, Esq....	5	0 8	64 ∇	26.76	191
D „ (Brunstock)	M. T. Scott, Esq.	5	1 6	86 ∇	32.45	165
§ „ (Scaleby Hall)	Royal Meteorological Soc	5	1 0	112	35.78	216
D Penton (Warwickland School)..	W. Roden, Esq.....	5	1 0	250 B	38.90	202
2.—DERWENT. 257 sq. mi.						
Sprinkling Tarn	M Dr. H. R. Mill	4	0 6	1985	145.18	...
Styhead Tarn	M „ „ „	4	0 6	1472 ∇	148.75	...
The Sty B	M „ „ „	4	1 0	1077 ∇	198.10	...
„ C	M „ „ „	4	1 0	1077 ∇	203.15	...
„ D	M „ „ „	4	1 0	1077 ∇	161.85	...
Borrowdale (Seathwaite)	M „ „ „	4	0 6	422 ∇	150.90	...
„ („) weekly	„ „ „ „	5	1 0	422 ∇	149.10	...
D § „ („)	Royal Meteorological Soc	5	1 0	423 ∇	148.14	197
Ullscarf	M G. H. Hill, Esq., C.E..	7	1 8	2100 ∇	142.30	...
Helvellyn (Birkside)	M „ „ „	7	1 3	1900 ∇	105.70	...
Wythburn	M „ „ „	7	1 4	580 ∇	91.50	...
Buttermere (Hassness)	Miss C. Marshall	5	1 0	355	124.91	211
D Borrowdale (Grange)	Mr. J. Threlkeld	5	0 9	271 ∇	94.52	177
Armboth Fells (The Pewitts).....	G. H. Hill, Esq., C.E..	7	1 6	1650 ∇	78.20	...
Helvellyn (Whiteside)	„ „ „	7	1 6	2100 ∇	90.60	...
Thirlmere (Dale Head Hall) ...	„ „ „	7	1 5	620 ∇	84.00	...
D Keswick (Deer Close)	Miss C. Marshall	7	1 9	300 ∇	67.57	192
D „ (Derwent Island) <i>old g.</i>	„ „ „	5	0 7	280	69.99	196
D „ („ „) <i>new g.</i>	„ „ „	5	0 6	290	66.51	196
D „ (The Bank)	Mr. R. W. Mayson	5	1 6	265 ∇	61.45	184
D § „ (Shu-le-crow)	A. Mitchell Dawson, Esq.	5	0 7	296 ∇	66.89	198
D „ (Crosthwaite School)...	H. Swinburn, Esq.....	5	1 0	254 ∇	60.91	185
D Ullock.....	J. H. Walker, Esq.	5	1 0	313 ∇	55.46	191
D Cockermouth (Whinfell Hall)...	Mrs. Peile	5	0 1	255 ∇	63.76	192
„ (Brandlingill).....	Mrs. Sewell.....	5	1 0	320	63.27	166
D „ (Shatton Hall).....	Miss Irwin	5	4 5	300 ∇	45.78	194
D Threlkeld (Blencathra Sanatorium.)	Dr. W. Goodchild	5	1 0	885 ∇	60.10	202
Camerton Vicarage	Rev. E. C. Bennett	5	1 0	200 ∇	39.76	...
D Bassenthwaite (Mirehouse)	Miss Spedding	5	1 1	300	55.47	186
„ (Higham)	Joseph Fisher, Esq.....	5	0 9	500	50.47	151
D „ (Bassenfell)	Mrs. S. G. Rathbone	8	1 0	384	45.11	203
D Cockermouth (Broughton Grange)	G. S. Wilson, Esq.	5	1 3	209 ∇	45.74	179
3.—WEST COAST STREAMS. 235 sq. mi.						
Ravenglass (The Grove)	A. Watt, Esq.	5	2 8	77 ∇	42.89	158
D § Eskdale Green (Gatehouse)	Mr. J. W. Rainbow	5	0 10	150	60.92	181
Beckfoot	Rev. J. Banks	5	1 0	180 ∇	69.03	...

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	1911	
		in.	ft.	in.	feet.	inches.	
CUMBERLAND—(con.)							
3.—WEST COAST STREAMS—(con.)							
D Seascale (Whinthwaite)	Dr. R. Hellon	5	1	0	52 T	40·64	161
D Gosforth (Bolton Hall).....	Col. J. R. Bain	5	1	8	135 T	50·02	174
D „ (Ellerslie)	W. H. Kitchen, Esq....	5	1	0	185 T	50·00	171
Netherwasdale Vicarage	Rev. J. Hodgson.....	5	1	0	182 T	56·45	163
Braystones	H. H. Watson, Esq. ...	10	3	6	36 T	41·43	...
D Egremont (The Grange)	J. Sherwen, Esq.	5	1	0	351 T	60·01	193
„ (Ringingstone).....	Harold Adair, Esq. ...	5	1	0	260 T	48·32	170
Cleator Moor Water Works	R. Robertson, Esq., C.E.	5	0	6	395 T	60·05	171
D Whitehaven (Scragill Reservoir)	E. E. Stiven, Esq., C.E.	8	1	0	188 T	42·28	168
D „ (Irish Street)	Dr. Eldon Pratt.....	5	1	1	21 T	45·25	168
Distington (Gilgarran)	Mr. A. Kydd	5	4	9	470 T	46·86	171
D Workington (Winscales House)..	J. A. Trench, Esq.....	5	1	6	440 T	41·67	177
4.—DUDDON & C. 50 sq. mi.							
5.—SOUTH TYNE. 87 sq. mi.							
WESTMORLAND. (Area, 783 sq. mi.)							
1.—EDEN. 373 sq. mi.							
D Ravenstonedale (The Chantry)...	J. R. Highmoor, Esq....	5	1	11	900	52·15	197
D Kirkby Stephen (Redman House)	Mrs. T. Mason	5	1	0	574 T	44·23	204
Hayes Water (High Street) No. 3	Baldwin Latham Esq., CE	5	1	0	2600 T	105·20	...
„ „ „ „ No. 1	„ „ „ „	5	1	0	1750 T	110·40	...
„ „ „ „ No. 2	„ „ „ „	5	1	0	2000 T	95·00	...
Shap Vicarage	Rev. W. H. Crompton.	5	1	0	863 T	52·43	201
Grizedale (Ruthwaite Lodge) ...	Miss C. Marshall	8	1	6	1750	114·11	...
Patterdale Hall	„ „ „ „	5	1	3	490 T	95·41	202
„ (Greenside Mine).....	W. H. Borlase, Esq. ...	7	1	6	1000 T	88·20?	...
D Appleby (Castle Bank)	C. R. Rivington, Esq....	5	1	2	440 T	35·90	189
Ullswater (Sharrow Bay)	Mr. G. Robinson	5	0	7	600	43·56	...
D Great Strickland (Greencroft) ...	Mrs. Whiteside	5	2	0	648 T	46·74	201
D Morland [Penrith].....	Miss M. F. Markham...	5	1	0	456 T	39·79	195
Lowther Castle [Penrith]	Mr. F. Clarke	8	4	0	760 T	38·11	180
Temple Sowerby	Mr. W. Robinson	5	2	0	349 T	31·44	...
2.—LEVEN. 60 sq. mi.							
D Bowness (Lindeth Howe)	F. G. Senior, Esq.....	5	1	0	250 T	65·74	190
D „ (Fallbarrow)	Miss E. F. Rawson ...	8	1	0	155 T	67·93	183
Windermere	Miss C. Marshall	5	1	0	290 T	66·17	196
D „ (Fellside)	T. D. Lingard, Esq. ...	5	0	6	310 T	66·07	154
D „ (Holehird).....	W. G. Groves, Esq. ...	5	1	0	483 T	76·07	213
D „ (Brockhole)	W. Gaddum, Esq.....	5	1	6	145	76·69	206
D Ambleside (Wansfell)	Miss C. Marshall	5	1	0	...	84·28	207
D „ (Skelwith Bridge) ...	A. J. Adams, Esq.....	5	1	9	190 T	101·59	181
Little Langdale (Fell Foot) ...	Miss C. Marshall	5	2	2	380	122·40	...
Ambleside (White Craggs)	C. H. Hough, Esq.....	5	2	4	252	83·46	200
D „ (Gale House)	G. A. Johnston, Esq. M.D.	5	1	0	180 T	83·78	203

MAP OF DIVISION XI.

MONMOUTH, WALES, AND THE ISLANDS,
Showing the River-Divisions.



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

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
MONMOUTH. (Area, 534 sq. mi.)						
1.—RHYMNEY. 39 sq. mi.						
§ Rumney (Witla Court).....	Roy. Meteorological Soc.	5	1 0	176 ∇	37·61	166
2.—EBBW. 88 sq. mi.						
D Newport (Tredegar Park).....	Mr. J. Bone	5	0 10	0	37·65	149
D Rogerstone (Rhiwderin)	L. Forestier-Walker Esq...	5	1 3	259 \uparrow	40·87	178
D Abertillery (Cwmtilerry)	W. Y. Hobkirk, Esq...	5	1 0	970 \uparrow	66·92	166
D Tredegar (Llyswedog)	Mrs. L. Whitehead ...	5	1 3	1050 \uparrow	57·25	194
D Ebbw Vale (Iron Works)	F. Mills, Esq.....	8	1 0	902 ∇	55·98	186
D Nant-y-bwch (Shon Sheffrey's Well)	D. W. Davies, Esq. ...	5	1 5	1204	60·12	186
3.—USK & C. 290 sq. mi.						
D Portskewett (Sudbrook)	W. K. Laurence, Esq. CE	8	0 10	22 \uparrow	29·43	155
Caerleon (Llanwern House)	Cardiff Nat. Society ...	8	1 0	190 \uparrow	32·80	...
D § Newport (Friar Street Yard) ...	Newport Corporation...	5	1 0	32	40·17	177
D § „ (Ynis-y-fro Reservoir)..	„ „	5	1 0	130 \uparrow	41·62	172
D § „ (Pant-y-reos Res.).....	„ „	5	1 0	435	52·90	174
D „ W. W. (Llanvaches)...	„ „	5	0 10	456 ∇	34·73	184
D „ (Nantypridd, Wentwood)	„ „	5	1 0	500 ∇	37·89	177
Chepstow (Shirenewton Hall) ...	Mr. G. H. Young	8	1 0	520	34·55	178
D „ (Itton Court)	E. Curre, Esq.	5	1 0	390	32·88	157
D Llanfrechfa Grange	F. J. Mitchell Esq. ...	5	4 0	326 ∇	42·37	179
Tredunnoch Rectory	Rev. C. T. Salusbury...	5	2 3	170 ∇	34·69	145
D § Newport W. W. (Newchurch) ...	Newport Corporation...	5	1 0	550 ∇	39·51	179
D Devauden (Tredean)	W. W. Hood, Esq., C.E.	6	...	790	31·74	136
Abersychan (The Hawthorns)...	J. W. Mulligan, Esq, MD	5	1 0	755 \uparrow	49·92	184
§ „ (Glansychan).....	Meteorological Office...	3	2 0	698	50·91	168
Blaenavon	Cardiff Nat. Society ...	...	...	1200	53·85	145
Abergavenny (Larchfield)	Dr. J. Glendinning ...	5	1 0	240 \uparrow	35·94	160
D † „ (The Chain).....	W. Baker Gabb, Esq...	5	1 3	300 \uparrow	36·70	162
D § „ (Linda Vista)	A. V. Whitehead, Esq.	5	1 6	180	37·16	178
D † Grwyne Fawr (Coed Dias)	W. Baker Gabb, Esq...	5	1 0	900 \uparrow	42·70	187
D † „ „ (Ffwydd Fwthog)	Baldwin Latham, Esq CE	5	0 8	1380 ∇	40·38	234
4.—WYE. 117 sq. mi.						
D Chepstow (Piercefield Park).....	H. Clay, Esq.....	5	1 6	310	31·07	153
D Monmouth (The Hendre)	Mr. T. Coomber	8	1 0	176 \uparrow	27·09	159
D „ (Pentwyn)	Rev. Canon J. Harding	5	1 0	191 ∇	29·69	147
Llantilio Court	Sir H Mather-Jackson Bt	5	0 11	207	30·34	...
D Pandy (Trewyn).....	P. B. Barneby, Esq. ...	8	1 0	444 ∇	37·43	152
D † Llanthony Abbey	Baldwin Latham, Esq CE	5	1 0	792 ∇	44·53	179
GLAMORGAN. (Area, 808 sq. mi.)						
1.—LOUGHOR. 55 sq. mi.						
D Gorseinon (Penllergaer).....	Sir J. T. D. Llewelyn, Bt.	5	3 0	240 \uparrow	49·58	192
D Felindre (Lower Lliw Reservoir)	R. H. Wyrill, Esq., C.E.	8	1 3	426 \uparrow	48·66	178
D „ (Upper „ „)	„ „ „	8	1 0	610	62·76	204
2.—GOWER PENINSULA. 62 sq. mi.						
D Penmaen (Cefn Mor).....	R. A. Bostock, Esq. ...	5	1 5	300	40·06	166
D Oystermouth (Newton)	Rev. Secretan Jones ...	5	0 9	279 \uparrow	40·18	169

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with -01 or more recorded.	
		Diameter	Height Above Ground.	Height Above Sea Level			
		in.	ft.	in.	feet.	inches.	
GLAMORGAN—(con.)							
2.—GOWER PENINSULA—(con.)							
Mumbles (Bristol Ch. Yacht Club)	A. Denyer, Esq.....	5	1	0	20	35·42	186
Swansea (Killay House)	M. B. Williams, Esq...	5	0	6	265 T	43·70	170
3.—TAFE. 47 sq. mi.							
Swansea (Victoria Park)	Mr. D. Bliss	8	1	0	24	45·17	165
„ (The Knoll)	E. H. Perkins, Esq. ...	5	1	0	150 A	45·22	180
Pontardawe (Plas Cilybebyll) ...	H. Lloyd, Esq. ....	...	...	...	500	51·18	...
Ystalyfera (Wern School)	J. Williams, Esq.	5	1	3	240 T	70·52	172
4.—NEATH. 82 sq. mi.							
Briton Ferry (Brynsiriol)	H. A. Clarke, Esq. ...	5	1	0	33 A	45·16	159
Neath	Edwin C. Pole, Esq. ...	5	1	0	204 A	59·49	166
„ (Glynfelin)	T. Gibbins, Esq.	5	1	4	180 B	45·26	...
„ (Bryntirion).....	Major E. Ll. Green ...	5	1	6	250 A	47·20	180
„ (Ynis-y-gerw).....	J. G. Moore-Gwyn, Esq.	5	2	0	100	53·05	...
5.—OGMORE & C. 350 sq. mi.							
Cowbridge (Fonmon Castle).....	O. H. Jones, Esq.	8	1	2	130	30·75	161
Barry W. W. (Biglis)	T.E. Franklin, Esq. C.E.	5	1	0	20 T	30·61	148
„ „ (Merthyr Dyfan Res.)	„ „ „	5	1	0	300 T	34·45	...
„ „ (Pencoedtre Res.)...	„ „ „	5	1	0	200 T	30·52	...
„ „ (Dinas Powis Res.)...	„ „ „	5	1	0	165 T	32·23	...
Lower Penarth	E. I. Evans, Esq., C.E.	5	1	0	67 A	32·59	200
Penarth	„ „ „	5	5	0	160 A	34·76	178
Cardiff (Cogan Pill, Llandough).	C.H. Priestley, Esq., CE	5	1	0	121 A	37·87	174
„ (Ely Pumping Station)...	„ „ „	5	1	0	53 A	40·21	177
Portcawl	Cardiff Nat. Society ...	8	1	0	44 A	29·86	181
Cowbridge (Ash Hall)	E. Tudor Owen, Esq...	8	3	0	315 A	41·36	166
Bridgend (Braeside)	E. Charles Pole, Esq...	5	1	0	87 A	41·47	190
Llantrisant (Talgarn)	G. L. Clark, Esq.	5	4	3	250	54·59	181
„ (S. Rhondda Colliery)	W. W. Hood, Esq., C.E.	6	...	...	500	49·16	148
„ (Llanilid Reservoir)	T. Saunders, Esq.	8	1	3	582 A	63·28	153
Port Talbot (Twyn-yr-hydd, Margam)	G. Lipscomb, Esq.	5	1	0	180 T	37·83	178
Glyncorrwg Colliery	Mr. C. Stephens	5	4	6	823 B	92·47	168
6.—TAFF. 157 sq. mi.							
Cardiff (Trade Street Depot) ...	C.H. Priestley, Esq. C.E.	5	1	0	45	37·31	177
„ (Park Place)	Cardiff Nat. Society ...	5	1	0	42 A	37·42	193
Llandaff (Howell's School)	Miss A. G. Winny	5	1	4	86 T	38·22	177
„ (West Hill)	J. E. Gladstone, Esq...	5	1	0	110 T	39·30	185
Pontypridd (Maesderwen, Graig)	T. Bowen, Esq.	5	10	0	425 T	59·68	175
„ (Old Town Reservoir)	E. W. Terrey, Esq., C.E.	5	1	0	300	57·37	151
Porth (Cemetery Road)	D. Hawkins, Esq.	5	1	0	500 T	70·77	156
Ystradfyodwg (Tyntyla Hospital)	J. D. Jenkins, Esq., M.D.	5	1	0	590 T	67·27	152
Treharris Service Reservoir	T. F. Harvey, Esq., C.E.	5	1	0	865	49·57	168
Rhondda (Ferndale)	G. Childs, Esq.	5	1	0	830 A	76·12	...
Mountain Ash (Maesydderwen)..	M. Morgan, Esq.	5	1	0	483 A	59·60	184
„ „ (Darranlas Res.)..	W. G. Thomas, Esq. ...	5	0	11	540	65·37	179
Treherbert (Bute Colliery)	Lord Merthyr, G.C.V.O.	5	1	0	670	91·50	187
„ „ (Tyn-y-waun)	O. Thomas, Esq.	5	1	0	801	95·90	198
„ „ „	„ „ „	5	1	0	801	95·76	...

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain. 1911	Days with +0·1 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level		
		in.	ft.	in.	feet.	inches.	
GLAMORGAN—(con.)							
6.—TAFF—(con.)							
D Cwmaman Colliery	W. H. Heppell, Esq....	5	2	2	930 N	73·51	180
D† Rhondda (Pont Lluest Wen Res.)	E. W. Terrey, Esq., C.E.	5	1	0	1225	63·25	174
D „ W.W. (Llyn Fawr Res.)	O. Thomas, Esq.	8	1	0	1220	93·74	185
D† Aberdare (The Mardy)	Lord Merthyr, G.C.V.O.	5	1	0	431	66·71	173
D „ (Abernant House) ...	T. F. Harvey, Esq., C.E.	5	1	0	431	65·77	174
D Merthyr Tydfil (Mardy Hospital)	„ „ „	5	1	0	640	52·76	195
D „ „ (Penbryn Filters)	„ „ „	5	1	0	936	51·74	199
D „ „ „ „ „)M	„ „ „	5	1	0	936	49·10	...
D Dowlais (Gwernllwyn)	R. C. Harrison, Esq....	5	1	6	1071 N	51·89	179
7.—RHYMNEY. 55 sq. mi.							
Cardiff (Roath Park)	Cardiff Nat. Society ...	5	1	0	49	38·93	178
D† „ (Penylan)	E. Walford, Esq., M.D.	5	1	0	204	37·63	187
„ (New Filters, Heath) ...	C.H.Priestley, Esq.C.E.	5	1	0	132	38·85	178
D „ (Llanishen Reservoir) ...	„ „ „	5	1	0	155	36·50	170
„ (Lisvane Reservoir).....	„ „ „	5	1	0	150	31·10	169
Caerphilly (Ystrad Mynach) ...	Lt.-Col. M. Lindsay ...	5	0	5	315 N	49·98	150
D „	A.W.Branson, Esq.C.E.	...	1	0	360	47·00	169
Rhydney Bridge Reservoir	„ „ „	...	1	0	1098	57·67	...
CARMARTHEN. (Area, 918 sq. mi.)							
1.—TEIFI. 87 sq. mi.							
D Llanybyther (W. Wales Sanatorium)	Dr. H. O. Blanford ...	5	1	0	785 T	58·97	199
2.—TOWY & C. 715 sq. mi.							
Llanddarog (Lletherllestry)	H. L. Puxley, Esq. ...	4	1	0	242	51·08	174
D Carmarthen (The Friary).....	L.M.Bowen-Jones, Esq.	5	1	5	62 N	51·03	204
† Llandilo (Golden Grove Gardens)	Mr. F. Surman	6	1	6	125 N	60·40?	158
D† „ (Cae-glas)	Mrs. Thomas	5	3	0	170 T	52·56	150
† „ (Dynevov Castle)	Lord Dynevov.....	8	1	0	202 T	55·46	190
D Llanwrda (Dolaucothy).....	Gen. Sir J. Hills-Johnes	5	2	6	498 T	53·67	192
3.—LOUGHOR & C. 104 sq. mi.							
D Llanelly (Old Market Yard) ...	G. Watkeys, Esq., C.E.	5	10	0	35 T	43·14	185
D „ (Cwmlledi W.W.).....	„ „ „	5	3	0	240 N	50·51	217
4.—TAFE. 7 sq. mi.							
5.—USK. 5 sq. mi.							
6.—WYE.							
PEMBROKE. (Area, 617 sq. mi.)							
1.—TEIFI. 37 sq. mi.							
D Castle Malgwyn [Llechryd]	Mrs. Gower.....	5	1	0	...	45·91	185
2.—NEVERN & C. 91 sq. mi.							
D Fishguard (Goodwick Station)...	G.Lambert Gibson, Esq.	5	7	4	57 N	42·65	176
D Newport (Llwyngwair).....	G. B. Bowen, Esq.....	8	1	1	40 T	51·29	181
3.—WEST COAST STREAMS. 82 sq. mi.							
D St. Davids	D. P. Williams, Esq....	5	1	0	216	36·06	179

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		1911
		in.	ft.	in.	feet.	inches.	
PEMBROKE—(con.)							
4.—CLEDDAU & C. 407 sq. mi.							
Pembroke (Stackpole Court).....	Mr. W. B. Fisher ...	6	1	6	60 ∇	39·97	192
Tenby (Bryn Hyfryd)	J. T. C. Burgess, Esq..	5	1	6	40	39·26	168
§St. Ann's Head	Meteorological Office ...	8	0	8	150	38·59	201
D Pembroke Dock	D. J. Morgan, Esq. ...	8	1	0	101 ∇	36·41	166
D „ „ (County School)	G. H. West, Esq.	5	1	0	85	43·17	192
D Saundersfoot (Hean Castle)	Hon. Herbert C. Lewis	5	1	11	206 ∇	34·14	175
Haverfordwest (Picton Castle)...	Sir C. E. G. Philipps, Bt.	5	0	10	138	49·31	194
D „ „ (Portfield)	J. W. Phillips, Esq. ...	5	1	0	220 ∇	46·28	204
D§ „ „ Castle	„ „ „ „	5	1	0	90 ∇	49·83	199
D Whitland (Trewern)	G. Protheroe-Beynon Esq	5	3	0	30	51·51	197
D Treffgarne Hall	Col. R. O. Lloyd, R.E.	5	1	1	286 ∇	46·50	188
D Fishguard (Langton, Dwrbach)..	J. C. Yorke, Esq.	5	1	0	320	46·54	201
CARDIGAN. (Area, 688 sq. mi.)							
1.—DOVEY. 20 sq. mi.							
2.—YSTWYTH & C. 347 sq. mi.							
D Lampeter (Llanleir)	Miss Lewes.....	5	1	1	226	40·89	187
§Aberystwyth (N. Parade).....	Dr. A. Thomas	8	2	6	20	37·54	180
D „ „ (Gogerddan)	Mr. W. Penwill.....	5	1	1	83 ∇	46·45	190
3.—TEIFI. 260 sq. mi.							
D Lampeter (Falcondale)	Mr. W. Taylor	5	1	10	498	47·74	184
4.—TOWY. 46 sq. mi.							
D Nantneuadd [Abergwesyn]	Mr. W. Roberts	5	1	0	1290	62·05	172
Tregaron (Maes-y-bettws) ... M	Dr. H. R. Mill	5	1	0	910	67·40	...
Strata Florida (Towy-fechan) M	„ „ „	5	1	0	1330	62·15	...
5.—WYE. 15 sq. mi.							
†Birmingham W.W. (Bwlchyrendre) M	E. Antony Lees, Esq...	5	1	0	1585	58·18	...
„ „ (Claerddu)	„ „ „	5	1	0	1500	64·50	...
„ „ (Gwngu)	„ „ „	5	1	0	1650	68·71	...
D „ „ (Abergwngu)...	„ „ „	5	1	0	1200	61·45	177
D Plynlimon	Dr. H. R. Mill	5	1	0	1740	95·40?	...
BRECON. (Area, 733 sq. mi.)							
1.—TOWY. 17 sq. mi.							
2.—TAWE. 41 sq. mi.							
3.—NEATH. 48 sq. mi.							
†Pont Neath Vaughan [Glyn Neath]	W. N. Hogben, Esq. ...	5	1	5	297 ∇	67·83	189
4.—TAFF. 48 sq. mi.							
D Nanthir Reservoir [Aberdare] ...	O. Williams, Esq., C.E.	5	1	0	860 ∇	63·36	205
„ „ „ „ [„ „] M	„ „ „ „	5	1	0	860 ∇	63·55	...
D†Cardiff W.W. (Llwynon Res.)...	C.H. Priestley, Esq. C.E.	5	1	0	860	55·96	208
„ „ (Pont-ar-daf) ...	„ „ „ „	5	1	0	850	67·18	206
„ „ (Garw-nant)	„ „ „ „	5	1	0	1100	68·16	...
„ „ (Nant Gwineu)...	„ „ „ „	5	1	0	1275	53·83	...
„ „ (Nant-y-gou-garn)...	„ „ „ „	5	1	0	...	73·53	...

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		1911
		in.	ft.	in.	feet.	inches.	
BRECON—(con.)							
4.—TAFF—(con.)							
d† Taff Fechan (Pentwyn Res.) ...	T. F. Harvey, Esq., C.E.	5	1	0	1120	67·37	217
† " " (" ")....M	" " " "	5	1	0	1120	67·32	...
Cardiff W.W. (Nant Goch)	C.H. Priestley, Esq., C.E.	5	1	0	...	49·10	...
" " (Nant Ddu)	" " " "	5	1	0	1560	63·36	...
† " " (Pentwyn Uchaf, No. 5)	" " " "	5	1	0	1143	63·30	...
† " " (Storey Arms, No. 4)	" " " "	5	1	0	1430	63·78	...
" " (Tyle Brith, No. 1)...	" " " "	5	1	0	2350	74·62	...
† " " (Cantref Res., No. 2)	" " " "	5	1	0	1120	71·13	203
d† " " (Beacons Res., No. 6)	" " " "	5	1	0	1340	79·21	204
" " (Nant Penig, No. 3) ..	" " " "	5	1	0	2000	79·15	...
d† Taff Fechan (Neuadd Res.) No. 1	T. F. Harvey, Esq., C.E.	5	1	0	1462	70·64	220
† " " (" ") No. 1M	" " " "	5	1	0	1462	68·29	...
d† " " (" ") No. 4	" " " "	5	1	0	1487	78·88	220
d† " " (" ") No. 4A	" " " "	5	1	0	1487	78·96	220
† " " (" ") No. 2M	" " " "	5	1	0	1993	74·18	...
† " " (" ") No. 5M	" " " "	5	1	0	1515	55·23	...
† " " (" ") No. 10M	" " " "	5	1	0	1700	72·05	...
d† " " (" ") No. 11	" " " "	5	1	0	1524	65·88	220
† " " (" ") No. 7M	" " " "	5	1	0	2017	82·23	...
† " " (" ") No. 8M	" " " "	5	1	0	1723	84·39	...
† " " (" ") No. 3M	" " " "	5	1	0	1843	51·56	...
" " (" ") No. 3AM	" " " "	5	1	0	1843	53·14	...
† " " (" ") No. 9M	" " " "	5	1	0	1997	49·60	...
† " " (" ") No. 6M	" " " "	5	1	0	2099	92·91	...
5.—RHYMNEY. 2 sq. mi.							
6.—EBBW. 7 sq. mi.							
d† Ebbw Vale W.W. (Filters) No. 1	T. J. Thomas, Esq., C.E.	5	1	0	1413	63·33	194
† " " " " West g. No. 3	" " " "	5	1	0	1468	66·03	193
† " " " " N. W. g. No. 2	" " " "	5	1	0	1471	64·63	193
† " " " " (Carno, E.)...	" " " "	5	1	0	1391	57·73	194
† " " " " (" W.)...	" " " "	5	1	0	1412	62·47	193
† " " " " (" N.)...	" " " "	5	1	0	1533	46·25?	191
7.—USK. 299 sq. mi.							
Crickhowell (Glanusk Park).....	Lord Glanusk.....	5	1	0	290	42·13	...
d† " (Gwernvale)	E. Pirie Gordon, Esq....	5	1	0	393	38·40	163
" (Penmyarth)	J. H. Furmedge, Esq....	5	1	0	330	37·92	171
Llanbedr (Wernbystack)	Dr. H. R. Mill	5	1	0	...	40·06	...
d Swansea W.W. (Bwlch)	R. H. Wyrill, Esq., C.E.	8	1	0	1246	172·59?	195
" " (Gihirych)	" " " "	...	1	0	...	84·05	...
d " " (Cray Res.) No. 1	" " " "	5	1	0	1030	70·36	209
" " (" ") No. 2	" " " "	5	1	0	1015	87·54	...
d† Brecon (New Inn)	Mr. W. Williams	5	1	0	810	64·87	150
† Cray Station	Mr. J. Jones	5	1	0	930	64·90	...
† Crickhowell (Cwmdu)	Mr. J. P. Edwards.....	5	1	0	430	35·10	...
† Llanfrynach (Tymawr).....	Miss D. de Winton ...	5	1	0	450	42·20	175
† Crickhowell (Tal-y-maes).....	Dr. H. R. Mill	5	1	0	1250	45·30	...
d Brecon (The Laurels)	C. J. E. Large, Esq. ...	5	1	0	492	39·99	196

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with 0.1 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
BRECON—(con.)						
7.—USK—(con.)						
†Black Mountains (Waun Fach)..	(The Referees, Aber-)	5	1 0	2650 T	52.72	...
D† „ „ (CwmGrigusUchaf)	(tillery Water Bd. Act)	5	1 0	1980 T	52.62	195
D† „ „ (Dam Site, Grwyne Fawr)	„ „ „	5	1 0	1620 T	54.37	189
D† „ „ (Aber Clyd)	„ „ „	5	1 0	1880 T	48.85	197
† „ „ (Pen-y-Manllwyn)	„ „ „	5	1 0	2512 T	44.23?	...
D† „ „ (Taren-yr-Esgob)..	„ „ „	5	1 0	2039 T	44.34	193
D† „ „ (Twyn Tal-y-Cefn)	„ „ „	5	1 0	2130 T	44.19	194
D† „ „ (Blaen Grwyne Fawr)	„ „ „	5	1 0	2150 T	44.70	197
†Llanfihangel Nant-Bran (Cwmecynog)	Dr. H. R. Mill	5	1 0	790	45.27	...
†Upper Chapel (Tymawr)	Mrs. Probert	5	1 0	945	45.90	...
8.—WYE. 271 sq. mi.						
†Cathedine Rectory	Rev. J. S. Jones	5	1 0	660	30.88	...
D†Capel-y-ffin [Llanthony]	J.R. Gethin Jones, Esq.	5	1 0	1200 T	55.88	191
D Talgarth (Dan-y-garth)	F. J. Morgan, Esq.	5	4 0	404 T	30.17	152
§Gwernyfed Park [Glasbury] ...	Roy. Meteorological Soc.	5	1 0	375 T	25.21	180
D Hay (Waunderwen)	Col. R. D. Garnons-Williams	5	1 4	400	28.26	162
Llanwrtyd Wells (Llandulas) M	Mr. W. Price	5	1 0	790	56.00	...
D „ „ (Brynderw) ...	Mrs. W. T. Rees	5	1 0	800	55.45	202
D†Llangammarch Wells	Dr. W. Black Jones ...	8	1 0	551 T	50.65	213
Builth Wells W.W. (Llangynog)	H. R. Fry, Esq.	5	1 0	1100 T	46.88	...
D „ „ (Tyn-y-berllan) ...	Dr. W. W. Baldock Fry	5	1 0	430 T	37.83	180
†Abergwesyn (Trallwn)	Dr. H. R. Mill	5	1 0	1000 ?	76.75	...
†Pen-graig [Newbridge]	„ „ „	5	1 0	960	54.60	...
†Llysdinam [„]	C Venables Llewelyn Esq	5	1 3	646 T	41.05	212
†Birmingham W.W. (Nant-y-car) M	E. Antony Lees, Esq. ...	5	1 0	1545	74.41	...
† „ „ (Esgair Garthen) M	„ „ „	5	1 0	1600	62.27	...
D† „ „ (Elan Village) ...	„ „ „	5	1 0	...	56.42	188
RADNOR. (Area, 474 sq. mi.)						
1.—WYE. 424 sq. mi.						
Welfield [Builth]	E. A. Thomas, Esq. ...	5	1 10	740	39.28	...
Builth Road (St. John's Vicarage)	Rev. J. L. Bryans	5	0 11	550 T	38.90	190
D§Llandrindod Wells (Kimberley)..	W.B. de Winton Esq. CIE	5	1 0	699	34.37	197
D New Radnor (Ednol)	Mr. F. Dorrell	5	1 0	950	40.18	160
Radnor Forest (Great Rhos)	H. Langston, Esq.	5	1 6	2150 T	41.13	...
D†Birmingham W.W. (Tyrmynydd)	E. Antony Lees, Esq. ...	5	1 0	832 T	59.14	204
D† „ „ (Nantgwillt) ..	„ „ „	5	1 0	845	63.93	204
† „ „ (Dwfnant) ...	„ „ „	5	1 0	...	63.41	...
† „ „ (Esgair Gader) No 1 M	„ „ „	5	1 0	1500	57.51	...
„ „ („ „) No 2 M	„ „ „	5	1 0	1500	52.24	...
D† „ „ (Claerwen) ...	„ „ „	5	1 0	1250	58.70	177
D† „ „ (Tynant) ...	„ „ „	5	1 0	1250	61.70	201
Presteigne (Norton Manor Gdns.)	Mr. Wilson Palliser ...	5	1 6	650 ?	30.90	...
†Rhayader Vicarage	Rev. L. H. Evans	5	1 0	720 T	46.95	170
†Birmingham W.W. (Cerrigllwydion) M	E. Antony Lees, Esq. ...	5	1 0	1700	67.74	...
† „ „ (Pen-y-gareg) M	„ „ „	5	1 0	1500	50.21	...

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	1911	
		in.	ft.	in.	feet.	inches.	
RADNOR—(con.)							
1.—WYE—(con.)							
† Birmingham W.W. (Calettwr) M	E. Antony Lees, Esq...	5	1	0	1500	67.40	...
„ „ (Aberhenllan) M	„ „ „ „	5	1	0	1250	50.68	...
Llanbister (Llananno)	Dr. H. R. Mill	5	1	0	900	41.80	...
2.—SEVERN—Right Bank Tributaries. 50 sq. mi.							
MONTGOMERY. (Area, 797 sq. mi.)							
1.—DOVEY. 120 sq. mi.							
D Machynlleth (The Plas).....	W. E. Whitehouse, Esq.	5	1	0	41 T	55.68	194
2.—YSTWITH. 7 sq. mi.							
3.—WYE. 37 sq. mi.							
D Llangurig (Dernol)	Dr. H. R. Mill	5	1	0	850	55.43	184
4.—SEVERN—Right Bank Tributaries. 154 sq. mi.							
Llandinam (Plas Dinam)	Mr. D. Bowen	5	4	0	504 T	37.44	167
D Newtown (Dolfor)	late W. B. Pugh, Esq.	5	2	6	1027	32.53	148
D „ (Penarth)	G. R. Jebb, Esq., C.E..	8	1	0	321 T	31.80	196
5.—SEVERN—Left Bank Tributaries. 479 sq. mi.							
D Newtown (Gregynog).....	Lord Joicey.....	5	1	0	660 T	33.92	178
D CastleCaerinion (Syllaen Gardens)	Mr. J. Edwards	5	1	3	605	32.50	212
D Welshpool (Llwynderw) ..	W. E. Whitehouse, Esq.	8	1	0	243	26.21	175
D „ (County School)	„ „ „	5	1	0	263 T	26.60	189
D „ (Fron Llwyd)	„ „ „	5	1	0	540	30.40	183
Garthbibio (Bwlch Tomlyd) ... M	Dr. H. R. Mill	5	1	0	1370 T	72.80	...
D Meifod (Coed-y-Maen)	Mr. W. H. Corbett.....	5	1	3	280 T	30.02	174
D Lake Vyrnwy	E. D. Marten, Esq. C.E.	5	0	7	770 T	51.30	184
„ „ (Bryn Gwyn)	J. Parry, Esq., C.E. ...	8	1	0	1311 T	55.88	...
D „ „ (Bank Cynon Isaf)	„ „ „	8	1	0	750 T	53.84	180
„ „ (Ty Uchaf)	„ „ „	8	1	0	860 T	53.35	...
„ „ (Heol-y-ffridd) No.1	„ „ „	8	1	0	912 T	76.12	...
„ „ „ „ „ No.2	„ „ „	8	1	0	912 T	70.81	...
„ „ (Tyn-y-ffridd) ...	„ „ „	8	1	0	1010 T	51.25	...
„ „ (Lluestwen).....	„ „ „	8	1	0	1667 T	65.63	...
„ „ (Llwynrhiw)	„ „ „	8	1	0	1428 T	82.03	...
„ „ (Craig-y-Gribbin)..	„ „ „	8	1	0	1100 T	61.96	...
„ „ (Eunant Bridge)...	„ „ „	8	1	0	830 T	73.94	...
„ „ (Carreg Goch).....	„ „ „	8	1	0	1750 T	73.96	...
„ „ (Fawnog)	„ „ „	8	1	0	1315 T	56.73	...
FLINT. (Area, 256 sq. mi.)							
1.—DEE. 198 sq. mi.							
D Hanmer (Gredington)	Lord Kenyon, K.C.V.O.	5	0	10	300	22.38	157
D Overton (Fairleigh)	B. J. E. Wright, Esq...	5	1	8	220 ?	22.54	149
Cilcain	W. Simmons, Esq.....	5	1	0	790 T	22.89	165
Hawarden	Great Central Rly. Co..	9	3	6	35	23.04	149
Northop (Soughton Hall)	Sir John E. Bankes ...	5	1	0	418 T	25.73	150
D „ (Highfield)	Rev. Canon A. Atkinson	5	1	0	400	24.30	149

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued.)

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with -ol or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1911	
		in.	ft.	in.	feet.	inches.	
FLINT—(con.)							
1.—DEE—(con.)							
§Hawarden Bridge	Meteorological Office...	9	1	0	15	19·53	151
Bagillt (Dee Bank Lead Works)	Messrs. Walkers, Parker & Co.	5	1	0	20	22·68	...
d Mostyn Vicarage	Rev. W. Vaughan-Jones	5	1	0	100	28·33	177
2.—CLWYD. 51 sq. mi.							
d†Bodfari (Henblas)	Mrs. Scott Bankes	5	1	0	283 ∇	25·13	169
d „ (Cae Gwyn)	Mrs. Morgan	5	0	5	542 ∇	25·00	187
d§St. Asaph (St. Beuno's College).	St. Beuno's College ...	8	1	0	480 ∇	23·87	159
Dyserth Castle	J. B. Price, Esq.	5	0	6	350	22·41	...
§Rhyl (Sewage Works)	A. Eyton Lloyd, Esq. ...	8	1	0	31 ∇	20·63	158
Prestatyn (Edlestone House) ...	T. J. Scott, Esq.	5	0	6	30	24·53	141
3.—SEVERN—Left Bank Tributaries. 7 sq. mi.							
DENBIGH. (Area, 668 sq. mi.)							
1.—DEE 270 sq. mi.							
Chirk (Penissa)	Prof. Fraser Story .....	...	...	...	500	31·13	...
Glynceiriog	F. E. Rooper, Esq.	5	1	6	750 ∇	42·71	202
d Erbistock House	Mrs. Hamlyn Price ...	5	0	10	310 ∇	24·59	172
d Cerrig-y-Druidion (Garthmeilio)	Col. S. Parr Lynes	5	1	0	925 ∇	45·84	166
† „ „ „ (Bwlch-y-beudy)	Col. C. S. Mainwaring..	5	1	0	1050 ∇	49·55	189
Wrexham (Ty Mawr Reservoir).	F. Storr, Esq., C.E. ...	5	0	9	805	31·64	151
„ (Pack Saddle Res.) ...	„ „ „	5	0	9	370 ∇	26·33	165
„ (Cae Llwyd Res.) ...	„ „ „	8	0	9	918 ∇	32·87	156
„ („ „ „) ...	„ „ „	5	0	9	918 ∇	31·98	156
d „ (Broughton)	J. Hall, Esq.	5	1	0	500 ∇	27·06	159
„ (Gwersyllt)	S. H. V. Simmons, Esq.	5	1	0	283 ∇	23·54	...
Gresford (Trewythen)	Miss Howell Evans ...	5	1	0	350	21·43	...
†Cerrig-y-Druidion (Hafod-llan-isaf)	J. H. Parkin, Esq.	5	1	2	1200	44·56	...
d†Pentre Voelas (Nant Heilyn) ...	„ „ „	5	1	0	1225	47·80	205
d†Cerrig-y-Druidion (Hafod-yr-Onen)	„ „ „	5	1	0	1175	42·36	185
†Nantglyn (Pant-y-maen)	„ „ „	8	1	0	1320 ∇	44·40	...
2.—CLWYD & C. 267 sq. mi.							
d Gyffylliog (Fachlwyd Hall)	Elliott S. Currey, Esq. ...	5	1	0	640 ∇	38·89	210
d Ruthin (Tymawr)	Maj.-Gen. C. L. Cary ...	5	1	0	400	26·63	166
d „ (Llanbedr Hall)	Dr. G. A. Crace-Calvert	5	1	3	451 ∇	24·48	156
d†Llangerniew (Hafodunos)	Col. S. Sandbach	5	2	0	512 ∇	44·09	180
Llanefydd (Rhyl W.W., S.)...M	L. G. Hall, Esq., C.E..	5	1	0	600	30·34	...
„ („ „ W.)...M	„ „ „	5	1	0	580	30·55	...
d „ (Plas Uchaf Res.) ...	„ „ „	5	1	0	485	25·89	145
d „ (Glascoed Reservoir)..	„ „ „	5	1	0	360	28·14	154
d Llangynhafal (Plas Draw)	Col. C. J. Bromhead, C.B.	5	1	0	419 ∇	26·62	198
d†Denbigh (Asylum)	W. Barker, Esq.	5	0	10	316 ∇	28·58	162
d „ (Garn)	W. D. W. Griffith, Esq.	5	1	0	447 ∇	30·61	178
„ (Gallt-faenan)	Mr. J. B. Pritchard ...	5	1	0	400	30·42	...
Trefnant (Maes Elwy)	Major R. F. Birch	5	1	3	190 ∇	24·30	...
Wygfair [St. Asaph]	Col. H. R. L. Howard, C.B.	8	2	6	170 ?	24·63	...

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with ≥ 0.1 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1911
		in.	ft.	in.	feet.	inches.	
DENBIGH—(con.)							
2.—CLWYD & C—(con.)							
D Colwyn Bay (Four Crosses)	W. Jones, Esq., C.E....	5	1	0	400 ∇	28.97	147
D „ „ (Council Offices) ...	„ „ „ „ ..	8	1	0	82 ∇	29.65	144
3.—CONWAY. 84 sq. mi.							
D Pentre Foelas (Voelas Hall).....	Mr. T. Dickie	5	1	3	640 ∇	55.79	196
D†Llanrwst (County School).....	Rev. J. I. Farr	5	1	4	55 ∇	48.13	188
D „ (Poplar Grove)	J. O. Gethin Jones, Esq.	5	0	8	35	52.28	193
4.—SEVERN—Left Bank Tributaries. 47 sq. mi.							
D Llangadwaladr (Penygwely Res.)	G. W. Lacey, Esq., C.E.	5	1	0	1094	37.23	182
MERIONETH. (Area, 661 sq. mi.)							
1.—DEE. 218 sq. mi.							
D†Bala (Eryl Aran)	Mrs. Burton	8	1	0	600 ∇	63.28	184
†Llanderfel (Palé Gardens)	Mr. E. J. Edwards ...	8	1	0	606 ∇	51.42	200
2.—CLWYD. 7 sq. mi.							
3.—GLASLYN. 92 sq. mi.							
D Tan-y-bwlch (The Gardens) ...	Mr. J. Roberts	5	1	0	50 ∇	64.16	191
D Festiniog (Morwynion Lake)..(R)	E. Lewis Evans, Esq...	4	10	0	1320 ∇	76.32	221
†Blaenau Festiniog (Oakley Quarries)	Owen Jones, Esq.	5	10	0	1100	97.66	200
4.—MAWDDACH & C. 262 sq. mi.							
D Towyn (Peniarth)	Mrs. Wynne	9	1	0	25	52.06	174
Dolgelly (Dr. Williams's School)	Miss F. A. Anstey.....	5	2	0	30	49.58?	...
D „ (Bryntirion)	C. G. Beale, Esq.	5	0	10	50	56.70	164
5.—DOVEY. 82 sq. mi.							
D§Aberdovey	Aberdovey U.D.C.....	5	1	0	15	36.53	179
6.—SEVERN—Left Bank Tributaries.							
CARNARVON. (Area, 572 sq. mi.)							
1.—[BARDSEY ISLAND.]							
2.—CONWAY & C. 146 sq. mi.							
D Snowdon (Pen-y-Gwryd)..No. 13	A. Lockwood, Esq.....	5	2	0	910 ∇	125.70	219
D†Bettws-y-Coed (Tyn-y-bryn) ...	Dr. Hugh W. Fox.....	8	2	6	153 ∇	53.93	202
D†Lake Cowlyd (Llethyr Gwyn) C	T.B.Farrington Esq.CE	5	1	0	1700	86.64	209
D† „ „ (Gors-y-Llithrig)D	„ „ „ „ ..	5	1	0	1900	73.84	207
D† „ „ (Ffrith Fawr) ... B	„ „ „ „ ..	5	1	0	1700	79.41	208
D† „ „ („, Carreg Wen)A	„ „ „ „ ..	5	1	0	1168	86.09	208
D Lake Eigiau	H. J. Jack, Esq.	5	1	0	1245 ∇	82.88	177
Llanbedr-y-Cennin (Plasdulyn).	W. T. Ward, Esq. ...	8	1	0	509 ∇	55.88	...
„ „ „ „ (Llyndulyn)	„ „ „ „ ..	8	1	6	1632 ∇	82.56	...
D Tal-y-Cafn (Caer Rhun)	Col. Thomas Gee	8	3	0	75 ∇	44.36	157
Deganwy (Y Berlfa).....(R)	Willoughby Gardner Esq	8	1	0	30 ∇	30.10	...
D†Llandudno	W. Little, Esq.	5	1	0	72 ∇	30.56	169
3.—MENAI STRAITS. 221 sq. mi.							
Nantlle (Dorothea Quarries).....	W. J. Griffith, Esq. ...	8	2	0	450	63.04	...

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	1911	
		in.	ft.	in.	feet.	inches.	
CARNARVON—(con.)							
3.—MENAI STRAITS—(con.)							
† Llandwrog (Glynllivon Park) ...	Hon. F. G. Wynn.....	5	1	0	100 T	42·69	...
† „ („ Nursery)	„ „	5	1	0	180 T	48·95	175
† „ („ Garden).	„ „	5	1	0	100 T	42·30	148
† „ („ Fort) ...	„ „	5	1	0	180 T	42·48	...
Carnarvon (Belan Fort).....	„ „	5	1	0	26 T	30·55	...
Llanberis (Mount Pleasant).....	Mr. J. J. Jones	5	1	0	365 T	76·23	197
D „ (Brynrefail)	J. Rees Foster, Esq. ...	5	1	0	356 T	56·51	185
D Bethesda (St. Ann's Vicarage) ..	Rev. W. Morgan	5	1	6	500	64·20	193
§ „ (Penrhyn Quarries) ...	W. D. Hobson, Esq. ...	8	1	0	528 T	62·41	174
D Bangor (Penrhyn Castle Gdns.)..	Mr. W. Speed.....	5	1	0	150 T	38·22	175
D Llanfairfechan	Mr. W. Timmins	5	1	0	144	36·59	144
Penmaenmawr (Mountain Res.)..	R. J. Hughes, Esq. ...	5	1	6	1200 T	47·62	...
D „ (Council Offices). ..	„ „ „	5	1	6	100 T	35·33	168
4.—ERCH & C. 155 sq. mi.							
D Abersoch.....	W H Winterbotham Esq	8	1	0	100 T	44·24	177
† Criccieth (Cefn-Maen)	J. E. Greaves, Esq. ...	8	1	0	220 T	42·61	...
Pwllheli (Bodfean Hall)	Hon. F. G. Wynn	5	1	0	200 T	48·81	...
5.—GLASLYN. 50 sq. mi.							
† Portmadoc (Wern Gardens)	R. M. Greaves, Esq. ...	5	1	0	90 ?	50·37	148
Snowdon (Wenallt)	No. 6 A. Lockwood, Esq.....	5	1	2	1050 T	142·21	...
„ (Cwm Dyli).....	No. 11 „ „ „	5	1	0	310 T	126·22	...
„ (Old Road)	No. 14 „ „ „	5	0	10	325 T	129·08	...
„ (Lliwedd)	No. 2 „ „ „	5	1	3	1485 T	146·55	...
„ (Delta)	No. 7 „ „ „	5	1	0	1435 T	157·20	...
„ (Glaslyn)	No. 3 „ „ „	5	0	8	2050 T	133·01	...
„ (Lluchfa)	No. 4 „ „ „	5	0	10	2500 T	175·13	...
„ (Teyrn)	No. 1 „ „ „	5	1	0	1080 T	154·28?	...
„ (Llyn Llydaw Intake) No. 10	„ „ „	5	1	0	1480 T	137·10	...
„ („ „ Copper Mill) No. 9B	„ „ „	5	1	5	1480 T	164·84	...
„ („ „ „ „ „) No. 9A	„ „ „	5	1	0	1480 T	164·46	...
„ (Crib Goch)	No. 8 „ „ „	5	1	3	2340 T	173·25	...
„ (Llyn Llydaw, N.) No. 5	„ „ „	5	1	0	1470 T	136·04	...
„ (Pen-y-Pass) ... No. 12	„ „ „	5	0	10	1170 T	118·47	...
ANGLESEY. (Area, 275 sq. mi.)							
Llanddwyn Island	Hon. F. G. Wynn	5	1	0	40 T	29·28	...
D Llanddaniel-Fab (Porthamel) ..	Hon. Cecil S. Irby.....	5	0	9	70 T	36·04	155
D† Llangadwaladr (Bodorgan)	Mr. W. Pilgrim.....	5	1	0	100 ?	35·76	165
D Llangefni	C. N. Jones, Esq.	8	0	9	132	37·60	147
D Llangwilog (Trescawen)	J. H. Pritchard-Rayner, Esq.	5	1	0	239 T	39·45	166
† Holyhead (Sailors' Home)	Meteorological Office ...	8	1	0	48	33·43	175
D Bodedern (Pressaddfed)	Major W. A. Fox-Pitt.	5	0	11	150 T	37·57	150
Llantrisant Rectory	Rev. Daniel Morgan ...	5	1	6	300	35·59	187
D§ Llanerchymedd Llwydiarth Esgob	T. Prichard, Esq.	5	1	0	175 T	36·86	198
D Lligwy	Lord Boston	5	1	0	170	32·01	161
Amlwch (Dyffryn Adda)	T. F. Evans, Esq.	5	1	2	178 T	33·82	166

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with $\cdot 01$ or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
ISLE OF MAN. (Area, 227 sq. mi.)						
Castletown (Langness)	Bd. of Northern Lights	8	1 0	75	23·34	...
„ (Derbyhaven)	W. T. Hamilton, Esq...	5	0 10	10	32·25	...
Santon Vicarage	F. Cottle, Esq.	5	0 10	250	31·10	...
D† Douglas (Borough Cemetery) ...	„ „ „	8	1 0	284 ∇	37·55	184
† „ (Clypse, Onchan)	„ „ „	8	1 0	450	39·17	...
„ (Baldwin)	„ „ „	8	1 0	720	46·87	...
D† Ramsey	G. W. Kewin, Esq. ...	8	15 0	18	44·57	164
Point of Ayre	Bd. of Northern Lights	3	4 6	116	27·53	...
CHANNEL ISLANDS.						
JERSEY. (45 sq. mi.)						
St. Helier (Brooklands)	Col. C. M. Sumner ...	5	1 0	100 ∇	29·19	162
D† „ „ W.W. (St. Laurence Valley) ...	A. J. Jenkins, Esq., C.E.	8	1 3	53	32·61	166
D† „ „ (St. Louis Obsy.) ... (R)	Rev. Marc Dechevrens, S.J...	8	5 0	180	27·43	181
† St. Aubins (Railway Station) ...	Meteorological Office ...	8	1 9	36	31·69	189
† „ (Belle Vue)	Miss M. M. Sumner ...	5	0 6	220	31·40	154
GUERNSEY. (25 sq. mi.)						
D† St. Martins (Les Blanchés)	B. T. Rowswell, Esq....	5	1 0	310 ∇	34·74	182
D† „ (Hautnez)	A.H.P. Davey, Esq. C.E.	5	0 8	343 ∇	33·48	176
† St. Peter-in-the-Wood (Les Hêches)	A. Collenette, Esq. ...	...	3 0	350	32·40	...
D† Villiaze	A.H.P. Davey, Esq. C.E.	5	0 6	337 ∇	31·43	168
D† St. Peter Port (St. Martin's Rd.)	A. Collenette, Esq.....	5	1 0	295 ∇	37·11	193
† „ „ (Rohais) .....	„ „ „ .....	...	...	145	35·44	176
D† „ „ (Villa Carey)	Dr. F. E. Carey	8	1 6	180 ∇	35·38	179
D† „ „ (Market Street)...	B. T. Rowswell, Esq....	5	55 0	102 ∇	35·55	171
D† Fort Doyle	E. O. Catford, Esq. ...	5	1 0	25	27·97	152
SARK. (2 sq. mi.)						
D† Vallée du Creux	B. T. Rowswell, Esq...	5	1 0	320	26·71	152
HERM. (1 sq. mi.)						
ALDERNEY. (3 sq. mi.)						
D Le Huret	B. T. Rowswell, Esq...	5	1 0	245	29·12	158

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days w. th. 0.1 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
WIGTOWN. (Area, 488 sq. mi.)						
1.— LOCH RYAN. 46 sq. mi.						
Loch Ryan Lighthouse	Bd. of Northern Lights	...	...	46	30.78	...
2.— WESTERN GALLOWAY. 44 sq. mi.						
Mull of Galloway	Bd. of Northern Lights	...	...	327	24.43	161
d § Logan House	K. McDouall, Esq.	7	0 8	80 ?	35.58	189
d § Lochnaw Castle ..	Mr. G. S. Hay	5	0 8	230 ?	40.88	195
Corsewall	Bd. of Northern Lights	...	3 4	112	38.37	154
3.— LUCE BAY. 186 sq. mi.						
d Stoneykirk (Ardwell House).....	Sir M. McT. Stewart, Bt.	8	3 9	107 ?	36.18	160
d Glenluce (Crews)	Peter Taylor, Esq. ....	...	...	212	35.78	170
4.— CREE & WIGTOWN BAY. 212 sq. mi.						
d Whithorn (Cutroach)	J. G. Martin, Esq.	5	0 6	120 ?	34.64	174
d „	Dr. J. F. Smith	5	0 9	207 ?	40.10	171
d Garliestown (Galloway House)...	Mr. J. Day	5	4 6	20 ?	36.04	159
KIRKCUDBRIGHT. (Area, 902 sq. mi.)						
1.— DOON. 16 sq. mi.						
2.— CREE & WIGTOWN BAY. 222 sq. mi.						
§ Gatehouse (Cally)	Scot. Meteorological Soc.	5	1 0	120	45.50	171
§ Creetown (Cassencary)	J. A. Henryson-Caird, Esq.	5	0 8	50	40.88	166
d § Palnure (Bargaly)	Scot. Meteorological Soc.	...	...	...	52.40	181
Glenhead of Trool	J. McMillan, Esq.	5	0 11	320	73.83	...
3.— DEE. 377 sq. mi.						
§ Kirkcudbright (Balmae)	The Countess of Selkirk	5	0 8	150 ?	33.84?	...
d „ (St. Mary's Isle)	Mr. J. Jeffrey	5	1 0	0	43.93	162
d Twynholm (Barwhinnock)	R. W. Laidlay, Esq.	8	1 0	300 ?	55.19	152
d Dalry (Glendarroch)	Miss M. Barbour	5	0 11	192 ?	57.08	193
d „ (Clenerie)	Mr. G. Geddes	8	0 10	850	70.69	187
d „ (The Old Garroch)	late T. R. Bruce, Esq. ..	8	0 9	448 ?	67.84	200

DIVISION XII.—SOUTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
KIRKCUDBRIGHT—(con.)						
3.—DEE—(con.)						
D Carsphairn (Shiel)	Mr. S. Wilson	5	1 0	850 T	78.59	201
D „ (Knockgray)	Miss Clark Kennedy ...	8	0 11	641 T	60.63	194
4.—URR & C. 196 sq. mi.						
Auchencairn (Torr House)	W. Ovens, Esq.	5	0 8	50	48.94	...
D Dalbeattie (Kirkennan)	Wellwood Maxwell, Esq.	5	0 9	30 T	50.04	203
„ (Little Richorn)	Mr. W. Kerr	5	0 9	54 T	47.00	164
D Kirkpatrick Durham (Glenlair) ..	Major W. Maxwell ...	5	0 6	250 T	54.87	171
D § Corsock (Monybuie)	Scot. Meteorological Soc. ...	...	...	...	55.24	191
5.—NITH & C. 91 sq. mi.						
§ Kirkbean (Arbigland)	Scot. Meteorological Soc. ...	...	...	50 ?	37.67	...
D § Cargen [Dumfries]	R. F. Dudgeon, Esq. ...	5	0 4	80 T	49.86	156
D § Lochrutton (Dumfries W.W.) ...	Nigel B. Wilson, Esq.	5	1 0	273 T	44.57	208
D Lincluden House [Dumfries] ...	Miss Young	5	1 0	60 T	40.47	186
D § Jardington [Dumfries]	J. Rutherford, Esq. ...	5	1 0	70 ?	39.44	181
DUMFRIES. (Area, 1074 sq. mi.)						
1.—CLYDE—Right Bank Tributaries. 5 sq. mi.						
2.—URR. 6 sq. mi.						
3.—NITH & C. 421 sq. mi.						
D § Ruthwell (Comlongan Castle) ...	W. H. Whellens, Esq. ..	5	1 0	68 T	36.75	170
D § Dumfries (Crichton Roy. Inst.) ..	Mr. E. Joss	6	0 8	155	37.25	181
§ Moniaive (Glencrosh)	Miss Macmillan	5	1 2	350	52.49	194
D „ (Maxwelton House) ...	Rev. Sir E. Laurie, Bt.	5	1 6	400 T	49.99	202
„ (Jarbruck)	Cecil E. Laurie, Esq. ...	8	1 2	350 T	59.12	205
D § Durrisdeer (Drumlanrig Gardens)	Mr. D. Inglis	5	0 9	191 T	49.86	181
4.—ANNAN. 367 sq. mi.						
D Dalton (Whiteroof)	(R) W. Maitland-Heriot Esq.	8	1 8	240 T	33.91	184
§ Hoddum Castle	Scot. Meteorological Soc.	5	1 4	150	38.46	...
D Dalton (Kirkwood)	Arthur J. Steel, Esq. ...	5	1 6	245 T	42.99	181
D Lockerbie (Castle Milk)	Mr. J. T. Jeffrey	5	1 6	199 T	38.97	175
D Lochmaben (Esthwaite)	W. J. Halliday, Esq. ...	5	1 0	166 B	37.40	186
Beattock (Kinnelhead)	J. Bartholomew, Esq. ...	5	0 6	820 T	61.92	...
Moffat (Craigielands)	Mr. L. Fraser	5	1 0	360 T	54.59	...
D „ (Auchen Castle)	Mr. J. Macgregor	5	0 6	500 T	54.14	199
D „ (Hope Lodge)	Miss Anstruther	5	1 0	450	45.76	206
D „ (Ericstane)	Mrs. J. J. Welsh	5	1 0	600 T	53.96	175
5.—ESK. 275 sq. mi.						
D Rigg	W. H. Whellens, Esq. ..	5	1 0	65 T	37.68	174
D Canonbie (Watch Hill House) ...	Col. H. J. Johnston ...	5	0 9	230 T	47.38	196
„ (Byreburnfoot)	Mr. David Crabbe	3	0 9	160	48.13	...
D § „ (Irvine House)	J. H. Milne Home, Esq.	5	0 6	200	51.58	206
§ Langholm (Westwater)	J. M. Elliot, Esq.	3	1 0	450 T	53.55	...
D „ (Drove Road)	Mrs. Jackson	5	0 9	270	56.08	179
D „ (Ewes, Burnfoot) ...	late J. C. Little, Esq. ...	5	0 6	541 T	52.08	224
§ „ („ School)	Mr. J. C. Lyall	5	1 0	445 T	53.48	...

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		1911
		in.	ft.	in.	feet.	inches.	
DUMFRIES—(con.)							
5.— ESK—(con.)							
Eskdale (Castle O'er)	Miss L. M. Bell.....	3	0	8	640	43·65?	...
§ „ Muir Observatory	Meteorological Office ...	8	0	8	778	60·93	220
ROXBURGH. (Area, 666 sq. mi.)							
1.— NORTH TYNE. 6 sq. mi.							
2.— TWEED, LOWER—Right Bank Tributaries. 57 sq. mi.							
Kelso (Springwood Nurseries) ...	Messrs. Laing & Mather	5	1	0	200	26·63	215
3.— TWEED—Teviot & c. 431 sq. mi.							
Teviothead (Skelfhill)	Miss Grieve.....	3	1	2	950 T	57·60	...
§ Hawick (Wolfelee)	Scot. Meteorological Soc.	5	0	10	587	31·90	...
D „ (Branxholme)	J. G. Winning, Esq.....	5	0	6	457 T	32·06	201
D Jedburgh (Ancrum Bridge)	A. Finlayson, Esq.....	5	2	0	229	25·82	191
D „ (Ploughlands)	J. Scott, Esq.	5	1	0	301 T	23·90	216
§ St. Boswells (Monksford)	A. Mitchell, Esq.	5	0	11	320	18·92?	...
D „ „ (The Fens)	J. J. Fairbairn, Esq....	5	1	6	260	24·80	182
Kelso (Springwood Park)	Mr. W. Chaplin.....	5	1	3	130 L	24·96	179
4.— TWEED—Ettrick & c. 10 sq. mi.							
D Melrose (Asylum) gauge A	Mr. A. C. Pattman ...	5	0	6	480 T	27·00	206
D „ („) gauge B	„ „ „ ...	5	1	0	480 T	26·07	206
5.— TWEED—Gala. 6 sq. mi.							
6.— TWEED—Leader & c. 25 sq. mi.							
§ Melrose (Drygrange).....	J. T. S. Roberts, Esq...	5	1	0	360	22·85	...
7.— TWEED, LOWER—Left Bank Tributaries. 25 sq. mi.							
D § Kelso (Broomlands)	J. Brunton, Esq.	8	1	3	205	23·93	176
Smailholm (Sandyknowe).....	Mr. J. E. Templeton...	5	1	2	500	21·58	...
8.— ESK. 106 sq. mi.							

A map of this Division, showing the sub-divisions, will be found in Part I.

DIVISION XIII.—SOUTH EASTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
SELKIRK. (Area, 268 sq. mi.)						
1.—TWEED—Teviot & c. 34 sq. mi.						
d Selkirk (Whitmuir Hall)	C. W. Dunlop, Esq. ...	5	1 0	850	26.80	200
2.—TWEED—Ettrick & c. 192 sq. mi.						
Meggat Head (Edinburgh W.W.) No. 1	Messrs. Leslie & Reid, C.E.	5	1 3	1496 ∇	46.54	...
d „ Water (Cramilt Lodge) ...	Mr. A. Sim	5	0 4	1005 ∇	49.09	232
d Selkirk (The Hangingshaw)	Miss Johnstone of Alva	6	0 6	670 ∇	29.18	165
3.—TWEED, UPPER—Right Bank	Tributaries. 17 sq. mi.					
4.—TWEED, UPPER—Left Bank	Tributaries. 19 sq. mi.					
d § Caddonfoot (Fairnilee)	Mr. T. Brown	5	1 0	450 ∇	26.67	173
Galashiels (The Peel, Clovenfords)	W. R. Ovens, Esq.	6	1 6	500	30.02	...
5.—TWEED—Gala. 6 sq. mi.						
d Galashiels (Abbotsford Rd.)	Dr. J. W. Somerville ...	5	0 8	416 ∇	25.65	197
„ (Stantling Craigs) ...	Mr. J. Murray	12	2 3	800	31.93	...
PEEBLES. (Area, 348 sq. mi.)						
1.—TWEED, UPPER—Right Bank	Tributaries. 127 sq. mi.					
Ravenscraig (Edinburgh W.W.) No. 3	Messrs. Leslie & Reid, C.E.	5	1 3	2258 ∇	65.74	...
Gameshope Loch („ „) No. 4	„ „ „	5	1 3	1860 ∇	76.20	...
„ Farm („ „) No. 5a	„ „ „	5	1 3	1538 ∇	74.84	...
„ „ „ („ „) No. 5	„ „ „	8	1 3	1538 ∇	74.91	...
Talla Linns Foot („ „) No. 6a	„ „ „	5	1 3	966 ∇	67.32	...
„ „ „ („ „) No. 6	„ „ „	8	1 3	966 ∇	66.06	...
Quarter Hill („ „) No. 7a	„ „ „	5	1 3	1196 ∇	53.67	...
„ „ „ („ „) No. 7	„ „ „	8	1 3	1196 ∇	53.32	...
Victoria Lodge („ „) No. 8	„ „ „	5	1 3	904 ∇	51.31	...
„ „ „ („ „) No. 8a	„ „ „	8	1 3	904 ∇	49.81	...
d Stobo (Dawyck Gardens)	Mr. J. Simpson	5	1 1	600 ∇	36.05	149
2.—TWEED, UPPER—Left Bank	Tributaries. 192 sq. mi.					
§ Innerleithen (The Glen)	Scot. Meteorological Soc.	...	...	750	39.01	...
Peebles (Swinton Bank)	C. A. Ainslie, Esq. ...	5	0 5	600 ∇	34.30	...
d „ „ „ „ „ (R)	„ „ „ „ „	8	4 6	600 ∇	34.31	190
Innerleithen (Leithen Lodge) ...	R. Steele, Esq.	11	0 2	770 ∇	42.04	...
d § Castlecraig [Dolphinton]	Scot. Meteorological Soc.	...	...	820	33.83	219
d West Linton Rectory	Rev. J. S. Begg	5	1 0	780 ∇	37.67	231
3.—ESK. 23 sq. mi.						
Eddlestone (Portmore Reservoir)	Messrs. Leslie & Reid, C.E.	11	0 6	1000	36.29	206
d West Linton (Rutherford House)	Ewen Cameron, Esq.	5	3 9	970 ∇	39.55	234
§ N. Esk Reservoir [Penicuik] ...	Mr. W. Tod	11	0 6	1150 ∇	41.20	...
4.—CLYDE—Right Bank Tributaries. 6 sq. mi.						
BERWICK. (Area, 457 sq. mi.)						
1.—TWEED—Gala. 6 sq. mi.						
2.—TWEED—Leader. 92 sq. mi.						
d Earlston (Cowdenknowes)	Mr. J. Robertson	5	0 10	360 ∇	25.84	196

DIVISION XIII.—SOUTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
BERWICK—(con.)						
3.—TWEED, LOWER—Left Bank	Tributaries. 115 sq. mi.					
Coldstream (Lochton)	J. Aitchison, Esq.	5	1 0	151 B	23·35	...
D „ (The Hirsell)	Mr. P. MacAndrew ...	5	1 0	94 A	25·96	174
4.—TWEED—Whiteadder. 164 sq. mi.						
D § Marchmont House	Mr. J. A. Wood	5	1 0	498 T	31·69	181
D Duns Castle	Mr. P. Smith	5	1 0	500	29·33	157
D „ (Manderston)	Mr. F. J. Marshall	8	1 6	356 A	32·55	146
West Foulden	J. Hewat Craw, Esq.	5	1 0	250 T	23·73	...
5.—EAST COAST STREAMS. 80 sq. mi.						
St. Abb's (Northfield)	J. A. Morrison, Esq.	5	0 8	150 T	21·82	...
„ „ Head	Bd. of Northern Lights	8	4 3	224	22·11	...
HADDINGTON. (Area, 267 sq. mi.)						
1.—TWEED—Leader. 1 sq. mi.						
2.—TWEED—Whiteadder. 35 sq. mi.						
3.—EAST COAST STREAMS. 69 sq. mi.						
Garvald (Donolly Reservoir) ...	W. Ross Young, Esq., CE	11	1 6	560 A	31·16	...
„ (Thorter Reservoir)	„ „ „	12	1 6	...	29·34	...
D Whittinghame Gardens	Scot. Meteorological Soc.	5	1 0	348 B	22·95	191
§ Prestonkirk (Beil)	„ „ „	5	1 6	180	20·69	...
4.—TYNE & C. 114 sq. mi.						
§ Prestonkirk (Smeaton)	Scot. Meteorological Soc.	7	7 10	100	23·84	...
5.—FIRTH OF FORTH. 48 sq. mi.						
D Drummorie [Musselburgh]	Mr. J. Robson	5	1 0	75 T	20·46	193
D Gosford House Gardens	Mr. W. Galloway	5	1 0	24	22·18	217
D § Aberlady Manse	Rev. J. Hart	5	0 11	15	20·33	155
D North Berwick Reservoir	W. Ross Young, Esq., CE	5	1 6	150 T	21·39	154
6.—INSULAR.						
MIDLOTHIAN. (Area, 369 sq. mi.)						
1.—TWEED—Gala. 68 sq. mi.						
2.—TYNE. 28 sq. mi.						
3.—FIRTH OF FORTH. 3 sq. mi.						
D Musselburgh (Levenhall)	J. W. Wood, Esq.	5	1 0	15 A	20·96	179
4.—ESK. 129 sq. mi.						
Moorfoot Hills (Bowbate)	Messrs. Leslie & Reid, C.E.	11	0 6	2042	44·07	...
„ „ (Gladhouse Res.)	„ „ „	5	0 6	900	35·37	235
„ „ (Rosebery)	„ „ „	4	0 6	750	30·74	209
„ „ (Edgelaw)	„ „ „	4	0 6	654	31·38	210
Pentland Hills (Harehill)	„ „ „	11	1 5	1470	39·28	...
„ „ (Loganlea)	„ „ „	8	1 4	850	36·15	...
„ „ (Glencorse Res.)	„ „ „	5	1 3	787	36·61	217
D Loanhead (Elmswood)	H. B. Dunlop, Esq. ...	5	1 0	520 T	24·36	174
Pentland Hills (Swanston)	Messrs. Leslie & Reid, C.E.	11	0 6	550	26·04	...

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	1911	
		in.	ft. in.	feet.	inches.	
MIDLOTHIAN—(con.)						
4.—ESK—(con.)						
D§ Dalkeith Gardens	Mr. J. Whytock.....	5	1 0	144	21·17	167
Liberton (Alnwick Hill)	Messrs. Leslie & Reid, C.E.	11	0 6	400	24·93	184
5.—ALMOND & C. 140 sq. mi.						
Pentland Hills (Crosswood)	Messrs. Leslie & Reid, C.E.	5	1 0	950	39·42	...
" " (Harperrig)	" " "	5	0 6	900	39·98	...
§ West Calder (Addiewell)	John Fyfe, Esq.....	5	0 6	600	35·52	...
D§ Balerno (Cockburn Hill)	R. Cross, Esq.....	5	1 0	767 T	35·51	186
Pentland Hills (Harlaw)	Messrs. Leslie & Reid, CE	5	0 6	800	30·14	...
" " (Harbour Hill) ...	" " "	11	0 6	1112	37·60	...
" " (Clubbiedean Res.)	" " "	11	0 6	750	30·92	...
D† Edinburgh (R. Obs., Blackford Hill)	T. Heath, Esq.	8	1 0	442 T	21·15	148
D† " (Univ. Engin. Lab.)	Prof. T. Hudson Beare.	5	1 0	227 T	22·42	175
† " (" " ") M	" " "	5	1 0	227 T	21·42	...
D " (City Observatory) ...	W. Peck, Esq.	8	1 0	349	19·54	163
† " (Charlotte Square) ...	Messrs. Leslie & Reid, CE	11	1 6	190 T	20·81	...
† " (" " ") ...	" " "	12	63 0	300	15·70	...
§ Leith	Meteorological Office ...	8	1 8	37	19·90	192
§ " (Navigation School)	Scot. Meteorological Soc.	5	0 5	76	23·43	...
D Davidson's Mains (Broomfield) ...	Mr. C. Comfort	5	0 10	42 L	20·07	160
6.—CLYDE—Right Bank Tributaries. 1 sq. mi.						
LINLITHGOW. (Area, 120 sq. mi.)						
1.—ALMOND & C. 60 sq. mi.						
§ Uphall (Bangour)	Dr. J. Keay	5	1 0	587	23·63	225
§ "	John Fyfe, Esq.....	5	0 10	380	30·93	...
D Craigie Hall [Cramond Bridge] ...	Mr. J. Sutherland	8	0 8	...	22·86	166
D Dalmeny House	Mr. D. T. Johnston ...	8	4 0	55	21·94	170
2.—FORTH—Right Bank Tributaries. 59 sq. mi.						
D Bathgate (Boghead House)	Mr. A. Ferguson	5	2 0	500	37·67	167
Torphichen (Lochcote)	John Loudon, Esq. ...	6	0 4	550 T	24·62	...
Carribber Reservoir	" " "	5	0 7	425 T	30·72	...
Linlithgow (Preston House)	Mr. C. Blair	5	0 8	380	29·89	...
D " Academy	J. Beveridge, Esq.....	5	1 0	170 T	31·73	196
" "	" " "	5	1 0	170 T	33·73	...
Bo'ness (Neidpath Cottage)	Mr. J. Grant	5	3 0	200 T	23·16	...
D " (Grange)	H. M. Cadell, Esq. ...	5	0 2	14	23·41	191
3.—CLYDE—Right Bank Tributaries. 1 sq. mi.						

A map of this Division, showing the sub-divisions, will be found in Part I.

DIVISION XIV.—SOUTH WESTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with -01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
LANARK. (Area, 881 sq. mi.)						
1.—TWEED, UPPER—Left Bank Tributaries. 20 sq. mi.						
d Biggar	J. Eunson, Esq.	8	1 0	691 T	34·88	208
d „ (Cambus Wallace).....	T. W. M. Watson, Esq. ...	6	0 6	748 T	35·00	150
2.—ALMOND. 14 sq. mi.						
3.—FORTH—Right Bank Tributaries. 9 sq. mi.						
Airdrie (Forrestburn Reservoir)..	J. Frew, Esq.	6	0 6	720 T	35·00	...
4.—CLYDE—Right Bank Tributaries. 378 sq. mi.						
Coulter Reservoir.....No. 2	W. Ross, Esq., C.E. ...	11	1 0	...	54·49	...
„No. 1	„ „ „ „	11	1 0	...	49·84	...
Lamington (Cowgill Reservoir)...	J. Chisholm, Esq., C.E. ...	5	1 0	970 T	48·11	...
\$ „Scot.Meteorological Soc.	Miss Dunlop	5	1 4	800	43·08	...
d Biggar (Shieldhill)	„ „ „ „	5	1 2	850 T	30·36	...
„ „on roof	R. Swann, Esq.	5	3 0	850 T	27·24	202
d Lanark (Rhyber Lodge)	Mrs. Elliott Lockhart... ..	6	0 6	650	31·20	...
d Cleghorn Gardens	W. Ross, Esq., C.E. ...	11	1 0	800 ?	34·40	...
Carluke (Coldstream Reservoir)..	Mr. D. Bryson	5	1 0	140	32·09	153
d „ (Mauldsie Castle)	Mr. W. Mackie	6	5 6	170	34·06	192
d Motherwell (Dalzell Gardens) ...	Dr. J. T. Wilson	5	0 9	150 T	35·10	165
d\$ Bothwell	Dr. A. Johnston	5	1 1	60 T	31·29	196
d\$ Glasgow (Belvedere Hospital) ...	J. Whitton, Esq.	5	0 6	85	37·50	...
„ (Tollcross Park).....	„ „ „ „	5	0 6	35	32·73	...
„ Green.....	„ „ „ „	8	6 0	40	34·17	...
„ (George Square)	„ „ „ „	5	0 6	141	36·37	...
d\$ „ (Alexandra Park)	Prof. L. Becker	11	2 0	182	36·26	200
† „ Observatory.....(R)	J. Whitton, Esq.	5	0 6	110	34·68	...
„ (Botanic Gardens).....	„ „ „ „	5	0 6	48	36·71	...
„ (Kelvingrove Park) ...	„ „ „ „	5	0 6	220	35·20	...
„ (Ruchill Park)	„ „ „ „	5	0 6	361	38·14	...
†Airdrie	J. Chisholm, Esq., C.E. ...	5	1 0	402 T	33·00	...
d „ (Hillend Reservoir)	Mr. W. A. Ritchie	6	4 6	620 T	35·54	198
†Roughrigg Res.[Slamannan] ...	J. Chisholm, Esq., C.E. ...	5	1 0	661 T	34·03	...
5.—CLYDE—Left Bank Tributaries. 448 sq. mi.						
†Leadhills.....	J. Macfarlane, Esq. ...	5	1 1	1300	70·78	204
†Strathaven (GlengavelReservoir)	J. Burns, Esq.	11	1 0	900 T	48·91	...
† „ (Dungavel)	Scot.MeteorologicalSoc. ...	5	1 0	800 T	53·25	..
† „ (Kype Reservoir) ...	W. H. Purdie, Esq. ...	11	3 0	941	50·70	152
„ (Dunside Reservoir)..	J. Burns, Esq. ....	...	...	1000 T	51·59	...
d „ (East Overton House) ..	H. Lee Dykes, Esq. ...	5	1 0	700 T	51·43	166
„ (Glassford Filters)... ..	J. Burns, Esq. ....	...	...	750 T	47·17	...
Hamilton W.W. (Townhill).....	W. H. Purdie, Esq. ...	7	1 0	436 T	37·50	...
d „ (Laightstone Hall)	Rev. T. M. B. Paterson ...	5	1 9	260 T	37·87	194
\$ „ Palace	Scot.MeteorologicalSoc. ...	...	...	100 ?	33·83	...
d\$ Busby (Thornton Hall).....	A.HendersonBishopEsq ...	5	1 0	441 T	40·52	208
Cambuslang (Greenlees Filters)..	J. Burns, Esq. ....	...	...	400 ?	29·44	...
Glasgow (Bellahouston Park) ...	J. Whitton, Esq.	5	0 6	160	32·88	...
6.—IRVINE. 2 sq. mi.						
7.—AYR. 1 sq. mi.						

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	1911	
		in.	ft. in.	feet.	inches.	
LANARK—(con.)						
8.—NITH. 2 sq. mi.						
9.—ANNAN. 7 sq. mi.						
AYR. (Area, 1135 sq. mi.)						
1.—CLYDE—Left Bank Tributaries. 20 sq. mi.						
D Glengarnock (Chemical Works)..	G. Harrower, Esq.....	8	1 6	100 ?	59·52	178
2.—FIRTH OF CLYDE. 60 sq. mi.						
§ Saltcoats	Scot. Meteorological Soc. ....	...	...	...	39·56	...
Shaws Water Works (Kelly Dam)	D. Macalister, Esq., C.E.	6	1 0	640	63·60	...
" " (Knockencorsan)	" " "	6	1 0	1040	64·10	...
3.—IRVINE & C. 283 sq. mi.						
§ Kilmarnock	Messrs. Glenfield & Kennedy	5	1 0	74	36·18	...
D " (Agricultural College)	Prof. R. A. Berry	8	1 2	80	36·01	196
" (North Craig Res.) ..	R. Blackwood, Esq. ...	12	1 0	319 ?	43·80	...
D Kilwinning (Eglinton Castle) ..	Mr. W. Priest.....	5	1 0	50 ?	42·97	176
D Stevenston (Greenhead Filters)...	Gilbert Christie, Esq., CE	5	1 0	186 ?	40·62	181
D Dalry (Blair)	Mr. W. Mair	5	1 3	155 ?	52·87	198
D " (Mount Pleasant)	Archibald Shanks, Esq.	5	1 1	290 ?	44·91	202
" (Munnoch Reservoir)	Gilbert Christie, Esq., CE	11	1 3	325 ?	48·20	160
" (Caaf Reservoir)	" " "	9	1 0	515 ?	52·10	164
D " W.W. (Filters)	Mr. W. Wightman " ..	5	1 0	320 ?	48·80	202
" " (Thirdpart) ... M	" " "	5	1 0	560 ?	51·09	...
" (Camphill Reservoir)	James Lee, Esq., C.E....	12	1 6	611	62·45	...
4.—AYR. 222 sq. mi.						
Ayr (Glendrishhaig)	P. Murdoch, Esq.	10	3 0	42	40·72	161
D Mauchline (Catrine)	Messrs. J. Finlay & Co.	6	1 0	301 ?	38·10	158
5.—DOON. 119 sq. mi.						
Loch Finlas	J. Young, Esq., C.E....	5	1 0	849 ?	63·87	...
D § Dalrymple (Bow Hill)	A. Gillespie, Esq.	5	0 8	978	52·64	213
Maybole (Knockdon Farm)	Mr. W. Muir	5	2 0	344	41·70	...
" " (Glenhead) ..	" " "	8	1 2	500	43·41	...
Ayr (Doonside)	W. H. Dunlop, Esq. ...	5	1 0	90	45·15	200
D " (Doonholm)	J. Kennedy, Esq.	5	1 0	90	47·49	188
6.—CULZEAN BAY & C. 32 sq. mi.						
Turnberry (Lighthouse)	Bd. of Northern Lights	...	...	...	34·24	...
D § " (Hotel)	Mr. J. Richards	5	1 0	97 ?	29·47	167
Maybole (Culzean Gardens)	Mr. C. Tate	9	0 3	200	39·71	...
7.—GIRVAN. 105 sq. mi.						
Girvan (Glendoune Gardens) ..	Mr. J. Simons	5	1 0	100 ?	44·40	167
Loch Bradan	Messrs J. & H. V. Eaglesham, CE	8	1 0	997	73·25	...
8.—STINCHAR & C. 155 sq. mi.						
Barrhill (Dochroyle)	Mr. J. Scott	6	0 6	548 ?	37·76?	...
§ Colmonell (Knockdolian)	Scot. Meteorological Soc.	5	1 0	150	44·18	189
D § Girvan (Pinmore) ..	Miss Hamilton	5	0 5	207 ?	51·52	220
Barr Manse	Rev. G. Dods.....	5	1 0	330	52·16	182
9.—LOCH RYAN. 12 sq. mi.						
10.—LUCE BAY. 15 sq. mi.						

DIVISION XIV.—SOUTH WESTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
AYR—(con.)						
11.—CREE. 40 sq. mi.						
12.—DEE. 9 sq. mi.						
13.—NITH. 62 sq. mi.						
d§ New Cumnock (Ayr Sanatorium)	Dr. E. E. Prest	5	1 0	850 ?	57·90	190
14.—INSULAR. 1 sq. mi.						
RENFREW. (Area, 241 sq. mi.)						
1.—CLYDE—Right Bank Tributaries. 3 sq. mi.						
2.—CLYDE—Left Bank Tributaries. 194 sq. mi.						
Lochwinnoch (Garthland)	H. Macdowall, Esq. ...	5	0 11	150	70·80	198
Gorbals Dist. W. W. (Ryat Lynn)	J. R. Sutherland, Esq. C.E.	8	0 5	310	52·10	...
„ „ „ (Waulk Glen)	„ „ „	12	0 5	280	50·50	...
„ „ „ (Middleton)	„ „ „	12	0 5	550	59·65	...
„ „ „ (Nether Cairn)	„ „ „	12	0 5	700	63·40	...
Paisley W. W. (Stanely)	James Lee, Esq., C.E.	12	1 0	190	47·08	...
„ „ (Back Thornley Muir)	„ „ „	12	1 0	646	59·50	...
„ „ (Muirhead)	„ „ „	12	1 0	482	63·55	...
„ „ (Springside)	„ „ „	12	1 0	532	74·50	...
d Glasgow (Queen's Park)	J. Whitton, Esq.	8	0 9	144	37·13	183
„ (Maxwell Park)	„ „ „	5	0 6	69	34·77	...
d† Paisley (The Coats Observatory)	D. Maclean, Esq.	10	1 8	107	47·61	211
§ Kilmalcolm Water Works	D. S. Carson, Esq.	5	1 0	500 ?	78·37	...
Shaws W. W. (Duchall Moor)	D. Macalister, Esq., C.E.	6	1 0	1150	94·90	...
„ „ (Creuch Hill)	„ „ „	6	1 0	1350	81·10	...
„ „ (Green Water)	„ „ „	6	1 0	788	77·40	...
§ Kilmalcolm (St. Oswald's) ... (R)	D. S. Carson, Esq.	5	1 0	350	58·42	...
Renfrew (Park Mains)	W. Taylor, Esq. ....	...	...	100 ?	38·93	...
Shaws W. W. (Gryfe Reservoir) ..	D. Macalister, Esq., C.E.	6	1 0	640	77·45	...
„ „ (Mansfield)	„ „ „	5	1 0	573	81·25	227
„ „ (Darndaff Moor)	„ „ „	6	1 0	850	75·10	...
Bishopton (Ingliston)	D. Cross, Esq.	5	1 0	195	49·60	...
3.—FIRTH OF CLYDE. 34 sq. mi.						
Wemyss Bay (Kelly)	J. Clark-Neill, Esq. ...	...	...	230	49·22	...
Shaws W. W. (Largs Road)	D. Macalister, Esq. C.E.	5	1 0	910	52·77	...
§ Douglass Res. (Port Glasgow W. W.) ..	James Murray, Esq. ...	8	1 6	540	66·04	...
§ Parkhill Filters („ „ „) ..	„ „ „	8	1 6	275	56·25	...
Shaws W. W. (Compensation Res.) ..	D. Macalister, Esq., C.E.	5	1 0	600	68·54	255
„ „ (Loch Thom)	„ „ „	5	1 0	643	73·93	255
„ „ (Shielhill)	„ „ „	6	1 0	962	74·20	...
„ „ (Spango Burn)	„ „ „	6	0 9	757	73·80	...
„ „ (Hole Glen)	„ „ „	5	1 0	603	67·64	242
„ „ (New Yetts Dam) ..	„ „ „	5	1 0	800	70·95	245
d Port Glasgow (Elmworth)	A. F. Gray, Esq.	5	1 3	107	65·59	209
d§ Greenock (Prospect Hill)	D. Macalister, Esq., C.E.	5	1 0	233	68·87	224
Langbank (East Bank Gardens) ..	A. Cross, Esq.	5	2 6	150	51·08	...
4.—IRVINE. 10 sq. mi.						

A map of this Division, showing the sub-divisions, will be found in Part. I.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with "01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
DUMBARTON. (Area, 270 sq. mi.)						
1.—FORTH—Right Bank Tributaries. 10 sq. mi.						
2.—FIRTH OF CLYDE & COWAL. 52 sq. mi.						
d Cardross (Kilmahew).....	Claud A. Allan, Esq....	5	1 0	130 T	49·66	191
d Helensburgh (Fernigair)	J. Andrew, Esq., C.E....	8	1 0	22	58·77	218
d " (Valve House).....	" "	8	1 0	293 L	49·71	222
d Roseneath (Achnashie)	R. S. Campbell, Esq....	6	1 0	25	63·65	196
Garelochhead (Aikenshaw)	Mr. W. S. Turnbull ...	6	1 0	32	73·30	...
3.—CLYDE—Leven. 149 sq. mi.						
d Dumbarton (Leven Shipyard) ...	Messrs W. Denny & Bros.	5	1 0	9 T	47·42	182
Kilpatrick Hills (Burncrooks Res.) No. 1	T. L. Rae, Esq., C.E....	5	1 0	835 T	52·24	...
" " (") No. 2	" " "	5	1 0	959 T	66·43	...
" " (") No. 3	" " "	5	1 0	920 T	59·49	...
" " (") No. 4	" " "	5	1 0	1080 T	54·12	...
" " (") No. 5	" " "	5	1 0	897 T	57·20	...
" " (") No. 6	" " "	5	1 0	905 T	62·55	...
d Renton (Carman Reservoir)	Mr. Chas. Brown	8	4 0	292	50·26	208
d Alexandria (The Rectory)	Rev. J. Eldon Ellison...	5	1 0	58 T	53·70	219
4.—CLYDE—Right Bank Tributaries. 59 sq. mi.						
d Duntocher (Cochno Filters)	T. L. Rae, Esq., C.E....	5	1 0	400 T	49·59	199
Kilpatrick Hills (Greenside Res.)	" " "	5	1 0	876 T	55·99	...
" " (Loch Cochno)...	" " "	5	1 0	909 T	56·50	...
" " (Jaw Reservoir)	" " "	5	1 0	912 T	59·76	...
STIRLING. (Area, 463 sq. mi.)						
1.—FORTH—Right Bank Tributaries. 263 sq. mi.						
Muiravonside Ho. [Linlithgow].	Mr. C. Leeder.....	5	4 8	175	32·06	...
d Polmont (Vellore).....(R)	W. Brown, Esq.....	8	4 6	320 T	30·02	208
d Falkirk (Inglewood, Laurieston)	W. Ballantine, Esq. ...	5	1 3	133 T	35·27	174
d " (Westbank)	A. Nimmo, Esq.....	5	0 9	75	35·76	189
" (Ardenlea)	J. Aitken, Esq., F.R.S.	5	1 0	105 T	36·08	206
" (Kerse)..... No. 1	C. Brown, Esq.	8	1 0	18 T	30·20	...
" (")..... No. 2	" " "	5	0 10	18 T	29·98	...
Little Denny Reservoir	C. Massie, Esq.	8	1 0	326	48·02	...
" " Filters	" " "	8	1 0	268 T	48·05	...
Kilsyth (Faughlin Res.)	" " "	8	1 0	707 T	63·32	...
d Bannockburn (Auchenbowie) ...	Scot. Meteorological Soc.	6	1 0	280	43·90	156
Earlsburn Reservoir	C. Massie, Esq.	8	1 0	1202 T	63·40	...
Stirling (Touch Reservoir) No. 1	A. H. Goudie, Esq. ...	8	2 0	455	52·37	216
" (") No. 2	" " "	8	2 0	759	50·43	216
" (Victoria Place)	R. Kidston, Esq., F.R.S.	5	2 10	100	39·07	...
d Buchlyvie (The Manse).....	Rev. J. A. Macdonald..	5	1 3	118 T	53·25	232
Kippen (Arngomery)	Mr. P. McCowan	5	4 2	150	48·85	...
Ben Lomond (Hd. of Duchray Val.)	J. R. Sutherland, Esq. CE	1800	103·20	...
2.—FORTH—Teith. 5 sq. mi.						
Glengyle	J. R. Sutherland, Esq. CE	380	94·80	...

DIVISION XV.—WEST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with ≥ 0.1 or more recorded.
		Diameter	Height above Ground.	Height above Sea Level		
		in.	ft. in.	feet.	inches.	
STIRLING—(con.)						
3.—FORTH—Left Bank Tributaries. 15 sq. mi.						
D† Bridge of Allan (The Lea)	Laurence Pullar, Esq...	5	1 0	80	32.37	205
4.—CLYDE—Leven. 128 sq. mi.						
D Strathblane (The Manse)	Rev. W. B. Moyes.....	5	0 6	235 T	63.07	204
Kilpatrick Hills (Burncrooks Res.) No. 7	T. L. Rae, Esq., C.E...	5	1 0	955 T	64.93	...
D Killearn (Achnagowan).....	Miss Guthrie-Smith ...	5	0 10	332 T	56.92	215
Loch Arklet (Corrieichon)	J.R. Sutherland, Esq. CE	...	...	870	99.60	...
„ „ (Corriearklet) .....	„ „ „	...	...	950	99.80	...
5.—CLYDE—Right Bank Tributaries. 52 sq. mi.						
D Torrance (Glenorchard)	Miss Bartholomew	5	1 6	200	45.56	206
Strathblane (Mugdock Reservoir)	J.R. Sutherland, Esq. CE	8	0 6	320	45.35	...
§ „ (Craigend Castle) ...	C. Stirling, Esq.	5	1 2	533 T	46.78	...
„ (Craigbarnet).....	Capt. G. H. Miller Stirling	5	0 6	300 T	60.25	...
D Kilsyth (Currymire)	James Smith, Esq. ...	5	1 2	200	50.93	213
BUTE. (Area, 218 sq. mi.)						
1.—ISLE OF BUTE. 50 sq. mi.						
D Rothesay (Crichton Road)	H. Lauder, Esq., jun...	5	4 0	97	57.99	223
D§ „ (Glenburn Hydro.) ...	Mr. D. Penney	5	1 0	86	55.71	223
Port Bannatyne (Ettrickdale) ...	Lt.-Col. M.R. Gray Buchanan	5	1 0	190 B	56.73	218
2.—CUMBRAES. 4 sq. mi.						
D Great Cumbrae (Millport)	R. Elmhirst, Esq.	5	1 0	15	41.43	211
3.—ARRAN. 164 sq. mi.						
Pladda.....	Bd. of Northern Lights	...	...	130	50.28	158
Holy Island (Pillar Rock)	„ „ „	3	0 3	46	57.13	163
D Brodick	Rev. A. Sutherland ...	5	1 0	30	72.42	201
ARGYLL. (Area, 3181 sq. mi.)						
1.—TAY—Tummel. 36 sq. mi.						
2.—SOUND OF ARISAIG, SOUND OF MULL & C. 317 sq. mi.						
D Morvern (Ardtornish)	G. C. Sellar, Esq.	5	1 0	48 T	80.52	240
D „ (Drimnin)	Mrs. Gordon	5	1 0	225	68.64	245
D§ Loch Sunart (Glenborrodale) ...	C. D. Rudd, Esq.	5	0 2	60 L	74.91	222
Ardnamurchan	Bd. of Northern Lights	8	4 3	180	41.75	170
3.—LOCH LINNHE—Right Bank Tributaries. 139 sq. mi.						
D Morvern (Kingairloch)	G. Herbert Strutt, Esq.	5	1 0	40 P	113.16	213
D Ardgor House	Capt. A. J. N. Maclean	5	0 10	65 B	111.54	241
4.—LOCH LINNHE—Left Bank Tributaries. 165 sq. mi.						
Duror (The Rectory).....	Rev. E. J. Benwell ...	5	1 0	120	80.56	...
D Ballachulish House	F. C. Beresford Drummond Esq	5	1 0	56 T	86.97	226
D „ (Glencoe)	J. D. Sutherland, Esq.	...	6 0	100	95.00	211
§ Glenleven (Blackwater Ho.) No. 4	British Aluminium Co.	8	1 0	1069	88.24	...
D§ „ („ Dam) No. 2	„ „ „	8	1 0	1072	90.69	243
§ „ (Invercann)..... No. 6	„ „ „	8	1 0	1070	94.39	...
D§ „ (Kinlochleven) .. No. 1	„ „ „	8	1 0	140	94.74	239
Loch Eil (Corran)	Bd. of Northern Lights	3	1 6	38	92.96	223

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	1911	
		in.	ft. in.	feet.	inches.	
ARGYLL—(con.)						
5.—LOCH ETIVE. 197 sq. mi.						
D§ Taynuilt (Barguilean)	Scot. Meteorological Soc. ....	...	...	230	81·79	190
6.—LOCH ETIVE—Loch Awe. 319 sq. mi.						
D§ Loch Awe (Ford)	J. Boyd, Esq.	8	1 0	150 T	78·14	231
D§ „ „ (Cruachan)	„ „ „ „	8	1 0	208 T	98·77	225
D Dalmally (Glenorchy Manse) ...	Rev. F. MacRae	5	1 7	160 T	81·62	210
7.—FIRTH OF LORNE. 112 sq. mi.						
D Kilmelfort (Arduaine)	J. A. Campbell, Esq.	5	0 10	23 L	62·92	219
D† Oban	Dr. E. Baily	8	1 0	17 L	57·96	203
8.—SOUND OF JURA. 163 sq. mi.						
D§ Lochgilphead (Poltalloch)	Mr. D. S. Melville	5	1 2	135	63·03	233
9.—KINTYRE, WEST. 146 sq. mi.						
Mull of Kintyre	Bd. of Northern Lights .....	...	...	279 ?	36·74	...
D Muasdale (Killeen Manse)	Rev. D. J. Macdonald ..	5	1 0	30 B	37·18	195
D Largie Castle	J. R. M. Macdonald, Esq. ...	5	1 0	160 T	48·44	217
D Carse	J. Birkmyre, Esq., jun. ...	6	1 6	20 A	40·86	233
10.—KINTYRE, EAST. 177 sq. mi.						
† Campbeltown (South Park)	J. A. Gardiner, Esq.	8	0 10	20 L	52·13	...
† „ „ (The Rectory)	Rev. Canon Wakeham ..	5	1 0	30 ?	46·41	...
D† „ „ (Witchburn)	Mr. John Giffen	5	1 6	75	48·38	208
„ „ (Devaar)	Bd. of Northern Lights ..	...	3 4	120 ?	49·55	174
Skipness Castle	R. F. Graham, Esq.	5	1 6	27 L	40·90	...
D Glenreasdell Mains	Ronald S. Ker, Esq.	5	1 0	149 T	48·95	207
11.—LOCH FYNE. 264 sq. mi.						
D Tarbert (Bunawe Cottage)	Mr. D. McIlriach	5	0 10	150 ?	70·65	201
Otter Ferry (Ballimore)	Mr. W. MacKenzie ...	5	0 6	70 A	59·45	...
D „ „ (School House)	Mrs. Stewart	5	1 0	37 T	51·04	200
D Ardrishaig (Canal Office)	L. J. Groves, Esq., C.E. ...	5	1 0	44	69·27	214
D§ Loch Fyne (Castle Lachlan)	J. McLachlan, Esq.	5	1 0	42	61·70	208
D „ „ (Furnace)	Mr. W. Nicol	5	3 0	15 L	82·96	219
D „ „ „ („ „ Brenchoillie)	A. E. Lewis, Esq.	5	1 0	240 ?	91·17	176
D Strachur	Mr. J. Montgomery ...	5	1 0	100 ?	81·62	200
D† Inveraray (Newtown)	Mrs. Little	5	1 0	17	83·62	226
D† „ „ Castle Gardens	A. E. Lewis, Esq.	5	1 0	40	96·32	232
D† „ „ (Stronshira)	Mrs. P. N. Mackichan ..	5	1 0	10	86·48	205
§ Ardkinglas	Sir Andrew Noble, Bt. ...	8	1 6	37 A	80·61	220
D† Glen Aray (Ladyfield)	A. E. Lewis, Esq.	5	1 0	400 ?	110·94	182
Glen Shira (Drimlie)	Mr. D. McIntyre	5	1 6	400	94·49	...
12.—FIRTH OF CLYDE & COWAL. 242 sq. mi.						
Kilbride (Craig Cottage)	P. Barne, Esq. ....	...	..	50 ?	48·82	..
D Tighnabruaich (Craigandaraich) ..	J. S. Paton, Esq.	12	5 0	50 B	59·68	209

DIVISION XV.—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	1911	
		in.	ft.	in.	feet.	inches.	
ARGYLL—(con.)							
12.—FIRTH OF CLYDE & COWAL—(con.)							
D Dunoon (Castle Gardens)	W. Rodger, Esq., C.E.	12	35	0	56 π	83.64	219
D „ (Reservoir)	„ „ „	12	3	6	245 π	91.21	216
D „ (Redhurst)	Dr. J. Banks	5	1	6	60	86.66	215
D Holy Loch (Ardnadam)	Rev. J. Cairns Mitchell	5	1	0	66 B	90.71	218
D Loch Eck (Benmore).....	H. J. Younger, Esq. ...	5	1	3	40	94.16	196
D† Lochgoilhead (Nuthill)	G. Murray Knox, Esq..	5	1	0	15	84.33	215
13.—CLYDE—Leven. 4 sq. mi.							
14.—INSULAR. 900 sq. mi.							
D Islay (Ardbeg)	C. E. Hay, Esq.	5	7	0	46 L	41.60	215
„ (Rhinn)	Bd. of Northern Lights	7	3	6	150	35.97	191
„ (Lochindaul).....	„ „ „	3	0	6	52	44.09	160
„ (McArthur's Head)	„ „ „	3	0	4	128	61.99	157
D „ (Eallabus).....	J. Forbes, Esq.	5	1	0	68 T	49.89	235
„ (Rhuvaal).....	Bd. of Northern Lights	3	1	3	147	48.20	182
D Jura (Ardfin).....	Colin Campbell, Esq....	5	1	0	160	51.87	218
„ (Fladda)	Bd. of Northern Lights	3	1	0	42	61.81	176
Lismore (Mousedale).....	„ „ „	7	3	10	105	53.80	195
D§ Eriska (Ledaig)	Scot. Meteorological Soc.	5	1	6	30	61.33	209
Mull (Kilfinichen)	J. A. Hunter, Esq.	5	1	0	50	76.34	182
D† „ (Iona Manse).....	Rev. A. Macmillan	5	1	2	45	45.39	204
D† „ (Bunessan)	Duncan Cameron, Esq.	5	1	4	50 B	48.13	207
D§ „ (Lochbuie Castle)	Mr. E. Lovesey	8	1	2	20	94.85	232
D „ (Ulva)	F. W. Clark, Esq.	5	1	0	30 π	69.65	234
D† „ (Knock)	Duncan Cameron, Esq.	5	1	4	50	98.41	195
D „ (Glenconnel)	„ „ „	5	1	3	140	134.89	211
D† „ (Gruline)	J. W. Melles, Esq. ...	8	1	0	101 ?	87.35	233
D „ (Quinish)	J. N. Forsyth, Esq. ...	5	1	3	35 B	57.74	232
„ Sound of	Bd. of Northern Lights	3	1	4	55	65.73	164
D† Tiree (Cornaigmore)	J. Ross, Esq.	5	1	0	25 T	49.31	230
Sanda	Bd. of Northern Lights	...	...	...	165	39.61	185

A map of this Division, showing the sub-divisions, will be found in Part I.

DIVISION XVI.—EAST MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 40 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1911
		in.	ft.	in.	feet.	inches.	
CLACKMANNAN. (Area, 55 sq. mi.)							
1.—FORTH, LOWER—Left Bank Tributaries. 55 sq. mi.							
D Alloa House Gardens	Earl of Mar & Kellie, K.T.	5	2	6	40	29·02	183
„ (Mar Street)	A. Mitchell, Esq.	5	0	6	70	25·48	...
„ W.W. (Gartmorn Res.) ...	Andrew Mackie, Esq. CE	11	1	0	172 ∇	27·75	...
Alva House.....	Miss Johnstone of Alva	5	1	6	180	33·40	154
D Dollar (Dollarbeg).....	James Bleloch, Esq. ...	5	0	9	265 ∇	35·25	202
D „ Academy	Mr. T. Aitken.....	9	1	0	178	37·63	170
KINROSS. (Area, 87 sq. mi.)							
1.—FORTH, LOWER—Left Bank Tributaries. 15 sq. mi.							
Blairingone Manse [Dollar]	Rev. J. F. Cameron ...	5	1	6	300 ∇	35·17	196
2.—LEVEN & C. 67 sq. mi.							
Blairadam Wood [Kelly]	D. Mackenzie, Esq., C.E.	8	0	5	761 ∇	37·46	...
D Loch Leven Sluice	Mr. W. Hay	8	0	9	360 ∇	31·70	174
3.—EDEN. 2 sq. mi.							
4.—TAY—Earn. 3 sq. mi.							
FIFE. (Area, 505 sq. mi.)							
1.—FORTH, LOWER—Left Bank Tributaries. 66 sq. mi.							
D Dunfermline (Broomhall Gardens)	Mr. J. Mitchell	5	1	0	15 ∇	22·92	160
D „ (Keavil).....	J. J. Dalgleish, Esq. ...	5	0	2	150	21·67	170
D Culross (Westgrange)	„ „ „ „ „ „	5	0	2	116 ∇	25·10	186
Carnock (Luscar House) ... No. 1	A. Mitchell, Esq.	5	0	10	430 ∇	26·37	...
„ „ „ „ „ „ No. 2	„ „ „ „ „ „	5	0	10	430 ∇	25·93	...
„ (Craigluscar)	W. R. Maxwell, Esq. ...	12	0	4	280 ∇	30·55	...
2.—LEVEN & C. 208 sq. mi.							
Dunfermline (Fordell House) ...	Earl of Buckinghamshire	5	1	0	230 ∇	23·23	...
Cleish Hills (Loch Glow Reservoir)	D. Mackenzie, Esq., C.E.	7	0	7	897 ∇	37·90	...
§ Leslie (Lothrie Reservoir).....	Scot. Meteorological Soc.	5	0	5	702	28·52	...
Largo (Carlton)	Mr. E. Tate	5	2	6	150 ∇	22·68	181
„ (Roselea)	Miss E. V. Baxter	5	1	0	...	21·78	...
D Colinsburgh Manse	Rev. Robert Dick	5	2	0	130 ∇	20·30	178
„ (Balchrystie)	Mrs. Anstruther.....	5	4	0	130 ∇	20·09	141
D „ (Balcarres).....	Mr. J. M. Paul	5	1	0	300 ∇	22·47	187
D Carnbee (Ovenstone W.W.)	A. P. Watson, Esq. ...	5	1	0	168 ∇	18·30	167
3.—EDEN & C. 205 sq. mi.							
§ Cupar (Clatto Reservoir).....	Scot. Meteorological Soc.	...	...		500	21·78	...
§ „ (Rankeillour) .....	„ „ „ „ „ „	...	...		...	22·81	...
D „ „ „ „ „ „	Capt. J. Kerr	5	1	0	240 ∇	21·19	172
D „ (Fife & Kinross Asylum) ..	Mr. J. Ness	5	1	0	210	19·90	136
D St. Andrews (Water Works).....	W. Watson, Esq.	5	1	0	217 ∇	18·95	170
D „ „ (Brownhills)	G. Cheetham, Esq.	5	0	10	188 ∇	19·68	167
D „ „ (Queen's Gardens) ..	Miss Macadam	5	1	0	55 ∇	21·32	207
4.—FIRTH OF TAY. 25 sq. mi.							
D Tayport (Lighthouse).....	J. H. Thompson, Esq., CE	5	1	0	27	16·74	163

DIVISION XVI.—EAST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
FIFE—(con.)						
5.—TAY—Earn. 1 sq. mi.						
6.—INSULAR.						
§ Inchkeith	Bd. of Northern Lights	...	...	160	16·31	...
Isle of May	" " "	6	3 0	...	18·61	141
PERTH. (Area, 2535 sq. mi.)						
1.—FORTH—Right Bank Tributaries. 17 sq. mi.						
2.—FORTH, UPPER—Left Bank Tributaries. 64 sq. mi.						
Aberfoyle (The Inn)	J.R.Sutherland, Esq. CE	8	0 6	60	68·75	...
D Doune (Gartincaber)	G. Burn Murdoch, Esq.	5	1 0	200 T	42·40	193
Loch Dhu	J.R.Sutherland, Esq. CE	8	0 6	325	91·20	...
Ledard .....	" " "	...	...	1500	65·40	...
3.—FORTH—Teith. 276 sq. mi.						
Ochertyre [Stirling]	Capt. Dundas	5	1 0	18 T	35·77	...
D Doune	Rev. G. S. Mackay	5	1 0	125 T	37·22	195
Loch Drunkie	J.R.Sutherland, Esq. CE	8	0 6	420	62·60	...
Loch Vennachar	" " "	8	0 6	275	59·80	...
Bridge of Turk	" " "	8	0 6	275	68·60	...
Doune (Cauldhame)	J. Forbes, Esq.	5	1 0	830	52·50	169
Loch Katrine (Tunnel Hill Top)	J.R.Sutherland, Esq. CE	8	0 6	830	100·20	...
Between Glen Finlas & Ben Ledi	" " "	8	0 6	1800	68·70	...
Callander (Leny House)	J. H. Buchanan, Esq. ...	5	0 6	340 T	66·50	...
§ Balquhiddy (Blaircreach)	J. Carnegie, Esq.	5	1 0	460	105·53	...
D § " (Stronvar)	" " "	5	1 0	422 T	80·50	204
4.—FORTH, LOWER—Left Bank Tributaries. 107 sq. mi.						
§ Dunblane (Kippenross)	Scot. Meteorological Soc.	3	1 3	240	40·48	...
§ " (Kippendavie)	" " "	8	2 9	300	44·00	...
Glendevon (Glenquey Reservoir)	D. Mackenzie, Esq., C.E.	...	0 11	945 T	57·10	...
D " (Tormaukin)	Mr. W. Phillips	5	0 10	770 T	56·28	165
" (Glensherup)	W. R. Maxwell, Esq. ...	12	0 4	745 T	62·36	...
Braco (Nether Cambushinnie)	J. W. Stirling, Esq. ...	5	0 10	380 T	42·91	...
5.—LEVEN. 1 sq. mi.						
6.—EDEN. 4 sq. mi.						
7.—TAY—Earn. 376 sq. mi.						
Slateford Burn (Shire End)	Messrs. Leslie & Reid, C.E.	8	...	930	33·96	...
" " (Whitehill)	" " "	8	...	810	32·88	...
Upper Farg (Plains)	" " "	8	...	900	30·88	...
" " (Deuglie)	" " "	5	...	710	27·00	...
" " (Heatherieleys)	" " "	5	...	790	28·79	...
" " (" Quarry)	" " "	8	...	715	28·65	...
§ Auchterarder	Scot. Meteorological Soc.	...	...	...	25·07	...
§ Abernethy (Aytoun House)	" " "	5	0 11	120	25·09	...
Bridge of Earn (Ballendrick)	R. Richardson, Esq. ...	3	4 0	50	19·64	...
D Lochearnhead (Ardvorlich)	Col. J. Stewart, C.I.E.	5	1 0	325 T	70·68	194
D § Comrie (Clathick)	Mr. T. Elvidge	5	1 0	300	40·02	161
D § Crieff (Strathearn Hydro.)	Dr. T. H. Meikle	5	1 0	436 T	35·55	196

DIVISION XVI.—EAST MIDLAND COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with '01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
PERTH—(con.)						
8.—TAY—Almond & c. 149 sq. mi.						
n Perth (Craigie Road)	Sydney Wilson, Esq....	5	1 0	56 T	21·41	178
9.—TAY—Strathday below Dunkeld. 33 sq. mi.						
Murthly (Douglasfield)	W. A. Rae, Esq.	5	0 6	237 T	27·45	...
†Dunkeld (Snaigow) (R)	Scot. Meteorological Soc.	10	1 0	370	26·61	...
10.—TAY—Bran. 81 sq. mi.						
11.—TAY—Strathday above Dunkeld. 95 sq. mi.						
n Aberfeldy (Urlar)	J. A. Macdonald, Esq..	...	...	1000 T	35·08	169
Dalguise Gardens	J. H. Tempest, Esq. ...	...	...	200	33·31	...
n†Aberfeldy (Dall Avon)	Dr. N. D. Mackay	5	1 0	300	33·89	194
n† „ (Dunros)	H. W. Johnston, Esq..	5	1 0	400	29·32	198
12.—TAY—Loch Tay. 186 sq. mi.						
13.—TAY—Lyon. 142 sq. mi.						
n§Glenlyon (Meggernie Castle) ...	Mr. W. Taylor	5	1 0	760	64·82	193
14.—TAY—Tummel. 587 sq. mi.						
§Pitlochry (Bonskeid)	G. F. Barbour, Esq. ...	5	1 0	540 T	32·16	197
n†Blair Atholl	Mr. A. Cameron.....	5	1 0	420	30·66	172
15.—TAY—Isla. 282 sq. mi.						
n†Coupar Angus	Mr. J. Robertson	5	1 3	183 T	21·02	189
†Blairgowrie (Ratray)	Mr. A. Wallace	5	0 10	194	21·98	...
n† „ (Ballintuim House).	Miss M. A. Macdonald	5	1 4	700	34·13	213
16.—TAY—Left Bank Tributaries. 51 sq. mi.						
n§Perth (Laurelbank)	A. M. Rodger, Esq. ...	5	1 0	85 T	20·44	167
Scone (Lignwood)	Peter Campbell, Esq....	5	0 5	200	19·07	...
§Dunsinnan	J. Mackay Bernard, Esq.	...	...	400 ?	23·00	...
17.—FIRTH OF TAY. 45 sq. mi.						
18.—SPEY. Right Bank Tributaries. 1 sq. mi.						
19.—LOCH LINNHE. Left Bank Tributaries. 2 sq. mi.						
20.—CLYDE—Leven. 36 sq. mi.						
FORFAR. (Area, 875 sq. mi.)						
1.—TAY—Isla. 211 sq. mi.						
n§Kettins School	W. Andrew, Esq.	5	1 0	218 T	21·87	174
Glamis Castle.....	Mr. T. Wilson	5	1 6	250	21·56	...
n§Forfar (Lilyfield)	D. M. Mackie, Esq. ...	5	0 5	225 T	22·43	179
Kirriemuir (Lintrathen)	M G. Baxter, Esq., C.E..	8	1 0	700	28·60	...
n „ („)	„ „ „	8	1 0	700	27·83	176

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	1911	
		in.	ft. in.	feet.	inches.	
FORFAR—(con.)						
1.—TAY—Isla—(con.)						
Kirriemuir (Lintrathen, Balnakeilly) M	G. Baxter, Esq., C.E...	8	1 0	700	28·50	...
§ " (" , Creich Hill, S.) M	" " " " "	8	1 0	1482	26·10	...
§ " (" " " ") M	" " " " "	8	1 0	1500	26·90	...
§ " (" " " " N.) M	" " " " "	8	1 0	1491	27·00	...
2.—FIRTH OF TAY. 80 sq. mi.						
D Buddonness (Low Light)	J. H. Thompson, Esq., CE	5	1 0	17	20·23	167
D § Dundee (Harbour)	" " " "	5	0 10	14	17·21	160
D Broughty Ferry (Tayside Cottage)	Mr. A. Robb	5	5 6	25	16·54	172
§ Dundee (Eastern Necropolis) ...	Mr. J. Carnochan	3	0 4	199 T	16·60	...
D § " (" " " ")	" " " " "	5	1 0	199 T	17·08	179
" (Dens Works) ... roof g.	Messrs. Baxter Bros. Ltd.	5	1 5	119 T	18·00	228
" (Camperdown Works) ...	Messrs. Cox Bros., Ltd.	5	3 8	290	15·13?	146
D § " (Balruddery)	J. Martin White, Esq..	5	1 0	266 T	19·12	199
3.—SOUTH ESK & C. 371 sq. mi.						
D Craigton	G. Baxter, Esq., C.E...	8	1 0	484	20·91	164
"	" " " "	11	3 0	484	20·29	...
" (Hillhead)	" " " "	11	3 0	370	20·92	...
Crombie Reservoir	" " " "	11	3 0	522 T	24·08	...
D § Arbroath (Dishland Hill)	Mr. J. Campbell	5	1 0	69 T	18·70	189
" (Muirheads Reservoir)	P. C. Smith, Esq., C.E.	5	1 0	251 T	19·60	...
Montroseness	Bd. of Northern Lights	3	1 0	124	19·85	...
D Montrose (Melville Gardens) ...	S. L. Christie, Esq. ...	5	9 0	20 A	20·80	163
D Forfar W.W. (Den of Ogil)	A. Watterston, Esq. ...	12x4	1 0	633 A	31·74	178
D § Glen Prosen (Pearsie)	Scot. Meteorological Soc.	5	1 0	600 T	31·31	198
D § " " (Lednathie)	Mr. W. G. Lindsay ...	5	1 0	720	37·47	174
4.—NORTH ESK & C. 213 sq. mi.						
§ Montrose (Sunnyside Asylum) ...	Dr. J. G. Havelock ...	5	0 10	200	20·87	...
D " (Kinnaber W.W.)	S. L. Christie, Esq. ...	5	1 0	38 T	22·67	165
Logie Pert (Loanhead of Craigo)	Mr. G. D. Cramond ...	5	0 9	200 ?	22·87	...
Brechin (Stracathro Gardens) ...	Mr. A. Dunlop	5	1 0	200 T	23·98	...

A map of this Division, showing the sub-divisions, will be found in Part I.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with rain or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1911
		in.	ft.	in.	feet.	inches.	
KINCARDINE. (Area, 382 sq. mi.)							
1.—NORTH ESK & C. 99 sq. mi. § Laurencekirk (Johnstone Lodge)	Scot. Meteorological Soc.	5	1	0	400	27·16	...
† Fettercairn (The Burn)	Col. C. McInroy, C.B....	5	0	11	250	29·77	186
"	Mr. A. Mackenzie	5	1	0	230 †	30·72	153
† " (Fasque Gardens) ...	Sir J.R. Gladstone, Bart.	5	1	0	320 †	32·55	176
2.—BERVIE, COWIE & C. 139 sq. mi.							
Todhead	Bd. of Northern Lights	3	4	0	125	19·32	...
d Stonehaven (Mains of Cowie) ...	John Hart, Esq.....	5	1	0	80	24·03	186
Girdleness	Bd. of Northern Lights	7	4	0	185	22·59	196
3.—DEE. 144 sq. mi.							
† Strachan (Bridge of Dye).....	Sir J.R. Gladstone, Bart.	5	2	6	550 †	37·31	176
d † Crathes (Crossroad, Durris)	A. Macdonald, Esq. ...	5	1	0	420 †	32·94	196
Durris House [Drumoak].....(R)	Mr. A. Reid	5	3	6	200 ?	29·83	...
d † Banchory (Invercannie)	Cecil H. Roberts, Esq., CE	12	0	10	205 †	31·65	191
† Crathes (Pinewood)	J. Smith, Esq.	5	1	0	145 †	29·02	186
d † " (Woodbank Cottage)....	Mr. D. Murchison	5	0	6	165 †	28·64	178
Banchory (Hirn)	Mr. W. Caird.....	5	2	0	287 †	28·75	...
ABERDEEN. (Area, 1974 sq. mi.)							
1.—DEE. 672 sq. mi.							
† Braemar (Canmore) M	A. M. Shirran, Esq. ...	8	0	9	1114 †	34·75	...
† " (Bank) M	"	5	1	0	1114 †	33·96	...
d † " (Derry Lodge) ... No. 6	Cecil H. Roberts, Esq., CE	5	1	0	1400	37·07	216
Beinn Bhreac No. 7	"	5	1	0	2700	39·10	...
Ben Muich Dhui (Carn à Mhaim) No. 5	"	5	1	0	2700	41·40	...
d † Balmoral Castle Gardens	Mr. J. M. Troup.....	8	1	0	927 †	29·92	163
d § Abergeldie Castle	Mr. R. F. Chalmers ...	5	1	0	...	29·65	209
d Ballater (Irrigation Farm)	Cecil H. Roberts, Esq., CE	5	1	0	675 ?	27·77	161
d † Glen Gairn (Gairn Shiel Lo.) No 14	"	5	1	0	1100	30·47	205
" " (Little Cullardoch) No 12	"	5	1	0	2000	34·35	...
† " " (Corndavon Lodge) No 13	"	5	1	0	1500	34·28	...
d † Cromar (Logie Coldstone School)..	J. B. Anderson, Esq....	5	1	0	608 †	27·16	203
d † " (" " Loanhead)	Mr. A. Farquharson ...	5	1	0	743 †	28·40	208
d § " (Tillypronie)	Mr. J. Lawson	5	1	0	1120 †	29·15	205
d † Aberdeen (Cranford House)	D. McHardy, Esq. ...	5	1	0	120 †	28·50	205
2.—DON. 512 sq. mi.							
d † Aberdeen (King's College)	Meteorological Office ...	8	2	0	90	27·51	206
Upper Don (Delnadampf) No. 15	Cecil H. Roberts, Esq., CE	5	1	0	1850	34·05	...
d † Strathdon Schoolhouse	J. B. Innes, Esq.	5	1	0	980 †	31·20	216
d † " (Estates Office)	C. Christie, Esq.	5	1	2	990 †	33·07	215
d Alford (Lynturk Manse)	Rev. J. B. Duncan.....	5	1	0	600 †	29·13	217
d Dyce (Parkhill House)	J. E. Crombie, Esq. ...	5	0	11	200 †	27·15	204
Insch (Thornhill)	J. Bisset, Esq.....	8	1	0	430 †	28·48	203

DIVISION XVII.—NORTH EASTERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
ABERDEEN—(con.)						
3.—YTHAN & C. 285 sq. mi.						
§Ellon (Avonbank)	T. F. Jamieson, Esq....	5	1	0	55	28·91
House of Schivas	Lord Haddo	5	0	9	130 ?	29·23
§Fyvie Castle	Col. C. R. Burn	5	0	6	200 ?	34·22
4.—UGIE & C. 257 sq. mi.						
Buchanness.....	Bd. of Northern Lights	3	3	0	130	25·07
D New Deer Schoolhouse	H. Cowie, Esq.	5	1	0	397 ?	30·99
D Peterhead (Thunderton)	Miss Oldman	5	1	1	150	26·44
D „ (Mains of Buthlaw)...	Miss Johnston.....	5	1	6	120	27·15
Kinnairdhead.....	Bd. of Northern Lights	3	2	6	120	24·30
5.—DEVERON & C. 248 sq. mi.						
Drumblade (Public School)	G. Harper, Esq.....	5	1	6	485 ?	29·29
Huntly (Union Bank)	Alex. Smith, Esq.	5	1	0	450 ?	31·48
D „ (Cruchie)	John Joss, Esq.	5	4	0	400 ?	29·88
BANFF. (Area, 630 sq. mi.)						
1.—YTHAN. 1 sq. mi.						
2.—DEVERON & C. 344 sq. mi.						
D Keith Station	Mr. A. Kennedy	5	1	0	364 ?	34·10
Cullen House	Mr. A. Morton	5	1	0	100 ?	31·49
3.—SPEY—Right Bank Tributaries. 285 sq. mi.						
D Dufftown (Victoria Terrace) ..	Miss Walker	5	2	0	579 ?	34·45
Aberlour	J. F. McGowan, Esq....	4	1	0	298	32·04
„ Orphanage	J. G. White, Esq.	5	1	0	320	32·21
§Craigellachie	Scot.Meteorological Soc.	3	0	1	339 ?	28·40
MORAY. (Area, 477 sq. mi.)						
1.—DEVERON & C. 7 sq. mi.						
2.—SPEY—Right Bank Tributaries. 35 sq. mi.						
D Gordon Castle.....	Mr. C. Webster	5	1	0	107 ?	26·98
3.—SPEY—Left Bank Tributaries. 133 sq. mi.						
Grantown-on-Spey	Mr. W. Duncan.....	5	1	1	700	31·27
Archiestown (Benview).....	Mr. J. Milne	5	1	0	750 ?	32·79
4.—LOSSIE & C. 154 sq. mi.						
Elgin (The Manse).....	Rev. Dr. R. Macpherson	6	1	3	38 ?	22·60
D Duffus House	Mr. W. Ogg	5	1	0	55 ?	23·80
Covesea Skerries	Bd. of Northern Lights	7	3	6	52	20·23
5.—FINDHORN & C. 148 sq. mi.						
§Forres (Balnaferry)	W. Fraser, Esq.....	5	1	0	50	24·07
Kinloss	Mrs. Mackessack	5	1	3	23 ?	24·15

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	1911
		in.	ft.	in.	feet.	inches.
NAIRN. (Area, 163 sq. mi.)						
1.—FINDHORN & C. 102 sq. mi.						
D Ardelach (Glenferness).....	Mr. A. Mackenzie	8	1	6	750 T	32·71 188
2.—NAIRN & C. 61 sq. mi.						
Cawdor	J. Birnie, Esq.	5	1	0	250 T	28·25 ...
D „ Castle (B)	Mr. D. Chapman	8	4	3	225 T	30·58 186
D Nairn (Achareidh).....	H. A. Clarke, Esq.....	8	1	0	59 T	25·40 215
§ „ (Delnies).....	Meteorological Office...	8	1	9	84	27·25 218

A map of this Division, showing the sub-divisions, will be found in Part I.

DIVISION XVIII.—NORTH WESTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with ≥ 0.1 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
INVERNESS. (Area, 4146 sq. mi.)						
1.—TAY—Tummel. 28 sq. mi.						
2.—SPEY—Right Bank Tributaries. 437 sq. mi.						
3.—SPEY—Left Bank Tributaries. 257 sq. mi.						
§ Kingussie	Scot. Meteorological Soc.	5	1 0	828	26.88	...
¤ Alvey Manse	Rev. J. Anderson	5	1 0	760 T	26.44	179
¤ § Carrbridge	Scot. Meteorological Soc.	...	...	...	25.92	204
¤ Muckerach Lodge [Grantown]...	Mr. J. Fraser	5	1 3	750	28.75	215
4.—FINDHORN. 164 sq. mi.						
5.—NAIRN & C. 131 sq. mi.						
6.—NESS—Right Bank Tributaries. 252 sq. mi.						
¤ § Fort Augustus (St. Benedict's)...	Rev. C. von Dieckhoff..	5	1 0	68 T	44.78	233
Loch Ness (Killin, Whitebridge).	British Aluminium Co.	5	1 0	1200	41.21	...
¤ „ „ (Garthbeg).....	„ „ „	5	1 0	645 T	33.91	171
„ „ (Foyers).....	„ „ „	8	1 6	52 T	35.19	...
„ „ (Aberchalder)	„ „ „	5	1 0	700 T	32.62	...
7.—NESS—Garry & c. 185 sq. mi.						
§ Loch Quoich (Loan)	W. M. Christy, Esq.	5	1 6	650 T	177.35	...
¤ § „ „ (Kinlochquoich) ...	Capt. D. W. Cameron..	5	1 0	560 T	126.11	241
¤ „ „ (Glenquoich)	Mr. D. Grant	5	1 2	569 T	122.19	232
¤ § Glen Garry (Inchlaggan)	Mr. M. Matheson	5	1 0	370 T	75.94	250
Invergarry	Mr. G. Robertson	5	1 0	130 ?	76.72	...
8.—NESS—Moriston. 120 sq. mi.						
9.—NESS—Enrick. 131 sq. mi.						
¤ Drumnadrochit	Mr. Angus Grant	5	1 0	138 T	35.29	233
¤ § Inverness (High School)	W. G. MacConnachie Esq	5	1 0	98 T	25.52	178
10.—BEAULY. 341 sq. mi.						
11.—CROMARTY FIRTH. 13 sq. mi.						
12.—SOUND OF SLEAT. 259 sq. mi.						
Loch Morar (Meoble Lodge).....	E. M. Crosfield, Esq....	8	1 3	104 T	111.40	...
¤ Loch Nevis (Inverie)	Mr. J. Huggins	5	0 6	10	95.00	234
¤ Glenelg Manse	Rev. A. Mactaggart ...	5	1 0	85 T	60.06	256
13.—SOUND OF ARISAIG. 126 sq. mi.						
¤ Moidart (Kinlochmoidart).....	J. C. Stewart, Esq.....	5	1 3	13	77.53	219
¤ § „ (Roshven)	Mrs. Blackburn	5	1 0	40 T	83.02	255
§ Loch Shiel (Glenfinnan)	Scot. Meteorological Soc.	5	0 8	50 ?	121.68	...
¤ Arisaig (Point of Rhue)	Mr. D. McVarish	5	1 0	100 T	56.17	198
¤ „ (Faire-na-Sguir)	Miss C. C. Astley	5	1 8	30	59.92	231
¤ „ House	Mr. W. Grant	5	1 0	30 ?	64.64	234
14.—LOCH LINNHE—Right Bank Tributaries. 48 sq. mi.						
15.—LOCHY—Right Bank Tributaries. 143 sq. mi.						
¤ § Loch Arkaig (Achnacarry)	Capt. D. W. Cameron...	5	1 0	110	91.12	235
¤ § „ „ (Glen Dessary)	„ „ „	5	1 0	300 T	128.91	232
16.—LOCHY—Left Bank Tributaries. 362 sq. mi.						
Spean Bridge (Spean Lodge) ...	Miss W. Davy	5	1 5	204	69.51	234
Loch Lochy (Invergloy)	Major G. I. Bailey.....	5	1 0	210 T	62.99	216
17.—LOCH LINNHE—Left Bank Tributaries. 120 sq. mi.						
¤ North Ballachulish (Alltshellach)	B. Chinnery-Haldane Esq	5	2 1	80 B	83.02	221
¤ Glenleven (Kinlochmore)	Brian Bibby, Esq.....	5	1 0	115	101.97	234

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	1911	
		in.	ft.	in.	feet.	inches.	
INVERNESS—(con.)							
17.—LOCH LINNHE—Left Bank Tributaries—(con.)							
Glenleven (Chiaron House) No. 3	British Aluminium Co.	8	1	0	1200 T	100·94	...
" (Cam Bridge) ... No. 5	"	8	1	0	1260 T	82·35	...
d§ Fort William (Atholl Bank).....	W. T. Kilgour, Esq. ...	5	1	0	171 A	84·90	222
18.—INSULAR, INNER HEBRIDES. 786 sq. mi.							
d Eigg (Kildonan).....	Mrs. Glendinning	5	1	0	35	59·03	196
Hyskier	Bd. of Northern Lights	...	...	...	...	42·27	195
Rum (Kinloch Castle)	<i>Gardener's Chronicle</i>...	...	...	...	30 ?	114·28	...
Skye (Oronsay)	Bd. of Northern Lights	...	0	6	58	61·06	200
" (Kilmarie, Strathaird).....	Mr. J. MacKinnon.....	5	0	8	6	102·81	...
" (Kyleakin).....	Bd. of Northern Lights	5	4	6	53	57·62	223
d " (Scalpay Island)	Mr. D. Gunn	5	1	0	4	93·50	259
§ " (Glendrynoch, L. Harport).	Rev. H. Harbord	5	1	0	40	82·14	...
" (Neist Point).....	Bd. of Northern Lights	...	...	...	...	59·62	207
d " (Portree)	D. Dewar, Esq.	5	1	0	65	73·18	232
d " (Dunvegan)	Mrs. Mackenzie	5	3	0	47 A	77·52	239
d§ " (Lynedale)	Scot. Meteorological Soc.	...	...	...	100 ?	68·13	244
Rona	Bd. of Northern Lights	3	1	3	212	43·59	203
19.—INSULAR, OUTER HEBRIDES. 243 sq. mi.							
Barra (Barrahead).....	Bd. of Northern Lights	7	3	0	683	32·45	164
§ " (Castle Bay)	Meteorological Office...	8	1	0	48	35·93	235
South Uist (Ushenish)	Bd. of Northern Lights	3	1	0	178 ?	46·12	190
North " (Monach).....	"	8	5	6	20	50·59	213
d " " (Lochmaddy)	W. S. Hetherington, Esq.	5	0	9	20	44·78	214
Harris (Island Glass)....	Bd. of Northern Lights	7	4	2	130	54·03	181
d " (West Tarbert)	J. Fraser, Esq.	5	1	6	33 L	79·36	237
ROSS & CROMARTY. (Area, 3237 sq. mi.)							
1.—NESS—Moriston. 35 sq. mi.							
2.—BEAULY. 109 sq. mi.							
Achnashellach (Glenuaig)	W. M. Christy, Esq.	5	1	0	1150 T	126·55	...
3.—MORAY FIRTH COAST STRIDE. 64 sq. mi.							
d§ Fortrose	A. Thom, Esq.	5	1	0	69 A	23·72	171
4.—CROMARTY FIRTH. 714 sq. mi.							
§ Strathpeffer	Meteorological Office...	...	...	...	210	26·30	215
d Achterneed (Glenskiach)	Mr. T. Dalling	5	1	6	...	46·22	184
§ Evanton (Swordale House)	Scot. Meteorological Soc.	10	0	8	520	24·15?	...
d§ " (Novar Gardens).....	Mr. A. Edmonstone ...	5	0	6	...	34·15	226
d Cromarty House.....	Col. W. C. Ross, C.B. ...	5	0	6	80 T	25·77	201
"	Bd. of Northern Lights	3	1	0	28	25·20	175
d§ Alness (Fyrish)	Oswald B. Cowan, Esq.	8	1	0	350	28·89	197
Invergordon (The Ord).....	W. G. Paterson, Esq. ...	5	0	9	25 ?	23·96	161
Kildary (Tarbat Gardens).....	Mr. C. Dyer	5	1	0	15	28·85	...
d Alness (Ardross Castle).....	Mr. W. L. Minty	5	1	0	450 A	34·35	223
5.—DORNOCH FIRTH. 355 sq. mi.							
Fearn (Lower Pitkerrie)	R. Gordon, Esq., C.E. ...	5	1	0	95	18·35?	...
Tarbatness	Bd. of Northern Lights	8	4	0	175	19·92	...

DIVISION XVIII.—NORTH WESTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain, 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
ROSS & CROMARTY—(con.)						
6.—ENARD BAY. 78 sq. mi.						
d Ullapool (Inverpolly Lodge).....	G. Wotherspoon, Esq...	5	4	0	29	50.29 204
7.—LOCH BROOM & C. 367 sq. mi.						
Loch Vraon.....	Lady Fowler	8	0	7	750	62.68 ...
Loch Drome	„ „	8	0	7	850 T	49.13? ...
Braemore House.....	„ „	8	0	7	750	55.99 ...
8.—LOCH EWE, LOCH TORRIDON & C. 423 sq. mi.						
d Loch Torridon (Bendamph)	The Earl of Lovelace...	5	0	5	20 T	90.76 242
d Gairloch (The Manse)	Rev. D. Maclean	5	1	0	40 B	52.33 195
d Poolewe (Inverewe Gardens) ...	Mr. R. B. Campbell ...	5	0	6	20	58.84 199
9.—LOCH CARRON, LOCH ALSH & C. 401 sq. mi.						
§ Glen Shiel (Shiel House)	M Mr. Colin Campbell ...	5	...	...	...	93.67 ...
Loch Carron (Plockton)	Mrs. Anstruther Mackay	5	1	0	4	56.23 ...
Applecross Gardens	Mr. D. McCowan	5	1	0	70 T	59.40 ...
d § Glencarron Lodge	Mr. D. D. Munro	5	1	0	504 T	87.57 241
§ „ „	M „ „ „	5	1	0	504 T	90.53 ...
10.—INSULAR, OUTER HEBRIDES. 691 sq. mi.						
§ Stornoway	Meteorological Office ...	8	1	0	52	48.30 263
„ (Tiumpanhead)	Bd. of Northern Lights	...	...	...	170	49.09 ...
„ (Butt of Lewis)	„ „ „	8	4	6	170	41.06 198

A map of this Division, showing the sub-divisions, will be found in Part I.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with 0.1 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
SUTHERLAND. (Area, 2080 sq. mi.)		in.	ft. in.	feet.	inches.	
1.— DORNOCH FIRTH. 413 sq. mi.						
d Invershin	G. Young, Esq.	5	4 0	20 T	30.29	174
2.— FLEET, BRORA & C. 309 sq. mi.						
d Dunrobin Castle.....	Mr. D. Melville	5	1 6	14 T	26.35	166
§ " "	" "	3	1 6	14 T	28.03	...
d Brora (Gordonbush)	Mr. J. MacRae	5	0 11	100	35.05	166
3.— HELMSDALE & C. 226 sq. mi.						
4.— NORTH COAST STREAMS. 736 sq. mi.						
Strath More (Altnacaillich)	Mr. Duncan Fraser ...	5	1 0	60 T	65.26	238
d Tongue Manse	Rev. David Lundie ...	5	1 0	180 T	37.40	258
d Bettyhill	Mr. Evander Mackay...	5	1 0	100	33.15	198
d Melvich	Mr. A. MacIntosh	5	1 0	...	36.86	220
Cape Wrath	Bd. of Northern Lights	7	4 8	400	49.46	219
5.— LOCH LAXFORD & C. 256 sq. mi.						
d Loch Stack (Ardochullin)	Mr. J. Munro	5	1 0	167 T	67.73	252
6.— ENARD BAY. 138 sq. mi.						
7.— INSULAR. 2 sq. mi.						
CAITHNESS. (Area, 696 sq. mi.)						
1.— BERRIEDALE, DUNBEATH & C. 169 sq. mi.						
d Berriedale (Langwell)	Mr. M. MacKenzie ...	6	1 0	150 T	32.75	152
2.— WICK & C. 184 sq. mi.						
d Wick	Meteorological Office...	8	1 9	77	27.41	228
§ Nosshead.....	Bd. of Northern Lights	7	4 7	175	22.09	167
§ Watten	Scot. Meteorological Soc.	127	29.71	...
d " (Stanstill).....	Miss Davidson	5	1 0	127 T	29.30	214
3.— THURSO & C. 238 sq. mi.						
d Thurso (Buckies)	J. H. M. Davidson, Esq.	5	0 11	240 P	35.14	234
d Castletown (The Clett)	Capt. J. Calder	5	1 0	73 T	32.59	251
Thurso (Holburn Head)	Bd. of Northern Lights	3	0 8	75 P	29.71	169
Dunnet Head	" " "	3	1 0	246	26.78	...
4.— FORSS & C. 104 sq. mi.						
d Reay	Rev. Dugald Carmichael	8	1 0	50 T	35.96	231
5.— INSULAR. 1 sq. mi.						
Stroma	Bd. of Northern Lights	104	32.68	195
Pentland Skerries	" " "	7	3 9	170	25.99	162
ORKNEY. (Area, 389 sq. mi.)						
Hoy (Cantickhead)	Bd. of Northern Lights	3	1 0	115	34.69	163
" (Graemsay Sound, East=High)	" " "	5	0 4	115	36.70	204
" " " (West=Low)	" " "	8	4 3	55	39.04	220
d Pomona (Deerness)	Magnus Spence, Esq....	5	1 0	161	33.99	209
d " (Kirkwall)	A. G. Spence, Esq. ...	5	1 0	72	38.20	244
Hellyar Holm.....	Bd. of Northern Lights	3	1 0	60	32.57	220

DIVISION XIX.—NORTHERN COUNTIES—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain, 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
ORKNEY—(con.)						
Shapinsay (Balfour Castle)	Mr. W. Liddell	5	0	6	50	28·48 ...
Auskerry	Bd. of Northern Lights	3	2	6	10	28·91 162
Sanday (Start Point).....	„ „ „	3	1	0	80	29·32 ...
Westray (Noup Head)	„ „ „	3	1	0	260	31·30 216
North Ronaldshay	„ „ „	3	0	4	140	32·20 201
SHETLAND. (Area, 558 sq. mi.)						
Bressay	Bd. of Northern Lights	3	1	0	105	33·70 212
n§Lerwick	Capt. G. Allison	5	1	0	30	42·80 225
Sule Skerry	Bd. of Northern Lights	3	0	6	113	39·33 232
n§Northmavine (Lochend)	Scot. Meteorological Soc.	5	1	10	10	49·49 249
n Fetlar (The Manse)	Rev. J. A. Campbell ...	5	1	0	30 1	38·39 245
n§Unst (Balta Sound, Halligarth)..	Dr. T. Edmondstone Saxby..	5	1	0	31 7	41·01 286

A map of this Division, showing the sub-divisions, will be found in Part I.

IRELAND.

DIVISION XX.—MUNSTER.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.
		Diameter	Height above Ground.	Height above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
CORK. (Area, 2873 sq. mi.)						
1.—SHANNON—Left Bank Tributaries. 79 sq. mi.						
2.—DINGLE BAY. 4 sq. mi.						
3.—KENMARE & C. 47 sq. mi.						
4.—BANTRY BAY. 197 sq. mi.						
5.—DUNMANUS BAY. 57 sq. mi.						
6.—BANDON & C. 694 sq. mi.						
D Skibbereen (Hollybrook)	Col. A. H. Morgan, D.S.O.	8	1 2	60 T	55·14	196
D „ Rectory	Rev. Canon H. W. Townsend	5	1 6	55 T	52·54	207
D Caheragh (The Rectory)	Rev. A. W. Whitley...	5	0 11	98 T	55·68	194
D Clonakilty (Shannon Vale House) ..	T. J. Bennett, Esq. ...	5	1 3	135 T	45·88	212
D Ballineen (Kilmeen Rectory) ...	Rev. W. A. Lamb.....	5	1 6	370 T	58·36	196
D Dunmanway (The Rectory)	Rev. A. Wilson	5	1 6	205 T	66·09	215
D Enniskean (Kilcoleman)	J. E. Longfield, Esq....	5	2 6	192 T	53·76	199
7.—CORK HARBOUR. 726 sq. mi.						
†Roches Point	Meteorological Office...	8	1 9	32	40·16	237
D†Midleton (Ballynacurra)	J. H. Bennett, Esq. ...	8	1 0	24 L	37·71	176
†Cork (Corn Market)	D. J. O'Mahony, Esq....	12	1 9	19 T	33·39	...
D† „ (The Palace)	Rt. Rev. Bishop of Cork	5	1 0	40 L	39·76	177
D† „ (University College)	Prof. C. W. L. Alexander	8	1 0	65 T	34·56	197
D† „ (Fernhurst Avenue)	the late W. Miller, Esq.	5	1 0	50 B	39·17	180
D „ (Wellington Road)	R. C. Sikes, Esq., C.E.	5	2 6	120 T	42·15	185
D†Queenstown (Fota Island)	Mr. W. Beswick.....	5	1 6	35 B	46·35	209
D†Glanmire (Lota Lodge).....No. 1	A. F. Sharman Crawford, Esq.	5	1 0	200 T	41·61	186
D† „ „ „ „.....No. 2	„ „ „	5	1 0	100 T	40·08	187
8.—WOMANAGH & C. 118 sq. mi.						
D Shanagarry (Kinoith)	Miss L. P. Strangman..	5	1 0	75 T	36·82	151
9.—BLACKWATER. 922 sq. mi.						
D Mallow (Summer Hill)	J. F. Williamson, Esq.	5	1 10	261 T	39·96	192
D „ (Longueville)	R. E. Longfield, Esq....	5	1 1	310	39·74	188

DIVISION XX.—MUNSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with 0.1 or more recorded.	
		Diameter	Height Above Ground		Height Above Sea Level		1911
		in.	ft.	in.	feet.	inches.	
CORK—(con.)							
9.—BLACKWATER—(con.)							
D Fermoy (Castlehyde)	W. W. Becker, Esq.	4	4	0	...	45.62	177
D Mitchelstown Castle	W. D. Webber, Esq.	8	3	0	340 N	42.18	194
10.—SUIR. 3 sq. mi.							
11.—INSULAR. 26 sq. mi.							
KERRY. (Area, 1851 sq. mi.)							
1.—SHANNON—Left Bank Tributaries. 372 sq. mi.							
2.—TRALLEE BAY & C. 221 sq. mi.							
3.—DINGLE BAY. 789 sq. mi.							
† Cahirciveen	Meteorological Office ...	8	2	0	45	55.61	220
† Gap of Dunloe (Gearahameen) M	Dr. H. R. Mill	8	3	0	75	95.00	...
§ Lough Caragh (Lickeen)	Admiral Jeffreys, C.V.O.	5	1	0	60	80.04	231
D † Killarney (District Asylum) ...	E. W. Griffin, Esq., M.D.	5	0	10	178 T	56.14	222
4.—KENMARE & C. 426 sq. mi.							
D † Darrynane Abbey	D. O'Connell, Esq.	5	1	1	13 N	55.19	242
Kenmare (Derreen)	Mr. W. Holbrow	5	1	0	74 L	74.86	195
D Waterville (Iveragh Lodge)	R. J. Hughes, Esq. ...	5	1	0	86 N	38.10?	201
D Kenmare (Dunkerron Castle) ...	Miss L. Palmer	5	1	6	70	68.19	189
5.—BLACKWATER. 30 sq. mi.							
6.—INSULAR. 13 sq. mi.							
§ Valencia (Glanleam)	Meteorological Office ...	8	1	0	12	61.18	206
WATERFORD. (Area, 715 sq. mi.)							
1.—BLACKWATER. 243 sq. mi.							
D Lismore Castle	J. E. Penrose, Esq.	8	2	9	115 N	41.88	171
2.—COLLIGAN & C. 259 sq. mi.							
3.—SUIR. 213 sq. mi.							
D Knockaderry	No. 1 J. J. Fleming, Esq., C.E.	5	7	7	247 T	45.84	173
D " " " " " " " " " " " "	No. 2 " " " " " " " " " " " "	5	7	7	247 T	47.05	173
D † Waterford (Whitfield Court) ...	Major H. Chavasse	5	0	7	67 N	44.09	195
D † " (Brook Lodge)	C. P. Bolton, Esq., C.E.	5	1	0	104 T	42.04	179
D † " (Tycor Waterworks)	J. J. Fleming, Esq., C.E.	5	0	7	171 T	40.60	149
D " (Grange House)	G. D. Croker, Esq.	5	1	0	200 T	38.02	188
D " (De La Salle College)	Prof. M. J. Healy	5	1	0	30 N	40.43	180
D † " (St. Andrew's Terrace)	E. A. White, Esq.	5	1	0	28	40.73	180
D † " (Rocklands)	J. N. White, Esq.	5	1	0	50 ?	40.94	183
D Portlaw (Mayfield)	J. Anderson, Esq.	5	4	0	70	43.33	192
D " (The Gardens, Curraghmore)	Mr. D. Crombie	5	1	0	95 T	48.65	154
D Sheskin [Carrick-on-Suir]	J. Ernest Grubb, Esq. ...	8	1	4	542 N	45.77	183
TIPPERARY. (Area, 1660 sq. mi.)							
1.—SHANNON—Left Bank Tributaries. 582 sq. mi.							
D Ballina [Killaloe]	F. Dudley Fletcher, Esq. CE	5	2	0	...	51.37	181

DIVISION XX.—MUNSTER—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
TIPPERARY—(<i>con.</i>)						
1.—SHANNON—Left Bank Tributaries—(<i>con.</i>)						
D Nenagh (Traverston)	Miss Norris	5	1 0	...	48·11	248
„ (Kilboy)	The Lady Dunalley ...	8	1 0	326	46·36	194
D „ (Castle Lough)	S.G.J.Parker-Hutchinson Esq.	5	1 3	120 T	41·97	195
D „ (Highlands)	John Mounsey, Esq. ...	5	1 2	400 T	32·22	172
2.—BLACKWATER. 21 sq. mi.						
3.—SUIR. 965 sq. mi.						
D Clonmel (Bruce Villa)	J. H. Grubb, Esq.	5	1 3	110 T	38·97	200
D \$ Cahir (Bengurragh)	R. W. Smith, Esq., junr.	5	1 0	199 T	42·32	209
„ Abbey	Mrs. W. Rochfort	5	1 0	...	40·66	183
D Cashel (Ballinamona)	E. W. M. Murphy, Esq.	5	1 0	260 T	37·80	206
4.—BARROW—Nore. 92 sq. mi.						
D Roscrea (Timoney Park)	S.G.J.Parker-Hutchinson Esq.	5	1 0	475 T	37·07	197
LIMERICK. (Area, 1040 sq. mi.)						
1.—SHANNON—Right Bank Tributaries. 7 sq. mi.						
2.—SHANNON—Left Bank Tributaries. 944 sq. mi.						
D \$ Limerick (Mungret College) ...	Rev. W. O'Leary, S.J.	5	1 0	48 T	33·02	184
† „ (George Street)	J. Horan, Esq.	5	1 0	52 T	35·06	199
„ (St. Michael's School) ..	late Archdeacon Wynne	5	1 3	43 T	32·90	...
3.—BLACKWATER. 64 sq. mi.						
4.—SUIR. 25 sq. mi.						
CLARE. (Area, 1270 sq. mi.)						
1.—GALWAY BAY, SOUTH. 100 sq. mi.						
2.—MAL BAY & C. 294 sq. mi.						
D \$ Inagh (Mount Callan)	Lt.-Col. F. Tottenham..	5	1 0	480	58·48	212
D Miltown Malbay (Ballyvasken)...	M. Molohan, Esq.	5	1 0	400 T	42·68	220
D Lahinch (Moy House)	Dr. C. H. Blood	5	1 0	120 T	36·12	196
D Ennistymon House	H. V. Macnamara, Esq.	5	1 0	37 T	42·56	212
D „ Rectory	Rev. C. W. McDowell..	5	1 0	131 T	45·75	203
3.—SHANNON—Right Bank Tributaries. 854 sq. mi.						
D Carrigaholt Castle	W. C. V. Burton, Esq.	5	1 0	16 T	38·13	206
† Derravoher [Limerick]	Sir A. W. Shaw	5	1 0	40 T	33·13	205
D Whitehall [„]	M. D. Shaw, Esq. ....	...	...	...	36·96	188
D Killadysert (Paradise Hill)	F. B. Henn, Esq.	5	0 11	125 T	44·53	183
D \$ Newmarket-on-Fergus (Carrigoran)	Mr. A. Barker	5	1 0	86 T	39·95	193
D „ „ (Fenloe) ..	Maj. S. C. Hickman ...	5	1 2	156 T	36·63	216
D Broadford (Hurdlestown)	Colonel W. A. Bentley.	5	1 0	167 T	41·94	210
D Scariff (Woodpark)	R. F. Hibbert, Esq. ...	5	1 0	170 T	41·63	205
4.—INSULAR. 22 sq. mi.						

A map of this Division, showing the sub-divisions, will be found in Part I.

DIVISION XXI.—LEINSTER.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground	Height Above Sea Level	1911	
		in.	ft. in.	feet.	inches.	
WEXFORD. (Area, 902 sq. mi.)						
1.—BARROW. 43 sq. mi.						
2.—OWENDUFF & C. 240 sq. mi.						
D Fethard-on-Sea Rectory	Rev. W. F. A. Ellison..	5	1 0	40 I	33·42	200
3.—SLANEY & C. 467 sq. mi.						
D† Wexford (Bann-aboo)	Col. J. R. Magrath ...	8	4 0	15	41·29	171
Templeudigan (Ballindoney) ..	Janssen Budgen, Esq...	5	1 0	434 B	46·08	...
D Enniscorthy (Ballyhyland)	Mrs. Moffat.....	5	1 0	365 I	47·20	235
D „ (Summerville)	W. Waring, Esq.	5	6 10	106 I	35·48	183
„ (Woodbrook)	Rev. Canon Blacker ...	5	1 0	370 I	52·23	158
4.—OWENAVORRAGH & C. 146 sq. mi.						
D Oulart (Wells)	C. M. Doyne, Esq.....	5	1 0	250 I	37·99	145
D Gorey (Courtown House)	The Earl of Courtown..	5	3 0	80 I	35·83	164
5.—OVOCA & C. 6 sq. mi.						
KILKENNY. (Area, 798 sq. mi.)						
1.—SUIR. 162 sq. mi.						
D Rockenham [Waterford]	A. E. Graves, Esq.....	5	1 0	140 I	39·90	140
D Piltown (Bessborough)	Mr. T. E. Tomalin.....	8	3 7	60 I	37·94	203
2.—BARROW—Nore. 527 sq. mi.						
Inistioge (Woodstock, Mt. Alto).	Mr. W. Leath.....	6	...	...	44·36?	...
„ („ „)	„ „ „	6	1 0	400 I	47·37	...
D Thomastown (Ballyduff)	Lt.-Col. Hon. F. Shore	5	1 5	110	43·84	187
§ Kilkenny Castle	Meteorological Office...	8	1 0	212	36·31	216
† „ (Lavistown House) ...	Miss Butler.....	5	2 5	170	34·32	177
D Castlecomer House.....	R.H.Prior-Wandesforde, Esq	5	0 9	380	41·55	177
3.—BARROW. 109 sq. mi.						
D Goresbridge (Barraghsore House)	H. de M. Fleming, Esq.	5	1 0	130 I	33·56	201
WICKLOW. (Area, 781 sq. mi.)						
1.—BARROW. 12 sq. mi.						
2.—SLANEY. 200 sq. mi.						
D Shillelagh (Coollattin Gardens)...	Duncan Brough, Esq...	5	0 7	400	42·46	169
3.—OVOCA & C. 241 sq. mi.						
D Rathdrum (Avondale)	A. C. Forbes, Esq.....	5	0 6	420 I	42·25	170
† Laragh (Glendalough)	A. A. Wynne, Esq. ...	5	2 9	460 I	63·03	...
4.—VARTRY & C. 193 sq. mi.						
Arklow (The Sycamores)	Mrs. Udal	5	3 0	40	32·04	...
D Rathnew (Clonmannon)	Rev. W. H. A. Truell..	5	1 0	27	31·29	172
Roundwood (Vartry Lodge)	J.G.O'Sullivan Esq.C.E.	5	1 0	720	45·29	...
„ „ „	„ „ „	5	1 6	800 A	44·03	...
„ (Knockatemple).....	„ „ „	5	1 6	760 A	44·75	...
§ Newcastle (Killadreenan)	Meteorological Office ...	8	1 2	260 I	36·35	183
Tithewere	J.G.O'Sullivan Esq., CE	5	1 6	1000 A	42·88	...
Annacarter Schoolhouse	„ „ „	5	1 6	750 A	42·76	...
Greystones (Clonsilla)	Sir J. W. Moore, M.D.	5	0 8	50 I	31·15	172
„ (Coolagad)	Dr. J. H. Armstrong ...	5	0 9	190 I	36·07	189

DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with ≥ 0.1 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1911
		in.	ft.	in.	feet	inches.	
WICKLOW—(con.)							
4.—BRAY & C—(con.)							
D† Bray (Fassaroe) ...	R. M. Barrington, Esq.	10	5	0	250	39.50	180
D „ („) <i>Snowdon</i>	„ „ „	5	1	0	250	37.64	179
5.—LIFFEY & C. 135 sq. mi.							
CARLOW. (Area, 346 sq. mi.)							
1.—BARROW—Nore. 9 sq. mi.							
2.—BARROW. 216 sq. mi.							
Bagnalstown (Fenagh House) ...	D. R. P. Beresford, Esq	5	1	0	340	35.58	183
„ („ „) M	„ „ „	5	1	0	340	32.57	...
D Tullow (Hardymount)	Capt. C. L. Connellan...	5	1	3	300 †	31.48	182
Carlow (Browne's Hill).....	Major Browne Clayton.	5	1	0	291 †	36.26	...
„ (Dublin Street).....	A. G. Hayward, Esq....	5	1	0	200 ?	36.31	...
3.—SLANEY. 121 sq. mi.							
Hacketstown Rectory	Rev. C. S. S. Ellison ...	5	1	2	600 †	37.48	197
QUEEN'S COUNTY. (Area, 664 sq. mi.)							
1.—SHANNON—Left Bank Tributaries. 25 sq. mi.							
2.—BARROW—Nore. 339 sq. mi.							
D Abbey Leix (Blandsfort)	H. Bland, Esq.	5	2	6	532 †	37.49	202
Mountrath (Castletown)	Col. W. Dunne, C.B....	5	4	9	452 †	35.96	170
D „ (Ballyfin).....	Mr. J. B. McLaren ...	8	1	0	600 †	44.37	209
3.—BARROW. 300 sq. mi.							
Sunnyside [Carlow]	E. Shackleton, Esq. ...	5	1	0	178 †	32.68	170
§ Mountmellick (Drogheda Square)	Meteorological Office ...	8	1	0	253	40.84	202
KING'S COUNTY. (Area, 772 sq. mi.)							
1.—SHANNON—Left Bank Tributaries. 560 sq. mi.							
D§ Birr Castle	Dr. O. Boeddicker	8	1	0	183	30.39	197
D Victoria Lock [Meelick]	F. Dudley Fletcher Esq. CE	5	2	0	119	30.83	187
Tullamore (St. Catherine's)	Rev. R. S. Craig.....	5	1	0	201 †	33.00	...
D Ballycumber (Moorock Lodge)...	H. P. Mulock, Esq. ...	5	1	0	210	34.31	158
2.—BARROW—Nore. 5 sq. mi.							
3.—BARROW. 156 sq. mi.							
4.—BOYNE. 51 sq. mi.							
KILDARE. (Area, 654 sq. mi.)							
1.—BARROW. 332 sq. mi.							
D Castledermot	Very Rev. M. Walsh...	5	2	8	...	31.65	169
D Monasterevan (Moore Abbey) ...	Mr. C. Pilgrim	5	1	0	236 †	29.20	214
2.—LIFFEY. 246 sq. mi.							
D Sallins (Palmerstown)	The Countess of Mayo..	5	1	0	321 †	31.24	187
D Straffan House	Mr. F. Bedford	5	1	0	240 †	31.85	193
D§ Clongowes Wood College	Rev. C. J. Byrne, S.J. ...	8	1	0	238 †	29.65	214

DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	
		in.	ft.	in.	feet.	inches.
KILDARE—(con.)						
3.—BOYNE. 76 sq. mi. Kilcock (Knockanally)	W. C. Coates, Esq.	5	1	0	290 †	35.32 ...
DUBLIN. (Area, 354 sq. mi.)						
1.—VARTRY & C. 23 sq. mi. Carrickmines (Claremont)	John Read, Esq.	5	0	11	250	28.25 ...
D Killiney (Druid Lodge)	Mrs. Symes	5	1	0	245 †	25.78 148
Ballybrack (Marino)	Rt. Hon. Lawrence Waldron	5	3	6	...	25.46 153
2.—LIFFEY & C. 188 sq. mi.						
D Glen-na-Smoel (Rathmines W.W.)	F. P. Dixon, Esq., C.E.	5	1	0	514 †	42.83 231
Rathfarnham (St. Columba's College)	F. W. Attwood, Esq.	5	1	0	485 †	41.76 ...
D† Blackrock (Charleville)	S. Harold Pim, Esq. ..	5	1	0	260 ?	25.08 141
D Dundrum (Manor Mill Lodge) ...	G. B. Edmondson, Esq.	5	1	3	192 †	27.55 196
„ (Lynton)	Sir J. W. Moore, M.D.	5	1	0	200 ?	29.54 194
† Kingstown (People's Park)	Meteorological Office ...	8	1	0	42	21.70 168
„ (Harbour Yard)	Office of Public Works	8	1	0	52 †	23.32 ...
Rathmines (Terenure)	F. P. Dixon, Esq., C.E.	5	0	6	125 †	23.51 170
D „ (Leinster Road)	E. H. Cannon, Esq. ...	5	0	11	125 †	24.79 184
D „ (Ormond Road)	W.R. Stephens, Esq. C.E.	5	1	0	99 †	24.42 187
Donnybrook (Belmont Avenue) ..	Douglas Waring, Esq. ..	5	0	9	100 ?	24.51 178
Clondalkin (Cheeverstown)	Sir J. W. Moore, M.D.	5	1	4	350 ?	26.78 197
Dublin (Leeson Park)	„ „ „	5	1	4	75 ?	24.58 184
D† „ (Fitz William Square) ...	„ „ „	8	1	6	54 †	23.48 188
D† „ (Trinity College)	Prof. W. E. Thrift	8	1	0	13 †	22.28 156
D† „ (Phoenix Park)	Ordnance Survey Office	8	1	0	155 †	23.24 190
„ (Pigeon Ho. Rd. Ppg. Stat.)	J.G. O'Sullivan, Esq., CE	5	1	0	25	22.58 ...
Clontarf (Pumping Station) ... (R)	„ „ „	5	4	6	21	19.84 ...
D Dublin (Drumcondra Road)	A. Roycroft, Esq.	5	4	9	76	23.44 175
D Glasnevin (Roy. Botanic Gardens)	Sir F. W. Moore	8	1	0	55 †	24.92 194
Howth (Balkill Reservoir)	Messrs. Kaye-Parry & Ross, CE	8	1	0	304 †	26.14 ...
3.—NANNY, DELVIN & C. 142 sq. mi.						
D Malahide (Seamount)	J. G. Jameson, Esq. ...	5	1	0	150 †	25.83 185
„ (The Green)	T. Bateman, Esq.	5	1	0	25 †	23.20 170
D† Skerries (Milverton Hall)	Capt. E. G. Woods	5	1	0	190 †	25.42 182
D† Balbriggan (Ardgillan) ... No. 1	Capt. E. R. Taylor	5	1	0	211 †	28.03 184
† „ „ „ „ „ No. 3	„ „ „ „ „	5	1	0	211 †	27.85 ...
4.—INSULAR. 1 sq. mi.						
D Lambay Island	Hon. Cecil Baring	5	1	0	20	25.68 177
MEATH. (Area, 909 sq. mi.)						
1.—SHANNON—Left Bank Tributaries. 32 sq. mi.						
2.—LIFFEY & C. 72 sq. mi.						
D Dunboyne (Stirling, Clonee)	Mr. J. Pilkington	8	1	0	231 †	29.16 194
3.—NANNY, DELVIN & C. 150 sq. mi.						
D Drogheda (Mullacrogan)	W. B. Hill, Esq.	5	1	6	300	25.62 166

DIVISION XXI.—LEINSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with -01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
MEATH—(con.)						
4.—BOYNE. 560 sq. mi.						
D Summerhill House.....	Lord Langford	5	1 0	372 T	32·38	198
D Athboy (Mitchelston)	W. J. Hopkins, Esq....	5	1 0	260 P	32·35	187
„ (Frankville)	C. P. Coghill, Esq.....	8	1 3	227	36·11	178
D Navan (Durhamstown)	Miss M. Roberts.....	5	0 8	...	30·48	173
D Kells (Headfort).....	The Marquis of Headfort	8	0 6	227	34·01	183
Moynalty (Westland)	late W. A. Barnes, Esq.	5	1 2	260 T	35·37	196
5.—DUNDALK BAY. 95 sq. mi.						
D Drumconrath (Aclare House) (R)	Mrs. Singleton	10	1 0	153 T	29·06	193
WESTMEATH. (Area, 712 sq. mi.)						
1.—SHANNON—Left Bank Tributaries. 517 sq. mi.						
D Athlone	F. Dudley Fletcher Esq. CE	5	2 0	128 T	30·70	185
D „ (Twyford)	J. P. Hodson, Esq.....	5	5 0	188 T	34·89	188
D Moate (Coolatore)	H. A. S. Upton, Esq...	5	1 6	370	40·30	195
D Mullingar (Belvedere)	Mr. J. Bayliss	5	1 0	367 T	36·84	196
D „ (Ballynegall)	Mr. J. Campbell.....	5	1 3	365 T	40·55	199
Rathowen (Cromlyn)..... (R)	Gen. J. P. Battersby ...	8	1 6	250 T	36·06	201
D Castlepollard (Pakenham Hall)...	Mr. G. Bogie	5	1 6	300 P	34·81	196
D Coole (Mayne Rectory)	Rev. R. Butler	5	1 0	300	33·51	195
2.—BOYNE. 195 sq. mi.						
LOUTH. (Area, 316 sq. mi.)						
1.—BOYNE. 32 sq. mi.						
2.—DUNDALK BAY & C. 264 sq. mi.						
D Ardee (Lissrenny) .. .	T. F. Filgate, Esq.....	5	0 10	75 T	29·47	183
„ (Mullanstown)	„ „ „ „	8	1 0	106 T	28·82	...
Dundalk (Farndreg)	J. Barton, Esq., C.E....	5	1 6	90 T	28·70	...
D „ (Mount Pleasant) .. .	Telford Macneill, Esq...	5	1 0	60 T	30·33	212
3.—CARLINGFORD LOUGH. 20 sq. mi.						
D Greenore	T. Chambers, Esq., C.E.	5	1 0	4 L	29·79	179
LONGFORD. (Area, 424 sq. mi.)						
1.—ERNE. 61 sq. mi.						
2.—SHANNON—Left Bank Tributaries. 363 sq. mi.						
D Ballymahon (New Castle).....	Col. W. H. King-Harman	5	2 5	250 T	36·83	199
D Cloondrah	F. Dudley Fletcher Esq. CE	5	2 0	130	28·64	206
D Longford	J. W. Gunnis, Esq. ...	8	3 6	180 T	35·13	174
D Castle Forbes Gardens	(R) The Earl of Granard...	8	2 8	172 T	37·59	196

A map of this Division, showing the sub-divisions, will be found in Part I.

DIVISION XXII.—CONNAUGHT.

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
GALWAY. (Area, 2377 sq. mi.)						
1.—ERIFF & C. 141 sq. mi.						
2.—GALWAY BAY, NORTH. 277 sq. mi.						
Knockboy House	D. H. Thompson, Esq...	5	0 10	150 T	39·71	200
3.—CORRIB. 846 sq. mi.						
Tuam (Castle Hacket)	P. B. Bernard, Esq.	5	1 6	...	42·22	...
„ (Gardenfield) No. 3 M	H. Kirwan, Esq.	5	1 0	155 T	45·10	...
„ { „ } No. 1	„ „ „	5	6 0	160 T	44·11	216
„ { „ } No. 2 weekly	„ „ „	5	1 0	155 T	44·12	...
4.—GALWAY BAY, SOUTH. 281 sq. mi.						
D Woodlawn	Mr. C. Farmer	5	3 6	300 T	35·27	218
5.—SHANNON—Right Bank Tributaries. 803 sq. mi.						
D Ballinasloe	W. H. Kempster, Esq.	5	2 6	160 T	38·45	204
„ (District Asylum) ...	Dr. J. St. L. Kirwan ...	5	1 0	154 T	32·97	193
D Ahaseragh (Clonbrock)	Lord Clonbrock, K.P...	10	5 6	200 T	46·99	183
6.—INSULAR. 29 sq. mi.						
ROSCOMMON. (Area, 961 sq. mi.)						
1.—SLIGO BAY. 6 sq. mi.						
2.—MOY. 11 sq. mi.						
3.—CORRIB. 16 sq. mi.						
4.—SHANNON—Right Bank Tributaries. 928 sq. mi.						
D Strokestown (Castlenode)	W. J. Walpole, Esq....	5	2 0	150 T	34·43	178
D Albert Lock [Jamestown]	F Dudley Fletcher Esq CE	5	2 0	146 T	30·54	181
MAYO. (Area, 2149 sq. mi.)						
1.—SLIGO BAY. 10 sq. mi.						
2.—MOY & C. 797 sq. mi.						
D Crossmolina (Enniscoe)	J. Pratt, Esq.....	5	0 11	74 T	51·36	240
3.—BLACKSOD BAY & C. 411 sq. mi.						
§ Blacksod Point	Meteorological Office...	8	0 10	41	49·36	186
4.—CLEW BAY. 254 sq. mi.						
D Westport House	The Marquis of Sligo...	...	12 0	40	46·67	200
D „ (St. Helen's)	Miss Kelly	6	0 11	35 T	47·98	225
D Newport (Burrishoole House) ...	H.M. Anketell Jones Esq	5	1 0	30	51·11	226
5.—ERIFF & C. 121 sq. mi.						
6.—CORRIB. 432 sq. mi.						
D Cong (The Glebe)	Rev. Canon R. Y. Lynn	5	1 11	112 T	49·03	216
7.—SHANNON—Right Bank Tributaries. 35 sq. mi.						
8.—INSULAR. 89 sq. mi.						
D Clare Island (The Abbey)	Prof. W. J. Lyons.....	8	1 0	150	49·98	226
D „ „	„ „ „	5	1 0	15	47·74	217
D „ „ (Light House)	„ „ „	5	1 6	300	43·02	170
Dugort (Slievemore Hotel)	Mrs. J. R. Sheridan ...	5	1 0	50 P	67·89	213

DIVISION XXII.—CONNAUGHT—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain.	Days with .01 or more recorded.	
		Diameter	Height Above Ground.		Height Above Sea Level		1911
		in.	ft.	in.	feet.	inches.	
SLIGO. (Area, 716 sq. mi.)							
1.—DROWES & C. 49 sq. mi.							
2.—SLIGO BAY. 444 sq. mi.							
§ Collooney (Markree Observatory)	J. R. Armstrong, Esq..	5	1	0	127 7/8	42.30	208
§ " (" ")	" " "	5	16	6	143 7/8	37.99	207
3.—MOY & C. 166 sq. mi.							
4.—SHANNON—Right Bank Tributaries. 56 sq. mi.							
5.—INSULAR. 1 sq. mi.							
LEITRIM. (Area, 615 sq. mi.)							
1.—ERNE. 152 sq. mi.							
§ Carrigallen	Meteorological Office...	...	...	...	350 ?	37.49	...
2.—DROWES & C. 85 sq. mi.							
3.—SLIGO BAY. 185 sq. mi.							
4.—SHANNON—Right Bank Tributaries. 47 sq. mi.							
5.—SHANNON—Left Bank Tributaries. 196 sq. mi.							
D Ruskey	F Dudley Fletcher Esq CE	5	2	0	139 7/8	25.55	182
D Mohill Rectory	Rev. H. Justice	5	1	0	300 8	36.44	191
Drumshanbo (Lough Allen Sluices)	F Dudley Fletcher Esq CE	5	2	0	169 7/8	40.29	...

A map of this Division, showing the sub-divisions, will be found in Part I.

STATIONS.	AUTHORITIES.	Rain Gauge.				Depth of Rain.	Days with '01 or more recorded.
		Diameter	Height Above Ground.		Height Above Sea Level	1911	
		in.	ft.	in.	feet.	inches.	
CAVAN. (Area, 753 sq. mi.)							
1.—ERNE. 489 sq. mi.							
Killeshandra (Castle Hamilton) ..	Major W. J. Hamilton	5	1	0	251 T	33·58	...
D „ (Drom Mullac) ...	Miss Prudence M. Lough	5	1	0	280 T	40·13	218
D Cootehill (Errigle)	Dr. T. H. Moorhead ...	5	0	9	273 T	35·79	191
D „ (Cabragh House)	Lt.-Col. W. A. C. Roe..	5	1	3	260	36·72	192
D Belturbet (Cloverhill)	Mrs. Sanderson	5	1	0	202 T	35·70	197
D Ballyconnell House	Surg.-Gen. S. B. Roe, CB	8	1	2	196 T	40·97	207
2.—SHANNON—Right Bank Tributaries. 34 sq. mi.							
3.—SHANNON—Left Bank Tributaries. 91 sq. mi.							
4.—BOYNE. 122 sq. mi.							
5.—DUNDALK BAY. 17 sq. mi.							
FERMANAGH. (Area, 713 sq. mi.)							
1.—ERNE. 667 sq. mi.							
D Newtownbutler (Crom Castle) ...	Mr. A. Reid	5	0	9	174 T	37·00	232
Enniskillen (Portora)	W. N. Tetley, Esq. ...	5	1	0	251 T	36·77	...
Belleek	J. Beacom, Esq.	5	1	5	150 B	37·80	216
2.—DROWES & C. 46 sq. mi.							
MONAGHAN. (Area, 498 sq. mi.)							
1.—ERNE. 208 sq. mi.							
D Dartrey [Cootehill]	The Earl of Dartrey ...	5	2	6	265	36·44	197
2.—DUNDALK BAY. 132 sq. mi.							
3.—BANN—Lough Neagh, West. 158 sq. mi.							
D Monaghan (Rowantree House)...	Dr. J. Campbell Hall...	5	5	6	240	27·62	192
ARMAGH. (Area, 514 sq. mi.)							
1.—DUNDALK BAY. 118 sq. mi.							
2.—CARLINGFORD LOUGH. 23 sq. mi.							
Bridge Street [Newry]	J. L. D. Meares, Esq. C. E.	5	0	9	22 T	40·08	...
D Bessbrook (Deramore)	Mr. W. Smith	5	1	6	252 T	34·05	151
3.—BANN—Lough Neagh, East. 37 sq. mi.							
D Lurgan (Belle Vue)	S. A. Bell, Esq.	5	0	5	200 T	26·88	173
4.—BANN, UPPER. 144 sq. mi.							
D Tanderagee	Dr. J. Taylor	5	1	6	198 T	32·47	183
„ „ „ (R) „ „ „	„ „ „	8	1	6	198 T	32·40	...
5.—BANN—Lough Neagh, West. 192 sq. mi.							
D Armagh Observatory	Dr. J. L. E. Dreyer ...	8	1	0	210 T	27·59	190
D Loughgall (Manor House)	Mrs. Cope	5	1	0	210 T	26·68	178
DOWN. (Area, 961 sq. mi.)							
1.—CARLINGFORD LOUGH. 104 sq. mi.							
D Warrenpoint (The Manor House)	Lt.-Col. A. W. Mansergh	8	1	4	40 T	40·21	185

DIVISION XXIII.—ULSTER—(continued).

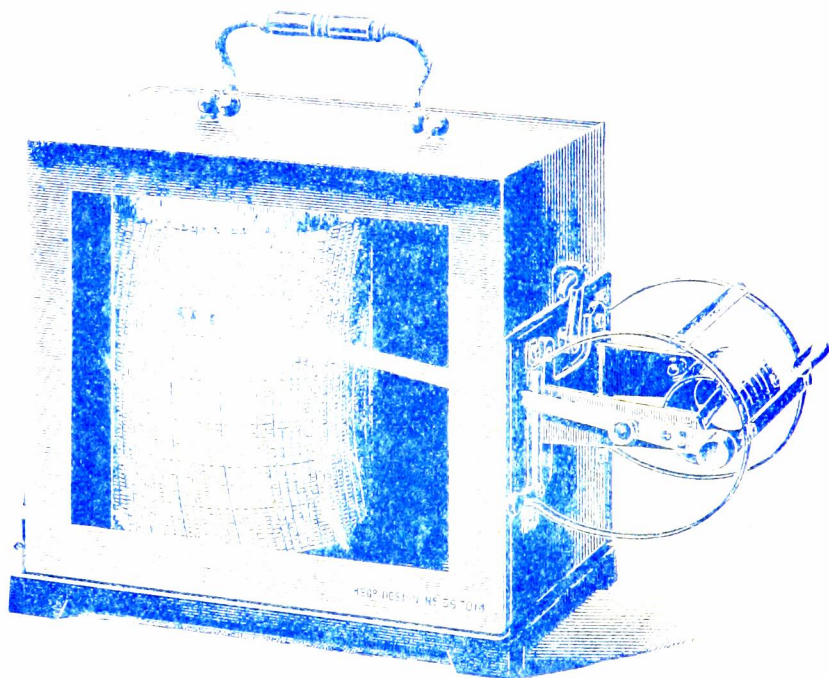
STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
DOWN—(con.)						
2.—DUNDRUM BAY & C. 173 sq. mi.						
D Newcastle (Tullymore Park) ...	The Earl of Roden.....	5	1 0	276 T	56·04	181
D Seaforde	Major W. G. Forde ...	8	0 5	180 T	34·14	170
3.—STRANGFORD LOUGH. 260 sq. mi.						
4.—COAST STREAMS. 47 sq. mi.						
§ Donaghadee	Meteorological Office...	8	1 6	40	28·92	164
5.—BELFAST LOUGH. 206 sq. mi.						
6.—BANN—Lough Neagh, East. 7 sq. mi.						
7.—BANN, UPPER. 162 sq. mi.						
D Mourne Mountains (Fofanny Res.)	J. H. H. Swiney, Esq. C.E.	5	1 0	938	77·14?	185
D Rathfryland (Ballynagappoge)...	J. Smyth, Esq., C.E....	5	1 0	300	30·06?	155
D Castlewella (Lough Island Res.)	" " "	5	1 0	440 T	46·00	180
Banbridge (Katesbridge)	A. A. Mulligan, Esq...	5	1 0	230 T	27·77	161
" (Corbet Reservoir) ...	J. Smyth, Esq., C.E....	5	1 0	234	25·35	...
D " (Milltown)	" " " " ...	8	0 8	200 T	25·63	175
D Moyallon House [Portadown] ...	Mr. J. Lynas'	5	0 5	130 T	26·80	167
8.—INSULAR. 2 sq. mi.						
ANTRIM. (Area, 1193 sq. mi.)						
1.—BELFAST LOUGH. 107 sq. mi.						
D† Belfast (Queen's University) ...	Mr. G. Robinson	5	1 0	62 T	35·70	203
D " (Cave Hill Road)	Miss Firth	5	1 0	200 T	34·43	187
D " (Outfall Works)	(R) Belfast Corporation ...	8	2 11	19	31·73	184
" (Oldpark Filters)	F. W. McCullough Esq. C.E.	5	3 6	203 T	32·14	180
Carrickfergus (Dorisland)	" " "	5	1 0	250 T	27·00	179
" (South Woodburn)	" " "	5	1 0	640 T	34·35	215
" (North ")	" " "	5	1 0	735 T	40·83	223
" (Copeland)	" " "	5	1 0	424 T	31·01	196
" (Lough Mourne) ...	" " "	5	1 0	596 T	40·40	212
2.—GLENARM & C. 186 sq. mi.						
D§ Glenarm Castle	The Earl of Antrim ...	8	0 9	70 T	40·20	178
3.—BUSH & C. 193 sq. mi.						
D Bushmills (Dundarave)	Lord Macnaghten	5	1 0	162 T	31·10	197
4.—BANN, LOWER. 112 sq. mi.						
Ballymoney (Balnamore)	George Smyth, Esq. ...	5	1 5	50 T	24·99	227
5.—BANN—Lough Neagh, East. 590 sq. mi.						
Stonyford (Belfast W. W.) ...	F. W. McCullough Esq. C.E.	5	1 6	437 T	29·88	155
D Antrim (Ardnaveigh)	H. B. Murray, Esq. ...	5	1 0	210	26·67	180
D Ballymena (Harryville)	J. R. Williams, Esq. ...	5	1 5	150 T	39·35	217
D Broughshane (Quolie)	H. O'Hara, Esq., C.E..	5	1 4	893	45·39	225
6.—INSULAR. 5 sq. mi.						
LONDONDERRY. (Area, 816 sq. mi.)						
1.—LOUGH SWILLY. 6 sq. mi.						
D Londonderry (Dunruadh)	J. H. Welch, Esq.	5	0 6	130 T	34·48	220
2.—BUSH & C. 9 sq. mi.						

DIVISION XXIII.—ULSTER—(continued).

STATIONS.	AUTHORITIES.	Rain Gauge.			Depth of Rain. 1911	Days with .01 or more recorded.
		Diameter	Height Above Ground.	Height Above Sea Level		
		in.	ft. in.	feet.	inches.	
LONDONDERRY—(con.)						
3.—BANN, LOWER. 240 sq. mi.						
4.—BANN—Lough Neagh, West. 196 sq. mi.						
5.—FOYLE & C. 365 sq. mi.						
D Londonderry (Creggan Res.).....	Mr. J. Hutchison	8	1 0	320 T	34.44	250
Limavady (Drenagh).....	M.M. McCausland, Esq.	5	1 6	80 T	28.71	219
D „ (Culmore Ho., Myroe)	J. B. Martin, Esq.....	8	4 6	15	26.76	206
D Bellarena.....	Dowager Lady Heygate	5	1 3	7	29.28	215
TYRONE. (Area, 1257 sq. mi.)						
1.—ERNE. 46 sq. mi.						
2.—BANN—Lough Neagh, West. 442 sq. mi.						
Dungannon (Killyman Rectory)...	Rev. E. F. Campbell ...	5	0 11	150	27.40	...
D Cookstown (Lissan House)	J. H. Staples, Esq.....	5	0 10	300	31.53	203
3.—FOYLE. 769 sq. mi.						
D Omagh (Edenfel)	Lt.-Col. J. B. Buchanan	8	1 0	280 T	38.80	210
D Newtown Stewart (Baron's Court)	Mr. R. Bell.....	5	1 0	250 T	39.77	222
D Sion Mills (Sion House)	Miss G. I. Herdman ...	5	3 0	100 ?	32.42	203
DONEGAL. (Area, 1875 sq. mi.)						
1.—DONAGH & C. 146 sq. mi.						
2.—LOUGH SWILLY. 273 sq. mi.						
D Letterkenny (District Asylum)...	E. E. Moore, Esq., M.D.	5	1 0	183 T	40.52	225
D Buncrana (Rockfort).....	T. Colquhoun, Esq. ...	5	1 0	55 T	33.88	220
D Fanad (Tamney Rectory)	Rev. A.C. Digby French	5	4 0	115 T	35.19	243
D Lough Swilly (Carrablagh)	„ „ „	5	1 0	130	35.33	215
3.—SHEEPHAVEN & C. 307 sq. mi.						
D Milford (The Manse)	Rev. W. J. Young.....	5	1 6	150	32.74	226
D Mulroy Gardens	Mr. Jas. Smith	5	0 8	...	40.51	198
D Dunfanaghy (St. Helen's).....	J.J. MacGrath, Esq., MD	8	1 0	55 T	39.33	227
D „ (Horn Head)	C. F. Stewart, Esq. ...	5	2 0	163	36.14	221
4.—GWEEBARRA & C. 341 sq. mi.						
5.—DONEGAL BAY. 322 sq. mi.						
D Killybegs	Capt. G. G. Philipps ...	5	1 0	50 ?	55.19	221
6.—ERNE. 68 sq. mi.						
7.—DROWES & C. 10 sq. mi.						
8.—FOYLE. 396 sq. mi.						
D Convoy	Rev. Preb. K. Thompson	5	0 9	150 T	42.66	227
9.—INSULAR. 12 sq. mi.						

A map of this Division, showing the sub-divisions, will be found in Part I.

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